

CRYPTOCURRENCY ANALYSIS OF INDONESIAN MARKET EDUCATION FACILITIES

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Abstract : *The Indonesian market cannot be separated from the elements of information technology. The development of information technology will be closely related to the investment sector, especially finance. Cryptocurrency or digital currency is the result of the development of financial technology. Digital currencies are starting to be widely used as a means of payment via the internet. This currency was created with the aim of making payments easier and safer. The use of Blockchain technology causes transaction costs to be cheaper. Government policy through Bank Indonesia prohibits transactions using Cryptocurrency because it has a negative impact on the financial system, monetary stability and payment system in Indonesia. This research provides an understanding of Cryptocurrency to the Indonesian market. In the technology offered, cryptocurrency is a development of financial technology that allows it to replace banknotes in future financial transactions. In the future, the hope is that the government will study cryptocurrency technology more deeply so that the policies issued do not prohibit and at the same time protect the Indonesian market.*

Keyword : *cryptocurrency, indonesian market, education facilities*

1. Introduction

Cryptocurrency is a digital asset designed to work as a medium of exchange using strong cryptography to secure financial transactions, control the creation of additional units, and verify asset transfers. Cryptocurrencies use decentralized control as opposed to centralized digital currencies and the Central Bank system



Figure: 1
Multiple Cryptocurrency Logos

https://id.wikipedia.org/wiki/Mata_uang_kripto

The decentralized control of each Cryptocurrency works through distributed ledger technology, usually blockchain, which functions as a database of public financial transactions. Bitcoin, first released as open source software in 2009, is generally considered to be the first decentralized digital currency. Since the release of bitcoin, more than 4,000 altcoins (alternative variants of bitcoin, or other cryptocurrency) have been created. In 1983, American cryptographer David Chaum used cryptographic electronic money called e-cash. Then, in 1995, he implemented it via Digicash, an early form of cryptographic electronic payment that required user software to pull notes from banks and designate certain encrypted keys before they could be sent to recipients. This allows the digital currency to be untraceable by the issuing bank, government or any third party. In 1996, the NSA published a paper entitled How to Make a Mint: the Cryptography of Anonymous Electronic Cash, describing the Cryptocurrency system that first published it on the MIT mailing list then in 1997, in The American Law Review (Vol. 46, Issue 4) . In 1998, Wei Dai published a description of "b-money", which was characterized as a distributed electronic cash system shortly thereafter, Nick Szabo described bit gold. such as bitcoin and other cryptocurrencies to be used to supplement proof of work with solutions that are cryptographically put together and published. A reusable proof-of-work currency system was created by Hal Finney following the work of Dai and Szabo. Most cryptocurrencies are designed to gradually reduce currency production, limiting the total amount of currency that will be circulating. Compared to regular currency held by financial institutions or held as cash, cryptocurrency can be more difficult for law enforcement to confiscate. This difficulty stems from making use of cryptographic technology.

Cryptocurrency is increasingly recognized by many people in Indonesia. This is one of the blockchain representations whose impact is directly enjoyed by the community, other potentials are still being explored. Interest in cryptocurrency, generally as an investment, actually only increased rapidly after the Bitcoin exchange rate soared. Exactly after WannaCry took the digital universe by storm. The attacker demands a ransom for the release of the computer that was attacked WannaCry with Bitcoin. The value of Bitcoin then shot up. On the other hand Alt-coins (non-Bitcoin crypto currencies) continue to emerge, generally with the mission of fixing the Bitcoin loophole or offering new ways of mining and transaction processes. Launching on the CoinMarketCap site, there are 1568 types of crypto currencies in the world. The number is still observed to continue to grow, along with the continued existence of ICOs (Initial Coin Offerings) conducted in various countries, including Indonesia. Not all cryptocurrencies are popular, if you look at the highest market cap in March 2021 there are ten cryptocurrencies. From Table 1, it can be seen that Bitcoin is still leading the crypto market.

Table 1
List of Cryptocurrencies with a Market Cap
(March 2021)

<i>Cryptocurrency</i>	<i>Cryptocurrency Capitalization</i>
BITCOIN (BTC)	1 064 177 038 415 \$
ETHEREU (ETH)	204 558 927 876 \$
BINANCE COIN (BNB)	40 918 918 149 \$
TETHER (USDT)	39 614 104 831 \$
CARDANO (ADA)	37 958 365 259 \$
POLKADOT (DOT)	33 688 563 064 \$
RIPPLE (XRP)	23 471 547 157 \$
UNISWAP (UNISWAP)	17 093 575 956 \$
LITECOIN (LTC)	12 916 002 710 \$
CHAINLINK (LINK)	12 036 919 830 \$

<https://id.cryptoratesxe.com/terbesar-kripto-mata-uang.html>

As the Bitcoin exchange rate has become increasingly expensive, users are now starting to try to find other alternatives to invest in or use existing cryptocurrencies. Several Indonesian crypto investors explain quite logical reasons for choosing Altcoins. Regarding choice and trustworthiness for crypto products, the conditions are not far from the rankings above. However, each type of coin has a unique value that it tries to offer. DailySocial tries to summarize each one by referring to various sources, both written and oral in Indonesia

2. Method

The method in this research is a normative approach by analyzing cryptocurrency as a means of educating the Indonesian market. This research is descriptive analytical, because the results of his research provide understanding and education to the Indonesian market regarding cryptocurrency. This analytical descriptive begins with finding and classifying the same material and information according to sub-aspects, followed by interpretation to give meaning to each sub-aspect which is the basis for other aspects. After analyzing all aspects to understand the basic aspects of one another, which are the subject matter, this is done inductively so as to provide a complete picture of the results. So that it allows the next research to be more focused and specific. This research data collection using library research techniques, namely research on secondary data. In the research, the writer uses secondary data which is public in nature, among others, from the publication of scientific papers, research results, textbooks and writings from the website. Data analysis uses descriptive qualitative by providing a specific description based on the material collected systematically by classifying the data that has been collected for analysis.

3. Discussion

Analysis of ten Cryptocurrencies with the highest market capitalization rate in March 2021

Bitcoin (BTC)

Explaining the advantages and disadvantages of Bitcoin in principle can represent cryptocurrencies in general. The advantage of Bitcoin is that it is a cryptocurrency, with an increasingly sophisticated hash rate, increasing public trust and feeling more secure to reduce risk. This trust really helps strengthen its position as a currency that is not easily swayed in the development of the global community where gold and crypto currencies can reduce the rate of inflation. But Bitcoin is speculative (in terms of value), because its value is determined by a group of people or business units that accept Bitcoin. The more that can receive and then use, the value will continue to increase. Conversely, the less it will result in the selling price going down. As a cryptocurrency, Bitcoin does not recognize transaction cancellations. The process is also public; no entity can provide a guarantee for negligence that causes loss or error in the delivery process. Hardware wallets (special devices for storing private keys) often get attacked by viruses and get damaged if not properly maintained, which results in the loss of coins.

Ethereum (ETH)

Similar to Bitcoin, but specifically designed to be an open smart contract. Transactions carried out on the blockchain can execute a smart contract in various ways, for example by sending digital currency or data to the address of the contract. If executed successfully, the smart contract can process more transactions or execute other smart contracts. Ethereum Virtual Machine (EVM), is software that developers can use to create various applications as easily as creating crypto transaction-based applications. With the concept offered, developers do not need to create and maintain their own blockchain. Apart from the convenience offered through the development process, there are still some weaknesses. Access speed is not reliable because it is very dependent on server distribution. Ethereum application development can be likened to leasing a web-hosting service, when the server goes down, it causes the working system to malfunction. What's more, the developer has not been able to independently improve the blockchain's functionality. If you experience a hard-fork (miners run massively different protocols), it will have a direct effect on the application being developed. Each computation will require an Ether (a type of coin) which increases depending on the complexity and user base of the application.

Bitcoin Cash (BCH)

The upgraded version of Bitcoin by improving some of the procedures it has, one of its reliability is able to make the increase in value more consistent. In terms of transaction speed, Bitcoin Cash is also classified as faster, so that it benefits users. The level of security and protection has also been increased, taking into account the appearance and features to make it more attractive. The risk of hardware damage is one of the challenges. However, it is precisely the fundamental weakness that is created because the adoption is still not massive. This means that Bitcoin Cash has not reached "Critical Mass", the minimum critical period required for

blocks of more than 1 Mb in size to always be created properly, this is the main factor in making the network more stable. Little by little began to approach there. Adoption that is not yet massive also has an impact on its speculative nature.

Tether (USDT)

Tether or USDT is one of the crypto tokens claimed by the tether company which is equivalent to the value of 1 US dollar per token. In general, these crypto tokens are pegged to certain ratios such as 1: 1 in US dollars, Japanese yen and European Euros. The USDT tether token is also the largest stable token in the world. This tether is included in the stable class of coins or stablecoins with the aim of being able to keep its value stable against other assets and avoid significant price fluctuations. So that it can be used as a means of exchange as well as an investment tool that is not affected by price speculation. It can be said that USDT teater is the result of global blockchain technology innovation that can be audited and cryptographically controlled. Eminent and market players can take advantage of this technology with a concession system in transactions using foreign currencies and assets with relatively stable values. Tether tokens have been officially traded since 2015 and tether can be an asset that is worth USD to people without having to have a bank account in \$

Some of the advantages possessed by Tether USDT include: 1) Stability of value (Tether can convert fiat currency into digital currency which at 1 USDT is equivalent to 1 USD); 2) Transparent (publishing reserve ownership and following professional audits); 3) Blockchain technology (utilizing future technology to ensure data security and transparency); 4) Broad integration (a form of digitizing fiat currency which is widely used as a trading instrument); 5) Security (using decentralized blockchain technology has world-class security and meets international regulatory compliance standards. Tether also provides traders for buying and selling transactions where the claim value is the same as USD value, as well as simplifying and safe the money transfer process.

Cardano (ADA)

Cardano, is a blockchain processed product that provides various offerings and solutions to problems related to blockchain. Cardano is the newest cryptocurrency that takes advantage of the modern technology of blockchain. This digital currency creation has the aim of building a safe economy and finance through a decentralized system. In addition, Cardano has a vision to create a democratic climate for financial markets, especially in developing countries. Cardano offers advantages and useful features. Licensing applications and contracts that are structured to be decentralized are subsequently executed at a fraction of the cost. In fact, Cardano provides extra security guarantees against scalable transactions and systems. Blockchain is already known as a new breakthrough in technology that enables global transformation. However, several problems have hampered this technology vision: 1) low supervision; 2) low software development, 3) poor governance; 4) long term strategy and planning. In fact, long-term planning is very useful for developing existing protocols. Cardano also exists as a solution that offers different projects. Cardano is here to meet these needs. In addition, Cardano also facilitates user protection through a number of software or software architectures. Of course this is done in innovative and targeted ways. The advantages of the

Cardano protocol are its multi-layered, flexible, scalable software stack that is developed according to existing commercial and industrial standards. To support this, Cardano makes use of a democratic system of government. This blockchain-based digital asset and currency has the crypto name ADA. With the existence of ADA, investors or shareholders can send coins between members, pay for necessities such as purchasing goods and bills, storing funds on the exchange, and also entering applications. As with other cryptocurrencies, ADA also requires a wallet. The wallet provided by Cardano is called Daedalus. A wallet that is useful for storing your assets. The advantage is that you can use it anywhere and anytime without being hindered by space and time. You can also access it via a smartphone connected to the internet network. Cardano is designed to meet existing needs and incorporate distributed systems, sound design mechanisms, and cryptography. So that Cardano becomes the first cryptocurrency based on the Haskell code that guarantees investment security.

Polkadot (DOT)

Polkadot is a project that aims to bridge the gap between the number of blockchains by building better custody between them. Polkadot is considered to be one of the most pioneering projects based on a multi-chain framework that can become a competitor. It aims to provide the most advanced peer-to-peer network for various blockchains. Polkadot was developed by the Web3 Foundation which is based in Switzerland and hopes to provide a fully functional and user-friendly decentralized platform. The main features of the polkadot platform are listed as: 1) Strong interoperability approach; 2) Joint safety of relay chain and parachain; 3) Performant, sharded network; 4) Sophisticated governance processes; 5) Easy blockchain setup. After conducting an ICO in 2017, Polkadot launched an experimental and unaudited version called 'Kusama' in 2019 and in May 2020, the Polkadot mainnet was launched. Polkadot's original token was a DOT that aimed for three main purposes - governance through networking, locking, and binding. In September 2020, a sudden surge in market capitalization saw the token enter the top 10 list of cryptocurrencies and the position will last until May 2021. However, Dot is not an ERC-20 token, but a Polkadot blockchain-based cryptocurrency. Polkadot Technical Analysis (DOT), the polkadot foundation conducted a successful ICO in October 2017, raised more than \$ 140 million and sold nearly half of its 10,000,000 DOT supplies. But unfortunately, the company was driven by losses that forced them to go through two rounds of private sales, one in 2019 and another in 2020. Over the days of the ICO, one DOT was priced at nearly \$ 30 but by August 2020, DOT ownership was dominated again. That is, for users who buy coins for \$ 30 are given \$ 100 new coins at \$ 6 each. It therefore gives a total value of \$ 600 for one coin Considering the DOT token journey, it starts with a \$ 6 re-price but then crashes arrive - suddenly causing the token to drop to \$ 2.81. With the new redonymation, it caused a jump in market cap from zero to more than \$ 5 billion a day. Therefore, it was able to enter the list of top 10 cryptocurrencies in no time. Recently, Polkadot was featured as one of 10 diverse projects in "Scanning European Ecosystems from Distributed Ledger Technology for Social and Community Interest". In summary 'DOT' intends to provide access to multiple blockchains with strong coordination between various blockchains. Projects have good potential to rise to good heights but as mentioned above market fluctuations do not occur for any project or asset. After understanding the composition,

we hope that you get a clear picture of the Polkadot project and the possible DOT price tag in the next five years.

Ripple (XRP)

Bitcoin is becoming popular when you see the large number of large companies and institutional investors buying or investing in this cryptocurrency. However, if you look at the percentage gain this year, bitcoin is still less than ripple (XRP). During this year XRP skyrocketed by nearly 150%, even more than 160%. While bitcoin is only 66% in terms of performance this year, XRP is more than 2 times ahead of bitcoin. Meanwhile, in terms of price, XRP is very much cheaper. Bitcoin price ended Monday's trading at US \$ 48,217.97 / BTC, while ripple was at US \$ 0.5564 / XRP. Seeing the price of XRP which is not up to US \$ 1 per coin, and the price of bitcoin which is almost US \$ 50,000 per coin, of course it can be compared to heaven and earth. Although both are cryptocurrencies, XRP is slightly different from bitcoin. Bitcoin was originally created as a decentralized cryptocurrency for the payment of goods and services. Decentralization means that it is not controlled by a single person or authority. Ripple, created by the company Ripple Labs, is an open source protocol designed to make the process of payments, transfers and currency exchanges faster, more transparent and inexpensive. Ripple does have a cryptocurrency called XRP, but for the general public it is the same as Ripple and XRP. Apart from that, the notable difference from bitcoin and ripple is the amount, which makes XRP's price much cheaper. The number of bitcoins is limited to only 21 million. Currently there are around 18.6 million bitcoins circulating in the market, while the rest can be obtained by mining. Meanwhile, XRP cannot be mined, there are as many as 100 billion, and currently there are around 45 billion in the market, and the rest is kept by Ripple Labs. Unlike bitcoin, many people consider XRP to be a crypto currency that is not decentralized by ownership, because it is controlled by Ripple Labs. This means that Ripple Labs has the power to control the value of XRP, much like a central bank can influence exchange rates by controlling its supply.

Uniswap (UNISWAP)

Foreign exchange has been the backbone of the cryptocurrency market for many years. Offers fast turnaround times, high trading volumes and ever-increasing liquidity. However, on the other hand, there is a parallel world that is being built around a trustless protocol. The decentralized exchange (DEX) does not require intermediaries or custodians to facilitate trading. Due to the inherent limitations of blockchain technology, it is a challenge to build a DEX that has to compete with its centralized rivals. DEX is still largely behind in terms of performance and user experience, and many developers are constantly thinking of new ways to build DEX. One of the pioneers is Uniswap. The way Uniswap works may be a little more difficult to understand than the more traditional DEX. However, we will quickly see that this model offers some interesting benefits. As a result of its innovation, Uniswap is one of the most successful projects, being part of the Decentralized Finance (DeFi) movement. Uniswap is a decentralized exchange protocol built on top of Ethereum. More precisely, it is an automatic liquidity protocol. No order book or centralized party is required to make trades. Uniswap allows users to trade without intermediaries, with a high degree of decentralization

and censorship resistance. Uniswap works with a model that involves liquidity providers who create a liquidity pool. The system provides a decentralized pricing mechanism, which essentially smoothes the depth of the order book. Because the Uniswap protocol is decentralized, there is no listing process. In essence, ERC-20 tokens can be launched as long as there is a liquidity pool available to traders. As a result, Uniswap does not charge a listing fee. In the sense that the Uniswap protocol acts as a kind of public good. The Uniswap protocol was created by Hayden Adams in 2018. However, the basic technology that inspired its implementation was first introduced by Vitalik Buterin. Lacking an order book, Uniswap abandoned the traditional architecture of the digital exchange. This protocol works with a design called the Constant Product Market Maker, which is a variant of the model known as the Automated Market Maker (AMM) or automatic market maker. An automated market maker is a smart contract that holds a liquidity reserve which can be exchanged for traders. These reserves are funded by liquidity providers. Anyone can become a liquidity provider, by depositing the equivalent of two tokens into the pool. In return, traders pay fees to the pool, which are then distributed to liquidity providers according to their respective proportions. Uniswap does not make money. Uniswap is a decentralized protocol that does not have a native token. All fees go to the liquidity provider, and none of the founders get any money from trades that take place on the protocol. Currently, the transaction fee paid to liquidity providers is 0.3% per trade. By default, this money is added directly to the liquidity pool, but the liquidity provider can redeem it at any time. The fee is distributed according to each portion of the pool. Part of the costs may be dedicated to future development of Uniswap.

Litecoin (LTC)

Litecoin is a cryptocurrency created in 2011 using open-source software. Mining can be done using a GPU graphics card. Meanwhile, according to the official site Litecoin.org, Litecoin is a P2P (Peer-to-Peer) Internet currency that allows direct payment of fees to anyone in the world. Litecoin is Open-Source (open for public development), and is a fully decentralized global payment network with no central authority. Complex Mathematical algorithms secure networks and empower individuals to take control of their own finances. Litecoin has faster transaction confirmation times and better storage efficiency than other cryptocurrencies. With substantial industry support, trading volume and liquidity, Litecoin is a trading medium that has proven to be complementary to Bitcoin. So simply put, Litecoin or known as the LTC unit as a whole is almost the same as Bitcoin (BTC), which is a blockchain-based decentralized currency that can be used to make transactions around the world by eliminating third parties (intermediaries), or commonly referred to as Peer-to-Peer so that the guarantee of transaction security can be obtained in full. Litecoin was created and released by Charles Lee in 2011 through the Open-Source client. Litecoin has undergone several significant updates up to version 0.14.2 which we can use to date. The objectives of the development also vary, ranging from reduced transaction costs, improved security code, and improved configuration. Litecoin was created in such a way for all common systems in the world, such as Microsoft Windows, Mac OS x and Linux. Even the mobile version was created so that users can feel comfortable making transactions anywhere and anytime. Open-Source on Litecoin Quoted from Litecoin.org, Litecoin is an Open-Source software project

that gives developers access to run, modify, and copy software and distribute it as needed. The Litecoin software is released in a transparent process that allows independent binary verification. So it is clear that Litecoin is an open platform that anyone can develop for their own purposes. There are three ways to get Litecoin (Cryptocurrency): 1) Mining; 2) Buy Litecoin. For the current exchange rate 1 LTC = Rp. 765,327.30. 3) Collecting Free Litecoin Through Faucets Litecoin can also be obtained for free, namely by collecting Faucets or small pieces of Litecoin from various free faucet provider websites. However, the time taken, as well as the credibility of the free faucet providers to date is still questionable. In general, sites that provide free faucets will end in SCAM. So, this is not something to recommend. The Difference Between Litecoin and Bitcoin There are several differences between Litecoin and Bitcoin that stand out, namely: The process of generating blocks is faster. In Bitcoin, the time it takes to generate a block is 10 minutes, in contrast to Litecoin which only takes about 2.5 minutes for each block created. Faster Transaction Time. Because the process of generating blocks is created 4 times faster than Bitcoin, automatically the transaction verification speed is also 4 times faster. However, of the many Cryptocurrencies, Litecoin (LTC) is one of the most popular this year because of its fantastic growth rate (%).

Chainlink (LINK)

Chainlink has its own token called LINK. This LINK is a cryptocurrency created by Chainlink which is available on the Ethereum network with the ERC677 token whose function is based on the ERC20 token standard. These tokens are used to transact on their own platforms. ChainLink price in Rupiah - Average ChainLink price relative to Indonesian Rupiah for a short period of time. The ChainLink price in Rupiah in the service is calculated according to the algorithm. The average ChainLink trade transaction price against the dollar today is multiplied by the current exchange rate of the Rupiah against the Central Bank dollar. ChainLink price in dollars (USD) - the average ChainLink price is calculated in dollars by our program for today. Most of the ChainLink exchange transactions on crypto exchanges are fixed in dollars. But ChainLink pricing is a separate concept, as ChainLink pricing is a bit dependent on the number of cryptocurrency exchanges and may differ for different amounts. ChainLink prices for today we calculate by analyzing the value of ChainLink in all trading transactions with different exchange amounts. To calculate the average ChainLink cost to Rupiah, all trade transactions for the day are collected, bring the exchange rate to dollars, and recalculate them on the cross. US dollar to Rupiah rate. You can also find out the value of ChainLink to Rupiah for direct transactions in this currency by analyzing the trading table. ChainLink value in dollars (USD) is the main indicator of transaction rates on cryptocurrency exchanges on ChainLink. ChainLink fees, as opposed to ChainLink prices in US dollars, depend on the volume of ChainLink sales and purchases in a single transaction. Program for converting a ChainLink amount into an amount in another currency at the ChainLink exchange rate. A specially designed website service is called a crypto currency calculator. The most popular conversion service is the online Chainlink to Rupiah calculator which shows the amount of rupiah needed to sell or buy Chainlink.

The research in Indonesia conducted by Sofian (2016) concluded that the use of Bitcoin in terms of costs is relatively cheap but with the risk of unstable prices and the process

of integrating Bitcoin with online stores is very easy. Research (Ausop, 2018; Kusuma, 2020) confirms that Blockchain is recognized as a revolutionary technology but its position is categorized as a gambling transaction so that the law is haram. From a legal perspective, Yohandi's research (2017) confirms that the use of Bitcoin virtual money in Indonesia has increased, even though there has been no legal recognition from the Indonesian Government of the use of cryptocurrency as a means of payment in commercial transactions. Meanwhile, research (Saputra, 2018; Huda and Hambali, 2020) states that the Indonesian market should stop using or invest in cryptocurrency, because it doesn't want a crisis to happen again because the bubble that hits is the community. Crypto assets are indeed classified as new investment instruments, so there is still a need for thorough education for the Indonesian market regarding safe and reliable crypto asset trading. Here are some things that prospective traders need to understand before starting to invest in crypto assets, including:

Ensure the Legality of the Exchange

When deciding to invest in crypto assets, choosing a media exchange to make transactions is important to ensure the safety of asset investment. Make sure the selected exchange is legal and officially registered with Bappebti. Currently there are 13 companies or entities that have received a registration certificate from Bappebti as crypto asset traders, these companies are PT Crypto Indonesia Berkat (Tokocrypto), PT Upbit Exchange Indonesia (Upbit), PT Tiga Inti Utama (Triv), PT Indodax Nasional Indonesia (Indodax), PT Pintu Kemana Saja (Pintu), PT Zipmex Exchange Indonesia (Zipmex), PT Bursa Cripto Prima, PT Luno Indonesia Ltd (Luno), PT Rekeningku Dotcom Indonesia (Rekeningku), PT Indonesia Digital Exchange (Digital Exchange), PT Cipta Koin Digital (Koinku), PT Trinity Investama Berkat (Bitocto), and PT Plutonext Digital Aset.

<https://money.kompas.com/read/2021/02/17/183400926/ini-13-pedagang-aset-kripto-yang-terdaftar-di-bappebti?page=all>

Learn the Types of Crypto Assets that are of Interest

Before starting to invest, traders need to understand the types of cryptocurrencies on the market. Bitcoin (BTC) is indeed a favorite. But there are also others that are popular like Ethereum (ETH), Ripple (XRP), Tether (USDT), and others. By understanding these types of coins, prospective traders can check their availability on their preferred exchange. For example, Tokocrypto provides 34 types of coins, Indodax has 110 types of coins, while Zipmex provides 15 coins. However, traders need to be careful in choosing coins for this investment, because many types are not yet popular and their price movements are very aggressive. Including DOGE, which was recently popular thanks to Elon Musk's tweet

Completeness of Owned Trading Features

Each exchange must have excellent trading features offered to traders to support their transaction activities. However, there are some features that are important and useful for traders such as the price chart feature for conducting analysis.

Security Technology Applied

Another thing that traders need to pay attention to is the use of technology to ensure the security of transactions on the chosen exchange. The majority of exchanges in Indonesia have used security standards such as Two Factor Authenticator (2FA) and confirmation via email and sms. However, traders can further ensure the safety of the exchange from websites that document security tests of exchanges around the world such as coingecko or live cer. Tokocrypto, for example, has Binance Cloud technology support that is tested as one of the exchanges with a rating of (9.35), ensuring guaranteed layered security. if the trader makes a transaction. Then Zipmex partnered with BitGo to provide digital wallet security with an insurance policy of up to US \$100 million. Meanwhile Pintu uses curv.co technology to ensure the security of crypto assets with maximum protection. In addition, by having an exchange registered with BAPPEBTI, it is almost certain that they also have ISO 27001 certification on Information Security Systems and have also been registered with the Ministry of Communication and Information Technology.

The Importance of Planning and Analysis When Trading Crypto Assets

Buying and selling crypto assets can be said to be more difficult than traditional assets and stocks. Because of the high volatility and risks involved in it. So it takes proper planning and execution in order to make a profit. Having a trading plan or detailed trading plan before even trading is very important. Because, it can help avoid psychological factors such as emotions, bias or logical errors that can affect trading performance. That way, you can be sure that decisions are not made amidst the heat of the asset's movement. In addition, successful crypto asset traders will focus on technical analysis. As a virtual currency that does not have the authority or rules of other institutions, the price of crypto assets such as Bitcoin is very dependent on its users, both buyers and sellers. So, precise and accurate technical analysis is absolutely necessary to profit from trading crypto assets. Technical analysis helps gather some useful clues in predicting the future value of cryptocurrencies. Also in making the right decisions for profit.

Service Fee Amount

In conducting crypto asset trading transactions, there is a service fee scheme that is charged to traders, namely buying and withdrawal fees. Keep in mind that there are several exchanges in Indonesia such as Tokocrypto, Pintu, and Luno that provide a flat rate for withdrawal fees. But there are also those who use a percentage scheme according to the nominal withdrawal such as Indodax. Of course, the flat rate scheme will be more profitable for traders. Not only that, there are also transaction fees as a market taker that will be charged to traders. The market taker fee is a fee discount if a trader makes a transaction by joining an existing queue of prices. For example, if a trader buys Bitcoin for IDR 10 million through Tokocrypto, you will be charged a cut fee of 0.1%, which is IDR 10,000 or if you buy through Indodax, you will be charged a fee of 0.3%, which is IDR 30 thousand.

Buy when the price is cheap and sell when the price goes up

Knowing when to buy and sell digital assets are tips traders and investors need to know. Because it can be a way to reduce investment risk. So that market timing is one of the important things for trading crypto assets. With crypto asset prices that easily rise and fall, it makes the market difficult to predict its movements, especially for beginners. Market Timing means the investor's ability to determine when to sell and when to buy an asset. Purchasing digital assets when the price is low is highly recommended for novice investors. Generally, you can take advantage of market conditions that are stagnant and bullish. Where, the moment of the take profit action makes the asset price decrease and investors can enter the market. A buying strategy when the asset price is cheaper involves analyzing charts, short-term and long-term average price movements as well as historical support trends, and incremental buying.

Pay attention to price spreads

Like buying gold, there is a price spread or difference between buying and selling prices that traders must pay attention to. The difference between buying and selling prices, which is not too large, will expand

Continue to Learn to Trade Crypto Assets

Because something is still relatively new, if you are interested in investing or trading crypto assets, then you must continue to learn it. Fortunately, currently there is a lot of content about cryptocurrency and block chain. In cyberspace, you can look for basic knowledge and introduction, education on media exchanges, to crypto asset investment tutorials that are circulating in the form of interactive text and videos. This content will certainly be very useful, especially for beginner traders who want to explore investing in crypto assets. Since the time of the pandemic, a lot of webinars have been held on various matters, including trading crypto assets. Taking webinars is one of the easiest ways to learn crypto assets directly with an expert.

[\(https://gizmologi.id/tips/trading-aset-kripto-bitcoin-dll/\)](https://gizmologi.id/tips/trading-aset-kripto-bitcoin-dll/)

4. Conclusion

Based on the description above, it can be concluded that almost all cryptocurrencies have decentralized characteristics, meaning they are not controlled by the central government or the Central Bank. In other words, cryptocurrency is not affected by inflation and economic turmoil caused by activities carried out by banks or the government. Blockchain technology in cryptocurrency is still considered the technology of the future. The risks that will be faced by cryptocurrency users, because they are not based on fundamental analysis, so most decisions are taken because of speculation. Therefore, it is very necessary to educate the Indonesian market about cryptocurrency so that the public can get a correct understanding.

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