
RESEARCH ARTICLE

Investment Behavior and Strategy in Cryptocurrency in Indonesia

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ABSTRACT

Investor behavior in making investment decisions is always based on clear reasons, whether for reasons of the future, profit, or hedging. This also provides a more precise portrait of investor behavior and the learning process if you want to enter the crypto asset industry. Apart from that, future suggestions for future researchers are expected to include female informants as a new perspective in researching investor behavior. The aim of carrying out this research is to find out what strategies can be implemented by cryptocurrency asset investors in order to get an optimal level of return. The method approach used in this research is qualitative library research. The data sources used as references in this research are data originating from articles, books, and newspapers from electronic media with the search keywords: how to invest in crypto, crypto investing techniques, and crypto investing strategies. The data obtained was then analyzed using NVivo 10 Plus software. From the results of this research, several strategies for investing in cryptocurrency assets were obtained, namely: determining the type and purpose of investment, studying the cryptocurrency assets you are interested in, choosing trusted cryptocurrency assets, choosing safe exchanges and wallets, paying attention to service fees and spreads, don't be afraid of missing out (FOMO), buying when prices are low (support) and selling when prices are high (resistance), diversifying and mitigating risk, investing on various platforms, not easily panicking and oriented towards holding on for dear life (HODL), always following development information cryptocurrency, following and joining cryptocurrency communities, and regularly doing dollar-cost averaging (DCA).

KEYWORDS

Behavior, investment strategy, and Cryptocurrency.

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1. Introduction

The digital world will continue to grow as time goes by. Sophisticated technology is in line with increasingly advanced human thinking patterns, which will make this digital world increasingly skyrocket. The emergence of Industry 4.0, or the Fourth Industrial Revolution, marks a technological transformation that changes the way we work in general. Convenience is something that people always look for, including ease in making transactions without having to set aside a lot of time just to get the item they want. As time goes by, technology is increasingly developing, including the tools used in transactions. Various types of payments are offered by the banking world as a financial institution, one of which is electronic money.

The use of electronic money continues to grow, so a lot of digital currency has emerged with its own system, one of which is Bitcoin. In contrast to electronic money, the absence of third party interference with someone's money is the main reason for the birth of Bitcoin. Bitcoin is believed to be the currency of the future because it does not have a server or central controller, which is also called decentralization.

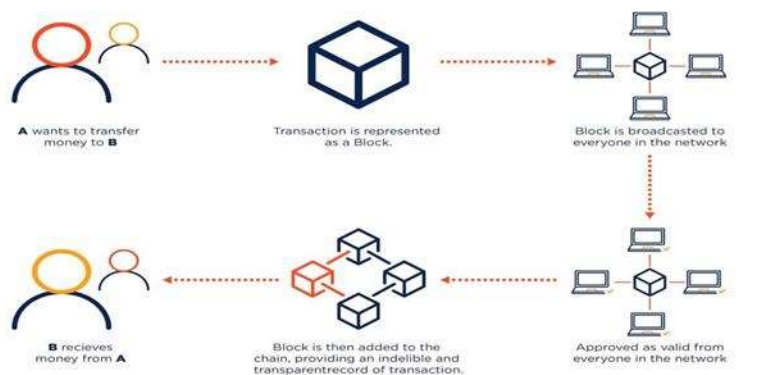
Bitcoin is stored on a person's computer or cellphone, which is called an E-wallet, so someone who wants to make a transaction only needs to be connected to the internet network. Cryptography-based Bitcoin transactions. Cryptography itself is a branch of

computer science that studies how to hide information. Through cryptography, a secret message is scrambled into a message that appears to be formless and then sent to the intended party. Meanwhile, only the intended party can interpret the random message and turn it back into a secret message from the sender. Apart from being based on cryptography, the payment network used in Bitcoin is based on peer-to-peer and open-source technology. Every transaction on Bitcoin is stored in the Bitcoin network database called Blockchain. Blockchain is composed of blocks that are related to each other and have sequential numbers. These blocks are interconnected because the hash value of a block will be included in the process of creating the next block. Therefore, buyers and sellers will be recorded in the Bitcoin database network. The Bitcoin network is managed by a decentralized network that is verified by Bitcoin operators, who are usually called Bitcoin miners. Each Bitcoin user generally consists of a public pair, namely a public key as their Bitcoin address, which is known to the public as the transfer destination address, and a private key as a sign of their ownership rights to the Bitcoin they own.

This development brought financial markets around the world into a new era and made global investors yearn for higher investment returns, although the risks were commensurate. The latest development in the world of investment refers to Cryptocurrency based on blockchain technology. Cryptocurrency is not only a virtual currency that is used to buy and sell goods and services on the internet, but it is also a popular asset that is usually used for hedging activities. It is also called a crypto asset. For people who are in a surplus of funds they are currently busy looking for the right investment so that the funds they have can provide profits. Currently, various types of new investments are booming in response to increasing market demand, not to mention the era of Revolution 4.0, which brought society to a new world, including the economy (Huda & Hambali, 2020). One of the investments that is currently popular with the public is Cryptocurrency. The development of the times causes economic activities and forms of money to continue to change from time to time after precious metals such as gold are used as the main material for payment, checks, and banknotes are also used as a means of payment and are considered money. With the globalization of the world economy, people's need for speed, comfort, and security of financial transactions is increasing, so easy and efficient payment systems are needed. Two basic things need to be considered when using electronic systems. First, technology is a human invention that will have system technical weaknesses. Second, technology also has uncertainty in terms of legal guarantees (Yonifia, 2021).

Increasingly sophisticated technology can influence the form of payment in the economic system, which has an impact on people's lives today. In modern times, people would prefer to use electronic payment systems rather than cash payment systems because of the convenience offered by electronic payment systems. Because of this phenomenon, people have created crypto as a new currency. Massive progress in the world of technology has been felt by society without exception, including Muslims (Nouruzzaman, Wahab, & Habbe, 2021). This greatly influences life patterns and interactions in the social or economic world. This change in implementation is clearly illustrated by the change in people's investment patterns and interests from post-traditional (deposits, property, gold, mutual funds, bonds, and shares) to a form of investment that is of interest to the digital community, namely Cryptocurrency investment (Davis & Marx, 2021).

Figure 1. How Cryptocurrency Transaction Works



Source: Money Control (2021)

Cryptocurrency is often also known as "digital money." Cryptocurrency is a blockchain-based technology that is often used as digital currency. The role and function of this digital currency are the same as other currencies. It's just that Cryptocurrency does not have a physical form like conventional currency but is only a block of data bound by a hash as validation (Bhiantara, 2018). The phenomenon of Cryptocurrency investment in recent years has become increasingly prominent. Even though rumors circulating

about Cryptocurrency as a high-risk investment or investments that are prohibited in Islam are also spread in various electronic media, this does not prevent new investors from joining (Hairudin, Ciri, Mohamad, & Yusof, 2020).

Cryptocurrency is an innovative type of digital currency that is not issued by any central authority (decentralized) because it uses secret code techniques (cryptoghrapy) and encryption protocols to identify and verify transactions. These transactions are transparent, publicly storing every transaction detail in a distributed ledger (blockchain), but the identities of the users involved remain anonymous. 1 Cryptocurrencies are increasingly becoming popular throughout the world. This can be seen in the global cryptocurrency market, where capitalization is worth more than USD 800 billion in 2022. The global Cryptocurrency market size is worth USD 4.67 billion in 2022 and is expected to grow at a Compound Annual Growth Rate (CAGR) of 12. 5% from 2023 to 2030 (Grandviewresearch.com, n.d). Furthermore, by the end of 2022, Cryptocurrency is predicted to reach approximately 1 billion users (Crypto.com, 2022). Apart from that, there is interesting evidence that Cryptocurrency is in demand by many companies (businesses) that accept it as a medium of exchange; where in 2021, there were 18,000 businesses that accepted it, such as well-known businesses Microsoft, Paypal, Overstock, Tesla, Starbucks, Whole Foods, Newegg, Twitch, CheapAir, etc (Triple A, 2021). These businesses differ in how they accept it as a means of exchange, such as paying for accommodation, shopping, *sports, transportation, and cafes/food* (Merchant Machine, 2022).

Cryptocurrency has attracted attention and discussion from many parties. Various discussions published in notes, such as from the government, financial scholars, conventional economists, and even Islamic religious authorities and Islamic financial scholars and economists, also provide notes on the reality of this phenomenon. There are many notes contained on Cryptocurrency, such as on the basic fundamental issues of the function of money/currency, because Cryptocurrency is related to the problem of price volatility which can give rise to bubbles and can have an impact on the stabilization of the financial system (Alam et al., 2019; Mohamed & Ali 2019; 2022; Kaleem 2021; Yuneline, 2019; Furthermore, many countries reject Cryptocurrency as a currency, due to its legal issues (Chohan, 2017; Fauzi et al., 2022; Shovkhalov & Idrisov, 2021).

Apart from that, in the Islamic world, where there is still debate between religious authorities and Sharia scholars regarding Cryptocurrency, there are those who allow it (halal), there are those who prohibit it (haram), and there are those who abstain (Mamnoo'). In general, the debates include, for example, issues surrounding property (Maal) and money/currency, issues of negative publicity, speculative issues (Gharar), and issues of risks that Cryptocurrency may face (Alaraby, 2017; 2018; Al-Haddad, 2018; Bakar, 2018; Themajlis.info 2018; SHARIASOURCE, 2018; From there, it is very important to dig deeper into the characteristics of Cryptocurrency from the various notes above.

Digging into its characteristics will reveal a common thread in witnessing this new development, which makes the world think about its reality. Perhaps various notes from many parties have provided views and decisions regarding the characteristics of Cryptocurrencies that are faced from various perspectives. However, in this research, it is not intended to be a verdict. Rather, it is an attempt to stimulate discussion on emerging topics further.

2. Literature Review

Cryptocurrency is a digital currency that uses an encryption system, and various forms of this digital currency are spread almost all over the world. Cryptocurrency as a digital currency has almost the same function as other currencies, but what differentiates this currency from currencies, in general, is that Cryptocurrency does not have a physical form of money like currency, but only in the form of a block of data bound by a hash as validation. Some examples of cryptocurrencies include Lisk, Ripple, Ether, Litecoin, MaidSafeCoin, StorjCoinX, Ethereum, Dash, Doge-Coin, Zcash, Monero, and Bitcoin (BTC) (Ausop & Aulia, 2018).

Cryptocurrency comes from a combination of 2 (two) words, namely: "cryptography," which means secret code, and "currency," which means currency. (Huda & Hambali, 2020). According to Saefullah, Cryptocurrency is a peer-to-peer digital currency that can be exchanged using certain cryptographic principles. (Saefullah, 2018). Cryptocurrency was first introduced by an American cryptographer named David Chaum in 1983. He created a cryptography-based electronic payment system called e-cash, which could not be traced by the issuing bank, government, or any third party. (David et al., 2002) Then in 2009, Satoshi Nakamoto, an unknown programmer, designed and developed a very popular cryptocurrency called Bitcoin (BTC). (Budiharjo & Nuraini, 2021) Of the many types of Cryptocurrency assets that are in general circulation, they can be grouped into 2 (two) types, namely: Bitcoin (BTC) and Alternative Coin (Altcoin). Bitcoin is a so-called virtual currency that has been devised for anonymous payments made entirely independently of governments and banks. (Segendorf, 2014) Meanwhile, Alternative coins (Altcoins) are all types of Cryptocurrency other than Bitcoin (BTC), which are also blockchain-based. (Syamsiah, 2017).

Cryptocurrency currency has several advantages compared to conventional currency in general, including not being influenced by government policy, reducing intermediary costs in financial transactions, eliminating the risk of confiscation by the state, and not requiring a particular bank as the organizer or manager of Cryptocurrency currency. (Setiawan, 2020) The Indonesian government,

through the Commodity Futures Trading Supervisory Agency (Bappebti) under the Ministry of Trade (Kemendag), has determined 229 types of crypto assets that can be legally traded on the physical crypto asset market. (Perba Number 7 of 2020) In the Big Indonesian Dictionary (KBBI), what is meant by investment is: (1) investing money or capital in a company or project for the purpose of making a profit, and (2) the amount of money or capital invested. According to Herlianto, investment is a form of investing funds or capital that produces wealth, which will be able to provide a profitable rate of return either now or in the future. (Mastura et al., 2020)

Meanwhile, according to Tandelilin, investment is defined as placing a certain amount of funds or other resources at this time with the hope of obtaining profits in the future. (Pertiwi et al., 2016) There are 3 main goals why someone wants to invest, according to Kamarudin, namely: (1) to have a more decent life in the future, (2) to reduce inflationary pressures, and (3) to encourage tax savings. (Kurniawan, 2019). Money management is money management, which refers to the financial planning process. This term is often used in investment portfolio management. According to Dew & Xiao, money management is financial management related to cash flow, credit, savings, and investment. (Dew & Xiao, 2011). Furthermore, Perry & Morris define money management as a person's responsibility for their overall finances, which includes financial planning for the future, saving, and providing for all the needs of themselves and their family. (Perry & Morris, 2005) When someone plans to make an investment, that individual must have good financial knowledge so that their investment decisions have a clear direction. (Putri & Rahyuda, 2017).

According to Hailwood, financial literacy influences how a person saves, borrows, invests, and manages finances. Financial skills emphasize a person's ability to understand the basic concepts of economics and finance and how to apply them appropriately. (Silvy & Yulianti, 2013). The main aim of money management is to balance the use of money/investment capital in order to maximize profits (returns) and minimize losses. According to Grable et al., individuals who have knowledge about financial literacy have a positive relationship with their income. This means that the better money management he implements, the better his income will be. (Grable et al., 2009).

Thus (cryptogrhap) uses encryption protocols to identify and verify transactions. These transactions are transparent, publicly storing every transaction detail in a distributed ledger (blockchain), but the identities of the users involved remain anonymous. From the definition above, it is clear what the characteristics and uses of Cryptocurrency are. In this case, almost all Cryptocurrencies have the same characteristics to be classified, as explained in the following table:

Table 1. Cryptocurrency Characteristics

No	Karateristk	Keterangan
1	Digital	Cryptocurrency is defined as digital currency, which means it is only valid in computers. Cryptocurrencies do not come in the physical form that we usually use.
2	Decentralize d	Money transactions generally involve a party, such as a bank, that mediates each transaction. However, in the world of Cryptocurrency, there are no such banks or parties. Everyone is responsible for the money they own have.
3	Peer-to-Peer (P2P)	<i>Cryptocurrency is used for transactions from one person to another person online.</i>
4	Anonymous	Crypto transactions are anonymous because no personal information is shared. Anyone can open the wallet; no ID is required, and it has varying degrees of anonymity depending on which token you use. There are no regulations about who can own or use cryptocurrency

Source: Alam et al (2019)

Cryptocurrency has many types. Bitcoin is one of the popular types of Cryptocurrency, and some even say it was the first type known to many people; it was introduced by an anonymous individual with the pseudonym "Satoshi Nakamoto" through 2 articles published in 2008 and 2009 ago. In addition, apart from Bitcoin, there are several other types that are popular, namely "Ethereum; Bitcoin Cash, Litecoin, Dogecoin; and Ripple XRP" (Fauzi et al., 2022).

In terms of function, Cryptocurrency functions as a means of payment for purchasing goods or services, investing, and mining. In the first function, "buying goods or services," there are many shops that are starting to use Cryptocurrency as a means of payment, including Microsoft, Paypal, Overstock, Tesla, Starbucks, Whole Foods, Newegg, Twitch, CheapAir, etc. (Triple A, 2021). You can also use cryptocurrency to pay for lodging, shopping, sports, transportation, and cafes/food (Merchant Machine, 2022).

Furthermore, the second function is "investment," where investing through Cryptocurrency has principles that are more or less the same as economic principles, namely that prices will increase when there is a lot of demand. The more people invest in cryptocurrency, the more the price will rise. Finally, the third function, "Mining," is an important thing in Cryptocurrency. Basically, Cryptocurrency users confirm by solving complex Cryptographic puzzles and recording them in the Blockchain. This puzzle can be solved by mining. The greater the user's computing power, the greater their chances of being able to solve it. If you successfully solve the puzzle, you will be awarded a transaction fee (Alam et al., 2019).

Based on the explanation above, it is clear how Cryptocurrency works in terms of definition, characteristics, and function. Because it arises from many different perspectives, it is necessary to examine its characteristics in more depth, especially in an economic context, legal context, and sharia context. In the following discussion, these three contexts will be examined in more depth.

2.1 Investment

Investment can be defined as the activity of postponing current consumption to be included in productive assets over a certain period of time. (Jogiyanto, 2010) Meanwhile, according to Tandelilin, investment can be said to be the placement of a certain amount of funds or other resources at this time with the hope of obtaining profits in the future. (Pertiwi et al., 2016) Based on the time period, investment can be categorized into 2 (two), namely, short-term investment period and long-term investment. Short-term investments are investments that allow for profits in less than three years and can be immediately converted into money or sold. Meanwhile, long-term investments are investments that require more than three years to gain profits. (Rahardjo, 2021)

According to Hadijah, there are several objectives of investment, including 1). Obtaining returns/profits, 2). Developing business, 3). Protecting finances from inflation, and 4). In preparation for certain funds/expenses in the future. Meanwhile, according to Kamarudin, there are at least 3 (three) main purposes why someone wants to invest, namely:

1). To get a more decent life in the future, 2). Reducing inflationary pressure, and 3). Encouragement to save taxes. (Huda et al., 2022). Investment is defined as investing money or capital in a company or project with the aim of making a profit (Language Center Dictionary Compilation Team, 2008, Indonesian Language Dictionary, Jakarta: Language Center). Investment is one way to gain profits from capital gains, either directly or indirectly, both short and long term. If you want to invest, don't just think about profits, but how to measure the risk and return itself. It cannot be denied that investors who want to maximize their wealth will be attracted to investments that provide a higher level of expected return. The expected return is the return that investors will get in the future.

Cryptocurrency has recently become a topic that is often discussed by Indonesian people, so it has become a trending topic in recent years; from artists to ordinary people, many people want to own cryptocurrency. Apart from that, many people are busy investing in this cryptocurrency. Investment in this cryptocurrency increased drastically after the bitcoin exchange rate experienced a high spike. Bitcoin is one of the most popular cryptocurrencies in the world and is the main recommendation for investing in cryptocurrencies. In fact, the price of Bitcoin almost touched 1 billion rupiah per coin in November 2021. Even though when it was first launched in 2009, everyone didn't believe in this coin and considered its creator to be a dreamer. However, as time went by, bitcoin dominated the digital currency market, and its value skyrocketed instantly; even many certain transactions could use bitcoin for payment.

This cryptocurrency is a trending topic, but there are several things you need to know. According to Law Number 7 of 2011 regarding the crypto currency, bitcoin cannot be said to be a legal means of payment in Indonesia because, as is known, the legal currency in Indonesia that is used as a means of payment is the rupiah. Crypto is not used as a means of payment, so supervision and guidance on its development are needed. There are 3 reasons why crypto is allowed to enter as a commodity on futures exchanges, including that crypto is a product that does not require government intervention (such as providing subsidies). Futures products are volatile; crypto has a large supply and demand, so it is included in the commodity category in futures exchanges. There are many polemics about cryptocurrencies as digital assets, whether used as investment instruments or as a means of

exchange for payment. Online transaction payments no longer use a nominal amount of money but use virtual money (bitcoin) payment alternatives. As time goes by, in this digital era, crypto returns in Indonesia have increased, where investors have a high level of confidence in the concept of investment in the Crypto market, but the weakness is that this investment contains high-risk uncertainty. Learn from the country of Salvador, which almost experienced destruction after its government implemented Bitcoin crypto as a legal tender. However, people do not yet have adequate knowledge about cryptocurrencies, especially bitcoin. So, careful consideration is needed before implementing cryptocurrency as a legal means of payment. Because the value is very volatile, it can be very valuable and suddenly very worthless, so it is very dangerous to use cryptocurrency as a means of payment. Initially, cryptocurrencies were created to facilitate international transactions without involving the banking system. However, several obstacles arise, namely the potential for fraud under the guise of cryptocurrency, money laundering from criminal proceeds, corruption, etc., and many other loopholes that have the potential to harm cryptocurrency users. Because the monitoring system is still difficult, there are no clear rules regarding crypto regulation.

Investing is basically buying an asset that can be resold in the future at a higher value, whereas investing has the main aim of getting a decent life in the future. The aim of the investment is to expect greater income (return) on investments made for the results that will be obtained in the future and, of course, with a level of risk that always accompanies it. The reason for investing is triggered by the need for the future and the many uncertainties in life in the future. If we look at the controls for monitoring companies below, there are two (2) types of investment: a) Indirect investment. This is an investment that is short-term oriented and more speculative than direct investment because investors can easily change their investments. From purchasing one security to another, that is more profitable. Indirect investment milling. Capital participation/equity participation (equality participation) is the purchase of shares that do not provide control/management of the company; the Purchase of equity securities such as shares, participation, preferred shares, options (purchasing debt securities (bonds, loans, and letters debt), Licensing contractual agreements that do not involve control of company management b) Direct investment Long-term investment, in a business/new business/existing business followed by active management control from the investor.

The characteristics are: the special risk of foreign investment is relatively smaller because foreign assets are invested in one country, the investor participates in managing, supervising, or controlling the company, direct investment is a long-term investment, investment is carried out by carrying out business activities to establish a company. The risk is that there is a deviation between the actual return and the expected return. If a form of investment has a higher risk, then, of course, the investment will also have a high rate of return. These risks are grouped into a) Market risk (changes in the macro economy, interest rate risk, political risk, inflation, exchange rates by certain companies, b) Unsystematic risk: risk whose impact is related to the macro, c) Unic risk, d) Unsystematic risk: the risk that can be avoided or reduced by diversifying the portfolio of a number of Crypto Currency Investment assets.

Difference between Electronic and Cryptocurrencies			
No	In terms of Facet	Electronic Money	Crypto
1.	Organizer	In the form of banks or institutions other than banks, banks or institutions other than banks into several products and guaranteed by OJK	In the form of banks or institutions other than banks, banks or institutions other than banks into several products
2.	Production		
3.	System	Server based and RFID chip based. Recording of transactions centralized	Peer to peer server network or often also Blockchain
4.	Mark	The same as conventional money, and each of them countries can have their values manipulated	Values cannot be manipulated, but their values fluctuate.
5.	Security	Centralized on one server and the possibility of data theft is very high	Because the server network is in the form of Blockchain and data encryption is difficult, this is difficult data theft cases
6.	Reach	Limited only through machines provided by the service, the transaction value starts small, and the users are general	More broadly, it can be used in several countries with online shopping facilities between countries. The transaction

Crypto investment is almost like gambling if, when investing, you don't analyze and study the project of the crypto you want to buy. Crypto prices themselves are very volatile, and it is difficult to predict price increases or decreases. So, a special analysis is needed to study and analyze this currency. Before deciding to invest in cryptocurrencies, it is mandatory to learn what the crypto was created for, what projects will be carried out with this crypto, or even to see how big the market for crypto users is. There are several things that influence the increase in crypto prices, including:

1. Disproportionate availability and demand for cryptocurrencies. The increasing number of users/investors in demand for cryptocurrencies greatly affects the value of the cryptocurrencies themselves, while the stock of cryptocurrencies from developers of this currency is very limited.
2. Adoption in the real world. According to regulations in Indonesia, it is not yet possible to carry out transactions using cryptocurrencies. Meanwhile, several large countries have allowed cryptocurrencies to be used as legal means of payment in the real world. The introduction of digital currency into the real world has greatly influenced the increase in the value of cryptocurrency.
3. Costs for producing miners. One way to get cryptocurrency is by mining using a computer device that supports very high VGA specifications. By calculating how expensive the computer equipment is needed to mine and how much electrical energy is needed to supply the needs of this computer device. So, the higher the costs required to carry out the crypto mining process, the more expensive the unit price of this cryptocurrency will be.
4. Regulation Even though this cryptocurrency cannot be intervened in by the government or a decentralized system when cryptocurrency enters a country, the government has the right to intervene with this cryptocurrency by compiling a regulation that regulates the use of crypto money as a means of payment or investment. The government even has the right to determine taxes on this cryptocurrency.
5. News related to cryptocurrencies. The more positive news in the media regarding certain cryptocurrencies, the greater the influence on the increase in the value of the cryptocurrencies themselves. Even the presence or social media status of an important world figure who claims to recognize or invest in one of these cryptocurrencies can greatly influence the increase in the price of this crypto.

2.2 Investment Strategy

According to Deni Sunaryo, an investment strategy is a collection of investment methods owned by investors that are useful for minimizing risks and increasing profits. (Deni Sunaryo, 2021) In investing, there are 2 (two) types of investment decision making strategies that are quite popular, namely: fundamental analysis and technical analysis. Fundamental analysis is a method for calculating the intrinsic value of investment instruments such as shares using company financial data. (Jogiyanto, 2010) Meanwhile, technical analysis is a technique/method for estimating the direction of price movements of investment instruments such as shares and other market indicators based on historical data such as market capitalization, volume, and price information. (Tandelilin, 2010)

Meanwhile, according to Wibowo et al., there are 2 (two) strategies that investors can use in determining their investment portfolio, namely active and passive strategies. An active strategy is an investor's active actions in selecting, buying, and selling shares, searching for information, following time and share price movements, and taking other active actions to produce optimal returns. Meanwhile, passive strategies are the actions of investors who tend to be passive, usually only based on stock movements in the market index. (Wibowo et al., 2019).

3. Methodology

The approach used in this research is qualitative, using the library research method. According to Nazir, library research is a data collection technique that involves conducting research studies on books, literature, notes, and reports related to the problem being solved. (Nazir, 2014) The data sources sampled in this research are data originating from articles, books, and newspapers from electronic media such as coinmarketcap, cointimemachine, coinmetrics, etc., with search keywords: how to invest in crypto, crypto investing techniques, and crypto investing strategies.

The data obtained during the research was analyzed using the Miles and Huberman qualitative descriptive method, namely data reduction, data display, and conclusion drawing/verification. (Hasanudin & Kurniasih, 2016) Here, the author reduces the data that has been obtained during the research by selecting data that is relevant to the research study. Next, the author compiles the data that has been grouped previously, and then in the next final step, the author verifies or draws conclusions.

To achieve effectiveness and efficiency in conducting data analysis in this research, researchers used the word frequency, group analysis, and text research analysis features from the NVivo 10 Plus software. NVivo 10 Plus itself is qualitative data analysis software developed by Qualitative Solution and Research (QSR) International. (Sidik & Mulya, 2012).

4. Results and Discussion

Technology has developed so quickly, resulting in the inevitable downstreaming of the digital economy. The presence of technology such as the 5G network, the Internet of Things (IoT), cloud computing, big data processing, and artificial intelligence (AI) has changed almost all lines of society's economic activities, including the way society makes investments. Thanks to technology, it has become easier for people to invest, and investment instrument options are also increasingly diverse and sophisticated. For example, blockchain technology has given birth to a new investment instrument in the form of Cryptocurrency, which is quite popular among people today, especially among millennials and Gen Z people. Currently, Indonesia has been in the

process of a demographic bonus since 2015, and the peak is expected to occur in 2030. (Maryati, 2015) with a population category of 25.87% from millennials and 27.94% from Gen Z. (BPS No. 7/01/Th. XXIV, 2021). This means that the majority of the Indonesian population today is made up of people who tend to be interested in Cryptocurrency investment instruments.

Figure 2 Global Crypto Adoption



Source: Triple A (2021)

Figure 2 explains crypto users worldwide in 2021, with a total of 300 million users. The most adopted is in Asia, followed by Europe, Africa, North America, South America, and Oceania. One of the studies conducted by Fosso Wamba et al.,⁸ claims that Cryptocurrency, blockchain, and fintech technology will continue to develop, and many business organizations are embracing Cryptocurrency for competitive advantage.

Cryptocurrencies can add value to investment portfolios and optimization approaches, even increasing portfolio profits and reducing volatility risk. This finding is also consistent with Klabbler (2022), who shows that Cryptocurrency or bitcoin is a very effective portfolio diversifier. Therefore, many millennials are interested and decide to invest in the crypto asset industry. According to CNBC Millionaire Survey data, 83% of millennial millionaires place most of their wealth in Cryptocurrency, and at least 50% of their wealth is in crypto asset instruments such as Bitcoin, Ethereum, and other types of cryptocurrency. ¹¹ The millennial generation in question refers to those born between 1981-1996 and aged 26-41 years in 2022.

Quoted from Chain Analysis data, it states that the number of Cryptocurrency investors in Indonesia is ranked 5th in the Southeast Asian region after Vietnam, Thailand, the Philippines, and Malaysia. And ranks 25th in the world in 2021. (Chainalysis, 2021)

According to the Minister of Trade Muhammad Lutfi, he stated that the growth of Cryptocurrency asset transactions in Indonesia had increased 5 times, namely IDR 370 trillion in May 2021 when compared to the growth of Cryptocurrency transactions at the end of 2020, which only reached IDR 65 trillion. The increase in the number of transactions was also accompanied by an increase in the number of Indonesian Cryptocurrency asset investors from around 4 million to 6.5 million people in May 2021. (Bappebti Bulletin Edition 228, 2021).

The growth of Cryptocurrency asset investors exceeded the speed of growth of stock investors in May 2021. (Safitri, 2021). The massive growth in Cryptocurrency asset investment occurred allegedly because of government policies that provide protection to the public. One of them is the issuance of CoFTRA Regulation Number 7 of 2020 concerning Determining the List of Crypto Assets that can be Traded on the Physical Crypto Asset Market. (Bappebti Bulletin Edition 224, 2021) The exponential growth of the increase in the number of Cryptocurrency transactions and investors in Indonesia must be accompanied by the provision of education and literacy about Cryptocurrency assets, both by the government, companies, and communities that are directly involved with traders and investment in Cryptocurrency assets in Indonesia. Apart from being relatively new, this type of investment instrument is classified as high risk high return according to (Huda & Hambali, 2020), which states that the risk and return from cryptocurrency investment have a linear relationship. This means that the level of profit that will be obtained will be directly proportional to the risk.

Head of CoFTRA Indrasari Wisnu Wardhana also appealed to the public to understand the mechanisms and risks that could occur before deciding to invest in cryptocurrency assets. (Bappebti Bulletin Edition 234, 2022) "The public must also confirm the types of crypto assets that have been legally determined by Bappebti. "Also, make sure that prospective physical crypto asset traders have a registration certificate from Bappebti," added the Head of Bappebti.

CoFTRA will continue to provide education and literacy so that people will be smarter when investing. When investing in Cryptocurrency assets, the main capital required by investors is insight and knowledge. Without insight, adequate knowledge, and a mature strategy, losses can result. Therefore, investors are advised to learn a lot. Nanda Ivens, the CMO of Tokocrypto, stated that both regulators, traders, and the crypto asset community agree that education about crypto assets needs to be carried out on a massive scale. "Education is important so that many parties can benefit," he added. (Bappebti Bulletin Edition 228, 2021)

3.1 Strategi Investasi Aset Cryptocurrency

When investing in cryptocurrency assets, an investment strategy is needed, namely:

1. Determine the type and investment objectives.
Before deciding to invest in cryptocurrency assets, investors must determine the desired investment goal plan because, basically, each individual's financial goals are different. Based on type, investments are divided into short term (scalper), daily (day trader), medium (swing trader), and long (position trader).
2. Study cryptocurrency assets of interest.
In order to get an optimal level of investment return, it is highly recommended that you study the cryptocurrency you are interested in from A-Z, at least carrying out fundamental and technical analysis before actually deciding to invest. The easiest way to carry out fundamental analysis is to visit the official website, read it, and study the whitepaper or litepaper to get more detailed information and a project development roadmap.
3. Choose the right cryptocurrency asset.
The majority of investors entrust their funds to be placed/invested in cryptocurrency assets that have good liquidity, such as Bitcoin (BTC), Ethereum (ETH), Binance (BNB), and other top 100 Alternative Coins (Altcoins). Not only that, investors also need to pay attention to what types of cryptocurrencies are registered, legal, and valid for trading on the physical Indonesian crypto asset market exchange, with the aim of minimizing the level of risk of loss.
4. Choose a safe exchange and wallet.
Another important aspect of investing in cryptocurrency assets is choosing a safe exchange and wallet. Cryptocurrency investors, when carrying out buying and selling transactions, will always use exchange platforms and wallets as a place to store and transfer cryptocurrency assets. Choosing an exchange is important to avoid all forms of scams. Here are some factors that investors should consider when choosing an exchange: availability of cryptocurrency assets, security, legality, liquidity, reputation, authenticity of the company, and customer service.
5. Pay attention to service fees and spreads.
To maximize returns in trading transactions and investments in cryptocurrency assets. Investors must pay attention to the service fee scheme charged to traders/investors. Apart from that, investors also need to pay attention to the spread or difference between buying and selling prices when making transactions.]
6. Don't be afraid of missing out (FOMO).
When investing in cryptocurrency assets, an investor must avoid the fear of missing out (FOMO), which is the fear of missing out on a trend or just joining in. Investors must first study the instrument, see what its long-term prospects are, and understand all the risks that may occur.
7. Buy when the price is low (support) and sell when the price is high (resistance).
Market timing is an important factor that cryptocurrency asset traders and investors must know. In order to estimate market conditions/market timing, a trader/investor in cryptocurrency assets must first research the ins and outs of the investment asset instrument and study the price movement patterns and market sentiment that has occurred and is currently occurring.
8. Diversify and mitigate risks.
Every investment product has unpredictable risks. The greater the return you will get, the greater the level of risk. By diversifying, it will be very useful so that the assets owned remain safe and do not run out when one sector experiences a decline/loss. This means that investors should not put all their assets in one type of cryptocurrency asset product; they should choose several types of the best cryptocurrency assets to mitigate or reduce the impact of risks that may occur in the future.
9. Buy when the price is low (support) and sell when the price is high (resistance)
Market timing is one factor important thing that traders should know, and cryptocurrency asset investors should do. In order to estimate market conditions/market timing, cryptocurrency asset traders/investors must first do research on the ins and outs of the investment asset instrument, studying its price movement patterns and sentiment markets that have occurred and are currently occurring.
10. Diversify and mitigate risks.
Every investment product has risks that cannot be predicted; the greater the return will be obtained, the greater the level of risk. Diversifying will be very useful so that the assets owned remain safe and do not run out when one sector experiences

decline/loss. This means investors don't put all their assets in one type of asset product; cryptocurrency chooses several types of assets, which is the best cryptocurrency to mitigate or reduce the impact of possible risks in the future.

11. Invest in multiple platforms.
One strategy that can be carried out by cryptocurrency asset investors to avoid losses due to hacking/cyber attacks that might happen is by placing assets cryptocurrencies on various safe and secure platforms.
Not easily panicked and orientated, hold on for dear life (HODL). Characteristics of cryptocurrency assets generally tend to have high volatility extreme for the short term. Here, investors must have good psychology and emotions, not be so hasty in making decisions, and fall into panic buying or selling, which can cause losses. Investors must remain calm with short-term fluctuations and capable of looking for long term terms known to hold on for dear life (HODL).
12. Always follow the information development of cryptocurrencies
One strategy to maximize returns and minimize rates of the risk that may occur is that investors must always follow the development information cryptocurrency industry. Thus, investors can quickly make the right decision.
13. Follow and join the community of cryptocurrencies.
To make things easier for investors, getting up-to-date information, getting an education, and exchanging information is very important, especially for novice investors joining the cryptocurrency community.
14. Routinely perform dollar-cost averaging (DCA)
The Dollar Cost Averaging (DCA) Strategy is a method where investors make an investment in a certain amount of capital/money the same every day, week, or month. This strategy can help novice investors become disciplined to have more assets in the long-term.

3.2 Development of Crypto Currency in Indonesia

Current technological developments encourage new discoveries in the field of informatics. One of the discoveries in the world of financial technology is cryptocurrency. Apart from functioning as a means of payment, although not globally and only useful in a certain community, cryptocurrency itself functions as an investment asset that can be traded. Even though it is a very risky type of investment because the price is very fluctuating, it also seems to be intangible because it only takes the form of numbers on a certain blockchain, which can only be accessed and bought and sold by users who have a certain username, password, and code. So, it is very vulnerable if we are careless about these codes even if the person who owns these crypto assets dies; if the heirs do not have access to the deceased person's account, then it is almost certain that the assets will be considered lost because the protection of cryptocurrencies is very high, so not just anyone can access them.

Cryptocurrency itself first appeared around 1983; someone from cryptography from the United States, David Chaum, used cryptographic electronic money or what is called e-cash. It developed for several years with several inventors, but what started the development of cryptocurrencies was in 2009, the emergence of the first decentralized cryptocurrency called bitcoin. Bitcoin itself was developed by someone who called himself Satoshi Nakamoto, whose figure is still mysterious to this day because he never appears in the real world. At the beginning of Bitcoin's emergence, many people did not believe that this cryptocurrency would become the currency of the future; in fact, its value was very worthless. However, along with the digitalization of information technology, everything now no longer only uses a cash system. So, slowly, people's trust in digital currency has increased. The effect was that initially, the value of bitcoin, which was initially worthless, gradually increased significantly. Bitcoin even set a record with its value per coin, almost touching 1 billion rupiah at the end of last year. With the increasing number of users of this cryptocurrency, the effect is that new cryptocurrencies are mushrooming with all the projects on offer.

Apart from the very fluctuating price, the risk consequences that may occur to cryptocurrency users, namely the risk of hacking or piracy. Whether it is a direct attack on the cryptocurrency system itself or a hijacking of a cryptocurrency user's account, it has the potential to lose all the crypto assets in it as there was a hack in the Ethereum cryptocurrency system. To anticipate several hacking cases that have the potential to occur in the future and that will result in a decline in public trust in cryptocurrencies. There needs to be special protection on the cryptocurrency system itself and on cryptocurrency user accounts, as well as a fast recovery scheme in the event of a hack. So it doesn't have a detrimental impact on cryptocurrency investors. There are several ways to get crypto coins, namely by making purchases through several applications that provide or carry out mining or mining crypto coins by utilizing very high computerized technology supported by a reliable electrical energy supply.

The development of cryptocurrencies in Indonesia is very fast; several cryptocurrencies have even been issued by Indonesians. Among them are crypto issued by artist Anang Hermansyah with ASIX cryptocurrency, I-Coin issued by Wirda Mansyur, who is the son of the famous ustadz Yusuf Mansyur, Crypto RansVerse belonging to top artist Raffi Ahmad, Toko Token, IDM token and much more Cryptocurrency issued by Indonesian children. By collaborating with well-known people in Indonesia, the sense of trust among Indonesian people will increase, and they will no longer hesitate to invest in cryptocurrencies, especially cryptocurrencies originating from Indonesia, regardless of what projects are offered by this cryptocurrency. This is very positive for the development

of cryptocurrency in Indonesia. However, it is a challenge for the government to disseminate information about the positive and negative impacts of cryptocurrencies and the consequences of investing in cryptocurrencies.

In Indonesia itself, there are several applications that offer the purchase of several cryptocurrencies that are often advertised on the internet, such as Indodax, Tokocrypto, Pintu, Pluang, and many other applications that offer convenience in investing in both shares and cryptocurrencies. So, there is no need to access a wallet application or go directly to a foreign blockchain. It is hoped that investment in the crypto world in Indonesia will develop in a positive direction and that cryptocurrencies issued by Indonesians can compete with cryptocurrencies from other countries. It would be wiser if the development of the digital world, especially cryptocurrencies, is balanced with educating the public about the risks that can arise when investing in cryptocurrencies. So don't use hot money (money to meet basic needs or borrowed money). Because crypto prices fluctuate, if there is a decline in the price of crypto, the value of our money is not actually lost; only the nominal value is reduced. However, as long as we do not sell the crypto investment, if there is a rise in crypto prices again, the nominal amount of our money will return to its initial value and could even be worth many times more if it is followed by a fantastic increase in crypto prices. So, an investor needs a strong mentality if there is a drastic decline in the value of the cryptocurrency. Apart from that, there are also cryptocurrencies that were created just to commit fraud under the guise of crypto investment. After many investors purchased the crypto, the creators and developers of the crypto coins disappeared with the money they had earned. By looking at the risks of investing in the world of cryptocurrencies, the principle of caution is needed in choosing and sorting the cryptocurrencies that will be invested. It is better to choose investments in cryptocurrencies that have been around for a long time, even though the rate of increase is slow, rather than choosing investments in new cryptocurrencies with the promise of increasing many times over, but there is a risk that the crypto has not been tested and is prone to fraud.

Cryptocurrency in Indonesia is not something strange in the current era of globalization of information; the ease of getting information and adopting new technology are currently challenges for developing countries, especially Indonesia. So with the rapid development of cryptocurrency technology, we can see business and investment opportunities, and we must not only be spectators but also play an active role in advancing this technology. There are several factors that need to be considered before we start a cryptocurrency business; namely, we have to learn what cryptocurrency is and how it works, the impact and risks that arise if we invest in the crypto world, and how we can create our own cryptocurrency from Indonesia with quality projects.

Cryptocurrency is an internet-based exchange medium that uses cryptographic functions to carry out financial transactions. Cryptocurrencies utilize blockchain technology to achieve decentralized transparency and immutability. In Indonesia, Bank Indonesia is the only monetary authority for payments using money, so Bank Indonesia can determine what types of payment instruments are valid in Indonesia. In Article 1q, Bank Indonesia is the only institution authorized to issue/circulate/ revoke and withdraw the rupiah. Cryptocurrency can be used, but because the value of Cryptocurrency is relatively unstable compared to currencies that are already circulating in Indonesia, it may be difficult for Cryptocurrency to develop in Indonesia because it is not effective in everyday use. By looking at the facts above, it is actually very difficult for cryptocurrencies to be implemented as a legal means of payment globally. Unless there is a guarantee of the stability of the value of this cryptocurrency, it would be wiser if cryptocurrencies were used as investment assets with all the risks involved.

By looking at the development of cryptocurrencies in Indonesia, the government through the Commodity Futures Trading Supervisory Agency (Bappebti) issued regulation Number 5 of 2019 concerning Technical Provisions for the Implementation of the Physical Market for Crypto Assets (Crypto Assets), which subsequently resulted in the first amendment being Bappebti number 9 of 2019 and Amendments The second regulation is Bappebti Regulation number 2 of 2020, which regulates the provisions regarding crypto asset trading, the requirements for futures exchange institutions to be able to obtain permits to trade crypto assets from Bappebti, the crypto asset trading mechanism and the conditions that must be met fulfilled by crypto assets before trading, etc., which are detailed in this regulation. Bappebti, as an extension of the government, has the task of acting as a supervisor and has a very tough task, namely supervising the running of crypto asset trading in Indonesia and carrying out regular audits and filtering suspicious transactions in collaboration with the Financial Transaction and Analysis Reporting Center (PPATK).

figure 3 Investor Cryptocurrency di Indonesia



Source: Investor. id (2021)

Figure 3 above explains the number of crypto investors in Indonesia, which is dominated by the Millennial Generation and Generation Z, with a percentage of 66% of the total 11.2 million investors at the end of 2021. Millennials are interested in investing in crypto because they see the potential gains promised in this industry. There are many successful success story phenomena from the millennial generation in Indonesia who have made profits in the crypto asset industry, such as Arnold Poernomo, commonly known as Chef Arnold, who is a new investor in crypto since July 2020, from coins that Arnold has unrealized gains which have grown 40 times since 2020.15 Likewise with Andy, the founder of the cryptocoin community who started to enter the crypto industry in December 2017, going through a financial career when the market fell in 2018. In December 2020, things started to turn around, and Andy became a billionaire thanks to cryptocurrency investment.

At the end of 2021, the Commodity Futures Trading Supervisory Agency (Bappebti) stated that there were already 11.2 million crypto investors in the country. The enthusiasm for cryptocurrency has also resulted in the phenomenon of many popular artists getting involved in investing in crypto and its derivative assets. Like Wirda Mansur, Ustad Yusuf Mansur's eldest daughter created a new crypto token called I-COIN with the code ICN. I-COIN creates an ecosystem through three products: Metaverse ILAND, Gameplay IBW (play-to-earn), and an NFT marketplace called I-MARKET. Apart from that, Anang Hermansyah and Ashanty also launched a crypto asset in the form of a token called ASIX. This crypto asset was developed on the Binance blockchain with a total stock of 10 trillion ASIX tokens. This token was created with the aim of encouraging investors to invest in their project, whose ecosystem includes Play-to-Earn Games, NFT Market, and a Metaverse called Nusantara Land.

The development of Indonesian people's interest in investing in crypto assets continues to increase. However, whether or not the use and transactions of crypto assets are permissible according to Islamic law, there are still pros and cons (khilafiyah)¹⁹ among economic experts and ulama. Crypto asset transactions are agreed to be assets and are, therefore, legal to be exchanged and transacted on the condition that they are commodities. The Nahdlatul Ulama (PWNU) Jogja Regional Management also believes that cryptocurrency is permissible in Islamic law because it meets the requirements both as a medium of exchange and as a commodity. Meanwhile, the Indonesian Ulema Council (MUI) has officially declared that the use of cryptocurrency as a digital commodity/asset is not legal for buying and selling. In line with the MUI, the East Java Regional Management of Nahdlatul Ulama (PWNU) also prohibits cryptocurrency transactions.

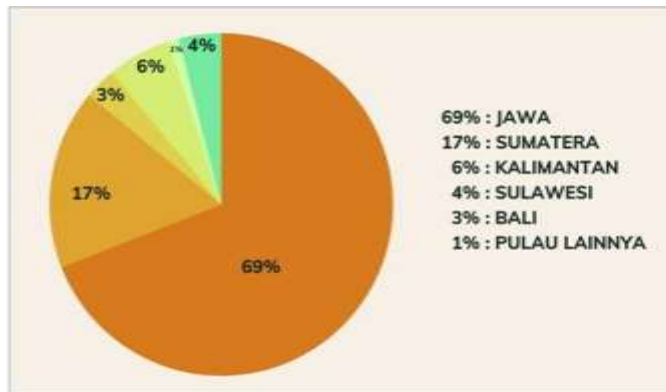
Investor behavior can also be influenced by psychological factors. Psychological approaches relate to feelings, temperament, and motivation, all of which can change over time. The increasing importance of behavior as a determinant of buying and selling when investing has inspired the concept of behavioral finance. Behavioral finance or behavioral finance theory can clearly be interpreted as the application of psychology in the financial discipline, aiming to explain and increase understanding of investor motivation patterns, including emotional factors, characteristics, and the extent of their influence on decision-making.

Understanding investors' emotions and characteristics can be deepened by first getting to know the investors' personalities. Pompian²⁷ explains the five personality groups of investors that have been described by Bailard, Biehl, and Kaiser (1986). Basically, there are five types of investor personality groups, namely the adventurers group, celebrities group, individualists group, guardians group, and straight arrow group.

If you look at the Millennial generation and Generation Z, which also dominate the population in this province, the proportion of Generation Z is 24.80%, and the Millennial generation is 24.32% of the total population of East Java, which is 40,994 million people

in 2021. In addition, The island of Java is the largest contributor to crypto investors in Indonesia, accounting for 69% of the total 12.8 million investors. This can be seen in the image below:

Figure 4 Demografi Investor Crypto Asset di Indonesia



Source: diolah tahun, (2022)

Figure 1.4 explains the number of crypto asset investors in Indonesia based on regional demographics. The data above shows that the island of Java has the highest number of crypto investors in Indonesia at 69% of the total 12.8 million investors, and in second place is followed by the island of Sumatra, then Kalimantan, Sulawesi, Bali, and other islands.

5. Conclusion

Cryptocurrency is very ineffective if applied as a legal means of payment globally for everyday life because its value tends to fluctuate very much. Unless there is a guarantee of the stability of this crypto value, so, it is more appropriate to place it as an investment asset with all the risks involved. There are several factors that cause changes in cryptocurrency prices: availability and demand, adoption in the real world, mining costs, regulations, and the amount of news that promotes cryptocurrencies. So, careful analysis and decisions are needed before investing in crypto. Because the value is very volatile, it is recommended not to use hot money (money for daily needs or borrowed money). The development of cryptocurrencies in Indonesia is very fast; several cryptocurrencies have even been issued by Indonesians. Apart from that, several applications have emerged that make it easier to carry out investment transactions in crypto, both in the deposit and withdrawal processes. So, it is hoped that investment in the crypto world in Indonesia will develop in a positive direction and that cryptocurrencies issued by Indonesians can compete with cryptocurrencies from other countries.

Several strategies for investing in cryptocurrency assets, namely determining the type and purpose of investment, studying the cryptocurrency assets you are interested in, choosing trusted cryptocurrency assets, choosing a safe exchange and wallet, paying attention to service fees and spreads, don't have fears of missing out (FOMO), buy at when prices are low (support) and sell when prices are high (resistance), diversify and mitigate risks, invest on various platforms, don't panic easily and are oriented towards holding on for dear life (HODL), always follow information on cryptocurrency developments, follow and join in the cryptocurrency community, and regularly performs dollar-cost averaging (DCA).

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