CRYPTOCURRENCY: THE FUTURE OF GREEN INVESTMENT FOR GENERATION Z IN ISLAMIC PERSPECTIVE

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Abstract

Cryptocurrencies, as digital currencies, present challenges regarding legality and exchange rate fluctuations. Therefore, conducting thorough research is necessary to address the issues associated with cryptocurrencies. This research aims to assess Generation Z's preferences for cryptocurrencies as a form of environmentally friendly investment in the future and examine the Islamic perspective on cryptocurrencies. The sample consisted of Generation Z individuals interested in cryptocurrency investments. The population in this study was 100 people, using a sampling technique, namely purposive sampling, so that the sample used as the object of observation was 10 people. This research uses a qualitative approach, namely directly observing research subjects in their natural atmosphere. The research results show that generation z is very interested in investing in cryptocurrency, because the profits obtained are very significant and in Islamic studies investing in cryptocurrency is still permitted because the reason for investing in cryptocurrency is because there are no currency buying and selling transactions. The legal status of cryptocurrencies is still a matter of heated debate due to the lack of clear regulations regarding digital currencies.

Keywords: Cryptocurrency, Green Investment, Generation Z, Islamic Perspective

1. INTRODUCTION

Cryptocurrency is a virtual currency that serves as an alternative to traditional currencies. It is created and exchanged using a cryptographic process. Most cryptocurrencies operate on decentralized computer networks, utilizing peer-to-peer technology and open-source cryptography. They do not depend on central authorities, such as central banks or administrative institutions. Bitcoin, a form of cryptocurrency, was first introduced in 2009, marking the initial recorded instance of its utilization (ElBahrawy et al., 2017).

The currency was created by an individual or collective entity under the pseudonym Satoshi Nakamoto, as documented in the publication titled "Bitcoin: A Peer-to-Peer Electronic Cash System." Bitcoin's price started below one dollar and remained at this level until February 2011. Subsequently, it experienced a significant surge, reaching its peak value of $1151 per coin on December 4, 2013. Bitcoin's emergence has led to other cryptocurrencies, including Ethereum, Ripple, and Litecoin, each with distinct mechanisms and prices (Dyhrberg, 2016). Currently, there is a vast array of cryptocurrencies, numbering in the hundreds, which have the potential to appreciate in value at any given moment. A corresponding increase in the market capitalization of cryptocurrencies parallels the rise in currency variety. The market capitalization of cryptocurrencies rose from approximately 1.6 billion dollars in April 2013 to around 17 billion dollars in January 2017.

The coinmarketcap website is one of the references in studying cryptocurrencies (Lansky, 2016). As of February 2020, the website documented the presence of over 2,000 distinct varieties of cryptocurrencies on a global scale. The conversion rates of the cryptocurrencies mentioned above exhibit significant variability, spanning a wide range from USD 2.58x10 (0.000000258) per unit of currency to USD 14,258.98 per unit of currency.

Similar to traditional currency, digital currencies also experience fluctuations in their value over time. The real-time issue of the monetary supply is readily available on numerous online platforms. The website known as coinmarketcap provides a comprehensive display of cryptocurrency price data, encompassing volume and total value, daily starting from April 28, 2013. The emergence of virtual currencies is intrinsically linked to the development of virtual payment mechanisms that have surfaced in previous decades (Artzner et al., 1999). According to Nian and Chuen (2015), the origins of virtual currency can be traced back to the year 1990, when the e-Cash system was introduced by the DigiCash company.

The present system operates by facilitating the transfer of payments by utilizing a designated cryptographic protocol, which can be executed online or offline. In the early 2000s, the e-Cash currency experienced a notable decline in popularity, eventually being surpassed by alternative forms of electronic money backed by gold, such as e-Dinar, Pecunix, and various others. Internet network security concerns negatively influenced the public's perception of electronic money during the specified period (Borri, 2019).

The recent rise of cryptocurrency on a global scale can be attributed to its emergence following the 2008 economic crisis (Chu et al., 2017). During that time frame, the emergence of Bitcoin was attributed to an individual or group operating under the pseudonym Satoshi Nakamoto. Bitcoin, a decentralized digital currency, operates on open-source software, enabling its accessibility to individuals across the globe (Chuen & Teo, 2021). The blockchain system facilitates the dissemination of Bitcoin (Chuen & Teo, 2021). Furthermore, it is noteworthy to mention that the existence of Bitcoin is not contingent upon the presence of any specific institution or company. The growing interest and trust in Bitcoin and other cryptocurrencies have become a subject of considerable attention (Rauchs & Hileman, 2017). Several studies have examined the potential of Bitcoin as a virtual currency with promising prospects (Plassaras, 2013; Folkinshteyn et al., 2015; Carrick, 2016).

Cryptocurrencies circulate solely based on market forces due to their decentralized nature, lacking any central authority to regulate them (Gronwald, 2014). The world economy can be greatly affected by the rapid circulation and emergence of cryptocurrencies (Carrick, 2016). If their highly volatile prices and circulation are not controlled, there is a concern that the stability of the global economy could be impacted. Countries around the world have responded differently to this situation (Danial, 2019). Certain countries, like China, express concerns and enforce strict bans on the circulation of cryptocurrencies. They justify these measures to prevent money laundering and proactively address potential criminal activities.

On the other hand, there are countries that endorse the use of cryptocurrencies. There are various ways in which support can be demonstrated, including verbal and non-verbal expressions of support, as well as through tangible actions (Feng et al., 2018). Kazakhstan is an example of a country that supports the use of cryptocurrency by issuing its digital currency (Franedya, 2018). The state is not the only entity experiencing concerns about the use of cryptocurrency; intergovernmental organizations like the International Monetary Fund (IMF) also need to consider and address this phenomenon.

The International Monetary Fund (IMF) is an intergovernmental organization under the United Nations. Its main objectives are to encourage global monetary cooperation, uphold financial stability, support international trade, foster employment and economic growth, and alleviate poverty worldwide. The International Monetary Fund (IMF) 's primary objective is to guarantee the global monetary system's stability utilizing three approaches: monitoring global economic trends and its member nations, extending loans to countries facing payment difficulties, and offering guidance and concrete support to member countries. Member countries of the International Monetary Fund (IMF) are not essentially compelled to adhere to and abide by the policies they create. However, the IMF has established a code of conduct that

its member countries must adhere to (Reilly & Brown, 2012).

All member countries must adhere to the code of conduct, which mandates the unrestricted exchange of their currencies for foreign currencies. They must also share information with the International Monetary Fund (IMF) about any financial and monetary policy changes that could impact other member countries' economies. Additionally, member countries are encouraged to allow the International Monetary Fund (IMF) to adjust their policies based on the IMF's advice to meet the needs of all member countries. Figure 1.1 illustrates the phenomenon of the fluctuation in cryptocurrency (Bitcoin) prices:

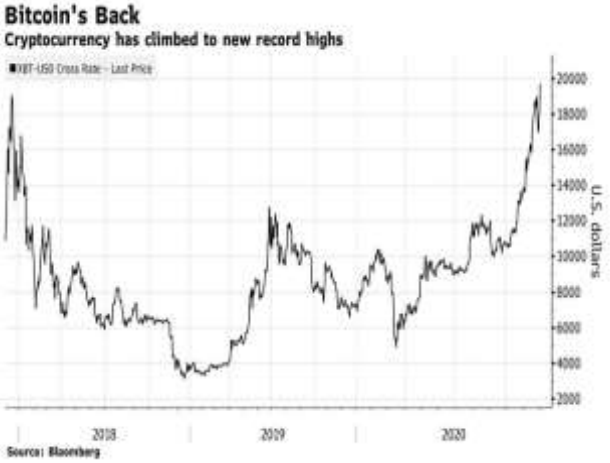

Figure 1. Cryptocurrency Exchange (Bitcoin)

The cryptocurrency's price chart (Bitcoin) from 2018 to 2020, depicted in Figure 1, exhibits notable fluctuations in its value. This dynamic trend in the cryptocurrency (Bitcoin) price demonstrates a promising indication, which has influenced Generation Z to consider cryptocurrency (Bitcoin) as a potential investment in the future. In 2019, multiple mass media outlets documented criminal activities related to investments in cryptocurrency (Marjaya, 2019: Pahlevi, 2019). To mitigate criminal activities, particularly investment fraud, it is imperative to enhance public awareness concerning the benefits and risks associated with cryptocurrency investments (Gideon, 2019). As of present, an absence of academic research in Indonesia exists pertaining to the research of the prospective benefits and risks associated with investments in cryptocurrency. Several studies conducted in Indonesia have examined the legal aspects surrounding cryptocurrency investment. Notable contributions in this area include the works of (Ausop, A. 2018), (Yohandi et al., 2017), Nurhisam, (2020), and Rinaldi & Huda, (2016). There are also several studies related to bitcoin price prediction with various methods, namely the ARIMA method (Salwa et al., 2018), the double exponential smoothing method (Darnila & Fikry, 2019), artificial neural networks (Aldi et al., 2018; Sovia, R., et al., 2019), and machine learning algorithms (Faizal et al., 2019).

A comparative analysis of investment returns involving bitcoin, stocks, and gold in the Indonesian context was conducted by Mahessara dan Kartawi-nata (2018). The current study has not considered the diverse range of cryptocurrencies currently circulating within the global market (Mahessara & Kartawinata, 2018). In contrast, substantial research conducted outside of Indonesia has focused on the performance of cryptocurrency investments. For instance, Baek & Elbeck (2015) state that the bitcoin market exhibits significant speculation as a cryptocurrency. ElBahrawi et al. (2017) analyze the price fluctuations of a diverse set of 1,497 cryptocurrencies traded between 2013-2017, specifically in the USD. Lansky (2016) examines the trajectory of 1,278 cryptocurrencies across various global markets and finds that not all cryptocurrencies possess the inherent capacity to sustain their presence in the market over an extended period.

Shahzad et al., (2019) assert that gold, bitcoin, and stocks exhibit characteristics of weak-safe investment options within their respective contexts.

The description indicates that investigations related to cryptocurrency investment have not been conducted in Indonesia. Hence, this current study was conducted to enhance knowledge and comparate the performance of diverse cryptocurrencies in global circulation. This study also investigates the comparative analysis of cryptocurrency investment concerning investments in Indonesia's capital and foreign exchange markets. The present study will hopefully act as the foundation for forthcoming research regarding investment risk management in cryptocurrency.

According to behavioral finance theory, a person's psychology underpins his activities, where rational actions are not necessarily the motivation for his acts but also natural actions and irrationality (Fridana & Asandimitra, 2020). Behavioral finance theory investigates how psychological symptoms influence the basic investment decision-making mechanism and the outcomes (Widanti & Alfansi, 2013). There are two explanations for an investor's irrational behavior: information obtained by investors is not always handled properly, so the opportunity for future returns is not optimal; otherwise, investors trade under unfavorable conditions, resulting in inconsistent production decisions (Nicolle et al., 2019).

Cryptocurrency creates virtual "coins" and ensures secure ownership and transactions through cryptographic issues. These challenges are intended to be easily verifiable but computationally challenging to solve. Various cryptocurrencies employ various mechanisms for this purpose, the most popular being a hash target, in which the hash is estimated to be less than a specified value. The hash target (problem difficulty) is modified each time, dependent on the overall processing power on the network, which has the advantage of maintaining a more or less consistent time between solutions (Brown, 2016).

Computationally intensive proof-of-work is a mechanism for validating transactions as unique and trustworthy. Transactors can include a transaction fee for the first user who successfully validates it to incentivize participation (Kusuma, 2020). In addition, the network rewards verifiers with a certain number of coins after successfully verifying a block of transactions. This is known as mining. Mining is the process through which the network's supply of currencies is increased, and the adjustable difficulty ensures that computational progress does not affect the expansion rate (Harwick, 2016).

In general, cryptocurrency systems claim to provide anonymous and decentralized transaction processing. This anonymity can be an extra safeguard to protect user confidentiality and privacy. Acceptance and demand for cryptocurrencies have surged a hundredfold in recent years. Similarly, the cryptocurrency sector has expanded since its inception, and many parties are now involved in the increasing trading and acceptance of cryptocurrencies. Cryptocurrencies can be purchased against fiat currencies on hundreds of exchanges worldwide (Hameed et al., 2016).

Investment is the purchase of capital goods and production equipment by individuals or businesses to expand the ability to produce goods and services accessible in the economy (Sukirno, 1997 dalam Putra, 2012). Meanwhile, investment, according to Dumairy (1998), is a net positive contribution to capital. Someone who purchases capital goods but intends to replace capital goods that wear out during the manufacturing process is not investing but is referred to as the acquisition of capital goods to replace (replacement). The acquisition of capital goods is a future investment.

Voica (2015) believes that environmentally sound investment can be linked to ESG (Economic, Social, and Governance), SRI (Socially Responsible Investing), and other investments with similar characteristics to green investment. According to Voica's publication, investors typically employ two or more of these themes in the context of green investment.

Eyraud (2011) in Inderst (2012) explains that:

"Refers to green investment as "the investment necessary to reduce greenhouse gas and air pollutant emissions, without significantly reducing the production and consumption of non-energy goods." It covers both public and private investment. There are three main components of green investment: Low-emission energy supply (including renewable energy, biofuels, and nuclear); energy efficiency (in energy supply and energy-consuming sectors); and carbon capture and sequestration (including deforestation and agriculture)."

According to the provided explanation, the term green investment pertains to investments that aim to mitigate greenhouse gas emissions and air pollution while minimizing the impact on the production and consumption of non-energy items. These investments encompass both the public and private sectors. Eyraud outlines three key elements of green investment: the reduction of energy emissions through the utilization of low-emission sources such as renewable energy, biofuels, and nuclear power; the enhancement of energy efficiency within the energy sector and other sectors; and the implementation of carbon capture and sequestration techniques, encompassing measures to combat deforestation and promote sustainable agricultural practices.

Inderst (2012) claims that the United Kingdom Government is currently establishing the Green Investment Bank, an investment bank exclusively focused on promoting environmental sustainability within the economy. The priority sectors for investment have been identified as follows: offshore wind power generation, commercial and industrial waste treatment and recycling, energy generation from waste, and non-domestic and domestic energy efficiency. The journal article by Voica (2015) examines several instruments utilized in green investment, including green equities, green bonds, and green funds.

As previously explained, an in-depth understanding of green investment remains unclear, as does the establishment of standardized protocols for its implementation within the Indonesian context. According to Article 4, paragraph (3) of Law No. 25/2007 on Investment, the policy for investment development is oriented towards implementing a green economy development program. This program aims to ensure that economic growth objectives are aligned with addressing global warming and achieving sustainable development goals. Environmentally sound investment needs to synergize with environmental development policies and programs, prioritize sectors with environmental considerations, adopt environmentally friendly technologies, promote a green economy, and facilitate investment opportunities and incentives (Nurasmah, 2015).

In Indonesia, the integration of green investment and green industry is frequently observed in its implementation. As per Law No. 3 of 2014, specifically in Article 1 point 3, the concept of Green Industry refers to an industrial sector that emphasizes sustainably optimizing the utilization of resources during production. This approach seeks to integrate industrial progress with the preservation of environmental functions while also generating societal benefits.

The value of an investment is influenced by the value or price of the machinery and equipment's condition at the moment of purchase. This investment plays a crucial role in determining the overall size of the sector and can significantly impact the business's capacity to effectively utilize production elements. The labor demand level in this scenario is based on the company's investment amount. According to Sukirno (1997) in Putra, R. E. (2012), in the realm of business operations, the process of documenting the monetary worth of investments made within a specific fiscal year, namely those categorized as either investment or capital investment, can be outlined as follows: Main expenditures for various types of capital goods, namely machinery and other production equipment, to establish various types of industries and companies. Supporting learning to build residential houses, office buildings, factory buildings,

etc.

In contrast to consumers or households, investors allocate a significant portion of their income towards acquiring products and services to maximize their financial returns rather than satisfy personal needs. Therefore, the magnitude of future profits will be dependent on the extent of investment made. In addition to the anticipation of future profitability, various factors contribute to the determination of investment levels by investors within an economy (Sukirno, 1997). The primary determinants influencing the magnitude of investment are as follows: Forecasting the level of investment profits to be obtained, interest rate, forecasting the state of the economy in the future, the level of national change and its changes, profits earned by the company.

Additionally, it emphasizes the impact of green investments on the production of goods and services and the growth of employment in environmentally friendly fields, commonly known as green jobs. Secondly, the notion of the green economy aims to establish principles for promoting pro-poor green investment, which entails investments that foster poverty reduction. The primary aim is to foster the engagement of policymakers at all levels of government and the business sector to facilitate their support for advancing green investment. The United Nations Environment Programme (UNEP) defines the green economy as enhancing welfare and social justice while mitigating the adverse environmental effects and resource depletion associated with economic growth (Sahoo, 2017). UNEP considers the concept of the green economy related to an economic system characterized by low carbon emissions, reduced dependence on fossil fuels, efficient utilization of natural resources, and a commitment to social equity.

Generation Z, also called adolescents, encompasses individuals between the ages of 10 and 19 (WHO: 2014). However, the Indonesian Ministry of Health Regulation no. 25 of 2014 specifies that adolescents are individuals aged 10-18 years, while the Population and Family Planning Agency defines adolescents as those aged 10-24 years (INFODATIN Kemenkes RI January 29, 2014). The categorization of individuals belonging to Generation Z exhibits variability. This study defines Generation Z as individuals born between 1995 and 1997, with an extended range up to 2010-2013 for the upper limit of their birth year.

Prensky (2001) argues that the current generation can be characterized as digital natives. The present generation exhibits a profound reliance on technology, particularly computers and the internet, which appears to have become an inherent aspect of their lives from an early age. The present generation exhibits a propensity for constant internet connectivity, engaging in content creation and dissemination, and displaying high activity levels on various social media platforms.

The current generation exhibits a higher degree of reliance on technology in various aspects of their daily routines. Indeed, it can be argued that Generation Z resides within a digital realm and has evolved into a bona fide digital society. However, there are notable distinctions between the current generation and its predecessor, Generation X. Gen X came when personal computer technology was in its nascent stages, and the internet had only recently become accessible to the general public, albeit with limited availability. In contrast, millennials have experienced the advent of technological advancements and the introduction of smartphones. Both Generation X and millennials have acknowledged and incorporated technology into their lifestyles. However, they still differentiate between the tangible aspects of their everyday lives and the occurrences within social media or the digital realm. The younger generation, called digital natives, often perceive communication through platforms like WhatsApp as equivalent to face-to-face interaction. However, it is worth noting that

WhatsApp has a video call option, enabling participants to observe facial expressions and engage in a more visually immersive conversation akin to traditional face-to-face communication.

Based on the problems and results of research that has been carried out by previous researchers, it is best to carry out re-research, because the results of this research do not yet provide a maximum picture of results related to "Cryptocurrency: The Future of Green Investment for Generation Z Examined from an Islamic Perspective". The problem formulation is based on the main problem and previous research described in the background above, the problem formulation is as follows: 1) What is Generation Z interest in cryptocurrency as a green investment in the future? 2) What is Islam's view of cryptocurrency as a green investment in the future? While the research objectives are based on the problem formulation that has been formulated above to be faced, the research objectives are as follows: 1) Assess and analyze Generation Z interest in cryptocurrency as a green investment in the future; 2) Study and analyze how Islam views cryptocurrency as a green investment in the future.

2. RESEARCH METHODS

Research Approach Method

This study employs an analytic observational research design with a case-control research design. This form of study belongs to the qualitative research category. The qualitative approach collects and presents data in words or sentences. Statistical analysis is not used in qualitative research because qualitative research prioritizes data quality (Singarimbun & Chris, 2008; Vredenbregt, 1981).

According to how it is discussed, this research fits into the category of descriptive research. Descriptive research tries to describe, explain, write down, and report a situation, an item, or an event of facts as they are and in the form of fact disclosure. This descriptive study aims to create a systematic, factual, and accurate description of the facts, qualities, and relationships between the phenomena under investigation (Nazir, 1988).

Furthermore, based on the location of the research implementation, this research belongs within the category of case study research. Field research is used to acquire data and information using diverse materials discovered in the field. This research is classified as causal research based on the type of investigation because it seeks solutions to the problems at hand (Uma, 2015).

Teknik Analisia Data Penelitian

Qualitative data analysis is carried out if the empirical data obtained is qualitative data in the form of a collection of words and not a series of numbers and cannot be arranged into categories/classification structures. Data can be collected in various ways (observation, interviews, document digests, recording tapes) and is usually processed first before it is ready to be used (through note-taking, typing, editing, or transposing), but qualitative analysis still uses words that are usually arranged into extended text, and does not use mathematical calculations or statistics as analysis tools.

According to Miles and Huberman, analysis activities consist of three activity streams that occur simultaneously, namely data reduction, data presentation, and drawing conclusions/verification. Occurring simultaneously means data reduction, data presentation,

and drawing conclusions/verification as something that is intertwined and is a cyclical process and interaction before, during, and after data collection in a parallel form that builds a general insight called "analysis" (Silalahi , 2009).

Data analysis techniques used in qualitative research include interview transcripts, data reduction, analysis, data interpretation and triangulation. From the results of data analysis, conclusions can then be drawn. The following are data analysis techniques used by researchers:

1. Data Reduction

   Data reduction is not something separate from analysis. Data reduction is defined as the process of selecting, focusing on simplifying, abstracting and transforming rough data that emerges from written notes in the field. Data reduction activities take place continuously, especially during qualitative-oriented projects or during data collection. During data collection, reduction stages occur, namely summarizing, coding, tracing themes, creating clusters, creating partitions, and writing memos. Data reduction is a form of analysis that sharpens, categorizes, directs, removes what is not necessary, and organizes data in such a way that conclusions can ultimately be drawn and verified. This data reduction or transformation process continues after the field research, until a complete final report is prepared. So in qualitative research it can be simplified and transformed in various ways: through strict selection, through brief summaries or descriptions, grouping into a broader pattern, and so on.

2. Triangulation of Research Data

   The most widely used triangulation technique is checking through other sources. The triangulation model is proposed to eliminate the dichotomy between qualitative and quantitative approaches so that the right theory can actually be found. Murti B., 2006 states that the general aim of triangulation is to increase the theoretical, methodological and interpretive strength of research. Thus, triangulation has an important meaning in bridging the dichotomy of qualitative and quantitative research, whereas according to Yin R.K, 2003 states that triangulation data collection involves observation, interviews and documentation. Presenting data is the second most important activity in qualitative research. Presentation of data is as a collection of information that is structured to provide the possibility of drawing conclusions and taking action (Silalahi, 2009). Data presentation that was often used for qualitative data in the past was in the form of narrative text in tens, hundreds, or even thousands of pages. However, large amounts of narrative text exceed the burden of human ability to process information. Humans are not capable enough to process large amounts of information; The cognitive tendency is to simplify complex information into simplified and selective forms or configurations that are easy to understand. Presenting qualitative data can now also be done in various types of matrices, graphs, networks and charts. Everything is designed to combine information that is arranged in a form that is coherent and easy to achieve. So, data presentation is part of the analysis.

3. Draw conclusions

   The third analysis activity is drawing conclusions and verification. When data collection activities are carried out, a qualitative analyst begins to look for the

meaning of things, noting regularities, patterns, explanations, possible configurations, causal flows, and propositions. Conclusions that were initially unclear will become more detailed. “Final” conclusions will emerge depending on the size of the collection of field notes, their coding, storage, and retrieval methods used, the skill of the researcher, and the demands of the funder, but often these conclusions are often pre-formulated from the start.

3. RESEARCH RESULTS AND DISCUSSION

Research Result

Generation Z's Level of Understanding of Cryptocurrency For Investment

Most of the informants interviewed in this research had limited understanding and information about peer to peer lending. This is reinforced by the statements of several informants who know information about peer to peer lending from searches on the internet, applications and various other sources. Some respondents did not really understand how many people were involved in sharing profits in peer to peer lending and this created a sense of distrust in the peer to peer lending investment model, which allows someone to get a loan without any collateral and without meeting each other face to face or even knowing each other. The millennial generation's understanding of peer to peer lending is very much needed to increase the insight and information needed to assist the investment decision making process. Good understanding and information is expected to provide an overview of the benefits obtained in peer to peer lending (Nakamoto, 2008).

Every investor needs to understand investment risks to minimize potential losses arising from investment decisions made. Clear information and astuteness in seeing the potential of an investment can be a determining factor in making investment decisions. The informants in this research realized that every type of financial investment definitely has risks, as does peer to peer lending. The informants had concerns and doubts about the risks of investing in peer to peer lending. This is due to the absence of regulations that clearly regulate arrears made by debtors, the high risk of default, the absence of collateral/collateral, online transactions without going through a legitimate financial institution, the absence of direct meetings between investors and borrowers, and there is doubt about the validity of the data from borrower. The ability of the millennial generation to accept and understand the risks of an investment can be an illustration of investment choices that suit the desires of the millennial generation. It cannot be denied that the greater the risk in an investment, the greater the return obtained from that investment

Research Discussion

Generation Z Interest in Cryptocurrency as a Green Investment In the future

According to the findings of in-depth interviews with relevant respondents, generation Z has a substantial degree of involvement in cryptocurrency trading activities. The cryptocurrency price movements attract Generation Z to invest in digital finance. The movement of cryptocurrency price is shown in the following figure:

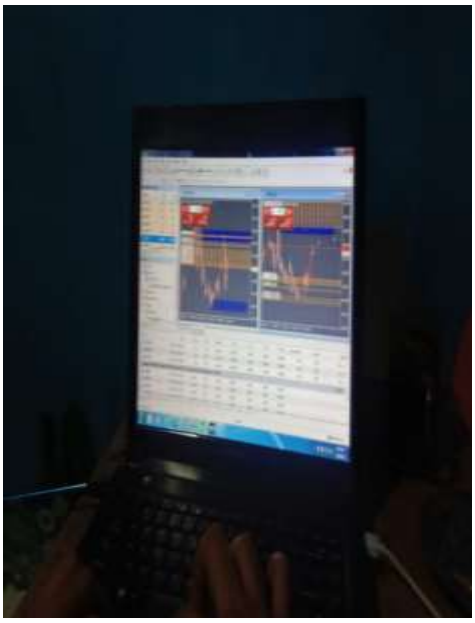

Figure 2. Price Movement of Cryptocurrency

Figure 2 shows that cryptocurrency price movements are extremely quick, substantially benefiting generation z investors in cryptocurrency assets. These advantages are the primary attraction and are highly promising regarding the benefit that will be acquired when Generation Z engages in large-scale investing operations.

The figure below depicts the findings of interviews with respondents who engage in cryptocurrency investment activities:

Figure *3.* Interview with Generation Z when Trading Cryptocurrency

The findings of the interview with one of the Generation Z depicted in Figure 3 can be summarized as follows:

"*Investing in cryptocurrency is the right decision because we can earn a very good living." Not only will cryptocurrency investment suit our needs, but it will also meet other demands*." (interview excerpt with RD/ 07/05/2022)

Regular people can invest in cryptocurrency with confidence. In this case, regular people differ from the wider public. The most fundamental distinction is education. Regular people's comprehension of technology is insufficient to begin a secure investment. Supriadi explains:

"*The conventional investment space is the safest investment for them. It is easier for them to supervise while still being active in it. They are not well-versed in digital investment*. "

As previously stated, investment refers to the level of public understanding of the investment itself. People in rural areas require investment education, as stated by Agusdiwana:

"*Education is unquestionably necessary, particularly in remote areas. Because people*

wish to simplify their life, there are many fraudulent investments. If they invest one million rupiah in a month, they must earn more than one million. However, investment does not work in this manner."

In Indonesia, cryptocurrency investment has begun to grow. The rising number of cryptocurrency users in Indonesia reflects this trend. Public faith in cryptocurrency investment is increasing, as Supriadi explained*:*

"*I believe that the start-up era is on the rise, with a large investment space. The facts also show that many marketplaces have begun to replace offline markets*."

Investment using the internet is one of the reasons people choose to invest. Aside from cryptocurrency, one example of Internet investment is the stock market, in which one invests in shares and financial organizations. Agusdiwana further explains:

"*I invest in the stock market. Even in the capital market, it is limited to stocks. All Islamic financial institutions are safe to invest in*."

The digital and traditional world's support and relate to one another regarding investment security. They become one and rely on one another due to their synergy. According to Supriadi:

"Investments are good if there is synergy between the digital and real sectors. In terms of services, digital sector contributes to the real sector. However, the digital world cannot be separated from the real sector. The real sector will flourish more quickly if it is backed by the digital world."

The higher the development of cryptocurrency, the larger the chance to invest in it. The breadth of cryptocurrency investing prospects depends on investment and work. Each business entity has its unique set of opportunities. Supriadi adds*:*

"A business entity, whether it can grow quickly or not, has the potential to be used as an investment opportunity to invest. However, the investment potential is undeniably present. Every business entity or company requires investment opportunities. We should distinguish the scope of the investment and its work."

The public is very interested in cryptocurrency as a developing investment. As Supriadi emphasized, the general public is not limited to becoming cryptocurrency investors.

"*Investors or customers should not be restricted solely because they are members of the general public, ordinary people, or educated people. The limitation is whether or not there are rules that bind, whether the cryptocurrency management offers restrictions that are binding and limit investment just for certain organizations or particular people*."

Islamic Perspective Analysis of Cryptocurrency

Bitcoin is the most established cryptocurrency investment today. One type of cryptocurrency is virtual money, that allows people to interact without a third party or on a peer-to-peer basis. Suryadi noted:

"Bitcoin raises the issue of technology that allows people to conduct transactions without the involvement of a third party. Transactions can be conducted directly without the use of intermediaries."

Dinar Dirham, like Bitcoin, is a sort of cryptocurrency with the same peer-to-peer premise, as Suryadi explained:

*"*Dinar Dirham has the same concept as a payment method. Each Dinar Dirham asset, known as Dinar Coin, is based on 4.25 grams of real gold. If you have 4.25 grams in your phone, you can send that amount to others*."*

Dinar Dirham is one of the gold investments known as digitizing gold. The way individuals store gold is changing as technology advances. Suryadi further states:

"We can carry a ton of gold in a mobile phone using the technology used by Dinar Dirham. The fundamental idea is to digitize gold into technology, specifically blockchain, with

no profit sharing."

One distinction between Bitcoin and Dinar Dirham is the advantages of keeping gold digitally as an investment and transaction tool. Suryadi elaborated:

"The benefit of technology is that you can have gold digitally and use it to make transactions with anyone. Gold is a reliable investment asset that has been around for thousands of years."

Cryptocurrencies that meet the criteria of being a currency and/or legal tender are called digital currency. Bitcoin is the most well-known sort of cryptocurrency today. Shariah scholars and experts generally hold opposing views. To begin, some scholars believe that cryptocurrency is haram, which means it is prohibited by Sharia law. The opposing viewpoint holds that cryptocurrencies are halal in theory, which means they are permissible. In 2018, Egypt's Grand Mufti Shaykh Shawki Allam pronounced bitcoin and cryptocurrency haram. Shaykh listed the following primary reasons in his statement: Bitcoin is easily utilized for unlawful acts, and Bitcoin is intangible and enables money laundering and fraud.

The religious authorities of the Turkish government have also indicated that Bitcoin is illegal because it is subject to excessive speculation (*gharâr* and *maysîr*) (Abu-Bakar, 2018). The Fatwa Center of Palestine also issued a haram fatwa on bitcoin and cryptocurrencies, citing an unknown bitcoin issuer and gambling. Shaykh Haitam, a Muslim scholar in the United Kingdom, issued a paper in Arabic. He argued that Bitcoin and other cryptocurrencies are forbidden and incompatible with Sharia (Ibnu Manzhur, 1999). Abdullah bin Muhammad bin Abdul Wahab Al'Aqil, a doctor of Shari'ah at the Islamic University of Madinah in Saudi Arabia, has said that Bitcoin is prohibited since it has a high level of usury (Abdullah, 2017).

Sheikh Assim al-Hakeem, a Saudi Arabian ulema, issued a fatwa declaring that Bitcoin digital currency is illegal under Islamic law. According to him, bitcoin is an open door for money laundering, drug purchasing and selling, and smuggling (Bitcoin Forum, 2018). Bitcoin has been declared un-Islamic by the Indian Muslim Personal Law Board (AIMPLB). As a result, the Muslim organization has encouraged individuals to refrain from using cryptocurrencies.

Other experts and intellectuals believe that Bitcoin is lawful. This point of view can be assessed based on the prior explanation of the criteria and definition of money, as well as buying and selling. Fiqh masyhûr principle is explained by the Islamic law experts as "alAshlu fî al-Mu'âmalât al- 'Ibâhah, Illâ an Yadulla al-Dalîl 'ala Tahrîmihâ," This means that the original rule is permissible in financial and commercial dealings. In other words, everything is permissible unless it blatantly defies Sharia rules.

Another qaul masyhûr in Islamic economic ethics is a short phrase from Ibn Taymiyyah, "al-Ashlu fî al-'Uqûd Ridha al-'Aqidain," which implies that the willingness of both parties is the basis of the contract. Ibnul Qayyim stated in the book I'lâm al-Muwaqqîn that fatwa can change following changes in times, places, customs, and conditions; all come from Allah. Wabillahittaufiq (in Kusuma, 2020).

Furthermore, in the book al-Qawaid alFikhiyyah, Muhammad Mushthafa al-Zuhaily explains the rule, which implies "sometimes a number of sharia laws are based on human habits and customs." So, the procedures and laws also change when traditions change from the preceding era's customs. However, Sharia laws that are not based on human customs and habits do not change (see Kusuma, 2020). For the above reasons, any digital/virtual cryptocurrency that fits the requirements can be accepted as money. According to the Fatwa Center of the South African Islamic Seminar, Dâr al-'Ulûm Zakariyya, bitcoin fits the money standards and can thus be traded.

To qualify as a currency, cryptocurrency must be approved by the appropriate government authorities (KumparanTECH, 2018). Some Muslim countries have also allowed

Bitcoin transactions. The United Arab Emirates (UAE) was the first country in the Middle East to launch BitOasis, a new cryptocurrency that can be converted into gold. Shariah banking mandates that all banking activities adhere to Islamic law. Stellar, a blockchain platform provider from California, USA, has been accredited by the Shariah Review Bureau (SRB), an Islamic consultancy agency licensed by Bahrain's central bank. This halal accreditation applies to Stellar's blockchain system and Lumens (XLM), their cryptocurrency. Lumens' capitalization value is expected to be 5 billion USD, or approximately 75 trillion rupiahs (Franedya, 2018).

In Malaysia, HelloGold released GOLDX, a gold-backed cryptocurrency that has acquired clearance from the Islamic Ulama Authorities at Amanie Advisors in Kuala Lumpur. Transactions of this Islamic coin take place over a fixed length of time, making it less volatile (fewer significant price changes) and removing the problem of pricing ambiguity (Reuters, 2018).

The use of cryptocurrency as a domestic mode of payment is forbidden in Indonesia. The Rupiah currency is the only acknowledged and legal tender in Indonesia, according to Article 1 of Law No. 7 of 2011. Bank Indonesia Regulation No. 18/40/PBI/2016 on the Implementation of Payment Transaction Processing also emphasizes the restriction. However, the existence of cryptocurrencies in Indonesia is not unlawful. Through the Bank of Indonesia, the government permits storing or trading cryptocurrencies as assets with their risks. In determining the law of cryptocurrency, Islam has its methods and sources of reference based on the primary sources, namely the Qur'an and al-Hadith, which are analyzed as references in determining the law by the mujtahids. Mujtahids have other methods of determining the law, such as qiyas, maslahah mursalah adzariah. The science of ushul fiqh refers to this approach of determining Shar'i law (Kementerian Kuwait Urusan Agama Wakaf, 2006).

The Quran says in Surah an-Nisa verse 29, which represents commercial or general activity, including cryptocurrency:

يَٰٓأَيُّهَا ٱلَّذِينَ ءَامَنُواْ لَا تَأۡكُلُوٓاْ أَمۡوَٰلَكُم بَيۡنَكُم بِٱلۡبَٰطِلِ إِلَّآ أَن تَكُونَ تِجَٰرَةً عَن تَرَاضٖ مِّنكُمۡۚ وَلَا تَقۡتُلُوٓاْ أَنفُسَكُمۡۚ إِنَّ ٱللَّهَ كَانَ بِكُمۡ رَحِيمٗا

Meaning: O believers! Do not illegally devour one another's wealth, but trade by mutual consent. And do not kill ˹each other or˺ yourselves. Surely Allah is ever Merciful to you. (QS. An-Nisa 4: 29):

According to the verse above, every transaction activity must be free of *batil* or harmful elements. The word *batil* has a broad connotation, such as every transaction must conform to Islamic teachings' principles or not violate Islamic teachings. The word *batil* is derived from the root of the *bathalayabthulu-bathlan*, which implies ruined, fruitless, useless, and untrue. *Batil* is described in terminology as the antonym of *haqq* (truth), meaning something that has no good advantage (vain) in this world or the afterlife.

The *batil* method is defined in Tafsir al-Munir as a method prohibited in Islamic law, such as *ribawi* transactions, *maysir* (gambling elements), *gharar*, and so on. According to Zuhaly in (Priyatno & Atiah, 2021), batil results in harmed and annulled contracts. Cryptocurrency users mostly use it as a tool for speculation and trading to gain investment and trading profits through speculation (Baek & Elbeck, 2015). Furthermore, as mentioned in the Al-Quran surah al-Maidah verse 90, investing by speculating is considered gharar, maysir, and riba (usury) in Islam:

يٰٓاَيُّهَا الَّذِيْنَ اٰمَنُوْٓا اِنَّمَا الْخَمْرُ وَالْمَيْسِرُ وَالْاَنْصَابُ وَالْاَزْلَامُ رِجْسٌ مِّنْ عَمَلِ الشَّيْطٰنِ فَاجْتَنِبُوْهُ لَعَلَّكُمْ تُفْلِحُوْنَ

Meaning: O believers! Intoxicants, gambling, idols, and drawing lots for decisions1 are all evil of Satan’s handiwork. So shun them so you may be successful.

Cryptocurrencies still have strong price volatility, instability, and substantial fluctuations. It is synonymous with speculation on price differences. As a result, obtaining outcomes or gains from the price difference is categorized as an aspect of gharar and maysir if

employed for cryptocurrency investing and trading (Yusuf, 2008).

The concept of cryptocurrency as a means of transactions for buying and selling can be seen in the hadith of Ubadah bin Shamit:

"If gold is traded for gold, silver for silver, wheat for wheat, sha'ir (a type of wheat) for sha'ir, dates for dates, and salt for salt, the amount (measure or scale) must be equivalent and paid in cash." If they are of different types, you may exchange them as you see fit, but you must do so in cash." (HR. Muslim no. 1587).

In establishing transactions, the hadith emphasizes two crucial words: the exchange must be of the same amount or measure, and the transaction must be conducted in cash. The cryptocurrency trade is equivalent to gold for gold and silver for silver. Cryptocurrency transactions can be converted into other currencies, such as dollars and rupiahs. This currency conversion is known as sharf in fiqh. In Majmu' Fatawa, Imam Ibn Taymiyah explains what money is.

He states that money is an object that users have agreed to use to exchange, even if it is a piece of stone or wood. It signifies that the use of cryptocurrency is legal up to this point. Imam Al-Gazali, on the other hand, requires that the currency be issued and disseminated by government authority and that the government deem the money a legal and legitimate means of payment transactions (Mansur Hamma-adama & Kouider, 2009).

Cryptocurrency is still being debated in several nations, including Indonesia, which does not recognize or outright restricts the usage of cryptocurrencies as a legal form of payment transactions. So, from a Sharia standpoint, using cryptocurrencies as a currency and means of payment transactions is not permitted because Islam prioritizes obeying commands or rules from ulil amri, in this case, the government.

However, cryptocurrency lacks clarity, cannot be seen in its physical form, and has no legal certainty in legality in Indonesia or global agreements. So, it can still be referred to as a gray area and gharar, particularly in its use in investment and trading. Cryptocurrency is inextricably linked to speculation in highly volatile pricing and its only usage as a means of profit and loss and contains characteristics of *maysir* (Diasti, 2017). As a result, the Prophet prohibited transactions that included aspects of *gharar* and *maysir*. In a hadith reported by Abu Hurairah: "The Messenger of Allah sallallahu 'alaihi wa sallam forbade buying and selling *al-hashah* and buying and selling *gharar*" (HR. Muslim: 1513). The cryptocurrency dilemma can then be processed through qiyas, one of the efforts determining Islamic law. Qiyas is an abbreviation for taqdiru *assyay'i bi ghairihi*, which means measuring an object with something universal that matches the object's features (Hasan, 2001). In assessing the law of cryptocurrencies, consider Imam Malik's hadith: "Yahya told me, from Malik, from Nafi', from Abdullah ibn Umar, that the Messenger of Allah sallallahu 'alaihi wasallam prohibited the sale and purchase of hablu al-hablah." This is a Jahiliyah tradition in which someone sells a camel's fetus, but the fetus is still in the mother's womb" (alMuwatha in Priyatno & Atiah, 2021).

The hadith above describes the prohibition against buying and selling *hablu al-habla*, or selling camel fetuses while still in the mother's womb. The prohibition on this buying and selling is owing to its *jahalah* (unknown) nature and character. The element of *jahalah* causes the emergence of *gharar* and *maysir*, which results in speculation (profit and loss). Transactions involving cryptocurrency can be compared to *hablu al-habla* transactions involving the *ashl of hablu al-habla* of buying and selling. The *far'un* (branch) is a cryptocurrency transaction. The haram sale and purchase of *hablu al-habla* is known as the *Hukmul alshl*. The *illat* or legal motive is to share a hazy transaction (*jahalah*) in quantity or quality.

From its inception till today, cryptocurrency has been a source of concern for people

worldwide, with the pros and cons of its legality in terms of positive law and Islamic Sharia. The price volatility and instability of this currency are what sparks the argument. Essentially, Islamic Sharia holds that everything is legal in terms of *muamalah* until there are arguments that argue otherwise.

As previously stated, the value of cryptocurrency changes very quickly and fluctuates greatly, contributing to fears of a bubble economy due to its users' speculation. Additionally, cryptocurrency contains elements of *maysir* and falls into *ribawi* practices, in which traders buy when prices are low in the hope of selling when prices rise high.

It may be stated that cryptocurrency is only utilized for speculation and not for pure investment. Some of the risks of adopting this cryptocurrency include the potential of bubble economics, which harms the larger community. Furthermore, a central government authority does not issue cryptocurrencies, and there is no government supervision or monitoring. Therefore, they can do significant harm regarding money laundering, terrorist activities, etc. As a result, the use of cryptocurrency contains a component that will result in more harm than benefits.

Considering the opinions on the prohibition of bitcoin provided above, researchers can conclude that the majority of academics (*Jumhûr*) and state authorities agree on the prohibition (haram) of bitcoin in its role as a substitute for lawful money (A. Z. Ausop & Aulia, 2018). They all agree that Bitcoin is overly speculative, intangible, lacks formal government supervision (legal protection), and can readily be used for illicit purposes. Based on the logic of permissive countries and Islamic authorities that legalize cryptocurrencies, despite having various advantages and positives such as inflation control, security, transaction efficiency, and decentralization.

Researchers can conclude that the only legal cryptocurrencies are those issued or authorized by their governments, not Bitcoin, because of the protection of pricing and provisions based on the intrinsic value of gold or the country's currency.

The Indonesian government has recognized the use of cryptocurrency in futures trading as commodities. However, it has not yet published official regulations or procedures prohibiting or sanctioning persons who continue to conduct online buying and selling activities using Bitcoin. Commodities can be defined in numerous ways. First, they are real items or objects that can be traded reasonably simply, that can be provided in a way that can be exchanged for other items of the same type, and that may be stored for a certain period. Investors can usually sell or buy it on a futures exchange. Second, a commodity is a traded product that includes foreign currencies (FX), indexes, and financial instruments. Commodity prices are decided by market demand and supply, not by the calculations of suppliers or sellers. The price is then determined based on calculating each commodities price (purchasing power). Some commodity objects are agricultural items, such as cocoa, sugar, rice, crude palm oil CPO, corn, and many others. Coal, minerals, and gold are commodities traded in the agricultural and mining industries (Nurlaila, 2014).

There are various types of commodity futures exchanges. Commodity futures markets are classified as Over the Counter (OTC) or Futures Exchanges. OTC is a market for bilateral contract futures. On the other hand, the futures exchange is a multilateral contract system futures market. OTC commodities are sometimes known as the Commodity Market, while the futures exchange is sometimes called Commodity Exchange (Samsul, 2010). The commodity market is further subdivided into numerous types of contracts. The most common are forward and swap contracts. Law Number 10 of 2011 on Commodity Futures Trading explains four types of contracts on the Commodity market (futures market): Futures Contracts, Derivative Contracts, Sharia Derivative Contracts, and Option Contracts.

According to fiqh regulation, the government is obligated to protect and control all

aspects relevant to its people's lives and to constantly prioritize benefits for the people as a whole (*Tasharruf al-Imâm 'ala al-Ra'iyyah Manûthun bi al-Mashlahah*) (Al-Suyuti, 1983). The enactment of a minimum standard of capital/assets for the management party or crypto asset provider, in this case, bitcoin, is an attempt by the Indonesian government to keep the management party's liquidity on the green line or under control/safe. In Indonesia, if a dispute or a criminal act breaches the regulations, it can be addressed by consensus or law at the Commodity Futures Trading Arbitration Board (BAKTI) or the District Court (PN). According to prior scholarly opinions, cryptocurrency or bitcoin has a negative side in its status as a currency, a medium of exchange or a payment method, and a commodity in futures trading.

Usul fiqh regulation states, "Dar'u al-Mafâsid Muqaddam 'ala Jalbi al-Mashâlih," which suggests that avoiding mafsadah (harm) is preferable to reaping its rewards (Center for the Study and Development of Islamic Economics, 2009). It means that in commodity trade in Indonesia, bitcoin cannot avoid some of the qualities Islamic law prohibits in buying and selling, one of which is speculation.

Bitcoin has the potential to be utilized to promote immorality. Money laundering, embezzlement, and other illicit acts are difficult to avoid while using Bitcoin commodities (CNN Indonesia, 2019). The funds utilized for Bitcoin asset investment are derived from haram money, which is purposely destroyed to avoid detection by local authorities. Most scholars agree that it will be prohibited if it is demonstrated to lead to immoral acts (in Kusuma, 2020).

There is the possibility of usury. Because of the very volatile nature of bitcoin daily, bitcoin consumers/owners prefer to acquire bitcoin when the price falls and sell it instantly when the price rises, fearing that the price will fall the next day. Since bitcoin will run out soon, the amount of maysîr/gambling in the commodity trade is fairly high. All transactions, including gambling (*maysîr*), uncertainty (*gharâr*), fraud (*tadlîs*), and rasuah (bribery), are void, banned, and *haram lighairihi* (Qudamah, 2004). Virtual currency is thought to still have components of maysîr because the bitcoin business is similar to gambling.

Thus, the usage of bitcoin virtual money as a commodity in sharia derivative contracts is *harâm lighairihi* or haram because other elements exist outside of the substance. Cryptocurrency or Bitcoin, as a commodity in Commodity Futures Trading, still incorporates components of *maysîr* due to the high level of speculation and profit and loss. It is more substantial than currency trading. Thus, using Bitcoin as a sharia derivative contract instrument is *haram lighairihi*, or haram, due to external circumstances (speculation or *maysîr*, usury, prone to unlawful practices like money laundering).

4. CONCLUSION

Cryptocurrency as a virtual currency is legal because many groups have accepted it; However, legality and official acceptance must be seen as the government's right and obligation to issue currency to avoid possible losses. Based on the results of research taken or conducted in-depth interviews with relevant respondents, Generation Z has quite a significant amount of involvement in cryptocurrency trading activities, cryptocurrency price movements which make it attractive for Generation Z to invest in digital finance. Meanwhile, in the Islamic view

Cryptocurrency transactions are comparable to the sale and purchase of camel fetuses (hablu al habla) in the womb. Using cryptocurrency as an investment instrument involves significant profit and loss speculation. The use of cryptocurrency is also seen with sad adzariah techniques, with uncertainty and aspects of gharar and maysir. In addition, the government's lack of certainty regarding the legality of cryptocurrencies will have greater negative impacts, such as misappropriation and use of funds for terrorism and money laundering. The drawback of this research is that the object area of observation is still limited and the informants do not

come from large cryptocurrency players or on a national scale. It is hoped that future research can add the object area of observation and look for informants who have been carrying out transactions in digital currency for a long time.

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