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Research on the Investment Value of Cryptocurrency and Blockchain Technology

Ruisi Li[1,a,*]

[1]*Tandon School of Engineering, New York University, New York, United States*
a. rl4314@nyu.edu
**corresponding author*

Abstract: Blockchain fundamentally alters the digital world by introducing fresh ideas on efficiency, security, and safety. Data and system stability. Blockchain is a digital public ledger that is decentralized, unchangeable, and open to all stakeholders. Blockchain has many applications, including NFT, cryptocurrency, metaverse, Defi, etc. Cryptocurrency is a type of digital money that operates independently from the government or banks and is intended to be used as a medium of exchange across computer networks. This paper introduces blockchain technology, discusses whether there are bubbles inside the cryptocurrency, and gives investment advice based on cryptocurrency and blockchain.

Keywords: Cryptocurrency, Blockchain technology, NFT, Investment

1. Introduction

1.1. Background

The cryptocurrency market's total value is around 1 trillion US dollars, and the previous peak has reached more than 2.3 trillion US dollars. The cryptocurrency-related needs, including not, game games, metaverse. This article mainly studies the risks of blockchain investment. The cryptocurrency industry is growing at an incredible rate. Nearly 21,000 different coins exist today, spread across various niche industries. Over the past few years, there has been an exponential increase in the number of cryptocurrencies. The possibility of making enormous profits from trading erratic markets has drawn investors, and project developers have expanded the use of digital currencies to include decentralized finance (Defi), gaming, non-fungible tokens (NFTs), and metaverse environments. The first popular decentralized cryptocurrency, launched in 2009 by an anonymous developer under the name Satoshi Nakamoto, is Bitcoin. Briefly, cryptocurrencies are a virtual money system that works like real money, allowing users to make virtual payments for goods and services without needing a centrally located, trustworthy institution. Cryptocurrencies use cryptography to ensure that only legitimate, one-of-a-kind transactions occur [1]. Since 2011, Bitcoin has received extensive media coverage. After Bitcoin, all other cryptocurrencies quickly acquired a familiar name. When it was first introduced in the fall of 2011, Litecoin had mediocre success. Ripple overtook Bitcoin as the currency with the most significant market capitalization in cryptocurrencies.

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1.2. Related Research

Miraz explains the use of blockchain and other digital ledger technologies in a variety of other fields, the basics of blockchain, the use of Blockchain beyond Cryptocurrency, the implementation of enhanced security for blockchain, and future developments for cryptocurrency and blockchain. The author Miraz thinks the application of blockchain concepts and technology has gone beyond the use of Bitcoin because it is safer and more private [2]. Liu assesses cryptocurrencies in depth using an empirical asset pricing framework. It offers a standard reference point for upcoming models. Using six cryptocurrency valuation ratios and a dynamic cryptocurrency asset pricing model, Liu investigates the connections between coin market returns and significant cryptocurrency-specific features that have been theorized in the theoretical literature [3].

Mukhopadhyay gives the concepts that are pertinent, historical viewpoints, blockchains, mining, hash algorithms, issues with cryptocurrencies, how these problems are addressed, and conclusions covered in this paper. The author Mukhopadhyay thinks that the Bitcoin block is made up of five fields: a nonce, a timestamp, a block version number, a block size, and a magic number. The research investigates the five areas of Bitcoin [4]. Liu looks at potential causes for the scale and momentum effects of cryptocurrencies. The author Liu discovers that the size premium is bigger when there is a significant amount of Bitcoin transactions, and some of it may be due to the market's premium for the illiquidity and characteristics of cryptocurrencies. In order to capture the cross-sectional anticipated returns on cryptocurrencies, author Liu also introduces the three factors of the cryptocurrency market, size and momentum [5]. Treleaven talks about the usage of Blockchain technology in several industrial applications, including healthcare, finance, government, and manufacturing, which are presented and illustrated. In addition to managing wills, conveyances, medical information, public documents, personal records, asset monitoring, and coupons, blockchain has a plethora of other potential applications. The author Treleaven thinks Blockchain will allow for more agile value chains to handle the issues of regulation, cybercrime, and fraud [6].

Bilow believes trust is necessary for everything, including the ownership of an audio asset and the veracity of the news source. A distributed digital ledger called a blockchain is incredibly hard to change. Blockchain addresses the issue of user trust by enabling users to verify each other's transactions independently. Explains a blockchain-based prototype platform that media production companies can use to manage contributor remuneration and product distribution [7]. Ilham thinks the financial commodity known as cryptocurrency offers potential profits. The goal of the author Ilham is to improve how risk is managed while buying digital assets such as cryptocurrencies. Additionally, based on the findings of this study, the government is anticipated to consider the "Legal Cryptocurrency and Taxation" (LCTR) policy proposal when drafting regulations on digital currency assets to consider the interests of all parties and achieve the maximization of national commodity transaction revenue based on 2021 data [8].

Harrast finds Numerous hazards associated with cryptocurrencies have an impact on the auditor's inherent risk assessment. The experience with cryptocurrencies is adversely connected with intrinsic risk perception. The entity decides to use a cryptocurrency exchange, but neither the balance of cryptocurrencies held in the entity's account nor the transactions the exchange executes on the entity's behalf are effectively under the exchange's control. The participants consider the challenge of estimating a cryptocurrency's worth as the most probable cryptocurrency risk [9]. Zhang investigates the pricing of liquidity risk across a range of cryptocurrency returns. The author Zhang demonstrates a negative correlation between liquidity and bitcoin returns utilizing univariate portfolio analysis, bivariate portfolio analysis, and Fama-MacBeth regression analysis. The author Zhang also provides the procedure for determining liquidity and other cryptocurrency features based on a significant amount of experimental data [10]. Dowling talks about NFTs, or non-

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fungible tokens, being the first thing to use blockchain technology for. Given that non-money markets evolved from cryptocurrencies, the author Dowling investigates whether non-money pricing is related to cryptocurrency pricing, the limited pass-through effect of volatility between cryptocurrencies and NFT, the direct relationship between ether and NFT, and the limited pass-through effect of volatility between Bitcoin and ether. NFT has primarily registered on Ethereum smart [11].

1.3. Objective

The major and most popular cryptocurrency in the market is Bitcoin, Ethereum, Tether coin, USD coin, dogecoin, and so on. According to the newest news, Bitcoin was the first cryptocurrency to enter the market in 2009, with a market value of 318.2 billion dollars. Ethereum, A decentralized Ethereum Virtual Machine, is offered by Ethereum, an open-source, public blockchain platform with smart contract functionality, to manage peer-to-peer contracts using its unique money. Tether and USD Coin are stable coins with a fixed price of 1 dollar each. It is related to special assets, Tether is related to the USD dollar, and the USD coin is associated with the US. Institutions.

2. Cryptocurrency and Blockchain Applications

2.1. Cryptocurrency

The original purpose of cryptocurrencies was to offer an alternative payment option for online commerce. Cryptocurrencies haven't yet gained widespread consumer and company adoption, and their prices are currently too unstable to be useful as payment options. Being a decentralized currency, it develops without undue government control or influence, and peer-to-peer Internet protocols keep an eye on the bitcoin market [12].

2.2. Blockchain Applications

The technology that powers the Bitcoin cryptocurrency system is known as Blockchain [13]. Blockchain Application: digital media, including music, books, videos, games., and other content, have progressively entered the mainstream as the Internet continues to improve. Intellectual property has evolved into the mainstay of market competition because of the risk associated with the information economy. Due to the seriousness of intellectual property rights infringement in the current Internet context, copyright protection of digital assets has become a sensitive point in the industry. Disintermediation, consensus processes, and immutability are attributes of blockchain.

The value chain for culture and entertainment may be effectively integrated using blockchain technology, which can also speed up transactions and shorten the value creation cycle. It can successfully stop piracy by realizing the value transfer of digital content, ensuring that the transfer process is trustworthy, auditable, and transparent.

2.3. Non-fungible Tokens (NFTs) and Metaverse

The development of non-fungible tokens (NFTs) and a metaverse community is one possible use for blockchain technology and the most well-liked and rapidly expanding trend. A virtual world where everything, including individuals and their possessions, is entirely digitalized is referred to as the "metaverse." Applications for the metaverse open huge prospects and value for all enterprises and act as an addition to the current social media system to further connect people.

First, it is crucial to define this terminology and the current state of the art to comprehend the possible advantages and value that metaverse and NFT applications can deliver. An NFT is a distinctive digital token with a distinguishable hash from other tokens. Each token is unique, and

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there is only one of each NFT because every NFT has a unique hash. Therefore, since the token represents the original asset, and all other copies of the asset are replicas, artwork and other kinds of distinctive digital assets can be converted into NFTs. However, utilizing NFTs and blockchain technology is necessary to build and manage metaverse systems. A real metaverse is a decentralized, digital environment where NFTs are used to represent assets, and the blockchain is used to record transactions. First, it is crucial to define this terminology and the current state of the art to comprehend the possible advantages and value that metaverse and NFT applications can deliver. An NFT is a specific digital token that stands out from other tickets thanks to its unique hash. Each ticket is unique, and there is only one of each NFT because every NFT has a unique hash. Therefore, since the token represents the original asset, all other support copperwork and distinctive digital assets can be converted into NFTs. The advantage of utilizing non-fungible tokens is that they make it possible for all blockchain network users to determine who owns the original asset.[11]

3. Bubble Judgment and Investment Suggestions

3.1. Bubble Judgment

Major Companies Accept Crypto are Microsoft, it is one of the biggest companies in the world, and they are starting to accept crypto as payment. Also, PayPal, Overstock, Whole Foods, Etsy, Starbucks, Newegg, Home Depot, and even Tesla accept cryptocurrencies, and it provides some products with the price of dogecoin, a kind of cryptocurrency.

In the middle of March 2020, the price of bitcoin still hovered around 5,500 dollars. In 2021, Bitcoin once reached a record high of more than 64,000 dollars per coin in the middle of April, but it fell to 18,000 dollars in June 2022 and did not rise for several months. Including other popular currencies, they all suffered huge price fluctuations in May and June of 2022, with a loss of $3.7 Billion, most of which were crypto losses. Such price trends and fluctuations can indicate the existence of bubbles. The value of the virtual currency itself is very small, but if we act on how to reduce the losses brought by virtual currency, there is the application of blockchain because blockchain is a thing that will develop in the future.

However, because cryptocurrency's price fluctuates too much, it is a risk for companies that use it, resulting in relatively large fluctuations in commodity prices.

3.2. Investment Suggestions

The bandwagon effect, often known as herding behavior, is one phenomenon that might be connected to the expansion of bitcoin investing. The stability of bitcoin investors' finances may be seriously threatened by this. [14] Not only bitcoin investors but also many cryptocurrency investors will buy cryptocurrency because they follow the bandwagon effect without the relevant knowledge and ways to prevent risks. This is also a cause of bubbles because the topic of cryptocurrency fire blindly to buy.

Investment literacy is the possession of the knowledge and skills necessary for someone to use all their financial resources to make educated decisions. Investment literacy is necessary for investors to learn more about cryptocurrency and, based on learning to make decisions. [14]

Applications built on the blockchain for the metaverse have much promise to help existing companies grow and offer better services. For instance, businesses can build virtual storefronts that offer customers the same experience as physical stores while allowing consumers to shop whenever and wherever they choose. Additionally, purchasing NFTs—virtual parcels of land—allows businesses to build a more inclusive and involved user base, which may increase engagement and consumer satisfaction. While many businesses rely on centralized mobile apps to provide services,

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metaverse applications replicate real-world interactions and foster a decentralized community that is open to all network users and transparent, allowing for easy access. These metaverse functions and applications are quite likely to keep evolving, and a lot of companies will probably want to expand their offerings into the decentralized, blockchain-based virtual reality.

The case of virtual currency and blockchain are closely related, and based on the rapid development of blockchain, some development of blockchain investment is more promising, such as virtual currency, the foundation of virtual currency is blockchain, but the development of blockchain is not only virtual currency, including NFT, metaverse and other developments.

4. Conclusion

The world of cryptocurrencies is changing fast. There are many kinds of cryptocurrencies, but they fluctuate a lot, so the bubble is also very big. The real mainstream value lies in the fact that there is a certain amount of bitcoin, for example, that is constant, the government does not regulate that, and companies are willing to use it as a payment currency. Based on current analysis, crypto risks and bubbles remain large. For investors, investing in cryptocurrencies is something to think about carefully, and there are a lot of new developments in the blockchain based on it. In the long run, the development of blockchain will be more sustainable, including its derivative products such as NFT, Metaverse, etc. There may even be more blockchain-based developments in the future.

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