Muslim Scholars and Experts Views on Cryptocurrencies: A Systematic Literature Review

Pandangan Sarjana dan Pakar Muslim tentang Matawang Kripto: Satu Kajian Literatur Sistematik

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*Corresponding author: Roslina Othman, Kulliyyah of ICT, International Islamic University Malaysia, Selangor, Malaysia; Email: roslina@iium.edu.my Abstract: Muslim scholars and experts have given their views on issues related to the permissive and prohibitive use of cryptocurrencies. Scholars and experts' decisions were of three categories: permitted the use of cryptocurrency; prohibited its use based on Islamic principles; and tawaqquf, yet to make their final decision on the acceptance or otherwise. The main objective of this study was to systematically examine and organize the various studies and research that explored known common ideas among Muslim scholars and experts on issues related to the use of cryptocurrency in Muslim communities. This study adopted the PRISMA guideline of reporting a systematic literature review, where it identified and explored available literature in Scopus, Emerald Insight, and Google Scholar, related to Muslim scholars' and experts' decisions on the use of cryptocurrency. With the increasing use of cryptocurrency globally, the topic has also rapidly grown among Muslim scholars and experts, which has created a need for a real conclusion and justification for the people to hold on to. The systematic literature review revealed that the Muslim scholars and experts' views on cryptocurrencies can be sub-categorized further: permitted its use (requirements compliant, regulations, justified reasons, wide acceptance, and gold-backed), prohibited its use (speculative nature, restrictions by authorities, fewer benefits, and religious beliefs), and tawaqquf (potentials for improvement, PMBC, Islamic cryptocurrencies, and backed Dinar and Dirham crypto). The conceptual contribution of this study was that views expressed by Muslim scholars and experts on cryptocurrencies be categorized for public consumption and guide in understanding issues.

Keywords: Muslim Scholars and Experts, Muslim communities, Cryptocurrencies, Literature Review, PRISMA;

Abstrak: Sarjana dan pakar Muslim telah memberikan pandangan mereka tentang isu berkaitan permisif dan larangan penggunaan mata wang kripto. Keputusan ulama dan pakar terdiri daripada tiga kategori: membenarkan penggunaan mata wang kripto; melarang penggunaannya berdasarkan prinsip Islam; dan tawaqquf, belum membuat keputusan muktamad mengenai penerimaan atau sebaliknya. Objektif utama kajian ini adalah untuk mengkaji dan menyusun secara sistematik pelbagai kajian dan penyelidikan yang meneroka idea-idea umum yang diketahui di kalangan sarjana dan pakar Islam mengenai isu-isu yang berkaitan dengan penggunaan mata wang kripto dalam masyarakat Islam. Kajian ini



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menerima pakai garis panduan PRISMA untuk melaporkan tinjauan literatur yang sistematik, di mana ia mengenal pasti dan meneroka literatur yang terdapat dalam Scopus, Emerald Insight dan Google Scholar, yang berkaitan dengan keputusan pakar dan sariana Muslim tentang penggunaan mata wang kripto. Dengan penggunaan mata wang kripto yang semakin meningkat secara global, topik ini juga telah berkembang pesat dalam kalangan sarjana dan pakar Muslim, yang telah mewujudkan keperluan untuk kesimpulan dan justifikasi sebenar untuk dipegang oleh orang ramai. Kajian literatur sistematik mendedahkan bahawa pandangan ulama dan pakar Muslim tentang mata wang kripto boleh dikategorikan kepada: dibenarkan penggunaannya (mematuhi keperluan, peraturan, alasan yang wajar, penerimaan meluas, dan disokong emas), melarang penggunaannya (sifat spekulatif, sekatan oleh pihak berkuasa, faedah yang lebih sedikit, dan kepercayaan agama), dan tawaqquf (potensi penambahbaikan, PMBC, mata wang kripto Islam dan kripto Dinar dan Dirham yang disokong). Sumbangan konsep kajian ini ialah pandangan yang diutarakan oleh para sarjana dan pakar Islam mengenai mata wang kripto yang dikategorikan untuk kegunaan awam dan panduan dalam memahami isu ini.

Kata kunci: Pakar dan sarjana Muslim, Komuniti Muslim, Matawang kripto, Tinjauan literatur, PRISMA;

Introduction

Since the inception of the first cryptocurrency, popularly known as Bitcoin, many Muslim communities have been curious to inquire more and how to invest in it while complying with their faith and moral values. Researchers subsequently studied how it worked and what it involved. There were publications about studies on the permissive and prohibitive issues related to the use of cryptocurrency in Muslim communities. example, there was a missing Islamic law in the models for cryptocurrency use (Aloui et al., 2021; Nugroho, 2021). Muslim scholars viewed cryptocurrency as legally impermissible when it violated the government's constitutions (Al-hussaini et al., 2020). A review of works provided insight into whether cryptocurrencies did comply with the Shariah requirements (Aliyu et al., 2020). Muslim scholars and experts have used social media to disseminate their views on cryptocurrencies (Husain & Othman, 2018). There were reviews on the blockchain consensus protocols and their intended use in understanding the permissibility and prohibitive status of a bitcoin (Qaruty, 2021; Sudais, 2018).

Likewise, other scholars like Mufti Muhammad Abu Bakr, a Shariah advisor for a fintech based in Indonesia, and Mufti Faraz Adam, a British-based Islamic Finance & FinTech advisor, respectfully gave public lectures and publications on the permissive use of cryptocurrency by the Muslim community. They argued that cryptocurrency is like conventional currency, and any of the latter's illegal act applies to it. Similarly, cryptocurrency does not necessarily need central authority, if it is agreed upon and accepted by the parties (Abu-Bakar, 2017; Sami & Abdallah, 2021).

The group of scholars known as *tawaqquf*, according to Dr. Zulkifli Mohamad, are those yet to provide their final decision on the use of the currency. This group of scholars has also attempted to define Shariah-based cryptocurrency, targeting the positive impacts in this world and the hereafter (Othman *et al.*, 2022; Virgana *et al.*, 2019).

The Objectives of the Study

This study intended to systematically examine and organize all published studies from formal academic or industrial institutions on issues for the permissive and prohibitive use of cryptocurrency in Muslim communities. This study highlighted studies that involved commentaries from Muslim communities on cryptocurrency. The purpose was to explore the opinions of Muslim scholars and experts regarding Islamic rulings on the currency while highlighting their arguments.

The systematic review aimed to support the following specific research questions:

RQ1. What were the common arguments from scholars who permitted the use of cryptocurrency in the Muslim community?

RQ2. What were the common arguments from scholars who prohibited the use of cryptocurrency in the Muslim community?

RQ3. What were the common arguments from scholars who have yet to decide on the permissive and prohibitive use of cryptocurrency in Muslim communities?

Literature Review

This section reviews the opinions of Muslim scholars and experts on cryptocurrency in Muslim communities as follows: permissible use of cryptocurrencies, prohibited use of cryptocurrencies, and non-committal subject to conditions or improvements for its acceptance. This section discusses each category with its arguments and evidence.

Permissible Use of Cryptocurrencies

The arguments brought up by scholars and experts who permit the use of cryptocurrencies in the Muslim community are generally classified into five categories, each with its justifications. First, studies such as Nugroho (2021), Onagun and Abdullah (2018), Oziev and Yandiev (2018), and Yuneline (2019) argue that cryptocurrencies meet all the requirements of money from an Islamic perspective, just like conventional currency, as they are currently accepted by a group of people and treated as valuable objects.

Second, studies such as Polas *et al.* (2020), Qaruty (2021), Sudais (2018), Virgana *et al.* (2019), and Yuneline (2019) indicate that cryptocurrencies possess certain features that meet the requirements for use as money in Muslim communities; however, they need additional regulations by administrators, such as ensuring stability and proper authority intervention.

Third, studies such as Abu-Bakar (2017), Sami and Abdallah (2021), and Yusof *et al.* (2021) argue that the widespread acceptance of cryptocurrencies by many global industries, businesses, and listing on exchange platforms justifies their acceptance by Muslim communities according to Islamic principles, so as not to be left behind in technological advancements.

Fourth, studies like Abdeldayem *et al.* (2021), Aloui *et al.* (2021), and Hanif (2020) accept gold- or silverbacked cryptocurrencies for use in Muslim communities as a means of exchange. This view is rooted in the historical use of gold and silver as the basis for money and means of exchange.

Fifth, scholars like Abubakar et al. (2018), Alhussaini *et al.* (2020), and Taghdiri (2020) express concerns raised by their counterparts regarding the volatility, speculative nature, and potential for illegal activities and money laundering associated with cryptocurrencies are external factors and do not directly affect the currency's validity. These scholars point out that such issues are similar to those of conventional currencies, making cryptocurrencies potentially acceptable in Muslim communities.

Prohibited Use of Cryptocurrencies

Studies that argue against the use of cryptocurrency, stating that it is contrary to the characteristics of money in Shariah rulings, assert that cryptocurrency does not meet the criteria of a legitimate currency under Islamic law. There are four categories of arguments: speculative nature, religious beliefs, restrictions by authorities, and the reported harms resulting from The first category argues for the cryptocurrency. prohibition of cryptocurrency in Muslim communities due to the speculative nature of cryptocurrency. The scholars like Abu Bakar et al. (2017), Adam (2017), Adzimatinur et al. (2021), Aliyu et al. (2020), Fatarib and Sali (2021) contend that most users invest in cryptocurrency as a form of gambling to gain profit and that the cryptocurrency's volatility and lack of regulation result in uncertainty. In Islam, gambling is known as Maisir, and uncertainty is known as Gharar.

Second, studies such as Mnif and Jarboui (2020) and Shetewy *et al.* (2019) prohibit the use of cryptocurrency for reasons such as the traditional beliefs of the respective communities. These studies suggest that Muslim scholars must reach a consensus before implementing the currency or making a conclusion on its rulings.

Third, studies such as Hasbi and Mahzam (2018) and Mifanyira and Kusumawardhani (2020) prohibit the use of cryptocurrency concerning the restrictions imposed by federal authorities, i.e., the government. Fourth, studies like Hamid *et al.* (2021), Hanafi and Rahman (2019), and Mohd Noh and Abu Bakar (2020) prohibit the use of cryptocurrency due to its harmful effects.

Non-Committal Subject to Conditions or Improvements for Its Acceptance

The non-committal group proposes cryptocurrencies use on the current blockchain technology-based platform managed in financial sectors that adopt Islamic finance system and comply with Shariah requirements for transparency, efficiency, security, and traceability. There are four categories for this group.

First, studies such as Alaklabi and Kang (2021), Billah and Atbani (2019), Echchabi *et al.* (2021), and Husain and Othman (2018) suggest implementing and adopting cryptocurrency according to Shariah rulings on its potential for improvement. Second, studies such as Lucero (2021) and Rahman (2018) propose the implementation of an Islamic-compliant cryptocurrency, utilizing the incredible features of blockchain technology.

Third, studies like Ruslianor Maika *et al.* (2019) propose having cryptocurrencies backed by Dinar and Dirham for Muslim communities to experience the benefits of cryptocurrency technology, such as transparency, efficiency, security, and traceability.

Fourth, studies such as Ajouz (2019) propose having cryptocurrencies based on Precious Metal Backed Cryptocurrency (PMBC) because it encompasses all the features required in a currency according to Islamic rulings.

Prevailing studies on the opinion of Muslim scholars and experts on the use of cryptocurrencies in Muslim communities are complex and diverse, with scholars holding different views on the permissibility and appropriateness of the currency under Islamic law. Cryptocurrencies users in Muslim communities must learn the justifications for their permissibility, prohibitions, and non-committal cautions.

Even though the literature review has highlighted the three general categories of opinions, there is a need for a systematic review on this topic, particularly as the use of the currency continues to grow globally. A systematic review can focus on identifying more specific conditions under which cryptocurrency use is permissible under Islamic law, such as blockchain technology or backing of cryptocurrency with tangible assets. In addition, it can explore the potential benefits and risks associated with cryptocurrency use and its impact on the broader Islamic financial industry.

The systematic review can look at the development of guidelines and best practices for the use of cryptocurrency in Muslim communities, which could help ensure that its use follows Islamic law and principles. These guidelines, developed in consultation with Muslim scholars and experts, can address the issues of transparency, regulation, and security.

Finally, the systematic review is a starting point for action research into the use of cryptocurrency in Muslim communities. By continuing to explore this topic, cryptocurrency users can understand its implications for Islamic finance and its potential to promote financial inclusion and innovation in Muslim communities worldwide.

Methodology

This systematic review adopted the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) to achieve the objective and address the research questions. The systematic review proved a synthesis of the state of studies conducted on the opinions of Muslim scholars and experts on cryptocurrency. This review provided answers to questions beyond the literature review of individual studies (Page *et al.*, 2021).

A systematic literature review would attempt to organize all empirical studies that meet pre-specified eligibility criteria to answer specific research questions. The key characteristics of a systematic review are a clearly defined title and objective; the inclusion and exclusion criteria; rigorous and systematic search of the literature; critical appraisal of included studies; data extraction and management; analysis and interpretation of results; and report for publication, where the reviews must be done separately by three people (Tawfik *et al.*, 2019).

The discussion of the systematic literature review follows the PRISMA 2020 flow diagram.

Eligibility Criteria

This systematic review included studies that discourse cryptocurrency in Muslim communities. Table 1 shows the synonyms used to represent cryptocurrency as compiled from the Power Thesaurus. Cambridge Advanced Learner's Dictionary & Thesaurus and Merriam-Webster Thesaurus did not provide broader, narrower, and related terms for the keyword cryptocurrencies. This systematic review excluded any study that does not include any of these keywords and synonyms in the title, abstract, or keywords fields.

Table	1.	Keywords	and	Synonyms

Keywords	Synonyms	
Muslim	Islamic	Muslims
Cryptocurrency	Bitcoin	Blockchain
	Cyber cash	Digital Cash
	Digital Currency	Digital Money
	Digital Gold	Electronic Money
	Electronic	Gold 2.0
	Currency	Virtual Money
	Virtual Currency	

Information Sources

Scopus, Emerald Insight, and Google Scholar were selected as the databases for the search process. These databases were selected for the rich collections of different journals and being the most accessible online sources for researchers to fully explore from their institutions. All the searches in these databases were carried out within 3 months, with the last search carried out on November 10th, 2021.

Search Strategy

Relevant keywords were first identified from the topic and objective of the study. The specific search tips offered by the databases were also reviewed in constructing a set of effective search strategies. Table 2 shows the formulated search strategies.

 Table 2. Search Strategies

Scopus	Emerald Insight	Google
Muslim OR Islam	(Muslim OR	(Muslim OR
AND	(Islam) AND	Islam) AND
Cryptocurrenc*	(Cryptocurrenc*)	Cryptocurrenc*
OR Bitcoin OR	OR (Bitcoin OR	OR Bitcoin OR
Blockchain OR	Blockchain OR	Blockchain OR
"Cyber cash" OR	Cyber cash OR	Cyber cash OR
"Digital Cash"	Digital Cash OR	Digital Cash OR
OR "Digital	Digital Currency	Digital Currency
Currency" OR	OR Digital Gold	OR Digital Gold
"Digital Gold"	OR Digital Money	OR Digital Money
OR	OR Electronic	OR Electronic
"Digital Money"	Currency OR	Currency OR
OR "Electronic	Electronic Money	Electronic Money
Currency" OR	OR Gold 2.0 OR	OR Gold 2.0 OR
"Electronic	Virtual Currency	Virtual Currency
Money" OR	OR Virtual	OR Virtual
"Gold 2.0" OR	Money))	Money
"Virtual		
Currency" OR		
"Virtual Money"		

Data Extraction and Selection Process

The systematic review applied the Mendeley reference and citation desktop application to extract and select the articles for review. It exported the abstract, authors' keywords, and citation records in all retrieved studies to the Mendeley desktop. The hierarchical arrangement of folders by their database enables an easy selection process and duplication checking (Figure 1). Three independent experts screened the articles.

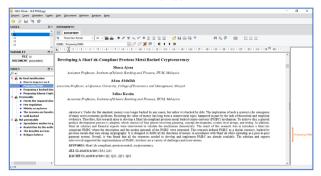
Figure 1. Mendeley desktop application interface



The systematic review selected studies based on the abstracts with the criteria that the cryptocurrency

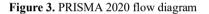
(including its synonyms and pseudo-synonyms) studied must concern the Muslim population or Islamic perspective. Figure 2 shows a sample using QDA Miner 6, which is qualitative data analysis software for coding and highlighting the topics.

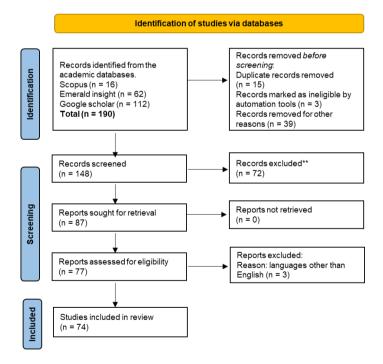
Figure 2. QDA Miner 6 desktop application interface



Results of the Review

PRISMA 2020 flow diagram (Figure 3) was used for reporting the systematic literature review to present the scope for the trustworthiness of findings (Page *et al.*, 2021).





Study Selection and Characteristics

The systematic review analyzed the selected studies using the tools. It selected 74 studies out of the 190

relevant studies retrieved based on the reasons given in Table 3.

Table 3. Reasons for the inclusion and exclusion of studies

Reasons for inclusion	Reasons for
	exclusion
Compared the characteristics of conventional money with contemporary cryptocurrencies from a Shariah perspective	Book chapter
Discoursed the opinions of experts on the law and legitimacy of cryptocurrency in the Muslim community	Blockchain technology platforms for zakat collection
Examined the factors that increased the interest in the use of cryptocurrency in the Muslim community (legal, economic, and Shariah perspectives)	Cryptocurrency acceptance with objectives not related to the Islamic perspective or Muslim
Examined the legitimacy of cryptocurrencies from the Islamic Jurisprudence (Fiqh) perspective	General use of blockchain technology for Islamic finance
Examined the potential and capability of cryptocurrency through Islamic economics to determine whether it fulfills the Shariah requirements of money that can provide a financial and stable currency	General focus on wealth creation in an acceptable Islamic way, not related to cryptocurrency
Examined characteristics of cryptocurrencies regulation in an Islamic environment and explained why it should be recognized as an Islamic financial product	Issues arising from <i>şukūk</i> (Islamic bonds) on blockchain technology platforms
Addressed arguments that cryptocurrencies involved gambling (<i>maisir</i>), speculation (<i>gharar</i>), haram (<i>riba</i>), and scams and that the transactions were on a willingness basis of both parties	
Explored the views of Muslim scholars on the legality of cryptocurrency concerning Shariah law Discoursed gold-backed cryptocurrencies	
examine the issues of volatility in the currency Explored the awareness of cryptocurrencies	
among the Muslim communities	

Common Arguments

The common arguments from scholars who permitted the use of cryptocurrency in the Muslim community could be further classified into five categories (Table 4), from scholars who prohibited its use into 4 categories (Table 5), and from scholars who are *tawaqquf* into 4 categories (Table 6).

	Table 4.	Common arg	uments for	permitting	the use
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Common Arguments	n=74
Requirements compliant	25.6%
Regulations	23.2%
Justified reasons	17.9%
Widely accepted	17.9%
Gold-backed	15.4%
	100%

Table 4 shows the common arguments that permitted the use of cryptocurrencies, which can be interpreted as conditions for its permissibility. *Requirements compliant, regulations*, and *gold-backed* (with a total of 64.2%) can guide buyers in their decision to purchase cryptocurrencies. *Justified reasons* and *widely accepted* (with a total of 37.8%) give a space for buyers to think over their decision to purchase cryptocurrencies, in the absence of known regulations. *Widely accepted* (17.9%) hints permissibility in situations where cryptocurrencies are accepted as payment method in industries.

Table 5. Common arguments for prohibiting the use

Common Arguments	n=74
Speculative nature	69.3%
Restrictions by authorities	11.5%
Less benefits	11.5%
Religious beliefs	7.7%
	100%

Table 5 shows the common arguments that prohibited the use of cryptocurrencies, which were concerns shared globally. The *speculative nature* of cryptocurrencies (69.3%) matched the concerns expressed in the report published by International Monetary Fund (2022), where users treated unbacked cryptocurrencies as payment transaction and not as asset. *Restrictions by authorities* and *less benefits* (with a total of 23.0%) can be interpreted as cautions that buyers must seriously consider in their decision to buy cryptocurrencies, either for payment transaction or as crypto asset. *Religious beliefs* (7.7%) give a space for Muslim scholars to spearhead the permissible types of cryptocurrencies.

Table 6. Common arguments for tawaqquf

Common Arguments	n=74
Potentials for improvement	53.8%
Precious Metal Backed Cryptocurrency	23.1%
Islamic cryptocurrencies	15.4%
Backed Dinar & Dirham cryptocurrency	7.7%
	100%

Table 6 shows the common arguments for *tawaqquf*. *Potentials for improvement* (53.8%) allows disruptive technology to develop maturely in accordance with Shariah. *Precious metal backed cryptocurrency, Islamic cryptocurrencies*, and *backed dinar and dirham cryptocurrencies* (with a total of 46.2%) can be interpreted as suggested innovations in cryptocurrencies and for buyers to explore and opt for Islamic cryptocurrencies.

Conclusion And Further Research

The systematic review has concluded that Muslim scholars and experts did not have conflicting views on issues related to the use of cryptocurrencies. Their complemented and views consolidated that cryptocurrency shall adhere to the Muslim belief system and the Islamic standard. The Muslim scholars and experts encouraged the advancement of technology when they viewed cryptocurrency as having potential for improvement, but within the Shariah, i.e., compliance with regulations and avoidance of speculations. They also promoted cryptocurrencies that project clear objectives and transparent transactions, such as those gold-backed, backed dinar and dirham cryptocurrencies, and precious metal-backed cryptocurrencies.

Over the last few years, cryptocurrency has been gaining more and more acceptance in many industries and organizations around the globe. Industries have announced that they accepted Bitcoin as a mode of payment for their goods or services. Companies like Mastercard, Pavilion Hotels & Resorts, AXA Insurance, Microsoft, Starbucks, Tesla, Amazon, Visa, PayPal, airBaltic, Sotheby's, Coca-Cola, LOT Polish Airlines, Expedia, Lush, and many others now accept cryptocurrency (David, 2021). While this acceptance was taking place, risk-related issues and speculative nature have affected cryptocurrencies. Thus, this study's systematic review has revealed a conceptual contribution to enhancing cryptocurrency for Shariah compliance and for defining an Islamic cryptocurrency. The review has also put forward three categories of actions: accept the cryptocurrency that fulfilled the opinions of scholars who permitted its use, reject the cryptocurrency that formed the concerns of scholars who prohibited its use, and be cautious with the cryptocurrency that required further elaboration and clear endorsement from scholars who are *tawaqquf*. Further research included validation of a framework for assessing the permissibility of cryptocurrencies leading to Shariah compliance.

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References

Abdeldayem, M. M., Al Dulaimi, S. H., & Al Dulaimi, F. H. (2021). A qualitative approach to evaluate the reconciliation of GOLDX and OneGram in islamic finance. *Zbornik Radova Ekonomskog Fakultet Au Rijeci*, 39(1), 113–134. https://doi.org/10.18045/zbefri.2021.1.113

Abu-Bakar, M. M. (2017). Shariah Analysis of Bitcoin, Cryptocurrency, and Blockchain. *Blossom Labs*, *1*, 21. https://blossomfinance.com/bitcoin-working-paper

Abu Bakar, N., Rosbi, S., & Uzaki, K. (2017). Cryptocurrency Framework Diagnostics from Islamic Finance Perspective: A New Insight of Bitcoin System Transaction. *International Journal of Management Science and Business Administration*, 4(1), 19–28. https://doi.org/10.18775/ijmsba.1849-5664-5419.2014.41.1003

Abubakar, Y. S., Ogunbado, A. F., & Saidi, M. A. (2018). Bitcoin and its Legality from Shariah Point of View. *SEISENSE Journal of Management*, 1(4), 13–21. https://doi.org/10.33215/sjom.v1i4.32

Adam, M. F. (2017). Bitcoin: shariah compliant. *Amanah Finance Consultancy*, 2017, 1–54. https://afinanceorg.files.wordpress.com/2017/08/researc h-paper-on-bitcoin-mufti-faraz-adam.pdf

Adzimatinur, F., Manalu, V., & Rahimi, F. (2021). *The Sharia Compliance of Gold-Backed- Cryptocurrency: Analysis of Volatility and Risk.* https://doi.org/10.4108/eai.12-12-2020.2304995

Ajouz, M. A. M. (2019). Developing a conceptual model of shari'ah oriented precious metal backed cryptocurrency for Malaysia: issues and perceptions. http://210.48.222.250/handle/123456789/9561

Al-hussaini, A. I. S., Abubakar Ibrahim, A., Fauzan Noordin, M., & Mohd Mohadis, H. (2020). Islamic approach toward purification of transaction with cryptocurrency. *Journal of Theoretical and Applied Information Technology*, *98*(6), 1050–1067.

Alaklabi, S., & Kang, K. (2021). Perceptions towards cryptocurrency adoption: A case of Saudi Arabian citizens. *IBIMA Business Review*, 2021.

https://doi.org/10.5171/2021.110411

Aliyu, A., Abu Bakar, K., Matsuda, G., Darwish, T., Abdullah, A. H., Ismail, A. S., Raja Mohd Radzi, R. Z., Yusof, A. F., Mohamad, M. M., Idris, M. Y., Ismail, Z., Yaacob, A. C., & Herman, H. (2020). Review of Some Existing Shariah-Compliant Cryptocurrency. *Journal of Contemporary Islamic Studies*, 6(1), 23–44. https://doi.org/10.24191/jcis.v6i1.2

Aloui, C., Hamida, H. ben, & Yarovaya, L. (2021). Are Islamic gold-backed cryptocurrencies different? *Finance Research Letters*, 39, 101615. https://doi.org/10.1016/j.frl.2020.101615

Billah, M. M., & Atbani, F. M. (2019). SWOT Analysis of Cryptocurrency an Ethical Thought. *Journal* of Islamic Banking & Finance, 36(1), 22–27. http://search.ebscohost.com/login.aspx?direct=true&db= bsx&AN=135807960&site=eds-

live&scope=site&authtype=shib&custid=70180632%0A http://files/5021/Billah_Atbani_2019_SWOT Analysis of Cryptocurrency an Ethical Thought.pdf%0Ahttp://files/5529/Billah Atbani 2

David, W. (2021, December 4). Paying with Bitcoin: These are the major companies that accept crypto as payment | Euronews. Euronews.Next. https://www.euronews.com/next/2021/12/04/payingwith-cryptocurrencies-these-are-the-major-companiesthat-accept-cryptos-as-payment

Echchabi, A., Omar, M. M. S., & Ayedh, A. M. (2021). Factors influencing Bitcoin investment intention: The case of Oman. *International Journal of Internet Technology and Secured Transactions*, *11*(1), 1–15. https://doi.org/10.1504/IJITST.2021.112867

Fatarib, H., & Sali, M. A. (2021). CRYPTOCURRENCY AND DIGITAL MONEY IN ISLAMIC LAW: Is it Legal? *Jurisdictie*, *11*(2), 237– 261. https://doi.org/10.18860/j.v11i2.8687

Hamid, A., Fittria, A., Adzkiya', U., & Andriyani, S. (2021). Bitcoin As A Means of Transaction and Investment In The Perspective of Islam. *IQTISHODUNA: Jurnal Ekonomi Islam, 10*(2). https://doi.org/10.36835/iqtishoduna.v10i2.944

Hanafi, S. F., & Rahman, S. A. (2019). Regulating Digital Currency: Taming the Unruly. In U. A. Oseni, M. K. Hassan, & R. Hassan (Eds.), *Emerging Issues in Islamic Finance Law and Practice in Malaysia* (pp. 265– 280). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78973-545-120191021

Hanif, M. (2020). Developing a fair currency system. ISRA International Journal of Islamic Finance, 12(3), 325–345. https://doi.org/10.1108/IJIF-02-2019-0024 Hasbi, A. H., & Mahzam, R. (2018). Cryptocurrencies: potential for terror financing? *RSIS Commentary*, 75, 1–3. https://www.rsis.edu.sg/wpcontent/uploads/2018/04/CO18075.pdf

Husain, A. S., & Othman, R. (2018). Information Dissemination Model for Scholars on Cryptocurrencies. *Proceedings - 2018 4th International Conference on Information Retrieval and Knowledge Management: Diving into Data Sciences, CAMP 2018*, 66–71. https://doi.org/10.1109/INFRKM.2018.8464764

Lucero, M. A. G. R. (2021). Cryptocurrencies Regulation in the Islamic Environment: OneGram Case Study. *Journal of Sociology and Theory of Religion*, 11(1), 1–9.

Mifanyira, F., & Kusumawardhani, S. C. B. (2020). *The Liability of Cryptocurrency Exchanger under Indonesian and Malaysian Anti-money Laundering and Terrorism Financing Act.* 345–350. https://doi.org/10.5220/0010049103450350

Mnif, E., & Jarboui, A. (2020). Islamic View Towards Bitcoin. *European Journal of Islamic Finance*, 1–8.

http://search.ebscohost.com/login.aspx?direct=true&db= bth&AN=147332105&site=ehost-live&scope=site

Mohd Noh, M. S., & Abu Bakar, M. S. (2020). Cryptocurrency as A Main Currency: A Maqasidic Approach. *Al-Uqud : Journal of Islamic Economics*, 4(1), 115. https://doi.org/10.26740/al-uqud.v4n1.p115-132

Nugroho, B. A. (2021). Spillovers and bivariate portfolios of gold-backed cryptocurrencies and gold during the COVID-19 outbreak. *Journal of Islamic Accounting and Business Research*, *12*(7), 1055–1076. https://doi.org/10.1108/JIABR-10-2020-0328

Onagun, A. I., & Abdullah, H. (2018). The Genesis of Cryptocurrency in Islamic Economics: Shariah Analysis of HLC Tokens.

Othman, R. B. T., Noordin, M. F. Bin, Ahmed, M., Ahmad, N. B., & Kassim, S. B. T. (2022). How Do Muslim Scholars and Experts Posit Cryptocurrencies in Social Media. *Journal of Theoretical and Applied Information Technology*, 100(21), 6272–6295.

Oziev, G., & Yandiev, M. (2018). Cryptocurrency from a shari'ah perspective. *Al-Shajarah*, 23(2), 315– 338. https://doi.org/10.2139/ssrn.3101981

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., & McGuinness, L. A. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *British Medical Journal*, 372(71). https://doi.org/10.1136/bmj.n71

Polas, M. R. H., Muhibbullah, M., & Bhattacharjee, A. (2020). Is Bitcoin Halal or Haram in the Islamic Banking and Finance? an Overview. *Journal of Economics, Business and Market Research*, 1(2), 96–104.

https://www.researchgate.net/profile/Md_Muhibbullah/p ublication/343614685_IS_BITCOIN_HALAL_OR_HA RAM_IN_THE_ISLAMIC_BANKING_AND_FINANC E_AN_OVERVIEW/links/5f343523a6fdcccc43c59423/I S-BITCOIN-HALAL-OR-HARAM-IN-THE-ISLAMIC-BANKING-AND-FINANCE-AN-OVERVIEW.pdf

Qaruty, R. M. A. (2021). Virtual Currencies & Islamic Law: Origin, Features And Sharia Rulings. *Journal of Legal, Ethical and Regulatory Issues, 24*(Special Issue 1), 1–10. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85113188814&partnerID=40&md5=c121ed5cbc02a13c bc40ad4e8dbc5d94

Rahman, N. A. (2018). Cryptocurrency from the perspective of shari'ah. In *Al-Shajarah*. Universiti Utara Malaysia.

https://www.academia.edu/41959474/Cryptocurrency_fr om_the_Perspective_of_Shariah

Ruslianor Maika, M., Fidiana, F., & Kautsar, I. A. (2019). Model dinar and dirham digital currency for Islamic commercial transaction. *Test Engineering and Management*, 81(11–12), 1333–1343. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85077251704&partnerID=40&md5=7b05262286f386f2e 64b12e41c2778cc

Sami, M., & Abdallah, W. (2021). How does the cryptocurrency market affect the stock market performance in the MENA region? *Journal of Economic and Administrative Sciences*, *37*(4), 741–753. https://doi.org/10.1108/JEAS-07-2019-0078

Shetewy, N., Aitlaadam, J., & Jiang, L. J. (2019). Challenges of the Bitcoin in the Arabic Countries. *Research on Humanities and Social Sciences*. https://doi.org/10.7176/rhss/9-5-01

Sudais, A. (2018). The halal and haram aspect of cryptocurrencies in Islam. *Journal of Islamic Banking and Finance*, 35(2), 91–101. https://circlehinternational.org/uploads/reports/report-15810714925e3d3c84b2d1e.pdf#page=90

Taghdiri, A. (2020). Assessing the Compatibility of Cryptocurrencies and Islamic Law. *Intell. Prop. & Tech. LJ*, 25, 63.

Tawfik, G. M., Dila, K. A. S., Mohamed, M. Y. F., Tam, D. N. H., Kien, N. D., Ahmed, A. M., & Huy, N. T. (2019). A step by step guide for conducting a systematic review and meta-analysis with simulation data. *Tropical Medicine and Health*, 47(1), 1–9. https://doi.org/10.1186/s41182-019-0165-6

Virgana, R. A. E., Saudi, M. H. M., & Sinaga, O. (2019). Conceptual research: Sharia-based cryptocurrency. *Journal of Advanced Research in Dynamical and Control Systems*, 11(3 Special), 138–143.

Yuneline, M. H. (2019). Analysis of cryptocurrency's characteristics in four perspectives. *Journal of Asian Business and Economic Studies*, 26(2), 206–219. https://doi.org/10.1108/jabes-12-2018-0107

Yusof, M. F., Ab. Rasid, L., & Masri, R. (2021). Implementation Of Zakat Payment Platform For Cryptocurrencies. *AZKA International Journal of Zakat* & *Social Finance*, 17–31. https://doi.org/10.51377/azjaf.vol2no1.41