

## Cryptocurrency as a Digital Property in Indonesian Law Perspective

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### ABSTRACT

Cryptocurrency is the result of technological developments. The first cryptocurrency is bitcoin, introduced by Satoshi Nakamoto as a decentralized digital currency with a safe haven. Then over time, some countries recognized cryptocurrency as property are Netherlands, China, and others. Indonesia has classified cryptocurrency as a commodity. This study will discuss the legal views of property in Indonesian law regarding cryptocurrency. This study analyzed cryptocurrencies according to the material elements in Indonesian law, considering the classification of cryptocurrencies as commodities in Indonesia. This research applied a normative method with a statutory approach through primary and secondary legal materials, analyzed by descriptive analysis. This research found several material aspects in KUH Perdata that could be fulfilled in cryptocurrency. Law No. 19 of 2016 concerning Information and Electronic Transactions article 1 paragraph 2 mentions that Electronic transactions are legal acts carried out using a computer, computer network, or other media.

*Keywords: Cryptocurrency; KUH Perdata; Property*

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## 1. Introduction

Cryptocurrency is cash for the internet or assets that an individual can own. The need for internet cash and the desire for anonymity in online transactions led to the development of cryptocurrencies. According to Geiregat (2018) scientists and activists concerned with privacy and personal freedom initiated the experiments that led to the development of cryptocurrency. Satoshi Nakamoto's account created the first cryptocurrency called bitcoin (Inci & Lagasse, 2019). In contrast to other types of currency, cryptocurrency is not regulated by a central bank. Still, new users make it through a decentralized system that uses computing power to verify and process bitcoin transactions (Alexander & Muhammad, 2020).

To achieve decentralization, Nakamoto used a peer-to-peer system in which each participant runs software on their computer that enables them to issue transactions to other network participants and determines which types of transactions are permitted. The software allows participants to spend only the balances they can cryptographically verify. The software also controls the issuance of new currency and the amount of

money in circulation. Neither a central server nor an administrator is responsible for enforcing these rules; instead, the software running on each participant's computer determines compliance (Vidan & Lehdonvirta, 2019). In a nutshell, a peer-to-peer system in cryptocurrency consists of every device connected to the internet and running the blockchain. In this way, all these devices can communicate via the internet. This peer-to-peer network does not have a central or decentralized server. The benefits of using a peer-to-peer network are reducing overhead by sharing data and not storing all data on a central server, the possibility of data falsification and manipulation and third-party interference, and decreased expenses (Weiser, 2022).

The peer-to-peer system in cryptocurrency relies on a network of low-cost computers that run the software. The computers running the software called miners create the cryptocurrency, validate transactions, and maintain the integrity of the blockchain ledger book. In buying and selling cryptocurrencies using an order book as a buying and selling pair, cryptocurrency exchanges allow market participants to transact with each other directly without the need for an intermediary to process transactions or store data. Some people equate peer-to-peer on cryptocurrency exchanges such as Craigslist or marketplace on Facebook (Herbert & Litchfield, 2015).

A cryptocurrency is an electronic currency that can transmit value between two nodes on the network. Two networks are active and widely known in cryptocurrency: the bitcoin network and the ethereum32 network. Some fundamental aspects of cryptocurrency include: first, nodes are the essential component in cryptocurrency, the same as the blockchain system because cryptocurrency also uses a blockchain system. Second, witnesses and reasons are required in cryptocurrency transactions to make the transaction valid. Third, transactions in bitcoin can be any amount from the smallest 100 billion of 1 bitcoin or 0.00000001 or often called 1 satoshi. Fourth, the wallet in cryptocurrency is the address used to store cryptocurrency. There are two types of wallets, namely hot wallets and cold wallets. Hot wallets are used when connected to the internet, and cold wallets are used when not connected. Fifth, coins in cryptocurrencies are different from tangible coins such as dinar coins and others in cryptographic coins in the form of a cryptographic insta-network messaging system and cannot be hacked because cryptocurrencies are operated with transparent blockchain technology with a decentralized and encrypted system. Sixth, mining in cryptocurrency is not much different from mining in the blockchain. Seventh, blockchain is the fundamental component of cryptocurrency. All cryptocurrencies have the same concept as bitcoin and Ethereum (Alexander & Muhammad, 2020). Until now, there is no clear consensus on the mention of electronic money or non-cash money, in some literature found different interpretations, such as electronic money (e-money), virtual currency, cryptocurrency, and digital currency (Nizar, 2018).

Cryptocurrencies can be grouped as diversified in investment. According to Markowitz (1952), many researchers have focused on the advantages of diversifying investments and analyzing asset combinations that can maximize profits and minimize

popularity. Cryptocurrencies are currently attracting investors to include them in their portfolios. Several researchers have investigated whether cryptocurrencies have anything in common with other instruments, such as gold. Kyriazis (2020), in his research, mentioned that overall, cryptocurrencies are comparable to gold in terms of their global safe-haven properties. Reasons for choosing cryptocurrency as a means to invest include: 1. Investors or traders with a mature strategy will have more potential and get the maximum return. 2. Investing in cryptocurrency can be for a minimal amount of money. 3. Investors or traders participate in the growth and adoption of new ones that promote a decentralized economy (Hobbs, 2018).

Cryptocurrencies are now widely accepted within the communities of Indonesia. It is the sole representation of the blockchain that the community enjoys, but its potential needs to be further explored; generally, people are interested in cryptocurrencies as a way of investing. Despite this, more research needs to be done. More than 1,568 distinct cryptocurrencies can be found in circulation today. That number will only keep growing with initial coin offerings (ICOs) being held in various nations, including Indonesia (Bintarto, Setiawan, Alqarni, & Hilmi, 2022).

Some countries classify cryptocurrencies as property, such as the United States, where the Internal Revenue Service (IRS) classifies cryptocurrencies as property rather than currency. As a result, individual investors are required to report their cryptocurrency expenditures and profits on their annual tax returns, regardless of where they purchase digital coins. Similarly, FATF (The Financial Action Task Force) considers virtual assets to be property, proceeds, funds, or other valuable assets; this is intended to implement anti-money laundering/prevention of terrorism financing (AML/PPT) measures (Pavlidis, 2020). The Supreme People's Court of Shanghai has released a document stating that Bitcoin and other cryptocurrencies are subject to proprietary laws and regulations. The court acknowledged that Bitcoin and other cryptocurrencies possess value, scarcity, and disposability, making them subject to property rights and meeting the definition of virtual property (Andersen, 2022).

According to the description above, some recognize cryptocurrencies not as currency but as commodities or property. Therefore, this study will discuss the legal status of cryptocurrencies in Indonesia. How cryptocurrency is seen from property law in the Indonesian Civil Code, and this paper confirms the government's decision that cryptocurrencies are considered a commodity in Indonesia.

## **2. Methodology**

Considering that this study aimed to emphasize the legal status of cryptocurrencies in Indonesia and see how cryptocurrency was viewed from property law in the Indonesian Civil Code, this research is normative research with a statutory approach that is the Indonesian Civil Code. Thus, it was also data used in primary property law in the Indonesian Civil Code. This research used secondary legal

materials from books, scientific articles in journals, and other sources related to this writing to support the primary legal materials and literature techniques to collect data.

### **3. Result and Discussion**

#### **3.1. Legal Status of Cryptocurrency In Indonesia**

In Indonesia, cryptocurrency is classified as a commodity for legal certainty and protection. A commodity is an object that is relatively easy to trade, can be transferred, and can be exchanged for other products of the same type. Kusuma (2020) stated a commodity is defined by its price, which is determined by supply and demand. The determination of cryptocurrency as a commodity refers to BAPPEBTI Regulation Number 5 of 2019, article 1 number 7, which defines cryptocurrency as an intangible commodity in the form of digital assets using cryptographic techniques, peer-to-peer networks, and distributed ledger technology to regulate the creation of new units, verify transactions, and secure transactions without third-party interference (Serfiyani & Serfiyani, 2019). Digital assets are valuable goods or objects stored in electronic systems that can be owned or managed by a person or organization. In addition, digital assets are objects whose ownership is digitally recorded and can be controlled by their owner. Digital assets are a development of assets that initially existed only in the physical world and evolved into the digital world (Rahman & Sudarmanto, 2020).

On futures exchanges, cryptocurrencies can be traded on the physical market for crypto assets. Cryptocurrency can be invested as a commodity on the Futures Trading Exchange if it satisfies the requirements of the Commodity Futures Trading Regulatory Agency. According to BAPPEBTI Regulation Number 5 of 2019 concerning Technical Provisions for the Physical Market for Crypto Assets, cryptocurrencies that can be traded in Indonesia must meet the following requirements, among others: first, following the technology of distributed ledgers; second, crypto assets with utility; third, based on Crypto Assets' market capitalization value (market cap) is ranked 500th (coinmarketcap); fourth, it has economic benefits, such as taxes, the growth of the informatics industry, and the expertise of experts in the field of informatics (digital talent); fifth, a risk assessment has been conducted, including the risk of money laundering, terrorism financing, etc (Soehartono & Pati, 2019).

Cryptocurrency transactions are classified as electronic transactions. According to the point of view of communication, electronic transactions are activities that exchange information to carry out specific legal actions. In Law No. 19 of 2016 concerning Information and Electronic Transactions article 1 paragraph 2, it is explained that: "Electronic transactions are legal acts using a computer, computer network or other media" (Law No 19 of 2016 on Information and Electronic Transactions, 2016) and explained in Government Regulation Number 71 of 2019 concerning the Operation of Electronic Systems and Transactions article 2 that the operation of electronic systems can be carried out in the public or private. (Government Regulation No. 1 of 2019 of Implementation of Electronic Systems and Transactions, 2019).

The first cryptocurrency-related regulations developed with BI Regulation Number 19/12/PBI/2017 prohibit fintech companies from processing payment transactions using virtual currencies. In response to this prohibition, Indonesian bitcoin payment platforms, including Bitcoin Stores and Bitpay, were voluntarily closed in October 2017, and the platforms ArtaBit, Luno, and Indodax are gripped by despair with concerns over the government taking more aggressive steps to remove them. Then the Financial Supervisory Services Authority (OJK) and Bank Indonesia officially appealed to the public not to own, acquire, or trade cryptocurrencies until, in 2018, BAPPEBTI announced its signing on the decision to allow cryptocurrency trading. On the futures exchange as a commodity and assisted by an investment observer task force under the OJK, which oversees and monitors suspicious activities in the cryptocurrency sector (Chang, 2019).

According to “BAPPEBTI Regulation Number 5 of 2019 on Technical Provisions for the Implementation of the Physical Market for Crypto Assets (Crypto Assets)”, cryptocurrencies that can be traded in Indonesia must meet the following criteria: first, following the technology of distributed ledgers; second, crypto assets with utility; third, based on the market capitalization of Crypto Assets, the market capitalization value (market cap) is ranked 500th (coinmarketcap); fourth, it has economic benefits such as taxes, the growth of the informatics industry, and the expertise of informatics specialists (digital talent); fifth, a risk assessment has been conducted, which includes the risk of money laundering, financing terrorism, etc (Badan Pengawas Perdagangan Berjangka Komoditi, 2021).

The Ministry of Trade issued Ministerial Regulation No. 99 of 2018 on the General Policy Implementation of Crypto Asset Futures Trading (Crypto Assets). Crypto assets that can be traded must meet stringent requirements (Rohman, 2021). According to the Commodity Futures Trading Regulatory Agency Number 7 of 2020, establishing a List of Assets that can be traded on the physical market of crypto assets. Currently, 229 cryptocurrencies can be traded in Indonesia. Two approaches determine the tradable crypto assets: the legal approach (considering the market cap / CMC rating at 500 coins). Second, the hierarchical analysis (AHP) process approach by BAPPEBTI, the development team, blockchain system governance, blockchain system stability, a roadmap describing a verifiable blockchain system development plan, and its standard score of 6.5 (Irma, Maemunah, Zuhri, & Juhandi, 2021).

Legal authorities must also understand that breaches in financial markets lead to dire consequences for all market participants. In cryptocurrency, cryptocurrency users can experience certain risks, including malware, hacking, malfunctions, embezzlement, etc. Some of these problems are caused by users’ negligence (e.g., leaving public computers without logging out, leaking pin codes, etc.) or this burden on the general public. They must be protected. BAPPEBTI Regulation No. 5 of 2019 cannot be the answer to minimizing the existing risks and the need for other regulations that support the event of misuse or fraud in cryptocurrency transactions (Chang, 2019).



With cryptocurrency as a commodity in Indonesia, a new conception of commodities has emerged. Article 1 number 7 of BAPPEBTI regulation Number 5 of 2019 regarding Technical Provisions for the Implementation of the Physical Market for Crypto Assets on the Futures Exchange provides status determination for crypto assets classified as intangible commodities with specifications in digital assets that use cryptography and a peer-to-peer network. Peer use a ledger book that verifies transactions and provides a sense of security when conducting transactions (Juniadi & Markeling, 2018; Krisnawangsa, Hasiholan, Adhyaksa, & Maspaitella, 2021).

There are reasons why cryptocurrencies are listed as commodities on futures exchanges, are:

- a. Cryptocurrency is a product in which the government does not intervene,
- b. Cryptocurrency is a futures product that is volatile or fluctuating,
- c. Cryptocurrencies have a reasonably significant supply and demand.

A cryptocurrency's bearish and bullish value follows market conditions and refers to the strength of supply and demand (Rinaldi & Huda, 2016). Therefore, establishing a crypto asset market is to develop transparent prices and provide handover signs used as price references on futures exchanges (Badan Pengawas Perdagangan Berjangka Komoditi, 2021; Nugraha, Prananingtyas, & Lestari, 2019).

### **3.2. Cryptocurrency Is Viewed From The Property Law In Indonesian Civil Code**

The definition of objects described in the Indonesian Dictionary has several meanings, including a. everything that exists in the tangible realm; substance (water, oil, etc.); b. a value (as wealth); property and c. goods. In the above sense, an object is something tangible, property/wealth and goods. An essential element of an object said to be wealth has economic value (Sajidin, 2021).

Laura McCerthy defined that digital property forms at least contain information that can be stored on computer media and other technologies connected to computers, in other words, information that can be accessed by computers, smartphones, hard drives, etc. Rex M. Anderson also explained that digital property, namely wealth that is in digital form, in other words, is only stored in digital and intangible forms. This digital object has a value that can be converted into cash. Jim Lamm and Maria Perrone stated that digital objects are data stored in storage devices and can be accessed via the internet (Rahardja & Manurung, 2004).

In other literacy, Subekti and Koesoemadi Poedjosewojo translate the word *zaak*, which means property. With this translation, objects include tangible property and intangible property. In Dutch, tangible property is called *goed*, while the intangible property is called *rechts*. Objects have transferable characteristics and economic value (Ariesky, 2016). There are various objects according to the Civil Law in *Burgerlijk Wetboek* as follows: "1. Tangible objects and intangible objects or *lichamelijke zaken-onlichamelijke zaken* in article 503. 2. Movable and immovable objects or *roerende zaken-onroerende zaken* in article 504. 3. Objects used up and not used up or

verbruikbare zaken-on verbruikbare zaken in article 505. 4. Goods in trade and goods outside trade or zaken in de handel – zaken buiten de handel in article 1332. 5. Existing goods and goods that will exist or toekomstige zaken-tegenwoordige zaken in article 1334. 6. Divisible and indivisible objects or deelbare zaken-ondeelbare zaken in 1163 and 7. Substitutable and non-replaceable objects or vervangbare zaken-onvervangbare zaken in article 1694” (Effend, 2011).

Property Law is a translation of the Dutch term *zakenrecht*. The law of objects and civil law are included in the law of property or *vermogensrecht*. The law of objects is all the legal rules that regulate fellow legal subjects relating to property and material rights. The right to material rights is born from the relationship between these legal subjects, namely, giving authority or power to legal subjects to control or own the object (Rato, 2016).

Then, analysis of the position of cryptocurrency as a property in Indonesia refers to the concept of objects in the Civil Code. According to article 499 of the Indonesian Civil Code that property can be owned, objects can be tangible and intangible, can be transferred, and have economic value (Hakim, 2018). Based on the definition of objects according to article 499 of the Indonesian Civil Code, cryptocurrencies can be classified as property because cryptocurrency is a collection of electronic data that has economic value and can be owned by someone. Someone can exchange it for Rupiah, and also, according to article 504 of the Indonesian Civil Code, cryptocurrency is classified as an intangible property because cryptocurrency is electronic data (Wijaya, 2019).

Dwikky Ananda (2016) stated that cryptocurrency is a file with numbers encrypted and recorded digitally and then stored on a computer or software. As explained by Widyanani, Widiati, & Ujianti (2022) in her research, cryptocurrency is made of a unique digital code series that does not have a physical form but is depicted in the form of a coin.

Ownership of cryptocurrency can be transferred by buying and selling. Cryptocurrency has economic value because it can be valued in money and benefit the owner. The position of cryptocurrency as an object is legal even though it is only in virtual form, called computer codes. Septia & Yulianingsih (2021) stated that cryptocurrency is a programming language encrypted using cryptography and cryptocurrencies, including objects, because the right to control a cryptocurrency token overrides other people’s ownership of the cryptocurrency.

#### **4. Conclusion**

Based on the discussion, the Indonesian government’s efforts to provide legal certainty and protection for cryptocurrencies are by making cryptocurrency a commodity. The legal status of cryptocurrency is not legal in Indonesia. This decision was taken because cryptocurrencies are goods that the government does not intervene in, cryptocurrency has supply and demand, and cryptocurrency is volatile or fluctuating. Cryptocurrencies qualify as property in the characteristics of objects in the Civil Code, are intangible objects or *onlichamelijke zaken* in article 503, movable objects

or roerende zaken in article 504. Material analysis of cryptocurrency as property in Indonesia is based on according to article 499 of the Indonesian Civil Code that property can be owned. Objects can be tangible and intangible, transferred, and have economic value. According to article 504 of the Indonesian Civil Code, cryptocurrency is classified as an intangible property because cryptocurrency is electronic data.

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### **Law/Regulation**

BAPPEBTI Regulation Number 5 of 2019

Government Regulation No. 1 of 2019 of Implementation of Electronic Systems and Transactions.

Law No 19 of 2016 on Information and Electronic Transactions.