

Cryptocurrency in Islamic View: Sentiment Analysis Method Approach

Cryptocurrency in
Islamic View

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ABSTRACT

Islamic economics focuses on realizing Islamic ideals, *rahmatan lil 'alamin*, which aims to provide goodness, prosperity and well-being. Halal (Positive) and haram (negative) aspects in the realm of cryptocurrency. Based on an extensive review of 23 relevant journals, this research aims to analyze the literature and explore the implications of cryptocurrency in relation to Islamic principles. This research focuses on key variables such as compliance with Sharia, *riba* (usury), *gharar* (uncertainty), and transparency. By reviewing existing literature and considering the perspective of Islamic scholars and law, this paper aims to determine whether cryptocurrency is permitted or prohibited from an Islamic perspective. These findings will contribute to the ongoing discourse around the compatibility of cryptocurrencies with Islamic finance and ethics. This study emphasizes the importance of addressing halal and haram issues and implications in the cryptocurrency ecosystem. Ultimately, this research aims to provide insights and recommendations for scholars and practitioners in the field of Islamic finance and cryptocurrency.

Keywords: Cryptocurrency, Bitcoin, Islamic economics, Islamic Perspective

ABSTRAK

Ekonomi Islam berfokus pada mewujudkan idealisme Islam, *rahmatan lil 'alamin*, yang bertujuan memberikan kebaikan, kemakmuran, serta kesejahteraan. Aspek halal (Positif) dan haram (negatif) di ranah cryptocurrency. Berdasarkan ulasan ekstensif dari 23 jurnal yang relevan, penelitian ini bertujuan untuk menganalisis literatur dan mengeksplorasi implikasi cryptocurrency dalam kaitannya dengan prinsip-prinsip Islam. Penelitian ini berfokus pada variabel kunci seperti kepatuhan terhadap Syariah, *riba* (riba), *gharar* (ketidakpastian), dan transparansi. Dengan menelaah literatur yang ada dan mempertimbangkan perspektif ulama dan hukum Islam, tulisan ini bertujuan untuk menentukan diperbolehkannya atau dilarangnya cryptocurrency dari sudut pandang Islam. Temuan ini akan berkontribusi pada wacana yang sedang berlangsung seputar kompatibilitas cryptocurrency dengan keuangan dan etika Islam. Studi ini menekankan pentingnya mengatasi masalah dan implikasi halal dan haram dalam ekosistem cryptocurrency. Pada akhirnya, penelitian ini bertujuan untuk memberikan wawasan dan rekomendasi bagi para sarjana dan praktisi di bidang keuangan Islam dan cryptocurrency.

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INTRODUCTION

Islamic economics focuses on realizing Islamic ideals, rahmatan lil 'alamin (grace to all nature), which aims to provide goodness, prosperity and well-being for the whole world, including humanity. Limitations in space and time for carrying out activities, including economic activities, have had an impact on national and individual income. It is clear that the pandemic has created an economic crisis which can be seen from the Central Statistics Agency (*Badan Pusat Statistik/BPS*) report that the Indonesian economy experienced a decline in growth of 5.32 percent in the second quarter of 2020 (Alam et al., 2019). Cryptocurrency is a new innovation of digital currency that can be used for online transactions that is included in blockchain technology. Cryptocurrency is the first successful application of blockchain technology and can be used as the main fuel for a global money transfer network (Hashemi et al., 2020). However, the existence of Cryptocurrency is still a matter of debate among scholars. Cryptocurrency is not legal unless its value is fluctuating and unstable and is not based on the Al-Qur'an and Sunnah. because exchange rates are volatile and unstable, the use of cryptocurrencies can also pose risks of speculation and gambling, which are prohibited in Islam. However, some scholars are of the opinion that Cryptocurrency is allowed as a medium of exchange as long as it meets the existing conditions. One example of the conditions is that the Crypto value is stable and does not fluctuate and must also be done in a way that does not violate Islamic law such as being honest and fair (Harahap et al., 2022).

An idea emerged from the ulama regarding the Islamic concept of cryptocurrency which met these requirements. These Islamic cryptocurrencies usually have stable exchange rates and are guaranteed by assets that are considered halal in Islam, such as gold or silver. In addition, transactions using Islamic cryptocurrency must also be carried out in accordance with Islamic law. Although in some countries there is still debate regarding the use of crypto, such as in the United Arab Emirates and Malaysia there are already regulations governing Cryptocurrency within the scope of what is permitted by the Islamic religion (Meera, 2018). In 2021, the number of cryptocurrency investors reached 12.4 million and the value of cryptocurrency transactions increased by 1,222.8% compared to 2020, reaching IDR 64.9 trillion. According to a survey conducted by Finder in December 2021, Indonesia was ranked fourth as the country with the highest number of cryptocurrency users out of 27 countries surveyed. The survey involved 2,502 internet users in Indonesia, of which around 22.4 percent of respondents used cryptocurrency.

In several previous studies on cryptocurrency, it was said that the ulama agreed that the use of bitcoin as a substitute for money is not permitted (*haram*), because there are many harms (losses) that arise from it compared to the *maslahah* (benefits) obtained, Kusuma (2020). Cryptocurrency is permitted if it is used as a non-investment transaction tool (Alamanda et al., 2021). And other research focuses on the legal status of cryptocurrency investment (Ausop & Aulia, 2018). Definition of cryptocurrency and arguments for and against its use as a currency or commodity asset. Apart from that, this article will also discuss the views of ulama towards cryptocurrencies, and whether their use is considered halal or haram from an Islamic perspective. Therefore, the author will provide an explanation of cryptocurrency law from the perspective of Islamic sharia and assess whether its use is in accordance with the principles recognized by that religion.

LITERATURE REVIEW

Cryptocurrency or cryptocurrency is a type of virtual currency. Generally, cryptocurrencies operate on a decentralized peer-to-peer network known as a blockchain to verify and record transactions on a decentralized public ledger (Lee, 2019). For example, a bitcoin owner may want to purchase goods from a seller who accepts payment in cryptocurrency. Rather than going through banks, the currency is transmitted using a public ledger system. Blockchain developers created an independent platform similar to

an open distributed ledger that is efficient in permanently recording transactions between verified parties (Bahanan, 2023). Peer to peer collective networks usually manage the blockchain by following communication protocols between nodes and confirming new blocks. Laws governing the circulation of cryptocurrencies can vary from country to country, with some countries legalizing cryptocurrencies under certain conditions and others rejecting their use due to concerns over abuse. In Indonesia, the law regarding bitcoin has not been specifically regulated, but cryptocurrency must be studied from the perspective of Islamic law. Cryptocurrency can function as a transaction or investment tool and has been used in several countries and purchased by large companies such as Tesla and the payment fintech owned by Twitter (Saksonova & Kuzmina, 2019).

Blockchain is a platform created by independent developers, which is like an open distributed ledger that efficiently records transactions between verified parties permanently. Blockchain is an innovative application model that consensually integrates distributed data storage, peer-to-peer transmission, mechanisms, digital encryption technology, and other computer technologies (Zhai et al., 2019). Blockchain is usually managed by a collective peer to peer network by following communication protocols between nodes and confirming new blocks (Khan et al., 2020). Laws governing the circulation of cryptocurrencies can vary from country to country. Some countries have legalized cryptocurrencies with various requirements, while other countries reject the use of bitcoin due to the absence of institutions that would be responsible for misuse of bitcoin. In Indonesia, the law regarding bitcoin has not been specifically regulated, and cryptocurrency must be studied from the perspective of Islamic law. Cryptocurrency can be used as a transaction and investment tool and has been used in many countries such as the United States, Japan and Finland. Several global companies such as Tesla and a payments fintech have purchased bitcoin as an investment worth billions of USD.

The difference between digital money and paper money/coins is the source of origin. The source of banknotes and coins comes from a country's internationally recognized central bank, while digital money is issued by parties who may or may not be known. Because it is not regulated by international laws and regulations, digital money is often used by smugglers for transactions that are difficult to trace outside banks. The value of digital currency can fluctuate and can change quickly because it is influenced by the market and also by certain parties who deliberately influence this value. In contrast, the value of fiat money is influenced by a country's economic strength and is much more stable than digital money. In essence, digital money is computer software that is converted into an object of value and accepted as a means of payment (Yuniartik, 2023).

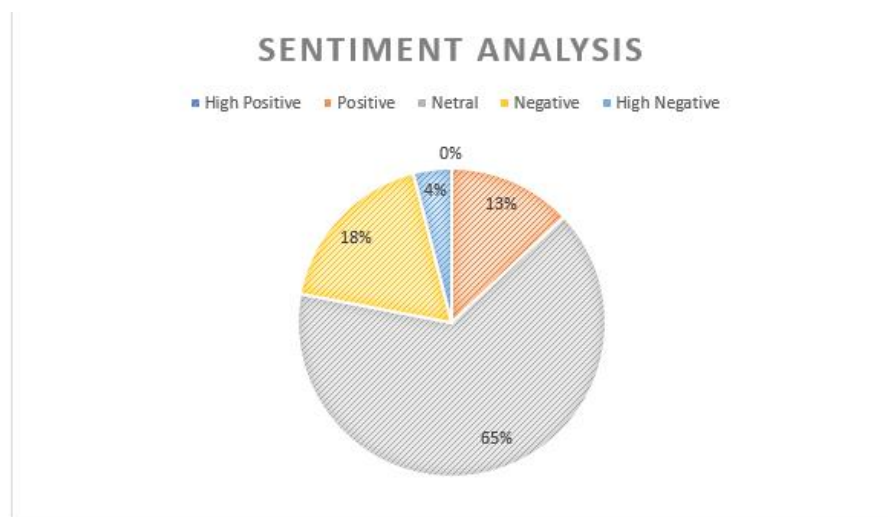
Most money is considered proof of ownership of gold held at the Central Bank, and the amount of money available is related to the amount of gold that can be exchanged at any time. However, with the existence of cryptocurrency, the United States will no longer back its money with gold, and this will result in other countries imitating it and ultimately there will be inflation and global economic recession. Economists have warned about the dangers of such a move, but voices of opposition have been weak and unheard. Even in the Islamic world, legal experts no longer comment on economic events that are very dangerous for the Muslim economy. Wealth will be controlled by certain powerful parties and will control all sectors of the world economy, which is related to the economic problems facing the world today (Sumarsono, 2016; Ahyani & Slamet, 2021). Bitcoin and other digital money do not meet the requirements of Islamic sharia because legal money must be issued by the state, guaranteed by a standard of value set by the state, and backed by gold. In this case, Bitcoin and digital money have no such support and are only bound by the numbers set by the government. Additionally, Bitcoin is vulnerable to various forms of crime such as fraud, money laundering, and smuggling, and is highly insecure. Therefore, there is a Sharia argument that prohibits buying and selling goods that are unclear and full of fraud, so it is best not to buy Bitcoin. The exploitation of small countries' natural resources by large countries such as the United States also raises concerns about complex global economic problems.

METHODS

The research method used in this study is qualitative research using secondary data obtained from the Dimensions website. Qualitative research is an approach that produces descriptive and narrative data with the aim of understanding social phenomena in-depth and comprehensively (Moeleong, 2007). According to Sudjana (2007), qualitative research is an approach that focuses on collecting and analyzing high-quality data with flexible and responsive methods to changes in research conditions. In this study, the data used consists of research journals published on the theme of halal and haram in cryptocurrency. Approximately 23 journals related to the theme of halal and haram in cryptocurrency from the last 5 years (2018-2022) have been cited in this research. The study utilizes the SentiStrength software to analyze sentiments or opinions contained in documents, product reviews, and messages from other social media. SentiStrength evaluates each opinion expressed in a journal on a scale of 2 (positive), 0 (neutral), and -1 (negative). Each journal publication is assigned a specific value, which is then averaged to determine the researcher's sentiment trend in sentiment analysis.

RESULTS AND DISCUSSION

This study analyzes the estimated sentiment towards cryptocurrency in research journals. Sentiment analysis is a type of study widely used to measure public opinions on a particular topic. The analysis involves 23 research journals on cryptocurrency from 2018 to 2022 as a source of secondary data. SentiStrength is the tool used to analyze data obtained from journal publications. Opinion findings are classified into five types of rankings based on the journal papers linked to cryptocurrency from an Islamic perspective, including those with high positive rating, positive (good), neutral (neutral), negative (bad), and high negative (very bad). Figure 1 illustrates the sentiment analysis findings on cryptocurrency, classified into five categories.



Source: SentiStrength

Figure 1. Sentiment Analysis

The existence of cryptocurrency has a very positive (highly positive) sentiment of 0%. The sentiment analysis towards cryptocurrency described above shows that most publications or journals have a positive view of digital currency (Anjani, 2023). From the data presented, as much as 65% of the total sentiment is neutral, indicating that most of the literature regarding cryptocurrencies does not express an unequivocal positive or negative attitude. However, it is important to note that 13% indicated good (positive) sentiment, while 18% indicated negative sentiment. The presence of a higher percentage of positive sentiment can mean that cryptocurrencies are generally viewed with optimism

by journal authors who analyzed negative (-5) to very positive (5) intervals with a value of 0 neutral.

The use of sentiment analysis methods such as SentiStrength to measure the level of positivity or negativity of journal texts provides a more detailed picture of the way cryptocurrencies are described in the literature. The sentiment score calculated from each word in a journal abstract provides a further dimension regarding researchers' preferences for digital currencies. These positive results may reflect positive developments and increasing adoption in the cryptocurrency space, but keep in mind that this analysis may be influenced by the methods and approaches used in the research. The sentiment of journals published about cryptocurrency is positive and tends to address the existence of cryptocurrency as an investment tool and digital assets which is referred to as good (positive) sentiment. Meanwhile, negative (bad) sentiment refers to the haram, flakutive, speculative, ghoror, maisir views in journals published on cryptocurrency, which say that cryptocurrency is haram, and that cryptocurrency cannot be used as an investment tool. The results show that most of the related literature is more neutral in discussing halal and haram cryptocurrencies. The analysis results show that the number of negative responses is much greater than the positive responses. The results of the analysis also show that 4% show a high level of negative disapproval of cryptocurrencies, meaning that it can be said that from the sentiments of the journals analyzed, the dominant opinion is that cryptocurrencies are haram.

Graph 1 in 23 articles related to cryptocurrency in Islamic views over the last five years, several main characteristics were found that influence public sentiment towards the topic. The research results show that public sentiment can be positive, neutral, or negative. Some characteristics that influence public sentiment include things such as understanding cryptocurrency, proper regulation, transparency in fund management, conformity with Islamic principles. The results of this research found the level of sentiment analysis of various papers published in assessing opinions about the existence of cryptocurrencies from an Islamic perspective. Neutral sentiment dominates with 65% of the percentage results. This shows that there is still a knowledge gap regarding cryptocurrency from an Islamic perspective. This is a challenge for the various elements involved in the field to better explain what is still biased in the law and practice of cryptocurrency from an Islamic perspective (Yuniartik, 2023).

Much research on cryptocurrencies has been conducted based on literature reviews. Sentiment analysis provides an overview of responses and opinions about cryptocurrencies (Hassan et al, 2022). However, cryptocurrency is still a matter of debate, where there are pros and cons related to cryptocurrency contracts and laws in sharia law terms. The results of sentiment analysis show high sentiment of negative 4% and negative 18%. This shows that negative perceptions about cryptocurrencies dominate. This is due to recent confirmation that the Indonesian Ulema Council (MUI) has established a law that cryptocurrency as a currency is haram. Therefore, there is uncertainty (gharar), danger/risk (gharar) and can be used for speculation (Siswantoro et al., 2020). Futhermore, blockchain can indeed be recognized as an excellent revolutionary technology, but its use as an investment instrument contains elements of maysir (betting) and as a business transaction instrument contains elements of gharar.

CONCLUSION

The results of sentiment analysis research on cryptocurrency developments show various types of sentiment. The research results show that scientific literature has a very positive (high positive) sentiment value of 0%, then positive sentiment (good) 13%. Meanwhile, negative sentiment was 18%, high negative sentiment was 4%, and the rest had neutral sentiment of 65%. In general, the majority of the literature tends to have a neutral sentiment of 65%. This shows that the discourse regarding cryptocurrencies still invites diverse opinions, with quite strong positive views but also balanced by significant distrust and concerns. In addition, regulatory involvement, security, market volatility and trust in the system are also factors that influence differences in sentiment. Although

neutral sentiment predominated in the majority, this could be interpreted as a reflection of the complexity and dynamically evolving nature of this topic. Thus, sentiment analysis highlights the importance of a deep understanding of cryptocurrencies as well as the need for broader and inclusive discussions regarding their positive aspects and risks in further literature and discourse.

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