



THE CONCEPT OF CRYPTOCURRENCY IN ISLAM

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Abstract: Digital money obtained by converting physical money into digital is often used in electronic transactions. However, modern technology has also produced virtual currencies, known as cryptocurrencies. Bitcoin and other cryptocurrencies are unregulated and have not received official approval by Indonesian law. Research to know and analyze the concept of crypto according to Islam. With the method of literature review combined with bibliometric analysis. Data was collected using Publish or Perish (PoP) software from the Google Scholar database. Table 1 shows the number of author citations for works discussing cryptocurrencies and Islamic studies. Based on search results obtained by PoP software. The number of citations from authors who have more than 10 citations is calculated from the total number of authors. Use keywords as a foundation. Nine clusters were found as a result of keyword mapping: red, blue, yellow, green, purple, orange, brown, and pink.

Keywords: Electronic Transactions; Cryptocurrencies; Trading

Abstrak: Uang digital yang diperoleh dengan mengubah uang fisik menjadi digital acap kali digunakan dalam transaksi elektronik. Namun, teknologi modern juga telah menghasilkan mata uang virtual, yang dikenal sebagai cryptocurrency. Bitcoin dan mata uang kripto lainnya tidak diatur serta belum mendapat persetujuan resmi oleh hukum Indonesia. Penelitian untuk mengetahui dan menganalisis konsep kripto menurut Islam. Dengan metode tinjauan literatur yang dikombinasikan dengan analisis bibliometrik. Data dikumpulkan menggunakan perangkat lunak Publish or Perish (PoP) dari database Google Scholar. Tabel 1 menunjukkan jumlah kutipan penulis untuk karya-karya yang membahas cryptocurrency dan studi Islam. Berdasarkan hasil pencarian yang diperoleh oleh software PoP. Jumlah sitasi dari penulis yang memiliki lebih dari 10 sitasi dihitung dari jumlah total penulis. Menggunakan kata kunci sebagai fondasi. Sembilan kluster ditemukan sebagai hasil pemetaan kata kunci: merah, biru, kuning, hijau, ungu, orange, coklat, dan merah muda.

Kata Kunci: Transaksi Elektronik; Mata Uang kripto; Perdagangan

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Introduction

The use of technology-based information is now not only used as a source of knowledge but has become a commodity in the world of trade. Information technology in the transaction sector, including economic aspects, is increasingly developing to make payments other than currency and gyral. This has led to various innovations that are increasingly effective, efficient, safe, fast, and convenient. A Cashless Society is an effort to reduce contact with other humans using payments by cash methods into electronic devices or e-wallets. This has been appealed by the World Health Organization (WHO) which is applied to the community.¹ Electronic money or e-wallet is a means of payment with certain elements and methods issued according to the value of the currency that is first deposited on demand and then stored on a certain chip, so that e-money can be managed as a payment medium in the future.² According to Bank Indonesia regulation No, 11/12/PBI/2009 regulates E-money as one of the objectives to provide convenience for the public in conducting various transactions, this is done by Bank Indonesia to avoid printing large amounts of currency.³

The most well-known form of cryptocurrency is called Bitcoin. When compared to other cryptocurrencies, Bitcoin has a high value. One of the turning points in the history of cryptocurrencies is the acceptance of Bitcoin. Bitcoin transactions are controversial on a global scale. Several nations, such as the Central Bank of Iceland, which declares that cryptocurrency transactions are unlawful, are also against the use of this money. The State Bank of Russia issued a warning that using Bitcoin as a form of payment could lead to money laundering and terrorism financing. The establishment of cryptocurrency transactions in the form of Bitcoin was discovered by someone named Satoshi Nakamoto in 2008.⁴ Bitcoin is openly traded in China, but the government there continues to caution businesses against accepting Bitcoin payments.⁵

Bitcoin and other cryptocurrencies are not legally controlled in Indonesia, which has both advantages and disadvantages. The usage of and exchanges involving cryptocurrency are not formally authorized by Bank Indonesia. In contrast to other nations, Indonesia has fewer people using Bitcoin. One of the reasons for the drop in Bitcoin users is Bank Indonesia's stance, which does not recognize Bitcoin as a legal

¹ Hendra Prasetya Dan Scenda Erka Putra, "Pengaruh Persepsi Kemudahan Penggunaan, Manfaat Dan Risiko Terhadap Minat Menggunakan Uang Elektronik Di Surabaya," *Jurnal Dinamika Ekonomi & Bisnis* 17, no. 2 (2020): 58.

² Puji Lestari Dan Neni Nofriantika, "Literasi Uang Elektronik Di Kalangan Mahasiswa," *Islamic Review : Jurnal Riset Dan Kajian Keislaman* 7, no. 1 (2018): 94.

³ Agung Edi Rustanto Dan Iis Kartini, "Efektivitas Pembayaran Non Tunai Pada UMKM Daerah Aliran Sungai Citarum," *Jurnal Lentera Bisnis* 8, no. 2 (2019): 1.

⁴ Ika Atikah, "Perlindungan Hukum Pelanggan Aset Kripto Transaksi Perdagangan Berjangka Komoditi Indonesia," *SALAM : Jurnal Sosial Dan Budaya Syar'i* 9, no. 2 (2019): 402.

⁵ Republika, "Bitcoin Oh Bitcoin, Dilarang Di China Jadi Begini Nasibnya," <https://ekonomi.republika.co.id/berita//r24e8f7817000/bitcoin-oh-bitcoin-dilarang-di-china-jadi-begini-nasibnya?>, (20 Januari 2023).

tender. In Indonesia, there are still some bitcoin users, albeit few and illegal. Finding information regarding bitcoin's development in Indonesia is not difficult.⁶

Global finance is a significant industry. The stock market deals with local and foreign stocks and currencies and continuously broadcasts market trade indexes and exchange rate information. Without sophisticated telecommunications and computing systems linking global banks and government assets, stock and securities markets, banking, and clearing systems would not be conceivable. Telephone and internet connections are starting to be used in banking developments. Beyond electronic transfers and investments, trading or trading with bitcoin is the primary goal of cryptocurrency users. They decide which currency to eventually sell or buy when trading bitcoin.⁷

Cryptocurrency has an impact on the public about the pros and cons, this is because there is no legality regarding cryptocurrency as a recognized means of payment in Indonesia. From an Islamic perspective, some scholars argue that cryptocurrencies contain Gharar and Maysir elements. The Gharar element is characterized by fraud and the maysir element is characterized by fluctuations. Angga Syahputra and Khalish Khairina in their research argue that none of the four aspects can be fulfilled from cryptocurrency, both material/financial aspects, halal aspects, social and environmental aspects, and divine aspects.⁸ Even in Indonesia, there is no official regulation and it is still in the stage of review by scholars. Therefore, Bank Indonesia urges the public to transact with rupiah by Law No. 7 of 2011 concerning Currency.⁹ Cryptocurrency is a new phenomenon, especially in terms of transactions, technological developments that are so fast in the era of revolution 4.0 make humans have to adjust, but considering the position of cryptocurrency, especially in Indonesia, the government has not officially given permission that is contrary to the Law and is not supervised by the OJK and in Islamic economic law.¹⁰

The foreign exchange market has seen a radical mutation in recent years, and internet and communication technologies have given people, organizations, and nations new ways to interact on the global foreign exchange market. People with limited resources and capital capacities can now take advantage of the benefits of the foreign exchange market thanks to technology. Trading practices that were formerly common during the time of the Messenger of Allah, include purchasing and selling gold or silver. To avoid

⁶ Siti Nurma Rosmitha, "Financial Digitalization Of Marketing Technology ; Improving The Competitiveness Of Micro Business In Sleman Regency Of Yogyakarta In The Era Of COVID-19," *The 10th Islamic Banking, Accounting And Finance International Conference*, (2022): 44.

⁷ Adib Susilo, "Recruitment Flow Model Of Lecturers In Islamic Economic Department At Public," *International Journal Of Business And Economy (IJBEC)* 3, no. 3 (2021): 86.

⁸ Angga Syahputra Dan Khalish Khairina, "Kedudukan Cryptocurrency Sebagai Investasi Dalam Ekonomi Islam," *Al-Mustashfa: Jurnal Penelitian Hukum Ekonomi Islam* 7, no. 2 (2022).

⁹ Cut Niswatul Chaira, *Konsep Mata Uang Dalam Ekonomi Islam (Analisis Bitcoin Sebagai Mata Uang Virtual)*, (Aceh: Universitas Islam Negeri Ar Raniry, 2020).

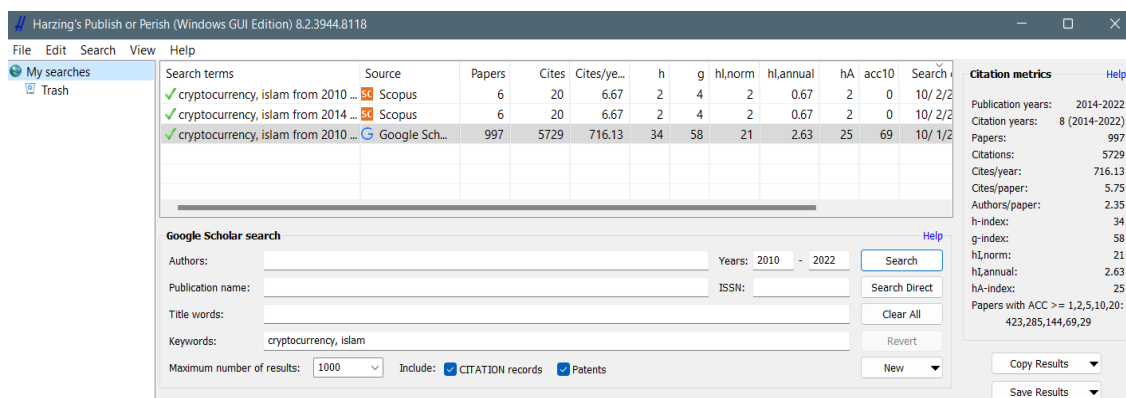
¹⁰ Sisca Ferawati Burhanuddin, "Transaksi Cryptocurrency: Bagaimana Pandangan Hukum Ekonomi Islam Memandang?," *Jurnal Ilmiah Akutansi Dan Keuangan* 4, no. 7 (2022): 58.

usury transactions, gold and silver sales and purchases must be made in cash, naq, or both. In this instance, it is of the usury fadl variety.¹¹

The use of cryptocurrency for transactions and investments that are governed by Islamic law is still up for dispute. Although bitcoin is a simple and secure means of conducting transactions, it should be kept in mind that it is potentially dangerous due to its physical and psychological unpredictability.¹² This is what causes transactions using Cryptocurrency to be haram lighairihi in Islamic law. The latest research was written by Nurhisam in his article entitled bitcoin In the Lens of Islamic Law, which mentions that the use of bitcoin for payment instruments Especially virtual transactions falls under the category of Shubhāt, therefore should be abandoned.¹³

Because the urgency of this Cryptocurrency currency is very broad, especially in the scope of science, technology and economics, it is hoped that this Journal can be the answer to the concept of Cryptocurrency in Islam for the development of Cryptocurrency in the future. The progress of research on cryptocurrency and Islam is examined in this study using a literature review method combined with bibliometric analysis. The data was obtained from the Publish or Perish (PoP) software-compiled Google Scholar database (see Figure 1). 997 journal articles published between 2014 and 2022 were found in the preliminary search results for the topic "Cryptocurrency, Islam" on PoP.

Figure 1. Data Search using PoP Software



The 242 journal articles were then downloaded in RIS format after the search procedure was complete to be put into Mendeley software. The metadata of downloaded papers, including the title, author, journal, abstract, and keywords, are checked and refined using Mendeley. based on the findings of articles that satisfy the requirements for

¹¹ Finastri Annisa, "Hukum Trading Dalam Islam Menurut Para Ulama," <https://dalamislam.com/hukumislam/ekonomi/hukumtrading-dalam-islam/amp>, (4 Desember 2018).

¹² Oey Laurensia Dan Dewi Warsito, "Analisis Volatilitas Cryptocurrency, Emas, Dollar, Dan Indeks Harga," *International Journal of Social Science And Business* 4, no. 1 (2020): 46.

¹³ Syahidah Rahmah Dan Miftahul Jannah, "Identitas Cryptocurrency: Halal Dan Harasm," *Jurnal Ar-Ribb* 4, no. 2 (2021): 198.

bibliometric analysis performed using the software VOSviewer. A computer program called VOSviewer was created to build, display, and view bibliometric maps.¹⁴

In his dissertation titled "Buying and Selling Transactions With bitcoin in the Perspective of Islamic Law," Muhammad Imam Sabirin According to Islamic law, the creation of money is a problem that is covered by basic laws. Playing about with the issuance of money will affect the occurrence of a huge madharat for the economy of the people and their profit since the determination of the amount and the issuance of money are matters related to the advantage of the people. The loss of trust in the currency, the incidence of counterfeiting, the growth in the quantity of money, and the reduction in its value (inflation), as well as the displacement of those with fixed incomes as a result of these, are some examples of mudharat.¹⁵

Digital money known as cryptocurrency allows for online transactions. Unlike printed paper money, cryptocurrencies are created by resolving cryptographic-based mathematical puzzles. To prevent easy duplication or transfer to persons that are not the owners and do not have access to this currency, this currency is created using cryptographic technology. A subfield of computer science called cryptography researches information concealment. A secret communication is scrambled into an apparent formless message using cryptography, then it is conveyed to the designated recipient. The random message can then be interpreted by the intended recipient and transformed back into a private communication from the sender.¹⁶

Kusuma et al., in 2020 in their article entitled "The Perspective of Islamic Law on Cryptocurrency for Commodity Future Exchange in Indonesia" stated that the implementation of virtual buying and selling transactions using bitcoin in Indonesia has followed Islamic law because the terms, conditions, and procedures for using bitcoin are not much different from virtual transactions using e-money in general. However, bitcoin still cannot be used as a commodity in Sharia Derivative Contracts because it contains speculative elements (maysir) that are profitable.¹⁷ Cryptocurrency itself is a technology with a database governed by blockchain which is commonly used as a digital currency which certainly has advantages and disadvantages,¹⁸ One of the advantages offered by cryptocurrency in transaction activities is the efficiency of time and energy because it can be done through computer devices or other adequate digital devices,¹⁹ In addition, the

¹⁴ Van Eck Dan Nees Jan, "A Comparison Of Two Techniques For Bibliometric Mapping: Multidimensional Scaling And VOS," *Journal Of The American Society For Information Science And Technology* 61, no. 12 (2010): 2416.

¹⁵ Lisda Aisyah, "Analysis Of The Effect Of Gross Domestic Product (GDP) And Total Population On State Tax Revenue (2016-2020)," *Islamic Economics Journal* 8, no. 1 (2022): 71.

¹⁶ Ahmad Suminto, "The Effectiveness Of Instagram Social Media As An Effort To Improve The Quality Of Tax Services In The COVID-19 Pandemic In KPP Pratama Ponorogo," *Al Tijarah* 7, no. 1 (2021): 72.

¹⁷ Salim Basalamah Kusuma, Teddy, Veithzal Rivai, And Iwan Kurniawan Subagja, "The Perspective Of Islamic Law On Cryptocurrency For Commodity Future Exchange In Indonesia," *Journal Of Islamic Studies And Culture* 8, no. 1 (2020): 76.

¹⁸ Ida Bagus Prayoga Bhiantara, "Teknologi Blockcahin Cryptocurrency Di Era Revolusi Digital," *Jurnal Sosioteknologi* 1, no. 1 (2020): 173.

¹⁹ Dewi Indrayani Hamin, "Cryptocurrency Dan Pandangan Legalitas Menurut Islam: Sebuah Literature Review," *Jurnal Ilmiah Manajemen Dan Bisnis Jambura* 3, no. 2 (2020): 127.

peer-to-peer transaction model or from sender to receiver but still recorded on the cryptocurrency network is also a distinct advantage of this technology. bitcoin users usually have minimal risk because they do not have to face losses due to counterfeiting or inflation commonly experienced by printed currencies. However, cryptocurrencies such as bitcoin do not have underlying assets and are not regulated by the Financial Services Authority/OJK in Indonesia so they are not safe.²⁰

Results and Discussion

Citation

The number of authors' citations containing publications on the study of Cryptocurrency and Islam can be seen in Table 1. This analysis is based on search results using PoP software. From the overall number of authors, it is determined by the number of citations from authors that are more than 10 citations. The article written by T Kusuma with the title "Cryptocurrency in Commodity Futures Trading in Indonesia from an Islamic Law Perspective" is the most frequently cited article with a total of 13 citations

Then several previous studies have similar topics, namely discussing transaction activities using Cryptocurrency in the view of Islamic economics, including written by Andi Siti Nur Azizah entitled "The Phenomenon of Cryptocurrency in the Perspective of Islamic Law" with a total of 15 quotes, but in its use as a tool for business transactions it carries elements of maysir and this causes haram in the perspective of Islamic law. Furthermore, the article entitled "Bitcoin Cryptocurrency Technology in Business Transactions According to Islamic Law" written by AZ Ausop has cited as many as 63 quotes. Then there is research entitled "Dynamics of Crypto Currencies and the Mission of Islamic Economy" by AK Umam. articles with a total of 7 citations, Next, an article written by NS Anwar entitled "Analysis of Digital Cryptocurrency Transactions as Global Investment in Islamic Legal Perspective (Case Study of Dinar Dirham in Makassar)" obtained 12 citations. MR Islam with his article entitled "Cryptocurrency vs. Fiat Currency: Architecture, Algorithm, Cashflow & Ledger Technology on Emerging Economy: The Influential Facts of Cryptocurrency. The latest research written by Nurhisam in his article entitled "Bitcoin in the Lens of Islamic Law", states that the use of bitcoin for payment instruments, especially in virtual transactions, is included in the category of syubhāt, therefore it should be abandoned.

²⁰ H. Jati Dan A. Zulfikar, "Transaksi Cryptocurrency Dalam Pandangan Hukum Ekonomi Syariah," *Al-Adalah: Jurnal Hukum Dan Politik Islam* 6, no. 2 (2021): 137.

Table 1. Data Processing Results

Year	Title	Citation
2020	Cryptocurrency In Commodity Futures Trading In Indonesia Islamic Law Perspective	13
2020	The Cryptocurrency Phenomenon In The Perspective Of Islamic Law	15
2018	Bitcoin Cryptocurrency Technology In Business Transactions According To Islamic Law	63
2020	Dynamics Of Cryptocurrencies And The Mission Of The Islamic Economy	7
2019	Analysis Of Digital Cryptocurrency Transactions As A Global Investment In The Perspective Of Islamic Law (Case Study Of Dinar Dirham In Makassar)	12
2018	Cryptocurrency Vs. Fiat Currency: Architecture, Algorithm, Cashflow & Ledger Technology On Emerging Economy: The Influential Facts Of Cryptocurrency And Fiat Currency	19

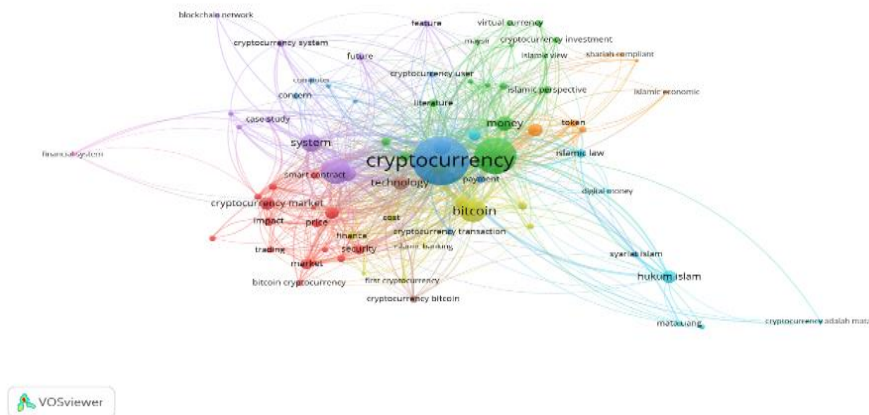
Source: VOSviewer Application

Bibliometric Analysis

This section will present a visual mapping of the published paper graphs on cryptocurrencies and Islam following a meta-analysis. A specific research body's needs are used to generate event mappings using keywords as the foundation. The keyword mapping identifies nine groups as a result:

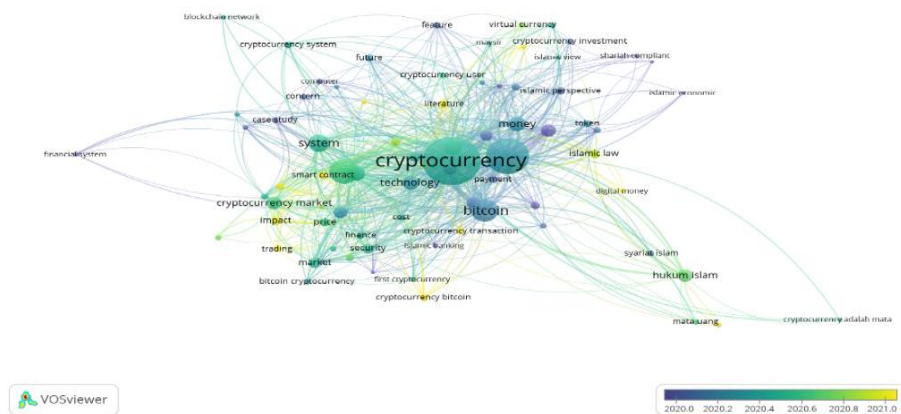
First, red: Consists of 16 keywords, namely approach, artificial intelligence, bitcoin cryptocurrency, cryptocurrency exchange, cryptocurrency market, price, return, environment, Ethereum, impact, market, performance, price, security, smart contract, trading. Second, the color green: Consists of 15 keywords: cryptocurrency investment, cryptocurrency law, innovation, internet, Islam, Islamic financial system, Islamic perfective, Islamic view, literature, maysir, money, muslims. Third, the color blue: Consists of 4 keywords: business, computer, concern, cryptocurrency, cryptocurrency adoption, miner, mining, cryptocurrency transaction, user payment, syariat Islam, and transaction. Fourth, yellow: Consists of 10 keywords: bitcoin, cost, crowdfunding, finance, technology, fintech, first crypto, Islamic banking, Islamic finance, cryptocurrency. Fifth, purple: Consists of 10 keywords, namely blockchain, network, technology, case study, system, feature, future, government, new crypto, and system. Sixth, the color blue: Of the 7 keywords, namely cryptocurrency is currency, digital currency, digital money, Islamic law, Islamic law, currency, and crypto use. Seventh, orange color: Consists of 7 keywords, currency, digital asset, maqasid syariah, syariah, syariah compliment, token. Eighth, brown color: Consists of 2 keywords: bitcoin cryptocurrency, technology. Ninth, the color pink: Consists of only one word, namely financial system.

Figure 2. Source: VOSviewer Application



The year of each frequency of the terms that appear frequently was also mapped in this analysis. The mapping outcomes are displayed in Figure 3. According to Figure 3, the period between 2014 and 2022 is when the frequency of terms that frequently appear and correlate with other studies occurs.

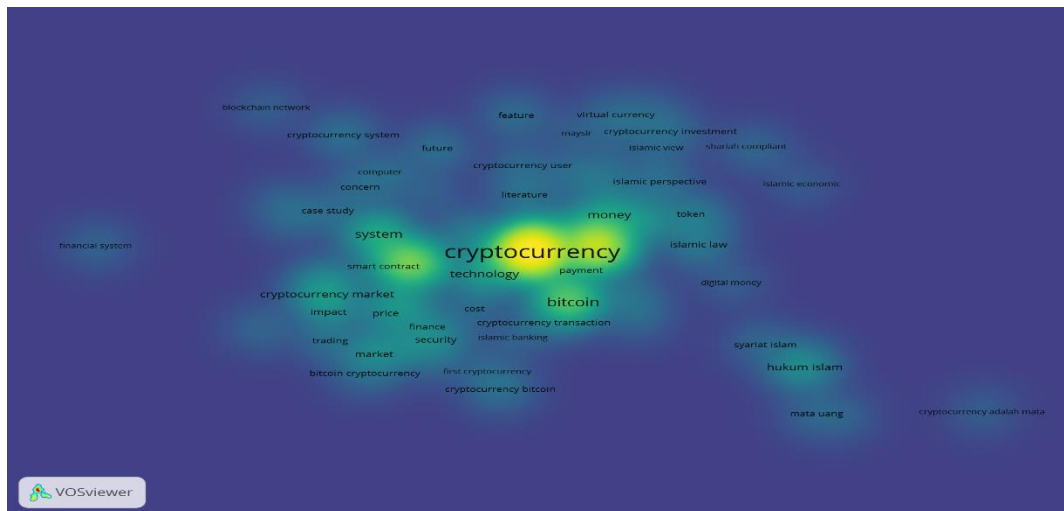
Figure 3. Source: VOSviewers Application (Visualization Overlay)



Density Visualization Map

The density visualization map is used to find out the depth of the publication. Based on the visualization in Figure 4, the brightest colors indicate that the topic has been researched frequently. Meanwhile, the thin-colored ones indicate that the topic still has a great chance of being researched. Based on the density map shows that research on Cryptocurrencies and Islam with the subject of Cryptocurrency, blockchain, Islam and bitcoin is the most numerous and often used in research.

Figure 4. Source: VOSviewers Application (Visualization Density)



Conclusion

Digital currencies known as cryptocurrencies allow online transactions. Cryptocurrency, in contrast to printed paper money, was created by finding solutions to mathematical puzzles based on cryptography. Since it was created using cryptographic technology, this currency cannot be easily copied or sent to anyone who is not its owner and does not have access to it. Because it is used for speculation and is not visible in physical form, cryptocurrencies may contain elements of gharar and maysir from the perspective of Islamic law. In an eleven-point explanation of bitcoin, the MUI said that some countries classify it as a foreign currency. Because it does not reflect the value of an asset, authorities and regulators usually do not recognize it as an official currency and medium of exchange. Trading is highly speculative because bitcoin transactions are similar to those in the forex market. bitcoin is more akin to gharar as an investment (speculation that harms others). Only 996 articles from the Scopus database published between 2014 and 2022 were considered for the study, and they covered only three disciplines: social finance, economics, econometrics, and finance, as well as business, management, and accounting. Future research examining the use of cryptocurrencies in Islam in more detail could use this limitation study as a jumping-off point. Researchers can add the following to their research challenges by using these meta-analysis methods and bibliometric analysis: No studies on cryptocurrency subjects have used a mixed methods approach, or a

combination of quantitative and qualitative research approaches at the same time to obtain comprehensive results.

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