

## Literature Study on The Impact of Cryptocurrencies During the Pandemic on The Indonesian Economy Bitcoin

Komang Ayu Sekhar Sari Rambani<sup>1\*</sup>, and Ali Zainal Abidin<sup>2</sup>  
University Muhammadiyah Surakarta, Surakarta, Indonesia  
B300180259@student.ums.ac.id<sup>1\*</sup>; aza200@ums.ac.id<sup>2</sup>

**Abstract.** The emergence of cryptocurrencies or milled currencies is evidence of the rapid technology in the field of the economy. The number of users of this digital currency has impacted the Indonesian economy. This study examines the pandemic's impact on the bitcoin cryptocurrency's impact on the Indonesian economy. This research uses a skinned approach with (literature study), which analyses literature studies by collecting several journals related to research objectives. The discussion results show the impact of cryptocurrencies during the pandemic on the Indonesian economy. Bitcoin currency concluded that the price and interest increased during the cryptocurrency pandemic. The impact factor of Cryptocurrency affects the Indonesian economy; hence bitcoin in Indonesia will get affected if big countries' value drops.

**Keywords:** Cryptocurrencies; Bitcoin; Pandemic

### I. Introduction

The rapid growth of the national economy has resulted in significant changes to financial, investment and trade activities. One of the significant economic changes lies in financial activities using cryptocurrencies. Cryptocurrency is a digital currency that uses a blockchain system with the aim that transactions achieve distribution. Transparency also uses the concept of cryptography to facilitate transactions which directly connect the sender and recipient without a third party. (Amboro & Christi, 2019).

The initial goal was to protect private transactions, eliminate traces of financial transactions from the government, and issue banks because cryptocurrencies use complex algorithms that ensure that transactions cannot be changed so that peer-to-peer transactions are possible (Pebriansyah, 2021). Cryptocurrency exists because of the development of a technology with a series of cryptographic codes stored on a computer device (Robiyanto et al., 2019).

Cryptocurrency has excellent potential for success in the future when technology continues to develop. Blockchain technology is a cryptocurrency technology for long-term investment because it guarantees transaction security. (Azizah & Irfan, 2020). Cryptocurrency is considered not only an alternative currency but also an object of investment. The difference between cryptocurrencies and other investment commodities lies in the base price of crypto assets that do not exist because they move freely. In contrast, for other commodities, there is a base price that underlies the value of the commodity. (Vishnu, 2022). Therefore, researchers consider Cryptocurrency as a digital currency that fulfils the function of money (Inc and Lagasse, 2019; Bakar and Rosbi, 2017; Mittal dkk, 2018). However, according to (Yuneline 2019), Cryptocurrency cannot be called money because it does not contain all the features of money.

Due to technological developments, crypto can be very easy to use through everyday electronic devices such as cellphones or laptops through applications provided for transactions. Cryptocurrency trading carries out trading activities by monitoring market prices continuously and making transactions easier. various applications such as BOT auto trade, index and Binance are provided. (Setiawan, R. 2020)

In the application, hundreds of coins can choose from, such as Bitcoin, AAVE, Achain, Aurora, Bitshares, BitTorrent, COTI, Cosmos, Dogecoin, Decentraland, Ethereum, Eminem, Firo, Global Social Chain, Honest, IOST, Ignis, Polkadot, Uniswap, Sushiswap, Static Euro, Ripple, Stellar Lumens, Dash, Monero, Cardano, Theatre and others. This type of coin is recognized and stated in the "Commodity Futures Trading Supervisory Agency Regulation 7 of 2020 concerning establishing a List of Crypto Assets Traded in the Physical Crypto Asset Market" (Purba Number 7 of 2020). (Delvin, 2021)

Of the hundreds of coins that exist, Bitcoin is the pioneer of the first coins that appeared in 2008 (Huda, 2020), of which there are only 21 million worldwide, a minimal number (Delvin, 2021)—released in 2009 whose value determined by the number of people or business units that accept Bitcoin. The more people use it, the higher the price and vice versa (Saputra, 2018).

The emergence of Bitcoin is not only a national and global financial development. The emergence of Bitcoin is still a debate regarding its legality as a legal tender. Bitcoin is a consensus network that allows new payment systems and money entirely digital or interpreted as an electronic currency that uses an open-source user-to-user (peer-to-peer) network system.

Based on the research, the extent of the impact of the pandemic on Bitcoin Cryptocurrency on the Indonesian economy. This study aims to identify and provide an understanding of the impact of bitcoin on the Indonesian economy. It uses subtitles in the state of the art as needed.

## **II. Literature Review**

### **The emergence of cryptocurrencies**

Based on a journal written by Joey Conway entitled *Beginners Guide to Cryptocurrencies*, in 1982, David Chaum of the University of California first published the idea of making a cryptographic-based payment method that can maintain data confidentiality the owner. Moreover, in 1990, virtual currencies that used cryptographic technology or known as cryptocurrencies, where each data transaction was encrypted using a particular cryptographic algorithm. virtual currency that uses cryptographic technology or known Each data transaction is encrypted using a particular cryptographic algorithm named Cryptocurrency. The virtual currency uses cryptographic technology, or Cryptocurrency, where each data transaction will be encrypted using a particular cryptographic algorithm. The virtual currency uses cryptographic technology or Cryptocurrency, where each data transaction will be encrypted using a specific cryptographic algorithm. (Mulyanto, 2015). Cryptocurrency exists because of the development of a technology with a series of cryptographic codes stored on a computer device (Robiyanto et al., 2019).

### **Emergence of bitcoin**

Bitcoin is a distributed and decentralized type of Cryptocurrency. Bitcoin users do refer to as clients. Each of them can set up accounts known as addresses. A client can send Bitcoins to other clients by making transactions and entering them into the global log in the form of a large book called Blockchain. Bitcoin was founded by a person or group known as Nakamoto in 2008; Blockchain does manage by Bitcoin miners, who reward their efforts in the Bitcoin system. In addition, bitcoin transactions are protected by Cryptography techniques that make only the rightful owner of the address (Eyal et al., 2013). It has served around 62.5 million of the approximately 109 million existing accounts.

### **The emergence of covid**

In 2019, World Health Organization declared an infectious disease caused by SARS-CoV-2, a type of coronavirus that we know as Covid-19. This disease was first identified in China and has spread to various parts of the world, including Indonesia. (Yuzar, 2020), The impact of this pandemic has changed the long-standing and established economic order, including investment. Data from the Commodity Futures Trading Supervisory Agency (CoFTRA) shows that the number of Indonesian Crypto investors as of February 2021 reached 4.2 million people. This investor data shows that the development of cryptocurrencies in Indonesia is quite positive regarding commodity trading and crypto-asset investment. Also, during the pandemic, digital currencies increased in various parts of the world, with an average trading volume of 109 US dollars per day. (Ilyasa, 2019)

## **III. Research Method**

This study uses a qualitative approach (literature study), namely the analysis of literature studies by collecting several journals related to the research objectives and understanding the case in-depth, from identifying the problem to analyzing and discussing cryptocurrencies. This study uses the SLR (Systematic Literature Review) approach, according to (Triandini et al., 2019 in Astuti, 2021). Systematic Literature Review is a term to refer to a research methodology with research and development carried out to collect related research on a specific focus topic. (astute, 2021).

The benefit of the Systematic Literature Review is that the results are precise because the method of processing is particular and accountable, and the systematic review can provide input to policy makers. This research was also assisted by using the Google Scholar application and publishing or perish to get information about previous research. The type of data used in this study is secondary data that uses several sources such as books, scientific journals, research in the form of theses, theses and the internet with relevant sources. This research also uses more than 40 journals with the topic of articles discussing Cryptocurrency and bitcoin. This study took place in Indonesia because of the highest growth in crypto investment during the history of the pandemic where the Ministry of Internal Trade (Jannah, 2022) recorded the number of crypto investors reaching 7.4 million as of July 2021. The researcher used triangulation to get an overview of the conclusions regarding the literature study in this study—data source. (Kurniawan, 2021). The data analysis method for this research uses content analysis which consists of data collection, data reduction, and conclusion.

#### **IV. Results and Discussion**

##### **The impact of the pandemic on bitcoin prices**

The beginning of emergence of bitcoin in 2009 started with a price of \$ 0 (Chaira, 2021) because no one was interested in trading it. It started increasing in 2011 by touching \$1. Then bitcoin experienced two bubble prices (a financial bubble in which large volumes traded at a price different from the intrinsic value). In mid-2013, bitcoin became \$220, but for two weeks, it fell to \$70, and at the end of 2013, there was a second bubble where the bitcoin price skyrocketed to \$1.156. Three days later, it fell again to \$760 and continued to decline until 2015 by touching the price of \$315 and then throughout 2016, there was a decline. The final length in 2017 bitcoin increased to \$20,089 (Lauran, 2021). businesses drop their value due to the pandemic, but instead, the crypto industry is on the rise, including bitcoin. Bitcoin price developments from December 2020 to January 2021, the price increase has reached 224%. As of March 2021, Bitcoin hit a new high of around \$60,000. (Afrizal, 2021) At its peak, Bitcoin reached its highest price level (all-time high) at \$64,804 or equivalent to Rp. 939.993,000 on April 14, 2021. (Lauran, 2021). Then in 2022, Bitcoin reached the highest price of US \$ 48,000 or around Rp. 688 million. (Luno.com 2022).

It is not just bitcoin that has been affected by the pandemic, but other coins have been affected, namely Ethereum (ETH). This ETH traded in 2015 for 2.83 US dollars or around Rp. 41,035 per chip. (Fauzia, 2021). An increase in bitcoin breaking about the \$1400 mark from 2017 to 2018. At the end of 2018, this ETH coin retreated to below \$100 and increased again in 2020 and maintained its price at \$300 and increased by \$750 at the end of 2020. Just like bitcoin, there was an increase at the time. The ETH pandemic alone also increased to \$4,359. (Sood, 2021).

Thus, the pandemic's impact on bitcoin is increasing price changes because people's interest in using bitcoin in cryptocurrency investments has also increased. It is because bitcoin was the first coin to appear on the market and the most popular coin sought after worldwide.

##### **The impact of the emergence of bitcoin on the macroeconomy**

The emergence of bitcoin has been accepted in big countries because it has allowed virtual money as a transaction. Using virtual money can affect the Indonesian economy because it has a great relationship. If the bitcoin virtual currency drops, it will have the potential to affect Indonesia because the countries that use the most significant bitcoins suffer losses due to bitcoin so Indonesia could be affected. (Saputra, 2018)

The circulation and volatility of the higher bitcoin exchange rate can endanger the stability of Indonesia's monetary, financial system and payment system. This digital currency does not have a clear legal umbrella and can damage national financial stability because there is no one to control it, like the theory of gravity. If the ball is lifted very high, then when it falls, it will be excruciating", and if a crisis suddenly occurs, the community will be affected. (Rosandya, 2018).

The birth of Bitcoin using blockchain technology is an opportunity for the government to compete with other countries in terms of technological innovation so as not to be left behind by the next technology. (Rifa'I, 2021). Due to the rapid development of cryptocurrencies, Bank Indonesia issued a statement number 20/4/DK0m, which contains: 16 "Bank Indonesia confirms that virtual currencies including bitcoin are not recognized as legal tender, so they are prohibited from being used as payment instruments in Indonesia." virtual currency is very risky and full of speculation because there is no responsible authority, there is no official administrator, there is no underlying asset that underlies the virtual currency price and the trading value is very volatile, so it is vulnerable to the risk of bubbles that harm the Public. (Nuraliati, 2019).

The conclusion from the impact of the emergence of bitcoin on the macro economy is that this Cryptocurrency or digital currency does not have a clear legal umbrella and can damage national financial stability. There is no responsible authority, no official administrator, and no underlying asset that underlies the price of the virtual currency. also, the trade value is very volatile, so it is vulnerable to the risk of bubbles that are detrimental to the community.

##### **The impact of bitcoin on society in Indonesia during the pandemic**

During the pandemic, many people lost their jobs, so historically people have assumed that bitcoin is the same as gold, where the value of the money will not drop by inflation. Hence, people decide to use bitcoin to invest because the advantage of bitcoin is that it can be used directly for transactions such as cash. (April 2021)

The users favour Bitcoin because it has a payment system that is transparent, easy, and can be done (anywhere and anytime). The fast international payments are relatively cheap, have security guarantees (they claim that Bitcoin transactions with military-grade cryptography), and can maintain security. confidentiality of the user's identity. (Rifa'I, 2021).

Technological developments in the world are getting faster; Indonesia, as a developing country and becoming a member of the G20, must quickly make changes and regulations in terms of Cryptocurrencies. It aims to have legal certainty, which is very important in society, so that people do not hesitate to make transactions using Cryptocurrencies. (Cadizza, 2021).

This it can be concluded that the impact of the emergence of bitcoin on society. During the pandemic, many people are new cryptocurrency users who do not necessarily understand bitcoin and use it as an investment, such as gold, whose value drops by inflation. Users in Indonesia are scared to use bitcoin.

## V. Conclusion

The results of the discussion above about the impact of cryptocurrencies during the pandemic on the Indonesian economy, bitcoin currency, it can be concluded that during the pandemic, Cryptocurrency has increased in terms of price and demand. This impact is a factor in which cryptocurrencies affect the Indonesian economy. Because large countries are affected by the drop in bitcoin, Indonesia will also be affected.

Of course, during a pandemic, public interest increases, which causes prices to change at any time because of their fluctuating nature and costs for transactions abroad are high-speed and cheap without any intervention from the government. However, because of this, the government is worried about the community's fate due to a lack of education about cryptocurrencies. Bank Indonesia emphasized that virtual currencies, including bitcoin, are not recognized as legal tender, so they are prohibited from being used as payment instruments in Indonesia. Furthermore, ownership of virtual currency is very risky and full of speculation because there is no the responsible authority, there is no official administrator, there is no underlying asset that underlies the virtual currency price, and the trading value is very volatile, so it is vulnerable to the risk of bubbles and is prone to be used as a means of money laundering and terrorism financing so that it can affect financial system stability and harm Public.

As a suggestion, for government agencies to minimize losses in the community for the existence of this digital currency, it can improve public education through the socialization of information disclosure and provide broad insight into the community. Then pay attention to establishing a physical market for crypto assets as a means of establishing transparent prices and also paying attention to legal certainty. However, using CryptocurrencyCryptocurrency as a domestic payment instrument is illegal in Indonesia. Law No. 7 of 2011 concerning Currency in Article 1 Paragraph 1 explains that the payment instrument accepted and considered valid in Indonesia is only Rupiah. Nevertheless, through Bank Indonesia, the government allows the use of cryptocurrencies to be stored or traded as assets with the risk of being borne. It is evidenced by the issuance of the permit to establish Bitcoin Indonesia, which is now known as the Indonesia Digital Asset Exchange (Indodax).

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