

## Shariah Perspectives on Ether (ETH): Analysis of Advisory Opinions from Amanie Advisors and SRB Bahrain

**Chetrine Alya Rinaima**  
UIN Sunan Ampel Surabaya  
Email: chetrinealya@gmail.com

**Mugiyati**  
UIN Sunan Ampel Surabaya  
Email: mugiyati@uinsa.ac.id

<b>Corresponding Author:</b> Chetrine Alya Rinaima
<b>Article History:</b> Received June 16, 2025; Received in revised from June 20, 2025; Accepted December 29, 2025; Published; December 31, 2025
<b>How to Cite this Article:</b> Rinaima, C. A., & Mugiyati, M. (2025). Shariah Perspectives on Ether (ETH): Analysis of Advisory Opinions from Amanie Advisors and SRB Bahrain. <i>Journal of Integrative Sustainability and Ethics</i> , 1(2), 142–158. <a href="https://doi.org/10.15642/jibec.2025.1.2.142-158">https://doi.org/10.15642/jibec.2025.1.2.142-158</a>

**Abstract:** The rapid advancement of blockchain technology and the growing adoption of cryptocurrency have triggered significant debates among Islamic scholars regarding their Shariah compliance. One of the most prominent crypto assets is Ether (ETH), the native token of the Ethereum platform, which functions not only as a digital asset but also as a utility token for executing smart contracts and powering decentralized applications (DApps). This study aims to analyze the Shariah perspectives on Ether by analyzing two authoritative fatwas issued by Amanie Advisors and the Shariyah Review Bureau. Using a qualitative, document-based approach, the research investigates how each institution classifies Ether and the conditions under which it is considered permissible. Findings reveal that both Amanie and SRB classify Ether as *mal* (valuable property) rather than *naqd* (currency), thereby exempting it from the stringent rulings of *bay' al-sarf*. Both institutions assert that Ether is inherently free from *riba*, *gharar*, and *maysir* when used for lawful purposes. However, they emphasize a conditional permissibility framework, where the Shariah status of Ether depends on its actual use cases. This study concludes that Ether can be considered Shariah-compliant within a framework that upholds Islamic ethical values and legal principles, particularly when applied in transparent, benefit-oriented, and non-speculative financial systems. The comparative analysis also highlights the importance of purpose-based evaluation (*maqasid shariah*) and the need for ongoing *ijtihad* to navigate the complexities of Islamic digital finance.

**Keywords:** Ether, Ethereum, Amanie Advisors, Shariyah Review Bureau, Cryptocurrency.

## Introduction

The advancement of digital technology has driven a significant transformation in the global financial sector, particularly through the emergence of cryptocurrency as a decentralized digital asset.<sup>1</sup> Utilizing blockchain and cryptographic technologies, cryptocurrencies offer enhanced transactional security and transparency. They are commonly defined as digital representations of value secured by cryptography and operating independently of central monetary authorities. Since the launch of Bitcoin in 2009, thousands of crypto assets have emerged, expanding their applications across investment activities, cross-border remittances, and decentralized finance (DeFi) ecosystems.<sup>2</sup>

One of the most prominent blockchain projects following Bitcoin is Ethereum, developed by Vitalik Buterin and officially launched in 2015.<sup>3</sup> Unlike Bitcoin, Ethereum was designed as a programmable blockchain platform, serving as a foundation for developing applications based on smart contracts and decentralized applications (DApps).<sup>4</sup> Its native token, Ether (ETH), is used to pay transaction fees and operate various functions within the Ethereum ecosystem. Due to its utility-oriented and technical nature, Ether is not merely traded as a digital asset but also serves as a core component of blockchain-based projects, including those related to Islamic digital finance.

However, amid the global adoption of cryptocurrencies, there is an ongoing and intense debate among Islamic scholars, jurists, and fatwa authorities regarding the Shariah compliance of digital assets. This issue has become increasingly complex due to the decentralized, non-physical, and highly volatile nature of cryptocurrencies, which raises questions about their permissibility from an Islamic legal perspective. Certain authoritative bodies, such as the Indonesian Council of Ulama (MUI), through its 2021 fatwa, have declared cryptocurrency to be haram due to the presence of *gharar* (uncertainty), *maysir* (excessive speculation), and the lack of an underlying asset.<sup>5</sup> A similar stance is adopted by Egypt's Dar al-Ifta, which regards cryptocurrency as prone to misuse and inconsistent with the objectives of Shariah, particularly in protecting wealth (*hifz al-mal*).<sup>6</sup>

---

<sup>1</sup> Olawale Adisa et al., "Decentralized Finance (DEFI) in the U. S. Economy: A Review: Assessing the Rise, Challenges, and Implications of Blockchain-Driven Financial Systems.," *World Journal of Advanced Research and Reviews* 21, no. 1 (2024): 2313–28, <https://doi.org/10.30574/wjarr.2024.21.1.0321>.

<sup>2</sup> Damilola Christiana Ayodeji et al., "Analyzing the Challenges and Opportunities of Integrating Cryptocurrencies into Regulated Financial Markets," *International Journal of Multidisciplinary Research and Growth Evaluation*. 4, no. 6 (2023): 1190–96, <https://doi.org/10.54660/IJMRGE.2023.4.6.1190-1196>.

<sup>3</sup> Vitalik Buterin, *The Making of Ethereum and the Philosophy of Blockchains* (Seven Stories Press, 2022).

<sup>4</sup> Roberto Infante, *Uilding Ethereum Dapps: Decentralized Applications on the Ethereum Blockchain*. Simon and Schuster (Simon and Schuster, 2019).

<sup>5</sup> Essa Al-Mansouri, "Is Bitcoin Haram in Sharia? A Methodological Critique of the Prohibition Fatwa," *Journal of Balkan Economies and Management* 1, no. 2 (2025): 83–156, <https://doi.org/https://doi.org/10.51331/bemA06>; Mohamad Amerzan Mohamad Sobri and Muneer Ali Abdul Rab, "REGULATORY FRAMEWORKS FOR CRYPTO ASSETS: COMPARATIVE FIQH STUDY BETWEEN MALAYSIA AND INDONESIA," *SALAM Digest: Syariah and Law Undergraduate Symposium* 2, no. 1 (2024): 66–77.

<sup>6</sup> Najhan Muhamad Ibrahim et al., "Cryptocurrency as Digital Asset According to the Principles of Usul Al-Fiqh: A Critical Analysis by Mohd Daud Bakar," *2024 3rd International Conference on Creative Communication and Innovative Technology (ICCIT)*, August 7, 2024, 1–6, <https://doi.org/10.1109/ICCIT62134.2024.10701114>; Othman Sahalan and Muhammad Adib Samsudin, "Cryptocurrency According to The Principles of Usul Al-Fiqh: A Critical Analysis by Mohd Daud Bakar," *Islāmiyyāt: International Journal of Islamic Studies* 45, no. 1 (2023); Nur Syaedah Kamis et al., "A CALL FOR REGULATION OF ESTATE ADMINISTRATION OF CRYPTOCURRENCY IN MALAYSIA," *UUM Journal of Legal Studies* 14, no. 2 (2023): 735–64, <https://doi.org/10.32890/uumjls2023.14.2.13>;

Conversely, some scholars and institutions have adopted a more progressive and contextual approach. Shariyah Review Bureau (SRB) based in Bahrain has issued a Shariah analysis stating that cryptocurrencies may be considered *mal* (valuable assets) if used in lawful contexts and with clear benefits. Mufti Faraz Adam, a UK-based Islamic fintech expert, has similarly argued that cryptocurrencies can be Shariah-compliant if not used for extreme speculation and structured transparently with permissible objectives.<sup>7</sup> Additionally, scholars from the South African Muslim Judicial Council (MJC), as well as scholars in Nigeria and Pakistan, have begun developing contextual frameworks for crypto assessment, emphasizing the importance of intent and actual use case in determining the permissibility of digital assets.<sup>8</sup>

These divergent views indicate that Islamic discourse on cryptocurrencies remains dynamic and fragmented, shaped by differing methodological approaches, regulatory environments, and levels of technological literacy. While this plurality presents challenges, it also creates opportunities for developing contemporary *ijtihād* that responds more effectively to the realities of the digital economy. Within this context, Ether (ETH) stands out as a particularly important subject of analysis due to its utilitarian function in the Ethereum ecosystem.<sup>9</sup> Unlike typical cryptocurrencies that are often used for speculation or exchange, Ether powers the operational infrastructure of Ethereum-based projects.<sup>10</sup> Several Islamic finance initiatives utilizing blockchain technology such as automated zakat systems, tokenized sukuk, and digital waqf management as their foundational platform, making them as a key component with implications for Islamic legal rulings. Despite this relevance, academic studies specifically addressing Ether from the perspective of *fiqh al-mu‘amalāt* remain scarce, especially those that compare contemporary fatwas from leading Shariah institutions.

This study seeks to address this gap by providing a focused institutional comparison of Shariah assessments on Ether (ETH) issued by Amanie Advisors (Malaysia) and the Shariyah Review Bureau (SRB) Bahrain. While existing literature often treats cryptocurrencies in general terms, this paper contributes novel insights by examining Ether as a utility-based crypto asset and by analyzing how differing Shariah methodologies shape its legal classification and governance implications.

Accordingly, this research aims to analyze the Shariah positions of Amanie Advisors and SRB Bahrain regarding the permissibility and legal characterization of Ether. By examining their official advisory opinions, the study seeks to enrich contemporary scholarship on Islamic commercial jurisprudence (*fiqh al-mu‘amalāt*) while offering practical insights for regulators, Shariah boards, and Islamic fintech developers engaged in

---

Bakhrul Huda et al., *Assessing the Legality of Cryptocurrency Trading in Indonesia’s Commodity Market: An Analytical Study Based on Maqāṣid Al-Sharī‘ah*, 25, no. 1 (2025): 67–93.

<sup>7</sup> Dalal AlMahmood, “Promoting Retail Sukuk Using Blockchain Technology” (Hamad Bin Khalifa University (Qatar), 2019).

<sup>8</sup> Fatimah Motunrayo Opebiyi, “Regulating User Interactions within the Financial Technology Market: Cryptocurrencies in Nigeria,” *The University of Manchester (United Kingdom)*, 2022; Rahman Ullah Khan et al., “Regulatory Constraints, Responsibilities and Consultation (CRC) for Legal Institutionalization of Cryptocurrencies in Pakistan,” *Qualitative Research in Financial Markets* 16, no. 4 (2024): 680–708, <https://doi.org/10.1108/QRFM-03-2023-0053>; Hussain Mohi ud din Qadri et al., “Exploring Crypto Currency through the Lens of the Sharī‘a Law: A Comparative Analysis of Scholarly Evaluations,” *Journal of Islamic Thought and Civilization* 13, no. 2 (2023): 324–34, <https://doi.org/10.32350/jitc.132.21>.

<sup>9</sup> Christopher R. Henson, “Exploring Ethereum’s Network Effects on Digital Asset Value: A Blockchain Study” (Trident University Internationa, 2024).

<sup>10</sup> Buterin, *The Making of Ethereum and the Philosophy of Blockchains*.

digital innovation. The findings are expected to serve as a preliminary reference for developing more systematic and comparative Shariah frameworks for evaluating digital assets. The research question guiding this study is: “What are the Shariah positions on Ether (ETH) according to Amanie Advisors and the Shariyah Review Bureau (SRB)?”. The structure of the paper is presented in the subsequent sections.

## Method

This study employs a qualitative research design using a document-based content analysis approach to examine Shariah perspectives on Ether (ETH). The analysis focuses on how Ether is assessed and legally classified by two prominent Shariah advisory institutions: Amanie Advisors and the Shariyah Review Bureau (SRB) Bahrain. Amanie Advisors and SRB Bahrain were selected due to their international influence, geographical representation, and established roles in providing Shariah advisory services for Islamic finance and fintech initiatives. The data consist of secondary sources, primarily official Shariah white papers, institutional reports, and publicly available advisory opinions issued by both institutions that directly address Ether (ETH).

Document analysis was conducted through thematic categorization of key Shariah considerations, including the classification of Ether as *māl* (asset), assessment of *gharar*, *ribā*, and *maysir*, governance and risk considerations, and the application of contemporary *ijtihad*. Relevant academic literature and other advisory opinions were reviewed for contextual understanding; however, only documents that explicitly articulated institutional Shariah reasoning on Ether were included in the core analysis. This qualitative approach is appropriate for the study’s objective, as it enables in-depth interpretation of normative and legal texts and facilitates a systematic comparison of institutional reasoning within the framework of *fiqh al-mu‘amalāt*.

## Results

### Overview of Ether and Its Function in the Ethereum Ecosystem

Ether (ETH) is the native digital token of the Ethereum blockchain, designed not merely as a means of exchange or digital currency, but primarily as a utility token that powers the entire ecosystem<sup>11</sup>. Unlike traditional cryptocurrencies such as Bitcoin, which are primarily used as speculative investment assets or stores of value, Ether serves as the operational fuel for running decentralized applications and executing smart contracts within the Ethereum Virtual Machine (EVM). According to both the Shariah White Paper on Ether issued by Amanie Advisors in 2020 and the Shariah Analysis Report on Ethereum by Shariyah Review Bureau in 2022, Ether plays an essential role in facilitating activities such as token transfers, contract execution, and DApp operations, with gas fees being paid in ETH to compensate validators for processing transactions and securing the network.<sup>12</sup>

At the core of Ethereum’s architecture lies the smart contract self-executing digital programs that trigger specific actions when predetermined conditions are met.<sup>13</sup> These contracts eliminate the need for intermediaries in many financial and legal processes,

---

<sup>11</sup> Dominik Sobe, “Token Economy—Towards Building a Sustainable Blockchain Token Ecosystem Framework” (Universidade NOVA de Lisboa, 2022); and Dongying Song Wu, Xun Brian, Zhihong Zou, *Learn Ethereum: A Practical Guide to Help Developers Set up and Run Decentralized Applications with Ethereum 2.0*. (Packt Publishing Ltd, 2023).

<sup>12</sup> Amanie Advisors, *SHARIAH WHITE PAPER ON ETHER* (Malaysia, 2020).

<sup>13</sup> Satpal Singh Kushwaha et al., “Ethereum Smart Contract Analysis Tools: A Systematic Review,” *IEEE Access* 10 (2022): 57037–62, <https://doi.org/10.1109/ACCESS.2022.3169902>.

reducing cost, time, and risk of manipulation. Smart contracts serve as the building blocks of decentralized applications (DApps), which operate transparently, immutably, and autonomously over the Ethereum network<sup>14</sup>. These DApps span a wide array of sectors, including decentralized finance (DeFi), supply chain management, identity verification, governance, and even religious applications such as automated zakat distribution and waqf management<sup>15</sup>. Ethereum hosts over 3,000 active DApps, making it the world's leading blockchain platform for decentralized application development<sup>16</sup>. Furthermore, the network processes approximately 1.4 million transactions daily, indicating its massive scale and global adoption.

To maintain its security and integrity, Ethereum originally employed the Proof-of-Work (PoW) consensus mechanism, where miners compete to solve complex cryptographic puzzles in order to validate transactions and add blocks to the chain. While effective in securing the network, PoW has been criticized for its environmental impact due to high energy consumption. In response, Ethereum transitioned to Proof-of-Stake (PoS) with the launch of Ethereum 2.0 in 2022. Under PoS, validators are selected based on the amount of Ether they "stake" or lock into the network, which not only reduces energy use significantly but also democratizes the validation process by lowering the entry barrier for participation.<sup>17</sup> Both Amanie Advisors and SRB have stated that these mechanisms do not inherently violate Shariah principles, provided they are not utilized for unlawful purposes or speculative abuse. The absence of *riba*, *gharar*, and *maysir* in the fundamental operations of Ethereum supports this position.

The multi-functional nature of Ether distinguishes it from typical cryptocurrencies.<sup>18</sup> Beyond serving as a store of value or unit of exchange, Ether is indispensable for network participation, protocol operations, and the implementation of programmable money.<sup>19</sup> Its embedded utility in executing Halal smart contracts, supporting tokenized sukuk, or powering decentralized charitable applications positions Ether as a transformative digital asset especially relevant in the context of Islamic digital finance. As Muslim societies increasingly engage with fintech innovations, the technical structure of Ether aligns with the vision of a transparent, ethical, and decentralized financial ecosystem that resonates with the *maqasid shariah* (objectives of Islamic law), particularly in preserving wealth (*hifz al-mal*), ensuring justice, and promoting public benefit (*maslahah*).

In summary, Ether serves as the technological backbone of Ethereum, enabling a vast range of decentralized, programmable, and potentially Shariah-compliant applications. Its widespread adoption, utility-driven structure, and technical neutrality have made it a

---

<sup>14</sup> Huashan Chen et al., "A Survey on Ethereum Systems Security," *ACM Computing Surveys* 53, no. 3 (2021): 1–43, <https://doi.org/10.1145/3391195>.

<sup>15</sup> Ming Sen Thong, *Blockchain for Financial Governance in Malaysia and Singapore: Transforming Regulatory and Shariah Compliance to Drive Financial Inclusion* (Springer Nature, 2025).

<sup>16</sup> and Wei Cai Min, Tian, "Portrait of Decentralized Application Users: An Overview Based on Large-Scale Ethereum Data," *CCF Transactions on Pervasive Computing and Interaction* 4, no. 2 (2022): 124–41.

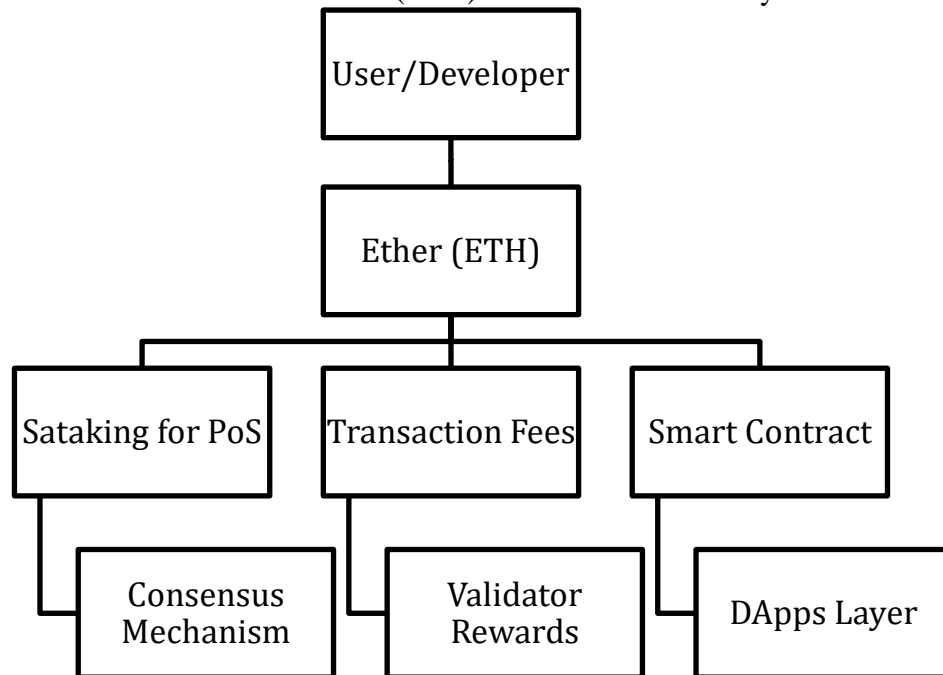
<sup>17</sup> Advisors, *SHARIAH WHITE PAPER ON ETHER*.

<sup>18</sup> Weili Chen et al., "Traveling the Token World: A Graph Analysis of Ethereum ERC20 Token Ecosystem," *Proceedings of The Web Conference 2020* (New York, NY, USA), April 20, 2020, 1411–21, <https://doi.org/10.1145/3366423.3380215>; J. McLean, "The Promise of Crypto Prototype: Platform Power & Centralized Crypto Exchange Platforms" (University of Calgary, 2024), <https://doi.org/https://dx.doi.org/10.11575/PRISM/47805>.

<sup>19</sup> Burhan Ul Islam Khan et al., "Decentralized Payment Framework for Low-Connectivity Areas Using Ethereum Blockchains," *Engineering, Technology & Applied Science Research* 14, no. 6 (2024): 17798–810, <https://doi.org/10.48084/etasr.8582>.

critical component in the broader movement toward Islamic blockchain innovation making it imperative for scholars, regulators, and industry players to evaluate its role through both a technical and Shariah lens.

Figure 1 Functional Role of Ether (ETH) in the Ethereum Ecosystem



This diagram presents the core functional ecosystem of Ether (ETH) within the Ethereum blockchain. Ether acts as the underlying utility token enabling the execution of smart contracts, payment of transaction fees, and participation in the Proof-of-Stake (PoS) validation process. These components collectively support the integrity of decentralized applications (DApps) and maintain the security and consensus of the Ethereum network.

### Shariah Findings on Ether (ETH) According to Amanie Advisors

Amanie Advisors is a globally recognized Shariah advisory and consulting firm based in Kuala Lumpur, Malaysia, with regional offices in Dubai, Kazakhstan, Morocco, and other strategic locations. The firm was established in 2005 by Mohd Daud Bakar, one of the most prominent contemporary scholars in Islamic finance and the former Chairman of the Shariah Advisory Council of Bank Negara Malaysia and the Securities Commission Malaysia. Amanie Advisors offers a wide range of Shariah services, including Shariah advisory, product structuring, Shariah auditing, fatwa issuance, and training. The firm has been involved in the development and certification of various Islamic financial products across banking, capital markets, takaful, and fintech sectors. What distinguishes Amanie is its strong combination of Shariah expertise and financial engineering, as well as its international network of scholars. Its Shariah Supervisory Board consists of senior scholars and jurists from various countries, ensuring that its guidance aligns with global Islamic jurisprudential standards.

The Shariah White Paper on Ether by Amanie Advisors presents one of the earliest and most structured analyses on the permissibility of Ether (ETH) from an Islamic legal perspective. The findings are based on both technical understanding of Ethereum and

classical ushul fiqh principles. The report presents several critical determinations that collectively form the basis of Ether's Shariah status.

Firstly, the paper classifies Ether as *māl* (a valuable asset) rather than *naqd* (currency). This classification is foundational because it shifts Ether from being subjected to the strict regulations of currency exchange (*bay' al-sarf*)<sup>20</sup> to being treated like any other tradable asset under *ahkam al-mu'amalat*. According to the report:

*"Ether meets the criteria to be considered a valuable asset or mal from the Shariah perspective."*

This indicates that Ether has recognized utility (*manfa'ah*), can be owned (*milk*), and transferred, fulfilling the criteria of assethood in Islamic jurisprudence. The white paper explicitly states that Ether does not contain the prohibited elements of *riba* (usury), *gharar* (excessive uncertainty), or *maysir* (gambling). It says:

*"Ether does not have any prohibited element such as riba, gharar and maysir, therefore it is a Shariah compliant asset."*

This affirmation is significant because these three elements are fundamental red lines in Islamic financial ethics. The document explains that Ether avoids *riba* as it is not issued based on debt and does not promise interest. It also avoids *gharar* due to the transparent and immutable nature of blockchain technology. Regarding *maysir*, the paper argues that Ether is not intrinsically speculative, as its primary function is operational to pay gas fees and execute smart contracts, rather than serve as an instrument for gambling or betting.<sup>21</sup> Amanie Advisors stresses that Ether does not qualify as currency under Shariah standards. Thus, it is not subject to the fiqh of currency exchange (*bay' al-sarf*), which imposes conditions like immediate transfer (*taqabudh*) and equal value (*tamathul*)<sup>22</sup>. The document affirms:

*"Ether at the current stage does not fulfil the requirements to be deemed a currency."*

This allows more flexibility in how Ether is transacted and used within digital ecosystems, including its use in tokenized services and decentralized finance. The white paper also explains that Ethereum as a platform is neutral under Shariah law. It states that the platform itself is not inherently *halal* or *haram*; what matters is the purpose and design of the applications built upon it. It says:

*"Shariah is neutral with regards to Ethereum... Shariah needs to look at the purpose and nature of the smart contracts or decentralized applications..."*

This suggests that Ethereum is viewed like a tool, similar to the internet that can be used for permissible or impermissible purposes depending on user intent (*niyyah*) and the underlying contract structure (*akad*). The paper addresses the validation mechanisms of the Ethereum blockchain, namely Proof-of-Work (PoW) and Proof-of-Stake (PoS). Amanie affirms that both consensus mechanisms do not inherently violate any major Shariah principles. PoW is viewed as a form of legitimate computational labor, while PoS is seen as

---

<sup>20</sup> Bakhrol Huda, "Etika Pertukaran Valas Dalam Pasar Valuta Asing Perspektif Fikih Sarf," *IQTISHADIA Jurnal Ekonomi & Perbankan Syariah* 5, no. 1 (2018): 1–21, <https://doi.org/10.19105/iptishadia.v5i1.1656>.

<sup>21</sup> Advisors, *SHARIAH WHITE PAPER ON ETHER*.

<sup>22</sup> Advisors, *SHARIAH WHITE PAPER ON ETHER*.

an asset-based security mechanism. However, Amanie exercises prudence (*ihtiyat*) by recommending a future review of PoS once its implementation is fully realized:

*“It is recommended that a full Shariah review will take place once the full protocol is ready or implemented.”*

Lastly, the intent of the white paper itself is a notable finding. It was written not just to determine permissibility, but to encourage participation from the Islamic finance industry in leveraging blockchain for innovation. This demonstrates Amanie’s commitment to contemporary *ijtihad* and its support for integrating emerging technologies into the Islamic financial system. The white paper is positioned as a roadmap for Shariah-compliant engagement with Ethereum, advocating both clarity and confidence for scholars, fintech developers, and ethical investors alike.<sup>23</sup>

### **Shariah Findings on Ether (ETH) According to Shariyah Review Bureau (SRB) Bahrain**

Shariyah Review Bureau (SRB) is one of the leading international Shariah advisory and audit firms based in the Kingdom of Bahrain. Established over 17 years ago, SRB is licensed and supervised by the Central Bank of Bahrain (CBB). It serves more than 100 clients across various industries and operates with a multidisciplinary team, including a Shariah Supervisory Board consisting of 31 scholars from 16 different countries. SRB provides Shariah advisory, Shariah audit, and certification services for financial institutions, fintech platforms, investment firms, and corporate entities. The firm plays an important role in bridging traditional Islamic legal principles with modern financial innovations by issuing fatwas, Shariah pronouncements, and technical reviews.

The *Shariah Analysis Report on Ethereum* issued by Shariyah Review Bureau (SRB) in 2022 presents an in-depth Shariah opinion regarding the permissibility of Ether (ETH) and its function within the Ethereum blockchain. According to the report, Ether (ETH) is not a currency (*naqd*) but rather a utility token used primarily to pay transaction fees (gas) and to operate decentralized applications (DApps) and smart contracts on the Ethereum Virtual Machine (EVM). This classification underlines that Ether serves as the operational “fuel” of the blockchain, not as a means of speculative exchange or fiat alternative<sup>24</sup>. The report states:

*“Every Ethereum action – from payments to using dApps – requires a fee, which is paid in Ether... [Ethereum] provides an environment to develop and execute smart contracts, and that environment has its own medium of exchange and gas for it to operate.”*

As a result of this functional role, SRB concludes that Ether fulfills the Shariah conditions to be treated as *mal* (a valuable asset). In Islamic jurisprudence, *mal* is defined as any entity that has recognized value (*manfa’ah*), can be owned (*tamlik*), and is capable of lawful benefit. SRB confirms that Ether meets these criteria: it is storable in a digital wallet, transferable, and usable for legitimate blockchain-based services<sup>25</sup>.

The report explicitly affirms the following:

---

<sup>23</sup> Advisors, *SHARIAH WHITE PAPER ON ETHER*.

<sup>24</sup> Shariyah Review Bureau (SRB), *Sharia Analysis Ethereum* (Bahrain, 2022).

<sup>25</sup> Shariyah Review Bureau (SRB), *Sharia Analysis Ethereum*.

*“Ether is used for various lawful use cases and therefore its utility is Shariah compliant.”*

SRB’s classification means that Ether is not subject to the stricter rules of currency exchange (*bay’ al-sarf*) such as *taqabudh* (spot exchange) or *tamathul* (equal value). Instead, it falls under the broader category of commercial transactions (*mu’amalat*), allowing for more flexible applications in Islamic finance, especially in technology-driven contexts.<sup>26</sup>

Furthermore, the report stresses that the Shariah compliance of Ether is use-case dependent. It is permissible if used to access lawful services such as DApps for zakat distribution, tokenized waqf systems, or halal crowdfunding platforms. However, if Ether is used in activities involving *riba* (usurious lending), *maysir* (speculation/gambling), or haram content, it becomes impermissible<sup>27</sup>. This conditionality reflects the SRB’s concern for ethical governance and ongoing monitoring in digital asset usage.

Another important aspect in SRB’s analysis is the treatment of Ethereum as a technological platform. SRB does not assess Ether in isolation but within the wider Ethereum ecosystem, which includes smart contracts, decentralized finance (DeFi), ERC-20 token issuance, and Ethereum 2.0 with its Proof-of-Stake (PoS) consensus mechanism<sup>28</sup>. The report acknowledges that:

*“The Ethereum platform offers tools for developing smart contracts and decentralized apps... and these can be used for lawful or unlawful purposes.”*

Finally, SRB references the need for further Shariah assessment of Ethereum’s evolving features, particularly as PoS becomes fully implemented. While SRB does not find PoS to be inherently non-compliant, it urges caution and re-evaluation once the protocol is finalized. The institution recommends ethical oversight as a continued practice to maintain alignment with Islamic legal norms.

Table 1. Key Shariah Classifications of Ether (ETH) by Amanie Advisors and Shariyah Review Bureau (SRB)

Shariah Aspect	Amanie Advisors	Shariyah Review Bureau – SRB
Legal Status of Ether (ETH)	Classified as mal (valuable property), not <i>naqd</i> (currency)	Considered mal, not currency, and accepted as a valid asset used in lawful digital services
Primary Use of Ether	Used to pay gas fees for executing smart contracts and decentralized applications (DApps)	Used for transaction fees, DApp access, and Ethereum-based blockchain operations
Presence of Riba, Gharar, Maysir	Ether is free from <i>riba</i> , <i>gharar</i> , and <i>maysir</i> elements; thus, permissible in essence	No indicators of violations of core Shariah prohibitions when used in lawful use cases

<sup>26</sup> Shariyah Review Bureau (SRB), *Sharia Analysis Ethereum*.

<sup>27</sup> Shariyah Review Bureau (SRB), *Sharia Analysis Ethereum*.

<sup>28</sup> Shariyah Review Bureau (SRB), *Sharia Analysis Ethereum*.

Classification as Currency	Not a currency; therefore, not subject to bay' al-sarf rules	Similarly, not classified as money; does not require rulings related to currency exchange transactions
Ethereum Platform Evaluation	Considered Shariah-neutral; permissibility depends on the purpose and content of smart contracts and applications built on the platform	Also viewed as neutral; evaluation depends on the lawful context in which Ethereum is utilized
Proof-of-Work (PoW)	Not in conflict with Shariah principles	Viewed as acceptable under Shariah, as a valid consensus mechanism
Proof-of-Stake (PoS)	Evaluation deferred; requires reassessment once fully implemented, as details were not finalized at the time	Also recommends future review upon full deployment to ensure continued Shariah compliance
Fiqh Approach	Emphasizes purpose over form; adopts <i>al-'ibrah bi al-maqasid</i> (rulings are based on objectives)	Focused on lawful usage context, aligning with a maqasid-oriented perspective
Overall Shariah Recommendation	Encourages the use of Ether in halal applications, promotes engagement with blockchain through a Shariah-compliant framework	Provides a positive but cautious endorsement, encourages Muslim participation in the blockchain and digital asset space
Objective of the Report	Aims to provide clarity and facilitate the adoption of Shariah-compliant blockchain innovation in the Islamic finance industry	Seeks to validate Ether's permissibility and support its potential use in Islamic fintech and digital economy

## Discussion

### Analytical Discussion on Amanie Advisors' Shariah Perspective

A particularly important dimension of Amanie's reasoning is its classification of Ethereum as a Shariah-neutral technological platform. By separating the underlying infrastructure from its applications, Amanie adopts a *maqāṣid*-based evaluative framework that assesses outcomes rather than technology in abstraction. This distinction reflects a pragmatic application of Islamic legal theory, preventing overgeneralized prohibitions and

enabling Shariah to engage constructively with innovation. In this sense, Ethereum is treated analogously to enabling technologies whose permissibility is contingent upon use, rather than intrinsic moral characteristics.

However, this *maqāṣid*-oriented flexibility also raises important governance implications. By emphasizing functional utility and intended objectives, Amanie places significant responsibility on downstream actors like developers, users, and Shariah boards to ensure that applications built on Ethereum remain compliant. This approach may facilitate innovation, but it also introduces regulatory dispersion, where Shariah compliance becomes context-dependent rather than uniformly enforceable at the protocol level. In contrast to more precautionary methodologies, this stance prioritizes economic and technological participation over ex ante restriction.

Moreover, while Amanie acknowledges the presence of speculative behavior in crypto markets, the analysis largely treats volatility as an external market condition rather than a structural concern intrinsic to Ether itself. This raises a potential limitation of the framework, particularly when Ether is widely traded as an investment asset rather than merely utilized as “gas.” The extent to which extreme price volatility may trigger elements of *maysir* in real-world usage remains underexplored. Similarly, the environmental implications of Ethereum’s historical reliance on Proof-of-Work (PoW) consensus although partially mitigated following the transition to Proof-of-Stake are not explicitly integrated into Amanie’s *maqāṣid* assessment, despite their relevance to broader ethical considerations in Islamic finance.

Overall, Amanie’s Shariah perspective reflects a progressive and purposive interpretation that aligns Islamic legal reasoning with the realities of digital infrastructure. Its strength lies in conceptual clarity and adaptability; however, its reliance on post-use compliance and limited engagement with systemic risks highlights the need for complementary governance mechanisms. These observations become particularly salient when contrasted with more cautious institutional approaches, underscoring how methodological orientation between *maqāṣid*-driven permissibility and prudential *ihtiyāt* can materially shape Shariah governance outcomes in the crypto ecosystem.

### **Critical Perspective and Governance Implications**

While Amanie’s *maqāṣid* oriented methodology offers considerable flexibility and innovation potential, it simultaneously raises important governance challenges at the level of practical implementation. A strong emphasis on functional utility and intended purpose risks underestimating systemic market dynamics that shape how Ether is actually used in practice. Price volatility, speculative trading behavior, and market manipulation may emerge not from the design of Ether itself but from its integration into global financial markets. In jurisdictions with limited regulatory capacity, such risks cannot be adequately mitigated through normative Shariah reasoning alone. Consequently, Amanie’s permissibility framework presupposes the existence of complementary governance instruments capable of translating ethical intent into enforceable practice.

This reliance on post use compliance introduces a governance gap between theoretical permissibility and real world application. When Ether is widely traded as an investment asset rather than merely utilized for operational functions within the Ethereum network, the distinction between utility and speculation becomes increasingly blurred. Under such conditions, the *maqāṣid* based openness that characterizes Amanie’s approach may inadvertently facilitate practices that resemble *maysir* in outcome, even if not in original intent. This observation does not negate Amanie’s reasoning but highlights the need for continuous monitoring and contextual reassessment as market behavior evolves.

With respect to consensus mechanisms, Amanie demonstrates notable technological literacy by engaging substantively with both Proof of Work and Proof of Stake systems. By interpreting these mechanisms through the classical concepts of *kasb* and *tamalluk*, Amanie affirms their foundational Shariah compatibility and reframes digital validation processes within established jurisprudential categories. This analytical move reflects a broader attempt to integrate emerging technologies into Islamic legal thought rather than treating them as anomalies requiring exceptional rulings.

At the same time, Amanie's cautious stance toward Proof of Stake reflects an element of *iḥtiyāt* grounded in uncertainty surrounding long term structural implications, including concentration of validation power and governance centralization. This prudential sensitivity introduces an internal balance within Amanie's otherwise permissive framework. Nevertheless, environmental concerns associated with Proof of Work, particularly energy consumption and sustainability, are not addressed in substantive detail. From a *maqāṣid* perspective, this omission represents a potential limitation, as broader considerations of public welfare and environmental stewardship are increasingly recognized as integral to contemporary Islamic economic ethics.

Overall, Amanie's position may be understood as a form of strategic *ijtihād mu'āṣir* that seeks to reconcile technological innovation with Islamic normative objectives. Rather than adopting a defensive or exclusionary posture, Amanie emphasizes engagement and conditional permissibility, thereby enabling participation in digital transformation while maintaining ethical boundaries. However, the effectiveness of this framework ultimately depends on the strength of institutional oversight, regulatory coordination, and Shariah governance mechanisms that operate beyond the level of doctrinal analysis. Without such supporting structures, the gap between permissibility in principle and harm prevention in practice remains a critical area for further refinement.

### **Analytical Discussion on Shariyah Review Bureau (SRB) Bahrain Perspective**

The Shariah assessment of Ether issued by the Shariyah Review Bureau Bahrain reflects a contextual, purpose driven, and prudential orientation in contemporary Islamic legal reasoning. Similar to Amanie, SRB classifies Ether as *māl* rather than *naqd*, thereby excluding it from the classical constraints of *bay' al ṣarf* and enabling its incorporation into asset based contractual arrangements. This classification allows Ether to function within digital financial architectures that prioritize transparency, traceability, and lawful benefit, particularly in regulated environments.

SRB's analysis places strong emphasis on utility and real economic function, treating Ether primarily as a technological enabler rather than as a speculative digital currency. This approach is consistent with the principle *al 'ibrah fī al mu'āmalāt bi al maqāṣid wa al ma'ānī*, whereby legal judgment is anchored in substance and outcome rather than formal resemblance. By focusing on how Ether facilitates decentralized infrastructure and operational efficiency, SRB reframes the legal discussion away from abstract volatility concerns toward concrete use cases that generate identifiable *maslahah*.

The fatwa issued by SRB is explicitly grounded in *maqāṣid al sharī'ah*, with particular attention to the protection of wealth and ethical conduct in financial transactions. Its endorsement of Ether in applications such as zakat distribution, tokenized *ṣukūk*, and Shariah compliant fintech solutions reflects an institutional willingness to engage with digital innovation as a means of enhancing governance, efficiency, and financial inclusion.

In this regard, SRB positions technology as an instrument that can serve Islamic ethical objectives rather than as a disruptive force requiring categorical rejection.

A defining characteristic of SRB's reasoning is its conditional permissibility framework. Ether is considered permissible in essence, yet its Shariah status remains contingent upon intention, actual use case, and contractual structure. This non binary evaluative model moves beyond rigid halal and haram dichotomies and reflects a dynamic understanding of *fiqh al mu'āmalāt* that is responsive to contextual variation. Permissibility is therefore not attributed to Ether as an isolated object but to the broader ecosystem in which it operates.

From a governance perspective, SRB's emphasis on prudence introduces a higher threshold for compliance compared to more function oriented approaches. By linking permissibility to regulatory clarity, contractual transparency, and ethical safeguards, SRB implicitly prioritizes risk mitigation and institutional accountability. This stance reduces exposure to speculative misuse but may also limit flexibility in rapidly evolving technological environments. Nevertheless, such caution reflects a deliberate attempt to align innovation with systemic stability and Shariah governance coherence.

Overall, SRB's position represents a calibrated form of contemporary *ijtihād* that balances technological engagement with legal restraint. Its framework underscores the importance of contextual assessment, institutional oversight, and ethical intentionality in evaluating digital assets. While this prudential orientation may constrain certain experimental applications, it provides a robust foundation for Shariah compliant adoption of blockchain technology within formal Islamic financial systems.

### **Comparative and Critical Assessment**

A comparative reading of the two institutions reveals a clear methodological divergence in how Shariah principles are operationalized in the governance of crypto assets. Amanie Advisors adopts a more *maqāṣid* driven and facilitative posture, emphasizing functional utility and innovation enablement as long as the overarching objectives of Shariah are preserved. In contrast, SRB Bahrain demonstrates a stronger orientation toward *iḥtiyāt*, embedding conditionality, procedural safeguards, and continuous oversight at the core of its Shariah assessment. This difference reflects not a contradiction in legal foundations, but a divergence in risk tolerance and governance philosophy.

Amanie's openness allows for faster integration of Ether into Islamic fintech experimentation, particularly in decentralized environments where regulatory clarity is still evolving. However, this flexibility may increase exposure to secondary market behavior that deviates from the original operational intent, including speculative trading, volatility spillovers, and asymmetric information risks. SRB's more cautious posture, by contrast, prioritizes systemic stability and institutional accountability, even if this results in slower innovation adoption. From a Shariah governance perspective, SRB's framework offers stronger protection against misuse but may limit the pace at which emerging technologies are deployed within Islamic finance.

Despite these differences, both institutions exhibit similar limitations in addressing certain structural concerns. Neither Amanie nor SRB fully resolves the issue of inherent price volatility in crypto markets, particularly when digital assets are used in socially sensitive contexts such as zakat management or public endowment platforms. In addition, environmental externalities associated with blockchain consensus mechanisms, especially energy intensive validation processes, remain underdeveloped within their respective Shariah analyses. Given that environmental stewardship and public welfare form part of

broader *maqāṣid* considerations, this gap represents a critical area for future Shariah engagement.

SRB's treatment of Ethereum's transition to Proof of Stake further illustrates its commitment to continuous *ijtihād* rather than static legal pronouncements. By refraining from issuing definitive rulings until structural clarity is achieved, SRB emphasizes adaptive oversight as technologies evolve. This approach enhances regulatory resilience and reduces the risk of premature legitimization or prohibition, reinforcing the idea that Shariah governance must remain responsive to technological transformation rather than reactive to it.

In sum, while Amanie positions itself as a catalyst for innovation through a *maqāṣid* oriented lens, SRB emerges as a stabilizing force that foregrounds prudence, oversight, and institutional coherence. Together, these perspectives illustrate the spectrum of contemporary Shariah reasoning in the digital finance domain. Their comparative insights highlight the need for an integrated governance framework that balances innovation enablement with ethical restraint, ensuring that the evolution of Shariah compliant digital finance remains both principled and sustainable.

### **Shariah Reflections and Future Directions: Ether's Role in the Islamic Digital Economy**

As blockchain technology continues to mature, Ether emerges not merely as a digital asset but as a foundational technological infrastructure with significant implications for the development of Islamic digital finance. The programmability of the Ethereum network enables the deployment of smart contracts capable of automating key Shariah based financial functions, including zakat distribution, waqf administration, and sukuk structuring. These applications offer enhanced transparency, traceability, and operational efficiency, addressing long standing governance challenges within Islamic financial institutions. Moreover, the tokenization of halal assets using Ethereum based frameworks has the potential to democratize access to Islamic financial instruments, supporting broader financial inclusion and participation across jurisdictions.

Despite these opportunities, the integration of Ether into Islamic finance must be approached with careful ethical and institutional consideration. Ether remains a highly volatile asset and lacks direct physical asset backing, characteristics that pose substantial risks when applied in socially sensitive domains such as zakat management or waqf preservation. Exposure to price instability may compromise the objectives of wealth protection and social justice if governance mechanisms are insufficient. Accordingly, Shariah permissibility in principle must be complemented by robust regulatory safeguards to prevent harm in practice. This includes the development of risk mitigation strategies, controlled exposure mechanisms, and usage restrictions aligned with *maqāṣid al sharī'ah*.

The future viability of Ether within the Islamic digital economy also depends on the level of digital Shariah literacy among scholars, regulators, developers, and end users. Without adequate technical understanding, Shariah rulings risk becoming either overly permissive or excessively restrictive, both of which undermine effective governance. There is therefore an urgent need for coordinated regulatory frameworks and collective *ijtihād* at the international level to ensure consistency, credibility, and adaptability in Shariah guidance on crypto assets and blockchain infrastructures.

Looking forward, sustainable progress will require close collaboration between Shariah scholars, financial authorities, and technology developers. Cross sector engagement

is essential to translate ethical principles into functional system design, ensuring that technological innovation serves genuine economic and social benefit. In the absence of standardized Shariah governance and interoperable regulatory frameworks, Ether's role as a Shariah compliant infrastructure is likely to remain fragmented and limited in scope.

When governed with prudence, transparency, and continuous ethical oversight, Ether holds the potential to function as a meaningful bridge between Islamic moral values and contemporary technological advancement. Its role in the Islamic digital economy should therefore be understood not as an end in itself, but as an evolving instrument whose legitimacy depends on purpose, governance, and sustained alignment with the objectives of Shariah.

## Conclusion

Based on an in-depth analysis of the official fatwas and technical evaluations issued by Amanie Advisors and the Shariyah Review Bureau (SRB), this study concludes that both institutions converge on a core legal classification of Ether (ETH) within Islamic jurisprudence. Ether is not treated as currency (*naqd*), but rather as *māl*, a valuable digital asset with functional utility. This distinction is crucial, as it excludes Ether from the restrictive rulings of *bay' al-ṣarf* and situates it within the broader domain of *mu'āmalāt*, thereby permitting greater legal flexibility when Ether is used for operational and utility driven purposes such as smart contract execution, decentralized applications, and tokenized financial structures. Both advisory bodies further agree that Ether does not inherently violate the principal prohibitions of *ribā*, *gharar*, and *maysir*, provided that its use remains within lawful and ethically structured contexts. In their respective fatwas, Ether is framed not as a speculative financial instrument but as a technological enabler that functions as a necessary operational component of the Ethereum ecosystem.

This functional characterization supports the conclusion that Ether is Shariah compliant in essence, while remaining contingent upon its intended use, contractual structure, and broader economic impact. Importantly, the findings demonstrate that Shariah compliance in the context of digital assets is neither absolute nor static. Both Amanie Advisors and SRB emphasize conditional permissibility, underscoring that Ether must not be employed in prohibited activities such as excessive speculation, unethical token issuance, or contracts involving *ribā*. This conditionality reflects a *maqāṣid* oriented jurisprudential approach in which intention, structure, and consequence take precedence over formal classification alone. While Amanie adopts a relatively more facilitative stance toward technological innovation, SRB places stronger emphasis on prudential oversight and continuous *ijtihād*, particularly in response to evolving technological developments such as Ethereum's transition to Proof of Stake.

From a governance perspective, the study highlights that Shariah permissibility at the conceptual level must be accompanied by effective regulatory frameworks, ongoing supervision, and technological literacy to mitigate systemic risks such as volatility, misuse, and unintended social harm. The absence of comprehensive treatment of environmental externalities and market instability within both fatwas further indicates areas where future Shariah engagement and collective *ijtihād* are needed. Overall, this study demonstrates that contemporary Shariah scholarship is capable of engaging constructively with emerging technologies through nuanced, use case driven, and ethically grounded reasoning. The positions articulated by Amanie Advisors and SRB provide a principled foundation for recognizing Ether as a halal digital asset within the Islamic financial system, while simultaneously affirming the necessity of governance, caution, and adaptive legal reasoning.

In doing so, this research contributes to the growing literature on Islamic digital finance by illustrating how Islamic law can remain both normatively faithful and responsive to the realities of the digital economy.

## References

- Advisors, Amanie. *SHARIAH WHITE PAPER ON ETHER*. Malaysia, 2020.
- AlMahmood, Dalal. "Promoting Retail Sukuk Using Blockchain Technology." Hamad Bin Khalifa University (Qatar), 2019.
- Ayodeji, Damilola Christiana, Ifeoluwa Oyeyipo, Verlinda Attipoe, Ngozi Joan Isibor, and Brenda Apiyo Mayienga. "Analyzing the Challenges and Opportunities of Integrating Cryptocurrencies into Regulated Financial Markets." *International Journal of Multidisciplinary Research and Growth Evaluation*. 4, no. 6 (2023): 1190–96. <https://doi.org/10.54660/IJMRGE.2023.4.6.1190-1196>.
- Buterin, Vitalik. *The Making of Ethereum and the Philosophy of Blockchains*. Seven Stories Press, 2022.
- Chen, Huashan, Marcus Pendleton, Laurent Njilla, and Shouhuai Xu. "A Survey on Ethereum Systems Security." *ACM Computing Surveys* 53, no. 3 (2021): 1–43. <https://doi.org/10.1145/3391195>.
- Chen, Weili, Tuo Zhang, Zhiguang Chen, Zibin Zheng, and Yutong Lu. "Traveling the Token World: A Graph Analysis of Ethereum ERC20 Token Ecosystem." *Proceedings of The Web Conference 2020* (New York, NY, USA), April 20, 2020, 1411–21. <https://doi.org/10.1145/3366423.3380215>.
- Essa Al-Mansouri. "Is Bitcoin Haram in Sharia? A Methodological Critique of the Prohibition Fatwa." *Journal of Balkan Economies and Management* 1, no. 2 (2025): 83–156. <https://doi.org/https://doi.org/10.51331/bemA06>.
- Henson, Christopher R. "Exploring Ethereum's Network Effects on Digital Asset Value: A Blockchain Study." Trident University Internationa, 2024.
- Huda, Bakhrul. "Etika Pertukaran Valas Dalam Pasar Valuta Asing Perspektif Fikih Sarf." *IQTISHADIA Jurnal Ekonomi & Perbankan Syariah* 5, no. 1 (2018): 1–21. <https://doi.org/10.19105/iqtishadia.v5i1.1656>.
- Huda, Bakhrul, Rianto Anugerah Wicaksono, Mochammad Andre Agustianto, and Fadllan Fadllan. *Assessing the Legality of Cryptocurrency Trading in Indonesia's Commodity Market: An Analytical Study Based on Maqāṣid Al-Sharī'ah*. 25, no. 1 (2025): 67–93.
- Ibrahim, Najhan Muhamad, Munira Abu Bakar, Siti Sarah Abdul Rahman, and Muhammad Amrullah DRS Nasrul. "Cryptocurrency as Digital Asset According to the Principles of Usul Al-Fiqh: A Critical Analysis by Mohd Daud Bakar." *2024 3rd International Conference on Creative Communication and Innovative Technology (ICCIT)*, August 7, 2024, 1–6. <https://doi.org/10.1109/ICCIT62134.2024.10701114>.
- Infante, Roberto. *Uilding Ethereum Dapps: Decentralized Applications on the Ethereum Blockchain*. Simon and Schuster. Simon and Schuster, 2019.
- Kamis, Nur Syaedah, Norazlina Abd Wahab, and Mohammad Azam Hussain. "A CALL FOR REGULATION OF ESTATE ADMINISTRATION OF CRYPTOCURRENCY IN MALAYSIA." *UUM Journal of Legal Studies* 14, no. 2 (2023): 735–64. <https://doi.org/10.32890/uumjls2023.14.2.13>.
- Khan, Burhan Ul Islam, Asadullah Shah, Khang Wen Goh, Rusnardi Rahmat Putra, Abdul Raouf Khan, and Mesith Chaimanee. "Decentralized Payment Framework for Low-Connectivity Areas Using Ethereum Blockchains." *Engineering, Technology &*

- Applied Science Research* 14, no. 6 (2024): 17798–810. <https://doi.org/10.48084/etasr.8582>.
- Khan, Rahman Ullah, Karim Ullah, and Muhammad Atiq. “Regulatory Constraints, Responsibilities and Consultation (CRC) for Legal Institutionalization of Cryptocurrencies in Pakistan.” *Qualitative Research in Financial Markets* 16, no. 4 (2024): 680–708. <https://doi.org/10.1108/QRFM-03-2023-0053>.
- Kushwaha, Satpal Singh, Sandeep Joshi, Dilbag Singh, Manjit Kaur, and Heung-No Lee. “Ethereum Smart Contract Analysis Tools: A Systematic Review.” *IEEE Access* 10 (2022): 57037–62. <https://doi.org/10.1109/ACCESS.2022.3169902>.
- McLean, J. “The Promise of Crypto Prototype: Platform Power & Centralized Crypto Exchange Platforms.” University of Calgary, 2024. <https://doi.org/https://dx.doi.org/10.11575/PRISM/47805>.
- Min, Tian, and Wei Cai. “Portrait of Decentralized Application Users: An Overview Based on Large-Scale Ethereum Data.” *CCF Transactions on Pervasive Computing and Interaction* 4, no. 2 (2022): 124–41.
- Olawale Adisa, Bamidele Segun Ilugbusi, Ogugua Chimezie Obi, et al. “Decentralized Finance (DeFi) in the U. S. Economy: A Review: Assessing the Rise, Challenges, and Implications of Blockchain-Driven Financial Systems.” *World Journal of Advanced Research and Reviews* 21, no. 1 (2024): 2313–28. <https://doi.org/10.30574/wjarr.2024.21.1.0321>.
- Opebiyi, Fatimah Motunrayo. “Regulating User Interactions within the Financial Technology Market: Cryptocurrencies in Nigeria.” *The University of Manchester (United Kingdom)*, 2022.
- Qadri, Hussain Mohi ud din, Fareed Ahmad Malik, Muhammad Mumtaz ul Hassan, and Muhammad Azhar Abbasi. “Exploring Crypto Currency through the Lens of the Sharī‘a Law: A Comparative Analysis of Scholarly Evaluations.” *Journal of Islamic Thought and Civilization* 13, no. 2 (2023): 324–34. <https://doi.org/10.32350/jitc.132.21>.
- Sahalan, Othman, and Muhammad Adib Samsudin. “Cryptocurrency According to The Principles of Usul Al-Fiqh: A Critical Analysis by Mohd Daud Bakar.” *Islāmiyyāt: International Journal of Islamic Studies* 45, no. 1 (2023).
- Shariah Review Bureau (SRB). *Sharia Analysis Ethereum*. Bahrain, 2022.
- Sobe, Dominik. “Token Economy—Towards Building a Sustainable Blockchain Token Ecosystem Framework.” Universidade NOVA de Lisboa, 2022.
- Sobri, Mohamad Amerzan Mohamad, and Muneer Ali Abdul Rab. “REGULATORY FRAMEWORKS FOR CRYPTO ASSETS: COMPARATIVE FIQH STUDY BETWEEN MALAYSIA AND INDONESIA.” *SALAM Digest: Syariah and Law Undergraduate Symposium* 2, no. 1 (2024): 66–77.
- Thong, Ming Sen. *Blockchain for Financial Governance in Malaysia and Singapore: Transforming Regulatory and Shariah Compliance to Drive Financial Inclusion*. Springer Nature, 2025.
- Wu, Xun Brian, Zhihong Zou, and Dongying Song. *Learn Ethereum: A Practical Guide to Help Developers Set up and Run Decentralized Applications with Ethereum 2.0*. Packt Publishing Ltd, 2023.