



A STUDY ON THE DIGITALIZATION OF CURRENCIES- CRYPTO CURRENCY VS NFTS

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Abstract

The internet is one of the most influential inventions when we talk about digitization. At the advent of this fast development of knowledge, innovations and communication technologies, several activities in everyone's life are unified on-line and that they become more fascinated and practical towards it. An enormous and huge growth in variety of on-line users has activated day by day where by it created a replacement of business development and from investments to cash transfer, everything goes paperless in our economy to facilitate these monetary activities like shopping, mercantilism and many more virtual activities. The latest and most promising addition to the digital payment sector is crypto currency Money started being 'digitalized'. Crypto currency is a digitized or online rather an internet currency that uses cryptography for security purposes. Likewise on the other hand, Non-fungible tokens (NFTs) are gaining in popularity and are already extensively implemented but many of us aren't aware about the same and its implications or comparisons with respect to digital payments. It's leading to a constant trend update in the field of NFTs. For the usage or practical implementation of NFTs to progress or develop in an institutional environment, the capacity or adaptability for using NFTs must be scrutinized in detail. Such a discovery has surely added into or prompted a comprehensive examination of NFTs. The scope of this paper is confined to the journal and the keywords "Block chain", "Block-chain", "Non-fungible Token", and "NFT" are used. This research examines the current state and development trends of NFT. In this paper researchers tries to make out the user's expectations of the future crypto currency leaning to the awareness and perception towards the virtual cash implications, however technological innovations make jobs easier and more beneficial. Besides this the paper aimed on its impact in India in terms of law and legislations towards crypto currencies and its usage of this paperless cash in this current scenario.

Keywords: *Crypto currency, Digital Payment, NFT, Currency Conversion.*

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Introduction:

Historically, India has been a passive adopter of technology, primarily serving as a market for consumption and not innovation. However, since the turn of the century, India has played a leading role globally in developing Information Technology (IT) and digital solutions, especially in digital payments and financial inclusion. In this fast-developing and constantly changing era of business and investments activities, information, communication, technologies has created a pavement towards opportunities in many aspects, which has been very helpful in generating the idea of going paperless transaction through virtual money transfer or digital payments and many more such options. Hence simultaneously new varieties of trading, transactions and currencies are arising frequently. One of the exceptional money forms that have been emerged in the past few years is Crypto currency. To add on to the same we have NFT. As E-Commerce it has become one of the foremost integral part of all sectors as India has very young techno- savvy population which can be driving force for more popularity. The concept of digital cash as imagined by David Chaum first in 1983, based on the cryptographic principles of privacy and security, has evolved significantly over the years and has paved the way for research and development and innovation in digital and crypto currencies. A non-fungible token (NFT) is a “cryptographic asset on a block chain containing unique identifying information and codes that separate them from one other,” as defined by Peres et al. [1] in an editorial. Simultaneously, investors flocked to numerous crypto currency marketplaces, including NFT, as a result of the sharp decline in

global market interest rates. Crypto currency can be defined as any medium of exchange, except real cash, that can be used in many financial transactions whether they are virtual or real transactions. Crypto currencies represent valuable and intangible objects which might be used electronically or nearly in numerous applications. A Crypto currency is cryptographically signed digital currency that is virtual in nature and laborious to counterfeit thanks to sturdy secret writing. It is totally different from regular currency. Significantly, at the outset of the pandemic lockdown measures increased internet interaction and further drove the expansion of NFT. In order to attract an extensive interest from third parties or investors, there has been an uprising need of academic studies on NFT. Nevertheless, to add into a little research has been conducted on NFTs compared to the extensive literature or reviews on Bitcoins as well as other crypto currencies. Crypto-currencies measure controlled by Crypto currency community members, miners, general public taking part within the dealing. Transactions have highly measure processed, validated, verified by Crypto currency miners and eminent dealing get recorded publicly and distributed ledger known as Block chain. Crypto currency transactions square measure anonymous, irreversible and secure in nature. It is being used as investment tools and it's extremely volatile in nature. NFTs are still in their infancy, with both great potential and uncertainty; this suggests that there is insufficient research material or data to enable a significant number of projects. Hence we may say that is partly because NFTs is a multidimensional area of study. It necessitates a greater collection of information and



comprehension in different domains. Similar to crypto currency research, there are three primary fields of NFT study: computer science, economics and finance, law, and other disciplines Research on NFTs is essential in light of the lessons learned from the evolution of crypto currencies. As E-Commerce it has become one of the foremost integral part of all sectors as India has very young techno- savvy population which can be driving force for more popularity

Different types of crypto currency:

1. Bitcoins - Bitcoins is a kind of digital currency where cryptography rules are used to control and generate the unit of currency, comes underneath umbrella of crypto currency and it had been and most useful among known crypto currency. The transactions are verified by network nodes and recorded in a circulated record called as block chain.
2. Altcoins – It is another alternative form of cryptographic forms of money after the success of bitcoins. They are the better substitutes for remarkably up with numerous new forms so as to conquer its confinements.
3. Ripple – It is a well-known digital payment system. It is a RTGS currency exchange and remittance network It is also called as Ripple Protocol or Ripple Transaction Protocol Ripple functions on peer to peer decentralize platform and it too uses the open-source technology. It allows lawless money transfer independent of form of currency.
4. Ethereum – It is an open source of block chain similar to bitcoins based dispersed computing platforms performing smart contracts. It also gives decentralized virtual system the most

important difference between Bitcoins and Ethereum is the way block chain application platform is used in both the cases. The Bitcoin work for one particular application where peer to peer transaction take place and only for bitcoins but in case of Ethereum the block chain technology/platform can be used for any decentralized application

Different types of NFTs:

- **Photography:** Photographers can tokenize their work and offer total or partial ownership. For example, Open Sea user erubes1 has an "Ocean Intersection" collection of beautiful ocean and surfing photos with several sales and owners.
- **Sports:** Collections of digital art based on celebrities and sports personalities.
- **Trading cards:** Tokenized digital trading cards. Some are collectibles, while others can be traded in video games.
- **Utility:** NFTs that can represent membership or unlock benefits.
- **Virtual worlds:** Virtual world NFTs grant you ownership of anything from avatar wearable's to digital property.
- **Art:** A generalized category of NFTs that includes everything from pixel to abstract art
- **Collectibles:** Bored Ape Yacht Club, Crypto Punks, and Pudgy Panda are some examples of NFTs in this category
- **Domain names:** NFTs that represent ownership of domain names for your website(s)
- **Music:** Artists can tokenize their music, granting buyers the rights the artist wants them to have.

Literature Review:

This part of the study highlights on the reviews of



the authors who have done studies in the area or field of crypto currencies and NFTs.

1. According to Bryans (2014) a crypto currency is a digital token produced by cryptographic algorithms. The token is then further transposed across the cyberspace by usage of standard protocols like internet, napster and online file swapping and many more P2P. The value of the same is majorly derived from the factors like demand and supply of such tokens and also an important part of how appealing they are and also rather reside in the decentralization of the system in which they exist. This general and an obvious conversation on the concept of crypto currencies has resulted to varying levels of support and a good stand for the innovations, where some regulators or role players have been very wary of it while on the other hand , the Financial Technology community have argued about the inexorable widespread use of crypto currencies. The major positive outcomes as cited by Harvey (2015) include the security & safety features, easy to use on cell phones or mobile phones , relatively cheaper costs of producing and transforming via the block chain transmission protocol or standards and a very low long-term inflation risks to be faced. Few Global financial corporations such as Citibank are on the verge of developing their own crypto currency due to these perceived benefits of utilizing the aforementioned protocols (Madore, 2015)
2. Everett J. & Team, Department of US Treasury - “Risks and Vulnerabilities of Virtual Currency- Crypto currency as a Payment Method” In this paper, authors have explored the risks and challenges for the use of crypto currencies as an

- alternative to traditional currencies for illicit users, consumers, the official sector, and financial institutions. Through exploring the crypto currency needs and requirements for each of these groups, it is easy to understand which groups are most likely to navigate to specific crypto currencies, and then develop an appropriate response. The emergence of crypto currencies as a new method of payment has broad implications for illicit users, consumers, the official sector, and financial institutions. There are momentous risks and challenges that shall be overcome before the users will or shall be adopting and accepting crypto currencies to conduct financial transactions on a large scale. This adoption will require adaptation of the crypto currency protocols and regulation to meet the requirements of each of these perspectives.
3. Department of Arts, Communications and Social Sciences, University Canada West (2022)- In this article the focus is upon the conceptual meaning of NFTs. Non-fungible tokens (NFTs) on the other hand are gaining more fame and are already extensively implemented. NFTs being new into the market are also progressing and growing too. NFTs might surely assist us in counterfeiting since every token carries the owner’s digital sign and is indeed unique. For optimum utilization of NFTs to develop in the institutional environment, the potential for the use of NFTs must be scrutinized in detail. This research has indeed prompted a critical examination of NFTs appraised between 2012 and 2022. This article very clearly examines the current state and also the future development trends of NFT. To add into it the gaps and



difficulties in the study and literature have been explored more, with a focus on the limits.

4. Simona Andreea Apostu 1,2 , Mirela Panait 2,3,* , László Vasa 4 , Constanta Mihaescu 1 and Zbyslaw Dobrowolski 5 (2022)- This Research paper highlights the background of NFTs (non-fungible tokens) and crypto currencies are active or rather on par on the same market, their prices are not so or very rare so closely related over time. The core objective of this paper was to identify the relationship between the two types of assets (NFTs and the crypto currencies Ethereum, Crypto Coin, and Bit coin), using data for the period between September 2020 until February 2022. The conclusions done in the study have been very useful for the crypto currency and NFT issuers, but also for investors on the financial market who are reconfiguring their portfolios with increasing frequency. The results highlighted relationships between NFTs and Ethereum, between Ethereum and Crypto Coin, and between Bit coin and Ethereum, Ethereum being a bridge between all four.
5. Qin Wang? 2, 4, Ruia Li? 1 , 3 , Qi Wang 1 , Shipping Chen 4 1 Southern University of Science and Technology 2 Swinburne University of Technology 3 University of Birmingham 4 CRISO Data61(May 2021)- In this Research paper , the Researchers have found out that The Non-Fungible Token (NFT) market is mushrooming and gaining more importance in the recent couple of years. The concept of NFT has been originated from a token standard of Ethereum, aiming to distinguish each token with distinguishable signs. Like NFTs, all marked properties can be freely traded with customized

values according to their ages, rarity, liquidity, etc. It has greatly stimulated the prosperity of the decentralized application (DApp) market. Once we allocate the categories of NFTs, with reference to coding, technical know-how and many more innovations. Further, we give a security evolution, with discussions on the perspectives of their design models, opportunities and challenges. To the best of our knowledge, this is the first systematic study on the current NFT ecosystems.

Objectives of the Study:

1. To study the overview of crypto currency and NFT with reference to its awareness and perception.
2. To understand the impact in India in terms of law and legislations towards crypto currencies and NFT
3. To study the benefits and its challenges in implementation.
4. To compare the performance in Indian Economy.

Scope of study:

The Researcher focuses majorly on technology-supported learning environments, including the digitization system where they can engage the organizations as well as different investors to switch towards the paper less transactions by adopting the digitalized technique of crypto currency and NFTs, which will have a positive impact on business outcomes and investors as well because that is the underlying force which needs to be driven with the help of this study. The discussions focus on the awareness of usage of crypto currency and NFTs, gradually but the government and restrictive authorities are still uncertain about its uses, implications in the system of digitization and its



repercussions on the Indian Economy as a whole and there are many legal and security problems are linked up, for which it stresses on the legal aspects of various crypto currency and NFTs.

Methodology:

Sources of data collection:

Secondary data:

It majorly consists the information collected from various sources like books, websites, journals etc.

This paper will discuss the questions concerning about crypto currency and NFTs with its various types and also its impact on legislations. Here secondary data collections were done. To know more about the overview of crypto currency and NFTs. The researcher has first studied the concept of crypto currency and NFTs, then its impact and benefits through Literature review and further studies.

While comparing NFTs vs crypto currency, one should have knowledge of whether the currency is fungible or non-fungible. The currency is crypto currency. Like all other currencies, it is fungible and has just economic value. The value of any crypto currency token within a given crypto currency is the same, i.e., 1 \$ETH = 1 \$ETH, regardless of that one owns. NFTs are non-fungible, and their value extends far beyond economics.

Benefits and Challenges of Crypto currency in India:

In this paper the researchers are trying to find out the positive part of crypto currency for which the future implications would be better and beneficial to the virtual payment users and other investors.

1. Lower fees – dealings fees are lower with bitcoins as compared to credit cards,

and once crypto currency is not exchanged, it additionally avoids or brings the necessity for bank charges. The funds transferred this way includes minimum processing fees.

2. Fraud reduction – A payment created with bitcoins can't be reversed back or taken aback. This can be totally different from master card payments, which may be reversed victimization chargebacks, a feature usually exploited by fraudsters.

3. New investment avenue – The E – Commerce industries are growing at a rapid pace thereby developing a very bright scope for investments in Bitcoins as the demand for virtual currency will rise in future.

4. No barriers – Crypto currency creates a pavement to the international trade more accessible by removing barriers and restrictions to trade, ultimately making it easier to accept payments in different currencies.

5. More confidential transaction – Crypto currency is known to be like each transaction which makes a distinctive exchange between two parties, the terms of which can be negotiated and in agreement in every case. This guards the privacy of the financial history and protects you from the threat of account or identity theft which is greater under the traditional system, where your information may be exposed at any point within the transaction chain.

Challenges of crypto currency:

1. Cyber security risk – Hackers users may produce the maximum amount as they need from virtual currency if they break the system and recognize the strategy of virtual currency creations, This will lead to the ability to create



fake virtual currency or steal virtual currency by just changing the accounts balances. Though bitcoins are safe as they do not provide and counter party risk, they are prone to e- fraud such as hacking of account.

2. Instability of prices – Crypto currencies like bitcoins prices may vary widely across exchanges as there is no fixed basis on which its value should be derived. The exchange rate can fluctuate at a very high level as their prices purely depend on the demand and supply forces in the market

3. People's perception- As the regulation of crypto currency across the globe is still awaited, so people still perceived as illegal means and are skeptical in making any view regarding crypto currency.

4. Theft - This is also a major setback for crypto currency holders. The storage of keys of crypto currencies may be at huge risk which is once taken it cannot be recovered and it is not completely regularized product across the globe. Therefore, it may be a major challenge in safeguarding this digital asset.

5. Risk for investors and users – The crypto currency remains in its early stage, even though

it has attained its age of one decade (Origin of Bitcoins, 2009) but it has not accepted by many but it has not accepted by many countries of the world, so still no proper regulation has come to axe it under some set of rules, regulation and laws. Therefore, due to lack of regulation, it is very volatile in nature which impose great risk appetite to its users and investors.

Findings were as follows:

Internet world innovations and inventions have always been a transformation into reality. Crypto currency is one such example wherever the whole idea of cash and {also the} role of state are challenged and also, this has crystal rectifier governments to possess a two-sided war of either to control it or ban it. In our read or opinion, the control and developing mechanisms to regulate the CC would provide governments a small amount additional or rather a more robust security than by prohibition it completely; control it like alternative countries for example, European nation would generate immense revenues to the govt whereas, prohibition CCs wouldn't foster with in the end of the day as a result of additional and additional countries area unit setting out to acknowledge CCs.

Basis	NFT	Crypto currency
Definition	A digital or physical asset that has been linked to a specific block chain network's unique cryptographic token.	It can be defined as a virtual currency that uses cryptography to secure and verify transactions as well as manage and control the creation of new currency units.
Example	PM Lee's "creator coin" on BitClout	BitCoin (BTC) & Ethereum (ETH)
How its value is determined	Depends on the asset value	Depends on market fluctuation
Volatility	Stable	Volatile



NFTs are sold in with auction houses or at NFT marketplaces, such as:

- NBA Top Shot, an online marketplace that runs on the Flow block chain where users can bid on, purchase and sell digital highlights of NBA players.
- Open Sea, a peer-to-peer marketplace implemented on the Ethereum block chain for NFTs, virtual collectibles and rare digital items.
- Rarible, an open marketplace secured with the Ethereum block chain that lets artists and creators issue and sell NFTs.
- Super Rare, a digital art marketplace powered by the Ethereum block chain where people can buy and sell NFTs from top artists.
- Known Origin, an artist-driven platform that runs on the Ethereum block chain where digital creators can authenticate, show and sell their collectibles and artwork.
- Decentraland Marketplace, a decentralized virtual reality platform powered by the Ethereum block chain where users can create, experience and make money on what they build and what they own.
- Arkane Market, a digital collectibles marketplace for general collectors and gamers. Arkane Market is based on the Binance smart chain and the Ethereum and Polygon block chains.

Limitations of the Study:

The study has been conducted by victimization of purely or only secondary information sources. The findings developed through the study would possibly reveal regarding the summary of crypto currency and NFTs and its future implications. All the laws and legislations data provided may not persuade be the sole supply for implementing

the same for long term benefits or better results. Also a hard core comparison is challenging to be done during research.

Conclusions of the study:

The Indian government, rather than kerb or its use, ought to use this chance to utterly break down the barriers or hurdles related to edict currency and become a world CC investment hub, which might on the opposite hand attract plenty of business and investment. The laws and laws during this context ought to be designed rigorously as CCs' involves plenty of intricacies, procedures, technical implications. NFTs are these days enjoying appreciation in popularity due to the high interest in crypto currency as well as block chain technology. While NFTs have some advantages over traditional crypto currencies, it is important to remember that they are still a recent technology with a lot of potential for improvement. For example, NFTs are not yet widely accepted by businesses and institutions, and they are not yet as liquid as traditional crypto currencies and can be difficult to convert into cash. NFTs currently lag in terms of security. Because NFTs are saved on a block chain, they are susceptible to the same security risks as any other block chain-based asset, which includes the risk of hacking and theft. NFTs have a lot of efficiency but are still a work in progress. They offer some unique advantages over traditional crypto currencies, but they also have some potential risks. They are still new, and lot many uncertainties are surrounding them. It is vital to research and analyze the risks before investing in any NFT.

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WE_BY_ ANTHONY_TAPIWA_MAZIKA
NA_20_INTRODUCTION

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