

ANALYSIS OF PRICE AND MARKET CAPITALIZATION OF ALTERNATIVE COIN AS A CRYPTOCURRENCY MARKET EDUCATION FACILITY IN INDONESIA

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ABSTRACT

This study aims to describe altcoins and provide understanding and education to the cryptocurrency market community. Data collection is secondary data that is public, namely from the publication of scientific papers, research results, writings from websites, internet sites, and news articles. This research method uses descriptive-analytic, the process of data analysis to get an overview of the data that has been collected. The findings obtained are that there are altcoins that are stablecoins and that each altcoin has a consensus mechanism, which is Proof of Work (PoW) and Proof of Stake (PoS). The finding reveal that almost all cryptocurrencies have decentralized characteristics, meaning that they are not controlled by a central government or Central Bank. This study analyzes the undervalue of altcoins, altcoins that have a low value but have a high market cap, which means that even low-value altcoins can be considered a safe investment. In Indonesia, cryptocurrency has not been recognized as a legal currency, but is recognized as an investment alternative.

Keywords: *Cryptocurrency, Altcoin, Education, Facility, Market.*

1. INTRODUCTION

Cryptocurrency is digital currency or digital money that is not available in physical form, but Cryptocurrency has value. Crypto leads to the development of financial infrastructure and alternative technologies that are global, open-source, and accessible to everyone with access to the internet [1,15]. These digital currency exchanges are known as “peer-to-peer” transactions where there are no banks or other parties involved. The Ministry of Trade through the Commodity Futures Trading Regulatory Agency, issued Commodity Futures Trading Supervisory Agency Regulation No. 7 of 2020 concerning Establishment

of a List of Crypto Assets that can be Traded in the Physical Crypto Asset Market (Commodity Futures Trading Regulatory Agency). With this regulation, the cryptocurrencies that we know today are not recognized as legal tender in NKRI, but as crypto assets that can be traded on the Crypto Asset Physical Market [2, 16]. The cryptocurrency market continues to grow, in total, more than 14,000 cryptocurrencies are currently traded on various types of digital platforms around the world and will continue to grow over time, each type of coin has a unique value that it tries to offer like a project on each coin, the benefits to be gained [3,17]. One type of publicly traded cryptocurrency is altcoin. Altcoin is short for alternative coin, which means a coin

other than Bitcoin. Some altcoins are ambitious projects that offer more use cases than Bitcoin, which is primarily used as a store of value. Due to the higher value of Bitcoin, users are now starting to try to find other alternatives to invest or use existing cryptocurrencies. Several Indonesian cryptocurrency traders explain quite logical reasons for choosing Altcoins. Regarding the choice and trustworthiness for cryptocurrency products, the conditions are not far from the above ratings. However, each type of coin has a unique value that it tries to offer [4,18].

Table 1. Altcoin List
(January 2022)

Alt-Coin	Lowest Price	Highest Price	Capitalization
Tether (USDT)	Rp 14.353,13	Rp 14.363,64	Rp 1.122.295.018.602.180
USD COIN (USDC)	Rp 14.336,79	Rp 14.366,35	Rp 697.154.979.448.694
CARDANO (ADA)	Rp 14.325,05	Rp 15.384,30	Rp 502.492.921.744.397
XRP (XRP)	Rp 8.465,30	Rp 8.915,07	Rp 423.066.397.524.713
DOGE COIN (DOGE)	Rp 1.912,01	Rp 2.112,94	Rp 272.353.110.801.196
BINANCE USD (BUSD)	Rp 14.332,78	Rp 14.368,67	Rp 204.778.390.374.336
POLYGON (MATIC)	Rp 20.333,23	Rp 23.050,70	Rp 166.580.340.523.048
SHIBAINU (SHIB)	Rp 0,29	Rp 0,31	Rp 166.001.009.136.775
TERRAUSD (UST)	Rp 14.277,45	Rp 14.406,06	Rp 160.579.817.145.126
CRYPTO.COM COIN (CRO)	Rp 5.255,30	Rp 5.708,23	Rp 142.036.407.301.262
DAI (DAI)	Rp 14.339,28	Rp 14.371,52	Rp 139.576.836.241.831
ALGORAND (ALGO)	Rp 12.498,25	Rp 13.494,64	Rp 87.303.627.770.511
TRON (TRX)	Rp 781,37	Rp 804,15	Rp 81.633.793.009.015
STELLAR (XLM)	Rp 2.706,79	Rp 2.848,88	Rp 70.106.493.692.984

*Top 30 Alt-coins with prices below IDR 30,000 based on CoinMarketCap

The development of blockchain technology in Indonesia has resulted in many frauds taking place under the guise of investing in cryptocurrency digital currencies. Finance Minister Sri Mulyani Indrawati stated that, “although currently cryptocurrencies have not threatened the stability of the financial sector in various countries, they must remain vigilant. Especially the possibility of being misused for criminal activities, terrorism financing, and money laundering”. This is due to the lack of knowledge about cryptocurrencies, people who do not have knowledge of cryptocurrencies will definitely receive offers that are called attractive by many fraudsters [5,19]. An expert from UNAIR Dr. ASPM Wisudanto, a Management Lecturer at the Faculty of Economics and Business (FEB), opened his voice regarding his response to trade in cryptocurrencies. Until now, according to Mr. Wish, there is no known public limited company that invests in cryptocurrencies in Indonesia. This is because only investment assets regulated by PSAK can be accumulated in the company's balance sheet. Mr. Wish stated that it would be nice if people were careful and think rationally when buying cryptocurrencies, because something virtual is

something that is intangible, nor does it have assets as security guarantees and its utility is limited. Based on the background of the problem phenomenon above, the problem identification in this study is as follows:

1. How is the altcoin business transaction system in Indonesia?
2. What is the impact of altcoin business transactions as a virtual currency as a means of education in the cryptocurrency market in Indonesia?
3. How is the altcoin business as a virtual currency in Indonesian regulations which contains an unstable value and is more at risk in providing education for the people in Indonesia?

This research was only conducted on cryptocurrency users and traders who are members of the altcointalk which is devoted to the subforum for Indonesia, this was done so that research could be more focused on decision making by altcoin users in Indonesia. Research topics regarding altcoins are arguably still very few, cryptocurrency especially altcoin is a new thing in Indonesia in 2021 it has just boomed in Indonesia so that there are lots of ordinary people who want to start investing in cryptocurrency altcoin instruments but don't know about cryptocurrency itself. This research is expected to contribute the general public is related to alternative cryptocurrency investments in the form of altcoins are a new investment with technology and not all coins have been fully licensed by Commodity Futures Trading Regulatory Agency in Indonesia, this research contributes to providing an overview and understanding to the public regarding the undervalue of altcoins that can be helping the Indonesian people to consider altcoins as an alternative investment instrument on their portfolio list for the short or long term, also assisting in choosing the right altcoin for traders and legal (registered with Commodity Futures Trading Regulatory Agency), so that the investment made is safe.

2. LITERATURE REVIEW

Research conducted by Ezra Putranda (2020) outlines that the crypto currency market can generate relatively high profits, but on the other hand given the price of these currencies can also experience a relatively large decline. Sukamulja & Sikora (2018), crypto currency is a digital asset designed as a medium of exchange using

cryptography to secure transactions and to control the creation of additional currency units. This indicates that cryptocurrencies are not a very safe long-term investment [6, 20]. Cryptocurrency is a virtual currency that can be used as an alternative transaction with a mechanism through the support of an internet network that is securely protected by a complex computer password system. Abdurrohim et al. (2019) found that the use of digital currency is a form of technological progress in the financial sector. Governments in various countries adopt policies to regulate the use of digital currency either by prohibiting, legalizing or placing digital currency banks on probation. Harahap et al. (2017) digital currency World in his research shows that theoretically implementing (access) CBDC with a direct access mechanism can increase deposit rates. The results of Kapadia's research, J (2021) found that blockchain technology can be applied to financial functions such as international payments, insurance, execution of contracts, knowing customer permissions, credit systems, and financial supply chains. The application of Blockchain in the financial industry will increase the efficiency and security of all financial transactions and will reduce the possibility of fraudulent activity. Blockchain is a digital recording system for transactions of all cryptocurrencies that are spread across the internet. Where the blockchain is a centralized listing scheme, which consists of various digital recording blocks. This investment is more suitable for investors who like risk (risk seekers), but not suitable for investors who do not want to take too much risk (risk averse). Research by (Ausop, 2018; Kusuma 2018), reveals that blockchain is recognized as a revolutionary technology but its position is categorized as a gambling transaction so that it is forbidden in Islam. Yohandi's research (2017) confirms that the use of Bitcoin virtual money in Indonesia has increased, although there has been no legal recognition from the Indonesian government for 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 investing in cryptocurrencies, because they do not want a crisis to occur. Cryptocurrency assets are classified as new investment instruments, so there is still a need for thorough education for the Indonesian market regarding safe and reliable trading of crypto assets.

3. METHODOLOGY

This study uses a qualitative research design. In the qualitative research process, it explores more

data. In addition, there is a slight quantitative calculation process in the software application, but it is not significant. Furthermore, regarding qualitative methods explained by Litosseliti (2010) that research with a qualitative approach is an approach that is descriptive in nature and emphasizes subjectivity in the process of analyzing meaning. In qualitative research, the approach used is inductive. Researchers examine the concepts, understanding and patterns of the data. This is in contrast to quantitative research which collects and looks at data involving modeling, as well as hypotheses. The research method is descriptive-analytics, which is the process of data analysis to get an overview of the data that has been collected. Data analysis used descriptive qualitative, namely by providing a specific description based on the material collected systematically by classifying the data that had been collected for analysis [7,21]. The reason of using this method is to be able to analyze altcoins and describe them to readers as a means of educating the cryptocurrency market in Indonesia. The collection of research data uses secondary data, namely using public library research techniques, namely from the publication of scientific works, research results, writings from websites, internet sites, and news articles [8, 23]. The sampling technique in this study used a purposive sampling technique to take samples that had characteristics according to the aims of the researcher. Another characteristic of the purposive technique is that it is judgmental so that the use of this sampling tends to better fulfill the research objectives and is considered to be representative of the data (Achmad H, Rosalendro Eddy, & Masyhudzulhak, 2015).

4. ANALYSIS RESULT

4.1 Altcoin Analysis

Analysis of the top 30 altcoins with the highest market capitalization, with an undervalued price of under IDR 30,000, based on CoinMarketCap.

Tether (USDT)

Tether is the first stable coin ever created to always be worth 1 USD, and is already registered with Commodity Futures Trading Regulatory Agency. The uniqueness of USDT is the fact that its value is guaranteed by Tether to remain pegged to the US dollar. According to Tether, every time it issues a new USDT token, it allocates the same amount of USD to its reserves, thus ensuring that USDT is fully backed by cash and cash equivalents. The volatility of the crypto market is notoriously

high (it can go up or down 10-20% in one day), making it unreliable as a store of value [9, 22]. USDT, on the other hand, is protected from these fluctuations. These properties make USDT a safe haven for crypto investors: during periods of high volatility, they can park their portfolio in Tether without having to cash out completely into USD. In addition, USDT provides a simple way to transact US dollar equivalents between regions, countries and even continents via the blockchain without having to rely on slow and expensive intermediaries, such as banks or financial service providers [11, 20].

However, over the years, there has been a number of controversies over the validity of Tether's claims about their USD reserves, which has sometimes plagued the price of USDT, which fell as much as \$0.88 at one point in its history. Many have voiced concerns about the fact that Tether's reserves are never fully audited by an independent third party [12, 19]. Tether has been the target of many FUDs due to its dismal balance sheet and lack of public audits. The company has been repeatedly fined for misleading statements about the state of its books. After Tether released the first details of its balance, it came under closer scrutiny from regulators over its claim that all stablecoins issued are fully backed by dollar reserves.

USD COIN (USDC)

USD Coin is a digital stablecoin that is pegged to the United States dollar on a 1:1 basis, and has been registered with Commodity Futures Trading Regulatory Agency. Each USDC unit is backed by \$1 held in reserve, in a mix of cash and short-term US Treasury bonds. The Center Consortium, which is behind these assets, says USDC is issued by a regulated financial institution. Several use cases have been disclosed for USD Coin. As well as providing crypto traders with a safe haven in times of volatility, those behind the stablecoin say it could also allow businesses to accept payments in digital assets, and shake up various sectors including decentralized finance and gaming. Overall, the goal is to create an ecosystem where USDC is accepted by as many wallets, exchanges, service providers and dApps as possible.

One of the unique things about USDC is that it is transparent and provides assurance to users that they will be able to withdraw 1 USDC and receive \$1 in return without any problems. To this end, it is said that a large accounting firm was tasked with verifying the level of cash held in reserve and

ensuring this corresponds to the number of tokens in circulation. Coinbase briefly considered diversifying the fund in favor of USDC but withdrew the proposal after strong backlash from the community. Transparency over the source of its funds has been a big reason for USDC's success. Unlike its rival USDT, as described above it is involved in repeated investigations. USDC has never been accused of wrongdoing. That has caused USDC to gobble up most of USDT's dominance in the stablecoin market [10,14].

CARDANO (ADA)

ADA is an alt-coin that was discovered in 2015 by one of the co-founders of Ethereum (ETH), Charles Hoskinson, therefore ADA is also called "Ethereum of Japan". ADA was launched in 2017 after two years of development. ADA is a third generation cryptocurrency. ADA is already registered with Commodity Futures Trading Regulatory Agency. The uniqueness of ADA is that it is one of the largest blockchains to successfully use a proof-of-stake consensus mechanism, which is more energy efficient than the proof-of-work algorithm that Bitcoin relies on. While the much larger Ethereum will be upgraded to PoS, this transition will only be gradual [13, 18]. The ADA project is proud to ensure that all technology developed goes through a peer-reviewed research process, which means that bold ideas can be challenged before being validated. According to the Cardano team, this academic rigor helps blockchains to be durable and stable thereby increasing the likelihood that potential pitfalls can be anticipated in advance.

In 2020, Cardano held a Shelley upgrade that aims to make its blockchain "50 to 100 times more decentralized" than other major blockchains. At the time, Hoskinson estimated that this would pave the way for hundreds of assets to run on his network. The launch of the Alonzo hard fork in September 2021 ended the Shelley era and ushered in the Goguen phase. Users can develop and deploy smart contracts on Cardano, enabling native decentralized applications (DApps) to be built on the blockchain. Cardano's price broke the \$3 mark and hit an all-time high of \$3,101 on September 2, 2021, prior to launch.

XRP (XRP)

XRP is a currency that runs on a digital payments platform called RippleNet, which sits on top of a distributed ledger database called XRP Ledger.

While RippleNet is run by a company called Ripple, XRP Ledger is open-source and not based on a blockchain, but rather the previously mentioned distributed ledger database. XRP was created by Ripple to be a fast, cheaper and more scalable alternative to other digital assets and existing monetary payment platforms like SWIFT. The RippleNet ledger is managed by the global XRP Community, with the company Ripple as an active member. The XRP Ledger processes transactions every 3-5 seconds, or whenever independent validator nodes reach consensus on the order and validity of XRP transactions as opposed to proof-of-work mining like Bitcoin (BTC). Anyone can become a Ripple validator, and the list currently consists of Ripple along with universities, financial institutions and others.

DOGECOIN (DOGE)

Dogecoin is a coin created by IBM software engineer Billy Markus and Adobe software engineer Jackson Palmer. Dogecoin was officially launched on December 6, 2013, and more than a million visitors to Dogecoin.com in the first 30 days. Dogecoin has been registered with Commodity Futures Trading Regulatory Agency. Dogecoin was originally created as a joke coin, but after Elon Musk who is one of the deepest influencers in the cryptocurrency world tweeted about Dogecoin that it was his favorite coin in early 2021 it made Dogecoin the number one meme coin with a high market cap.

Dogecoin differs from Bitcoin's proof-of-work protocol in several ways, one of which is the use of Scrypt technology. Altcoins also have a block time of 1 minute, and the total supply is unlimited, meaning there is no limit to the number of Dogecoins that can be mined. You can mine Dogecoin either solo, or by joining a mining pool. Doge Miners can mine cryptocurrency on Windows, Mac or Linux, and with GPUs. Starting in 2014, investor can also mine Litecoin in the same process as mining Dogecoin, as the processes are combined.

LITECOINS

Litecoin is a type of cryptocurrency that was also present when the digital currency was launched. This type of cryptocurrency came into being in 2011 as a peer-to-peer (P2P) digital currency that generates new blocks (which make up the blockchain) at a faster rate. Therefore, Litecoin

allows users to make transactions more quickly without the need for a powerful computing system.

BINANCE USD (BUSD)

Binance USD (BUSD) is a USD-backed 1:1 stablecoin issued by Binance (in partnership with Paxos), approved and regulated by the New York State Department of Financial Services (NYDFS), and registered with Bappebti. The BUSD monthly audit report can be viewed from the official website. Launched on 5 Sep 2019, BUSD aims to combine dollar stability with blockchain technology. It is a digital fiat currency, issued as ERC-20 and supports BEP-2. The BUSD ecosystem has grown exponentially in 2021. The stablecoin has grown from a market cap of around US\$1 billion in early 2021, to over US\$14.6 billion by the end of 2021. This makes it the third-largest stablecoin by market cap, behind Tether and USDC. This growth is largely due to more user adoption due to wallets, platforms and services. DEX and CEX support BUSD.

POLYGON (MATIC)

Polygon is the first well-structured and easy-to-use platform for Ethereum scaling and infrastructure development. Polygon is already registered with Commodity Futures Trading Regulatory Agency. The core Polygon component is the Polygon SDK, a flexible and modular framework that supports the creation of a wide variety of applications. Polygon effectively turns Ethereum into a complete multi-chain system. The uniqueness of Polygon is that it describes itself as a Layer 2 scaling solution, meaning that the project is not seeking to upgrade its current underlying blockchain layer any time soon. This project focuses on reducing the complexity of scalability and instantaneous blockchain transactions. Polygon uses a customized version of the Plasma framework that builds on a proof-of-stake checkpoint that runs through the Ethereum main chain. This unique technology allows each sidechain on Polygon to achieve up to 65,536 transactions per block. Commercially, the Polygon side chain is structurally designed to support the various decentralized finance (DeFi) protocols available in the Ethereum ecosystem. While Polygon currently only supports Ethereum base chains, the network intends to expand support for additional base chains, based on community suggestions and consensus. This will make Polygon an interoperable decentralized Layer 2 blockchain platform.

SHIBA INU (SHIB)

According to the SHIBA INU website, SHIB is a "Dogecoin killer" and is listed on their own ShibaSwap. The Shiba Inu coin was created anonymously in August 2020 under the pseudonym "Ryoshi." This meme coin is rapidly gaining speed and value as the investor community is attracted by the coin's cute charm paired with headlines and tweets from figures such as Elon Musk and Vitalik Buterin. Shiba Inu aims to be an Ethereum-based partner for the Srypt Dogecoin-based mining algorithm. Shiba Inu and the SHIB token are part of a group of dog-themed cryptocurrencies, including Baby Dogecoin (BabyDoge), Dogecoin (DOGE), JINDO INU (JIND), Alaska Inu (LAS) and Alaskan Malamute Token (LASM) These lower value tokens have attracted investors who skipped the Dogecoin pump from 0.0002 to almost 0.75 USD.

On September 17, 2021, Coinbase (the largest crypto exchange in the US) listed Shiba Inu on their platform. This news caused the price of the Shiba Inu to rise by more than 40% in the next two days, bringing the dog meme token into the spotlight again. The SHIBA INU website invites dog-inspired artists from around the world to encourage the "artistic Shiba movement" as they bring their SHIBA INU community to the NFT market. SHIBA INU has also created a campaign using Amazon Smile to raise donations to save real life Shiba Inu dogs with the Shiba Inu Rescue Association. Ryoshi's goal for Shiba Inu was to see if a decentralized organization could work without a central leadership. In October 2021, SHIB surged on news of a possible Robinhood listing and briefly flipped Dogecoin into the most valuable meme coin by market hood. The October 2021 price spike famously scored billionaires, as one wallet was discovered that had purchased \$8,000 worth of SHIBs in the summer of 2020, which is worth more than \$5.7 billion at SHIB's all-time high valuation. The owner of the wallet has not been determined, although the person appears to have sent some of their wealth to another wallet a few weeks after the price explosion. Despite the description above, unfortunately the SHIB coin has not been registered with Commodity Futures Trading Regulatory Agency, but the coin has been registered in several applications in Indonesia.

TERRAUSD (UST)

TerraUSD is a decentralized stablecoin running on Ethereum that seeks to maintain a value of US\$1.00. Unlike centralized stablecoins, UST is not

backed by US dollars in bank accounts. Instead, in order to print 1 TerraUSD, the TerraUSD (LUNA) reserve asset of US\$1.00 must be burned. Here's what makes TERRAUSD unique:

- Improved Scalability

TerraUSD is an algorithmic stablecoin with the same value as the face value of minted stablecoins. To issue 1 TerraUSD, you need to burn 1 LUNA reserve asset. It turns out that the scale of TerraUSD's monetary policy is almost limitless, helping the DeFi project reach its full potential.

- Easy Exchange

The stablecoins in the Terra ecosystem share total liquidity, meaning you can exchange TerraUSD for TerraKRW (stablecoins pegged to Korean Won) for minimal fees.

- Passive Income Potential

In addition, users can earn passive income using TerraUSD with the stable interest rate of the Anchor protocol. Anchor is a lending protocol that promises a 20% return on UST savings. Additional and stable income comes through rewards in the PoS chain, which keeps it stable due to commissions and inflation. This makes it possible to establish reliable interest rates.

- Interoperability

With the Dropship bridge protocol, TerraUSD enables the blockchain ecosystem to connect. Dropship integrates TerraUSD into various DeFi and DEX platforms, and most importantly, moves assets between chains. LUNA supply and demand determines the value of TerraUSD. Thus, stable UST costs are guaranteed as the Dropship protocol helps maintain scalability.

In summary, TerraUSD (UST) is the first decentralized stablecoin that provides interest income, excellent scalability, and easier movement between chains, but TerraUSD (UST) is not yet listed with Commodity Futures Trading Regulatory Agency, so it is recommended to use other stablecoins besides UST to trade.

CRYPTO.COM COIN (CRO)

Crypto.com Coin (CRO) is the native cryptocurrency of Crypto.com A decentralized open-source blockchain chain developed by payments, trading, and financial services company

Crypto.com. Crypto.com Chain is one of the products in the Crypto.com line of solutions designed to accelerate global adoption of cryptocurrencies as a means to increase personal control over money, protect user data, and protect user identity. The CRO blockchain functions primarily as the vehicle that powers the Crypto.com Pay mobile payment app. In the future, Crypto.com plans to expand the reach of the CRO platform to power other products as well. CRO is active in November-December 2018.

CRO blockchain is primarily focused on providing utility to users of Crypto.com payment, trading and financial services solutions. CRO owners can stake coins to act as validators and earn fees for processing transactions on the network. In addition, CRO coins can be used to settle transaction fees on the Crypto.com Chain. Within the framework of the payment application Crypto.com Pay, users can get cashback of up to 20% by paying merchants at CRO and up to 10% by purchasing gift cards and making peer-to-peer transfers to other users. In terms of trading use cases, the Crypto.com App allows users to earn token rewards for certain listings by staking CRO. Moreover, users can earn up to 10-12% annual interest on their Crypto.com Coins by staking on the Crypto.com Exchange app or Crypto.com metal Visa Card. Overall, CRO acts as an instrument that reinforces Crypto.com's drive to increase cryptocurrency adoption on a global scale. As such, the company is constantly working on finding and developing new use cases that allow users to leverage cryptocurrencies to increase the control they have over their money, data and identity.

DAI

DAI is an Ethereum-based stablecoin whose issuance and development is managed by the Maker Protocol and the autonomous decentralized organization MakerDAO. DAI has been registered with Commodity Futures Trading Regulatory Agency. DAI prices are pegged to US dollars and are guaranteed by a mix of other cryptocurrencies that are deposited into smart contract vaults each time a new DAI is minted. It is important to distinguish between Multi-Collateral DAI and Single-Collateral DAI (SAI), earlier versions of the token that could only be collateralized by a single cryptocurrency; SAI also does not support the DAI Savings Tier, which allows users to earn savings by holding DAI tokens. Multi-Collateral DAI was launched in November 2019.

The main advantage of DAI lies in its soft peg against the US dollar price. Traders and investors naturally tend to add safe-haven assets to their portfolios, whose stable prices can help offset significant market fluctuations. One such type of asset is stablecoins, of which DAI is an example. It is a cryptocurrency whose price is pegged to a relatively stable value asset most commonly traditional fiat currencies, such as USD or EUR. Another major advantage of DAI is the fact that it is managed not by a private company, but rather by a decentralized autonomous organization via a software protocol. As a result, all instances of token issuance and burning are publicly managed and recorded by Ethereum self-executed smart contracts, making the entire system more transparent and less prone to corruption. In addition, the DAI software development process is regulated in a more democratic way through direct voting by regular participants of the token ecosystem.

ALGORAND (ALGO)

Algorand is a self-contained, decentralized, blockchain-based network that supports a wide range of applications. The system is secure, scalable, and efficient, all essential properties for effective real-world applications. Algorand will support computing that requires reliable performance guarantees to create new forms of trust. Algorand became active in June 2019 and is able to handle nearly 1 million transactions per day as of December 2020. Algorand's transaction metrics can be seen here. Algorand's initial coin offering (ICO) was held in June 2019, at the Algorand price of \$2.4 per token. Algorand was created to speed up transactions and increase efficiency, in response to the slow transaction times of Bitcoin and other blockchains. Algorand is designed in such a way that there are lower transaction fees, as well as no mining (like Bitcoin's energy-intensive process), as it is based on a purely permissionless proof-of-stake (PoS) blockchain protocol. Blockchain Algorand is a pure, permissionless proof-of-stake blockchain protocol. Unlike a proof-of-work (PoW) blockchain, where the root block must be validated by a randomly selected validator (using computing power), in a pure proof-of-stake approach all validators are known to each other and only have to approve the block. next to create a new block.

TRON (TRX)

TRON is a blockchain-based operating system that aims to ensure this technology is suitable for everyday use. Coin TRX is already registered with Commodity Futures Trading Regulatory Agency. While Bitcoin can handle up to six transactions per second, and Ethereum up to 25, TRON claims that its network has a capacity of 2,000 TPS. The project is best described as a decentralized platform focused on content and entertainment sharing and to this end, one of its biggest acquisitions was file sharing service BitTorrent in 2018. Overall, TRON has divided its goals into six phases. These include providing simple distributed file sharing, encouraging content creation through financial rewards, enabling content creators to launch their own private tokens, and decentralizing the gaming industry.

TRON has positioned itself as an environment where content creators can connect with their audience directly. By eliminating centralized platforms such as streaming services, app stores, or music sites, it is hoped that content creators will not lose a lot of commission to middlemen. In turn, this can also make content cheaper for consumers. Given how the entertainment sector is increasingly digitized, TRON could have a head start in applying blockchain technology to the industry. The company also says that it has a team of talented and experienced developers, based around the world, drawn from big companies like Ripple Labs. TRON offers a point of difference by providing a roadmap showing its intentions for years to come.

STELLAR (XLM)

Stellar is a decentralized open network that allows money to be moved and stored. When it was released in July 2014, one of its goals was to increase financial inclusion by reaching the unbanked world but soon after, the priority shifted to helping financial companies connect with each other through blockchain technology. The network's native token, lumens, serves as a bridge that makes it cheaper to trade assets across borders. All of this aims to challenge existing payment providers, which often charge high fees for similar services. It should be noted that Stellar was originally based on the Ripple Labs protocol. The blockchain was created as a result of a hard fork, and the code was later rewritten [11, 20].

Cost is a difficult thing for many people. However, the high fees when making cross-border payments are not only exclusive to fiat based payment solutions as PayPal transaction fees are

also known to go through the roof on the Bitcoin and Ethereum blockchains due to bottlenecks. Stellar is unique in that each transaction only costs 0.00001 XLM. Given how a single unit of this cryptocurrency costs only a few cents at the time of writing, it helps ensure that users keep more of their money. Several blockchain projects have successfully secured partnerships with big brand technology companies and fintech companies. Several years ago, Stellar and IBM teamed up to launch World Wire, a project that allows large financial institutions to send transactions to the Stellar network and transact using bridge assets such as stablecoins. While other blockchains have community funding, meaning that grants can be awarded for projects that further help the ecosystem, Stellar allows its users to choose which ventures to provide this support.

4.2 Cryptocurrency Invest

Here are few things to consider when investing in cryptocurrencies.

Choose a cryptocurrency exchange

When you want to invest in cryptocurrency, choosing a media exchange is very important to ensure the security and legality of investing. Make sure the exchange application is registered and is under Commodity Futures Trading Regulatory Agency insight. The following is a list of companies that sell cryptocurrency assets and are registered with Commodity Futures Trading Regulatory Agency :

1. PT Indodax Nasional Indonesia (Indodax)
2. PT Crypto Indonesia Berkat (Tokocrypto)
3. PT Zipmex Exchange Indonesia (Zipmex)
4. PT Indonesia Digital Exchange (Idex)
5. PT Pintu Kemana Saja (Pintu)
6. PT Luno Indonesia LTD (Luno)
7. PT Cipta Koin Digital (Koinku)
8. PT Tiga Inti Utama
9. PT Upbit Exchange Indonesia
10. PT Rekeningku Dotcom Indonesia
11. PT Trinita Investama Berkat

The crypto asset trading company has an exchange app with a different user design, choose an exchange app that is easy to understand and comfortable to use. By choosing the right exchange app, your account and fiat money stored for investing will be guaranteed safe.

Understanding the available coin

Each coin is unique and has different projects, users can find out the types of altcoins and their descriptions on each coin's website, or CoinMarketCap, to find out more about each coin's project, and future prospects.

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

Market timing is very important in investing, just like stocks, cryptocurrencies have the same technique. With the volatility of crypto which is easy to go up and down, making the market difficult to predict its movements, especially for beginners [13, 19]. Market Timing means the ability of investors to determine when to sell and when to buy an asset. Buying digital assets when the price is low is highly recommended for novice investors. Generally, you can take advantage of stagnant and bullish market conditions. Where, the moment of take profit action makes asset prices fall and investors can enter the market. A buying strategy when the asset price is cheaper involves chart analysis, short-term and long-term average price movements and historical support trends, and incremental buying.

Staking

Crypto staking is a deposit service offered to cryptocurrency holders. Staking arguably provides a relatively high interest rate compared to traditional banking deposits based on paper money. Staking is a new feature found in blockchain applications, which I think can be tried because it gets higher profits [12, 17]. Staking is not available with all types of cryptocurrencies, but is only available with cryptocurrencies that use a proof-of-stake model.

Conditions of Virtual Currency in Indonesia

The results of a comparison with countries that have implemented cryptocurrency, Indonesia is still classified as inadequate to implement cryptocurrency because there is no regulation, public reaction is still lacking, and social, political and economic

conditions are not yet supportive, even though the infrastructure is adequate. The condition of cryptocurrencies in Indonesia, currently all transaction activities against cryptocurrencies are not recognized as legal tender, this was stated directly by Bank Indonesia based on a law which states that the legal means of payment in Indonesia is only rupiah. Based on Law no. 7, Article 1 Paragraph 1, 2011, that payment instruments accepted in Indonesia only use Rupiah. Even though quite a number of Indonesian people understand what cryptocurrency is, unfortunately the existence of this digital currency has received strong resistance from the central government. Even cryptocurrency is not legal tender in the country. Until now, the people of Indonesia still use cryptocurrency to own, for investment or business buying and selling (trading). Judging from internal crimes, the internet development institute (ID Institute) revealed that there are three things that have the potential to occur, including direct threats to electronic wallets, ransomware and private keys. Bank Indonesia appealed because of the very volatile nature of cryptocurrencies and do not have clear ownership, such as deposit insurance agencies in the banking sector. Currently there are government agencies to banks in Indonesia starting to explore the potential of blockchain as a platform or alternative that can increase productivity.

5. CONCLUSION

The use of cryptocurrency with bitcoin technology to become an integrated payment system in Indonesia has a positive impact, because based on the results of the analysis conducted by the author, there are compatibility problems that arise due to too much digital money in Indonesia. Based on the list of altcoins outlined, there are five stablecoins, that is the type of crypto currency created to offer stable prices and supported by reserve assets, the stable coins are Tether (USDT), USD COIN (USDC), BINANCE USD (BUSD), TERRAUSD (UST), and DAI (DAI). In the list of altcoins there are altcoins that have not been registered with Commodity Futures Trading Regulatory Agency, the altcoins are TERRAUSD (UST), and SHIBA INU (SHIB), altcoins that have not been registered with Commodity Futures Trading Regulatory Agency are not recommended for purchase, because they do not meet the requirements applicable to Commodity Futures Trading Regulatory Agency which results in the insecurity of buying and selling these coins. From the analysis of the list of altcoins carried out, it was found that cryptocurrencies have a consensus

mechanism, that is a computer network that helps secure software from hackers, and also regulates the issuance of new units of supply of a cryptocurrency asset, these mechanisms are Proof of Work (PoW) and Proof of Stake (PoS). Based on the description above, it can also be concluded that almost all cryptocurrencies have decentralized characteristics, meaning that they are not controlled by the central government or Central Bank [14, 24]. In other words, cryptocurrencies are not affected by inflation and economic turmoil caused by activities carried out by banks or governments. This research is expected to provide input to the government to consider education for the Indonesian people through the available media regarding cryptocurrencies, so that Indonesian are not easily exposed to fraud in cryptocurrency investment, because with the high number of cryptocurrency users every year, many people only follow the trend without know the risks that can occur in investing in cryptocurrency [15,23]. There are many advantages and also many shortcomings in altcoins, therefore it is very important to educate the Indonesian people about altcoins/cryptocurrencies in order to get a better understanding of the cryptocurrency market.

The comparative analysis for strengths and weaknesses for similar work published, namely in previous research using blockchain technology related to altcoins which still uses abstract concepts so that most researchers are still researching in a global or general scope, although there are some researchers who dare to do research with a broad scope a country, but still relatively few, this research provides new theoretical and empirical evidence of altcoin investment in the cryptocurrency market in Indonesia so as to increase knowledge and insight for ordinary people and investors [13, 17].

This research is expected to provide benefits to the community as input material that can provide discourse on what cryptocurrency is as an alternative investment in the form of alternative coins besides bitcoin and provide insight into the investment climate that exists in the cryptocurrency world in Indonesia. For the government, it is hoped that the results of this research can provide input and consideration so that the Indonesian government makes regulations and regulations that will be applied to investments in digital assets such as cryptocurrency so that people are not disadvantaged. The Indonesian government is expected to cooperate with other countries that are more advanced and have implemented

cryptocurrency in transactions in their country related to the development of cryptocurrency, especially in regulating regulations that will have an impact on the Indonesian economy. For academics, the results of this research are expected to provide knowledge for the academic community regarding cryptocurrencies, alternative coins and the cryptocurrency market in Indonesia. This research has limitations and requires further development, so that future research is expected to be able to examine more deeply cryptocurrency and bitcoin and alternative coins in global economic conditions to gain a deeper understanding so as to contribute to current technological developments.

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