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Analysis of Virtual Currency Trading Cryptocurrency as a Transaction Tool in Indonesia

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Abstract:- This study aims to analyze the business of trading virtual currency cryptocurrency, particularly Bitcoin, as a means of transaction in Indonesia. The research method employed is a normative juridical approach, examining provisions related to the use of Bitcoin as a transactional tool in Indonesia. The findings of this research reveal several significant outcomes. Firstly, the business of trading virtual currency cryptocurrency, especially Bitcoin, as a means of transaction in Indonesia, still faces significant challenges. Despite the high public interest in cryptocurrencies, clear and definitive regulations regarding the use of virtual cryptographic currency as a payment instrument are still lacking. Secondly, the role of Bank Indonesia as the financial regulator has not yet recognized Bitcoin as a valid payment instrument in Indonesia. This results in legal uncertainties concerning the use of Bitcoin as a transactional tool in the country. The research findings indicate that the use of Bitcoin as a means of transaction in Indonesia lacks adequate legal certainty. Therefore, the business of trading virtual currency cryptocurrency as a transactional tool in Indonesia requires clear and definitive regulations. Appropriate regulations will provide legal certainty, protect all involved parties, and ensure fair and sustainable state revenue related to the use of Bitcoin as a means of transaction in Indonesia. The implications of this research emphasize the need for clear and definitive regulations in the business of trading virtual currency cryptocurrency as a means of transaction in Indonesia. Bank Indonesia and other relevant authorities need to collaborate in developing an effective regulatory framework. With proper regulations, cryptocurrencies can be integrated securely, reliably, and widely accepted as transactional instruments in Indonesia.

Keywords:- *Trading, Virtual Currency Cryptocurrency, Transactional Tool in Indonesia.*

I. INTRODUCTION

The development of bitcoin use is due to the value of transactions operated through the lowest to highest value scores (buy), while cryprocurrency traders use scores from highest to lowest (sell) (Kurniawan et al., 2021a), thus, cryptographic virtual currencies have gained significant attention and popularity due to their potential benefits for some traders with their communities using bitcoin as a means of payment in commercial transactions in Indonesia.

In Indonesia, bitcoin has also grown (Yohandi et al., 2017), based on the statement of Mr. Tiyo Triyanto as Head Country Indonesia at a company providing exchange, purchase, sending and receiving bitcoin services in Indonesia, there are around 200,000 (two hundred thousand) bitcoin users in Indonesia with a total transaction of around Rp. 4,000,000,000 (four billion rupiah) per day in Indonesia (Interview, Head Country Indonesia of BITX Company, (Jakarta, 2 September 2016).)

Until now there are 100 types of cryptocurrencies, including Ripples, RonPaulCoin, Litecoin, Ethereum, and Bitcoin. Among all these cryptocurrencies, bitcoin dominates the market with a market capitalization value of $11,495,123,941 at a price of $720 for 1 Bitcoin (BTC)5, while the second position is occupied by Ethereum with a market cap value of $906,808,144 at a price of $11 for 1 Ethereum (ETH) CoinMarketCap, Crypto-Currency Market Capitalizations. The market dominance of bitcoin is inseparable from bitcoin's position as a pioneer of this crypto currency (Segendorf, 2014).

Bitcoin, as a cryptographic-based virtual currency, has gained considerable popularity since its emergence in 2009. In Indonesia, there are communities that use bitcoin as a means of payment in commercial transactions, especially in the field of e-commerce (Velde, 2013). On the other hand, the development of e-commerce has also encouraged the development of payment instruments from the initial cash based instruments (cash payment instruments) to now adding new payment instruments known as non-cash based instruments (non-cash payment instruments) where these non-cash based instruments have also developed so that they are no longer paper-based but also paperless (tidak berbasis kertas)(Nurhisam, 2017)

Bitcoin has several advantages compared to traditional currencies, such as higher transaction speeds, lower transaction fees, and better security through cryptographic technology (Putra & Darma, 2019). However, the use of bitcoin as a means of payment in Indonesia also poses some differences and challenges(Nurhisam, 2020). First, regulations

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related to the use of bitcoin are still unclear and firm in Indonesia. This can create legal uncertainty in the use of bitcoin as a means of payment. Second, exchange rate differences and bitcoin price volatility can affect transaction value and price stability of goods or services offered. Third, the security and protection of consumers in the use of bitcoin is also a concern, given the anonymous nature and irreversibility of transactions associated with this virtual currency. In fact, in Indonesia, the use of Bitcoin as a means of payment in commercial transactions has occurred even though there is no regulation that specifically regulates its use. This condition can cause various legal issues that need attention and important legal protection, but the lack of clear regulations regarding the use of Bitcoin as a means of payment can create legal uncertainty for businesses and consumers(Astuti, 2019).

Therefore, criticizing the law about the need for a clear and firm regulatory framework related to the use of bitcoin as a means of payment in Indonesia (Sunarsi, 2020). Clear regulations will provide legal protection for businesses and consumers who use bitcoin in commercial transactions. In addition, protection of the security and privacy of bitcoin users also needs to be considered so that transactions using this virtual currency can be carried out safely and comfortably.

Virtual cryptocurrency in Indonesian can be interpreted as cryptographic virtual currency (Sajidin, 2021a). This virtual currency operates digitally and uses cryptographic techniques to secure transactions and control the creation of new units. These virtual currencies are not centralized and are not controlled by any central authority such as governments or financial institutions.

One of the most famous and widely used virtual currencies is Bitcoin, which was introduced in 2009 (Kurniawan et al., 2021a). Bitcoin operates using a technology called blockchain, which is a decentralized ledger that records all transactions made with the currency. Blockchain ensures transparency and security by verifying and encrypting every transaction.

The currency offers fast transactions and low fees, global accessibility, as well as the potential for financial inclusion for individuals who do not have access to traditional banking services. In addition, this virtual currency also provides a way to conduct transactions between individuals without the need to involve intermediary institutions such as banks(Dwicaksana, 2020).

However, the emergence of cryptographic virtual currencies also raises concerns and challenges. One of the main concerns is the lack of regulation and oversight, which can lead to risks such as fraud, money laundering, and market manipulation(Sajidin, 2021a). The high volatility and speculative nature of cryptographic virtual currencies also pose potential risks to investors and users.

In recent years, governments and regulatory agencies have begun to address these concerns by implementing regulations and laws to regulate cryptographic virtual currencies. The regulation aims to find a balance between encouraging innovation and ensuring consumer protection, while also addressing issues such as taxation and anti-money laundering measures (Kurniawan et al., 2021b). The presence of clear and firm rules will provide legal certainty regarding the rights and obligations of the parties involved in transactions using Bitcoin. In addition, consumer protection is also an important concern in the use of Bitcoin, given the anonymous nature and irreversibility of transactions that can result in the risk of loss of funds or fraud.

The aspect of government supervision is also an important consideration in the use of Bitcoin as a means of payment in Indonesia (Apandi et al., 2022). Clear regulation will allow the government to conduct supervision and control over the use of Bitcoin in order to prevent illegal activities such as money laundering, terrorism financing, or other criminal activities. Good law enforcement will also be a vehicle to ensure compliance with applicable rules in the use of Bitcoin. In addition, state revenue is also an issue to consider(Nurhisam, 2020). The development of the use of Bitcoin as a means of payment can have an impact on state revenue, especially in terms of taxation. Therefore, proper regulations need to be implemented to ensure that transactions using Bitcoin also comply with applicable taxation provisions.

Thus, the importance of regulations governing the use of Bitcoin as a means of payment in Indonesia is very important. Clear and unequivocal regulation will provide a clear legal framework, protect the parties involved in transactions, enable effective government oversight, and ensure fair and sustainable state revenue.

II. METHOD

Analysis method with normative juridical approach carried out by examining provisions related to bitcoin as a means of transaction in Indonesia (Diantha & Sh, 2016). The reason for using analytical descriptive, because the results of the research obtained can provide an overview of how the juridical implications for the business of trading virtual currency cryptocurrency used as a transaction tool in Indonesia. This analytical descriptive begins by grouping the same material and information according to sub-aspects and then interpreting to give meaning to each sub-aspect and its relationship to each other(Muhammad Syahrum, 2022). Then after that, an analysis of all aspects is carried out to understand the meaning of the relationship between one aspect and another and with all aspects that are the subject matter of research carried out inductively so as to provide a complete picture of the results(Sugiyono, 2019).

III. RESULTS AND DISCUSSION

A. *Disposition of the Problem*

The problem of cryptocurrency is dominated by Bitcoin. One of Bitcoin's strengths is its inability to experience inflation. This means that there will be no decrease in purchasing power due to inflation that can affect its value. However, this advantage applies only to cryptocurrencies that

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have a limited supply, and not all cryptocurrencies have these characteristics(Kurniawan et al., 2021b).

In Indonesia, Bitcoin users have reached more than 3 million investors and users, which is a significant number when compared to the total population of the country. This indicates the high interest of the Indonesian people in the emergence and use of cryptocurrencies (Dwicaksana, 2020). Blockchain networks are one of the important parts of this financial technology. Blockchain records all cryptocurrency transactions and is a public record that only exists in the digital world. This means cryptocurrency owners do not get physical money or coins. Cryptocurrencies can be earned through acceptance, trading, or mining in the digital world.

The main difference between electronic money and virtual money lies in the transaction records. Electronic money has a record of transactions recorded on a central server regulated by Bank Indonesia. Examples are systems such as Flazz BCA, Brizzi BRI, E-Money, TapCash BNI, and others. On the other hand, cryptocurrencies use a decentralized blockchain system, where every transaction is recorded in a blockchain network that can be accessed by everyone around the world. This blockchain technology is peer-to-peer, not centralized like traditional banks(Sajidin, 2021b).

Bank Indonesia has stated that virtual currencies, including Bitcoin, are not recognized as legal tender in Indonesia. Bank Indonesia warns that virtual currency ownership is risky and prone to speculation, and can be used for money laundering and terrorism financing (Nurhisam, 2017). Therefore, Bank Indonesia prohibits the sale, purchase, and trading of virtual currencies in Indonesia.

As the central bank of Indonesia, Bank Indonesia has the authority to regulate the use of payment instruments. Law No. 7 of 2011 on Currency states that only Rupiah is recognized as legal tender in Indonesia. Bank Indonesia also carries out duties and functions in issuing and regulating the circulation of currency and maintaining a stable value of money.

The findings of the research disposition of Bitcoin's problems in the cryptocurrency industry can stem from the special characteristics of Bitcoin that does not experience inflation. In Indonesia, public interest in cryptocurrencies, including Bitcoin, is quite high. The blockchain system used in cryptocurrencies is an important part of financial technology, but Bank Indonesia has stated that virtual currency is not recognized as legal tender in Indonesia. Bank Indonesia has an important role in regulating the use of payment instruments and maintaining state financial stability.

B. Virtual Currency Trading Business Cryptocurrencies

The etymology of the word "business" comes from the Dutch "zaken", which means "affair" or "activity". The word was later adopted into Indonesian with the same meaning, that is, it refers to economic or commercial activities. The etymology of the word "trading" comes from the English "trade", which means "to trade" or "to trade". This word refers to the activity of buying and selling or exchanging goods or assets in the context of the market. The etymology of the word "currency" comes from Indonesian itself. The word "eye" in this context refers to the value or price associated with the goods or assets used as a medium of exchange. While the word "money" comes from the Sanskrit word "wang" which means "gold" or "coin". In general, the word "currency" refers to the medium of exchange used in the economic system of a country or region. The etymology of the word "virtual" comes from the Latin "virtus", meaning "quality" or "nature" (KBBI, 2020). In the context of cryptocurrency virtual currencies, the word "virtual" is used to describe that the currency does not have a tangible physical form, but rather only exists in digital or electronic form. The etymology of the word "cryptocurrency" consists of two words, namely "crypto" which comes from the Greek "kryptos" which means "hidden" or "secret", and "currency" which has been described earlier. "Cryptocurrency" refers to a type of digital currency that uses encryption technology to secure transactions and control the creation of new units. So what is meant by the business of trading virtual currency cryptocurrency is a description of all economic or commercial activities related to trading digital currencies that do not have a physical form, use encryption technology, and are used as a medium of exchange in the economic system. The business of trading virtual currencies cryptocurrency involves the process of buying and selling these digital assets in the market with the aim of profiting from price fluctuations that occur(Apandi et al., 2022). Along with the development of digital technology, the business of cryptocurrency virtual currency trading has become one of the increasingly important sectors and attracts the interest of many business people and investors.

The results of research on the business analysis of cryptocurrency virtual currency trading as a transaction tool in Indonesia involve several legal aspects in Indonesia, including existing laws and tax guidelines from other countries. Act No. 23 of 1999 concerning Bank Indonesia authorizes Bank Indonesia as its monetary authority. However, this law has not explicitly regulated the use of cryptographic virtual currencies as a means of payment in Indonesia. This creates a legal vacuum that can create uncertainty in the business of trading virtual currencies. Furthermore, Law No. 11 of 2008 on Electronic Information and Transactions regulates electronic transactions, but has not provided clear guidelines regarding the use of cryptographic virtual currencies as a means of payment. This ambiguity can affect the trust and security of businesses and consumers in using Bitcoin as a means of transaction.

Law No. 7 of 2011 on Currency stipulates that the rupiah is the only legal tender in Indonesia. However, this law does not provide specific provisions regarding the use of cryptographic virtual currencies as a means of payment. Bank Indonesia Press Release No. 16/6/Dkom Year 2014 states that Bitcoin and other virtual currencies are not legal currencies in Indonesia, and their use as a means of payment is not guaranteed by Bank Indonesia. However, the press release has no legal force that expressly regulates the use of Bitcoin as a means of payment in Indonesia. In the context of

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comparative law, tax guidance from the Inland Revenue Authority of Singapore (IRAS) provides guidance on taxation in e-commerce transactions, including the use of cryptographic virtual currencies (Yohandi et al., 2017). The guidelines point out the need for regulations governing the use of Bitcoin as a means of payment and related taxation in Indonesia.

Research findings show that the use of Bitcoin as a means of payment in commercial transactions in Indonesia still faces regulatory uncertainty. Existing legislation has not explicitly regulated the use of these cryptographic virtual currencies as a means of payment. The importance of clear and firm regulation is an important highlight in the critical view of legal experts. Proper regulation will provide legal certainty, protect the parties involved, enable effective government oversight, and ensure fair and sustainable state acceptance in the use of Bitcoin as a means of transaction in Indonesia.

C. Bitcoin as a Means of Transaction in Indonesia

The word "Bitcoin" comes from a combination of two words in English, namely "bit" and "coin". "Bit" refers to the smallest digital unit of data that can be stored or processed in a computer. While "coin" refers to physical coins used as a means of payment (KBBI, 2020). These two words combined describe the concept of Bitcoin as a form of digital currency that uses cryptographic technology to secure transactions. Bitcoin was first introduced by a person or group of people using the pseudonym "Satoshi Nakamoto" through a paper published in 2008. The name "Bitcoin" was used in the paper to describe this new digital currency. Since its emergence, Bitcoin has gained significant recognition and adoption in various countries, including Indonesia. Although Bitcoin is not recognized as legal tender by Bank Indonesia, the use of Bitcoin as a means of transaction in Indonesia continues, albeit on a more limited scale compared to official currencies(Nurhisam, 2017).

So what is meant by "Bitcoin" as a concept of digital currency that uses cryptographic technology. Although Bitcoin is not recognized as legal tender by Bank Indonesia, the use of Bitcoin as a means of transaction in Indonesia persists. Understanding the etymology of the word "Bitcoin" helps us understand the origin and usage of the word and relate it to the use of Bitcoin as a means of transaction in Indonesia.

The results showed that Bitcoin is a pioneer in cryptocurrency, which is a cryptographic-based currency, which is in the open source P2P (peer-to-peer) payment network system. Bitcoin uses a cryptographic system and complex algorithms that make it difficult to counterfeit. The main purpose of Bitcoin is to eliminate the need for a central controlling party in the financial system.

The use of Bitcoin in commercial transactions continues to increase(Putra & Darma, 2019). In Indonesia alone, there are around 200,000 virtual currency users with total daily transactions reaching Rp. 4,000,000,000,-. The Bitcoin network system consists of computers running the Bitcoin software to record every transaction that occurs. This record keeping is called the "blockchain", which is a public ledger that records every transaction using Bitcoin. Although the transaction can be known to the public, the Bitcoin address of the transaction perpetrator is kept private.

The Bitcoin protocol is a set of rules or standards set in the system. The protocol aims to eliminate the role of the central authority and distribute some funds (Nurhisam, 2020). In Bitcoin, the protocol does not use human assistance, thus reducing the possibility of human error. The distribution of funds is done by issuing a certain amount of Bitcoin every 12 minutes in the network. Initially, the funds issued were 50 BTC and will be halved every 4 years. This concept is similar to the half-life rule, where the initial distribution is reduced by half after a certain period of time. Bitcoin has a limited supply, and the protocol will stop distributing Bitcoin once it reaches 21,000,000 BTC.

The elements of Bitcoin that comprise the peer-to-peer network, blockchain, and miners have an important role to play in the Bitcoin ecosystem. Peer-to-peer networks allow Bitcoin users to transfer funds or make transactions with other users using Bitcoin. Each transaction is recorded in blocks that then form a chain of blocks, or so-called blockchains(Avriyanti, 2020). Miners are tasked with solving mathematical algorithms to verify transactions and prove ownership of Bitcoin. In return, miners receive a certain amount of Bitcoin issued every 12 minutes according to the Bitcoin protocol.

To use Bitcoin, users must download a virtual wallet, which can be a software wallet, a mobile wallet, or a web wallet. The difference between the three types of wallets lies in where Bitcoin is stored. There are two basic concepts in obtaining Bitcoin, namely through mining or mining and obtaining it from other parties through buying and selling. Mining is a process in which miners use computers or special tools such as ASICs to perform calculations and find blocks in the blockchain. Once verification is complete, miners are rewarded with Bitcoin. This mining concept takes reference from proof-of-work theory developed by Hal Finney and Nick Szabo.

In addition to mining, Bitcoin can also be obtained through buying and selling with other parties. There are many e-commerce sites that provide places to buy and sell Bitcoin, such as bitcoin.co.id. To use Bitcoin, users must register and have a Bitcoin address and wallet. The user's identity is recorded in the registration, so that transactions can be tracked by the company concerned.

Bitcoin's advantages include no third-party intervention, fast and cheap transactions, no taxes, and minimal charge-back risk. Bitcoin can also be used as an investment tool and trading commodity. However, Bitcoin also has disadvantages, such as still less known globally, fluctuating values, and no guarantee institutions and legal protection for Bitcoin users.

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In Indonesia, Bitcoin is not recognized as legal tender based on Law No. 7 of 2011 on Currency. Bank Indonesia has issued a statement stating that Bitcoin is not legal tender in Indonesia, so the risk of using Bitcoin is borne by Bitcoin owners/users. This is supported by Bank Indonesia Regulation No. 11/12/PBI/2009 on Electronic Money, where Bitcoin also does not meet the requirements as electronic money.

Research findings show that Bitcoin is a pioneer cryptocurrency that operates a P2P payment system. The use of Bitcoin in commercial transactions is on the rise, and its network system records every transaction via the blockchain. The Bitcoin protocol eliminates the role of a central authority and regulates the distribution of funds with a limited supply. Bitcoin has proven itself as a significant innovation in the financial world and continues to experience rapid development, it is also a system that relies on peer-to-peer networks, blockchain, and miners. Bitcoin can be obtained through mining or buying and selling with other parties. Bitcoin's advantages include fast, cheap, and non-third-party intervention. However, Bitcoin also has drawbacks, such as fluctuations in value and lack of legal recognition in some countries. In Indonesia, Bitcoin is not recognized as legal tender by Bank Indonesia.

D. Implementation of Bitcoin as a Means of Transaction in Indonesia

Law Number 7 of 2011 concerning Currency regulates the legal currency in Indonesia, namely the Rupiah. Article 2 paragraph (2) states that the Rupiah consists of paper Rupiah and metal Rupiah. This confirms that Rupiah is an officially recognized form of money in the payment system in Indonesia.

Article 23 paragraph (1) of the Law also states that any person is prohibited from refusing to recognize Rupiah in payment transactions in Indonesia. This means that the use of Rupiah must be accepted in payment, unless there is a valid reason to refuse it. Violation of this provision may be subject to criminal sanctions with a maximum imprisonment of 1 year and a maximum fine of Rp200,000,000.00(Amin, 2019).

The Indonesian government also regulates the use of Rupiah through Bank Indonesia regulations. Bank Indonesia Regulation No. 17/3/PBI/2015 concerning the Mandatory Use of Rupiah in the Territory of the Unitary State of the Republic of Indonesia confirms that all payment transactions and settlement of financial obligations in the territory of Indonesia must use Rupiah, unless there are exceptions regulated by Bank Indonesia(Fuady, 2018; Yohandi et al., 2017).

Furthermore, Bank Indonesia Circular Letter Number 17/11/dksp/2015 further regulates the use of Rupiah in Indonesia. This circular provides guidance and explanation regarding the mandatory use of Rupiah in various economic sectors, including trade, services and financial transactions. This means that cryptocurrency in the above laws and regulations is not a medium of exchange, the above confirms that Rupiah is the only legal tender in Indonesia. Cryptocurrency is not recognized as legal tender and cannot be used directly in payment transactions in Indonesia. However, cryptocurrency assets can be traded as commodities on futures exchanges in accordance with regulations regulated by the Indonesian Ministry of Trade. This is regulated in the Minister of Trade Regulation Number 99 of 2019 which allows cryptocurrencies to be the subject of futures contracts traded on futures exchanges.

Thus, Law Number 7 of 2011 concerning Currency and Bank Indonesia regulations regulate the use of Rupiah as legal tender in Indonesia. Cryptocurrencies are not recognized as legal tender and their use is not allowed in payment transactions in Indonesia. However, cryptocurrency assets can be traded as commodities on futures exchanges in accordance with regulations regulated by the Ministry of Trade. It is important for the public and businesses to comply with applicable legal provisions regarding the use of currency and payment instruments in Indonesia.

Cryptocurrency transactions based on the Minister of Trade Regulation Number 99 of 2019 have become a significant phenomenon in the world of digital finance. However, it is the use of cryptocurrencies that need to be considered. The findings of this study can be implemented when going to use cryptocurrency, meaning that transactions using cryptocurrency as payment in Indonesia must be in terms of approval from national banks and Bappebti (Commodity Futures Trading Supervisory Agency) limited to licensing digital transactions not exchange rates as currency and cannot be equated with rupiah.

The Indonesian government has issued a regulation through Bappebti Number 5 of 2019, which regulates the technical provisions for the implementation of the physical market of cryptocurrency assets. These rules set out the requirements and procedures that cryptocurrency market organizers must follow to ensure security and transparency in transactions.

The approval from the national bank and Bappebti is an important step in ensuring the legality and legitimacy of cryptocurrency transactions. These requirements help in protecting consumers and investors from the risk of misuse and illegal activities associated with cryptocurrencies. Through this approval, there have been efforts to regulate the cryptocurrency market to conform to existing financial standards and involve adequate oversight.

However, despite the approval of the national bank and Bappebti, the risk of abuse in the form of illegal activities still exists. One of the main risks is hacking, where cybercriminals can steal cryptocurrency from user accounts or insecure exchanges. This poses a serious threat to security and trust in the cryptocurrency market.

In addition, cryptocurrencies can also be utilized for illegal activities such as terrorist financing and money laundering. Cryptocurrency transactions can provide a certain security and anonymity, which makes them an option for bad actors to launch their activities. This poses a challenge for

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authorities to track and uncover illegal activities related to cryptocurrencies.

The findings of this study show that the use of cryptocurrencies in transactions requires approval from national banks and Bappebti to ensure legality and legitimacy. However, the risk of digital abuse such as hacking, terrorist financing, money laundering, and tax evasion still exists. Further efforts are needed to address these risks by increasing security and surveillance within the cryptocurrency market. Authorities need to work with market organizers and industry players to develop effective regulatory frameworks and maintain a balance between innovation and consumer protection.

IV. CONCLUSION

- The virtual currency trading business of cryptocurrency, dominated by Bitcoin, as a means of transaction in Indonesia still faces several challenges. Although public interest in cryptocurrencies is quite high, clear and firm regulations regarding the use of cryptographic virtual currencies as a means of payment still do not exist.
- The role of Bank Indonesia as a financial regulator has not recognized Bitcoin as legal tender in Indonesia.
- The use of Bitcoin as a means of transaction in Indonesia does not have legal certainty, so the business of trading virtual currency cryptocurrency as a means of transaction in Indonesia requires clear and firm regulation.

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