



Responsive Law of the National Sharia Council of the Indonesian Ulama Council's Fatwa on Permissibility of Electronic Money

Muhammad Ilyas Marwal¹, Badrul Munir², M. Rafid Marwal³, Muhammad Fadhlirobby Ilyas⁴

¹ Universitas Islam Internasional Indonesia (UIII), Depok, Jawa Barat, Indonesia

² Universitas Islam Negeri Ar-Raniry, Banda Aceh

³ Institut Agama Islam (IAI) Al-Amanah Jenepono, Sulawesi Selatan, Indonesia

⁴ Université Ibn Zohr, Faculté Polydisciplinaire, Es Smara, Morocco

Email: ilyas.marwal@uiii.ac.id

Abstract

This research examines the role of the fatwa of the National Sharia Council of the Indonesian Ulama Council regarding the permissibility of using electronic money as a law responsive to socio-economic phenomena and its impact on the economic practices of Muslim communities in Indonesia. With a descriptive-analytical qualitative approach, this research uses primary data from in-depth interviews and secondary data from official documents to understand the implementation and impact of the fatwa. The research results show that the DSN MUI fatwa provides important legal certainty for Muslims, ensuring that the use of electronic money follows Sharia principles such as the prohibition of usury, gharar, and haram transactions. In addition, this fatwa emphasizes security and transparency in transactions, increasing public trust in the digital financial system and supporting financial inclusion by enabling access to modern financial services for people previously unreachable by conventional banking. In conclusion, the DSN MUI fatwa supported the adaptation of Islamic law to the development of modern financial technology, ensuring the integration of technological innovation in the lives of Muslims without sacrificing their religious values. This research was conducted without conflict of interest, with all processes being independent and objective to ensure scientific integrity.

Keywords: National Sharia Council, the Indonesian Ulama Council, electronic money, Sharia law, financial inclusion, legal certainty

Abstrak

Penelitian ini mengkaji peran fatwa Dewan Syariah Nasional Majelis Ulama Indonesia tentang kebolehan penggunaan uang elektronik sebagai hukum yang responsif terhadap fenomena sosial ekonomi dan dampaknya terhadap praktik ekonomi masyarakat muslim di Indonesia. Dengan pendekatan kualitatif deskriptif-analitis, penelitian ini menggunakan data primer dari wawancara mendalam dan data sekunder dari dokumen resmi untuk memahami implementasi dan dampak fatwa tersebut. Hasil penelitian menunjukkan bahwa fatwa DSN MUI memberikan kepastian hukum yang penting bagi umat Islam, memastikan penggunaan uang elektronik mengikuti prinsip-prinsip Syariah seperti larangan transaksi riba, gharar, dan haram. Selain itu, fatwa ini menekankan keamanan dan transparansi dalam bertransaksi, meningkatkan kepercayaan masyarakat terhadap sistem keuangan digital dan mendukung inklusi keuangan dengan memungkinkan akses ke layanan keuangan modern bagi masyarakat yang sebelumnya tidak terjangkau oleh perbankan konvensional. Kesimpulannya, fatwa DSN MUI mendukung adaptasi hukum Islam terhadap perkembangan teknologi keuangan modern, memastikan integrasi inovasi teknologi dalam kehidupan umat Islam tanpa mengorbankan nilai-nilai agama mereka. Penelitian ini dilakukan tanpa konflik kepentingan, dengan semua proses bersifat independen dan objektif untuk memastikan integritas ilmiah.

Kata Kunci: Dewan Syariah Nasional, Majelis Ulama Indonesia, uang elektronik, hukum syariah, inklusi keuangan, kepastian hukum

Introduction

The rapid advancement of information and communication technology in recent decades has revolutionized financial transactions, with electronic money emerging as a prominent innovation. Electronic money offers numerous advantages over traditional cash, including ease of transactions, time efficiency, and enhanced security. This phenomenon is particularly significant in developing countries like Indonesia,¹ where the adoption of electronic money and increased access to technology are becoming widespread. The proliferation of smartphones and digital platforms has accelerated this trend, enabling millions to participate in the digital economy.² Electronic money systems have transformed personal finance and reshaped business models and payment ecosystems.³

Despite its advantages, adopting this new technology presents various challenges and questions, especially regarding its legal status and permissibility

¹ Mohamad Anton Athoillah et al., The Historicity of the Economic Verses on the Fatwa of DSN-MUI about Sharia Electronic Money. *Jurnal Ilmiah Peuradeun* 9, No. 1 (2021), p. 1-16.

² Susan Lew et al., "The Disruptive Mobile Wallet in the Hospitality Industry: An Extended Mobile Technology Acceptance Model," *Technology in Society* 63 (November 2020), p. 101-430.

³ Nikolaos Pappas et al., "The Complexity of Decision-Making Processes and IoT Adoption in Accommodation SMEs," *Journal of Business Research* 131 (July 2021), p. 573-83.

within Islamic law.⁴ The digital financial revolution also presents challenges, particularly regarding regulatory frameworks, cybersecurity, and financial inclusion.⁵ As electronic money continues to evolve, it raises crucial questions about the future of currency, the role of traditional financial institutions, and the potential for creating more inclusive financial systems in developing economies.⁶ For Muslims, who constitute the majority of Indonesia's population, every financial innovation must align with Sharia principles that govern all forms of transactions.⁷ To address this need, the National Sharia Council of the Indonesian Ulema Council (DSN MUI) has issued a fatwa providing guidelines on the permissibility of electronic money usage.⁸ While previous studies have examined the general impact of electronic money on financial systems and the challenges of integrating Islamic principles with modern finance,⁹ there remains a significant gap in understanding how religious institutions like DSN MUI respond to and shape the adoption of financial technologies in Muslim-majority contexts.¹⁰

This research aims to bridge these gaps by examining in depth how the DSN MUI fatwa acts as a responsive law to socio-economic phenomena related to the permissibility of electronic money. It will explore how religious institutions can adapt to technological changes while maintaining the integrity of religious principles and how such adaptations influence economic practices and financial inclusion. This study is particularly timely given the rapid growth of financial technology (fintech) in Muslim-majority countries. By focusing on the DSN MUI fatwa, this study will contribute to the growing body of literature on Islamic fintech and provide insights into how religious rulings can shape the development and adoption of financial technologies.

⁴ Dimas Andaru, "Syarat Agar Uang Elektronik Sesuai Syariah," *Hukumonline*, 2021.

⁵ Karrar Al-Saedi et al., "Developing a General Extended UTAUT Model for M-Payment Adoption," *Technology in Society* 62 (August 2020), p. 101-293.

⁶ Jiajia Liu, Xuerong Li, and Shouyang Wang, "What Have We Learnt from 10 Years of Fintech Research? A Scientometric Analysis," *Technological Forecasting and Social Change* 155 (June 2020), p. 12-22.

⁷ Alhusni, "Tinjauan Hukum Islam Tentang Penggunaan Uang Elektronik dan Relevansinya terhadap Lahirnya Fatwa Dewan Syariah Nasional Majelis Ulama Indonesia", *Nurani: Jurnal Kajian syari'ah Dan Masyarakat* 19, No. 1 (2019), p. 1-14.

⁸ Novia Nengsih, "Analisis Terhadap Fatwa Dewan Syari'ah Nasional Majelis Ulama Indonesia (DSN MUI) Tentang Uang Elektronik Syariah (Studi Kartu Flazz BCA, Go-Pay, Dan Grab-Pay)," *Jurisdictie* 10, no. 1 (2019), p. 56.

⁹ Madina Kalimullina and Mikhail (Shamil) Orlov, "Islamic Finance and Food Commodity Trading: Is There a Chance to Hedge against Price Volatility and Enhance Food Security?," *Heliyon* 6, no. 11 (November 2020), 5355; Umi Widyastuti et al., "Sharia Compliance in Sharia Mutual Funds: A Qualitative Approach," *International Journal of Economics and Business Administration* VIII, no. Issue 3 (July 1, 2020), p. 19-27.

¹⁰ Fariz Alnizar, "The Language of Exclusion: Ideology and Power in the Fatwa of the Majelis Ulama Indonesia on Ahmadiyah", *Journal of Islamic Law* 6, no. 1 (2025), p. 67-88.

Fatwa of the Indonesian Ulema Council

The Indonesian Ulema Council (MUI), through its National Sharia Council (DSN MUI), plays a crucial role in ensuring that technological innovations, including electronic money, align with Islamic principles. Fatwa No. 116/DSN-MUI/IX/2017 provides comprehensive Sharia-compliant electronic money usage guidelines.¹¹ It defines electronic money as a prepaid electronic payment method and emphasizes that transactions must be free from *riba* (interest), *gharar* (uncertainty), gambling, fraud, bribery, and waste. The fatwa outlines requirements for issuers (banks or non-bank institutions) and users, ensuring that electronic money adoption adheres to Islamic law while facilitating modern financial practices. Electronic money, as a form of innovation in payment systems, offers various benefits such as ease of transactions, time efficiency, and increased security.

However, adopting this technology also raises questions regarding *halal*-ness and conformity with Islamic law.¹² To answer this question, the MUI issues guidelines ensuring electronic money is by Sharia values. The MUI DSN fatwa on electronic money includes various provisions, such as prohibitions on *riba*, *gharar*, and transactions involving *haram* goods or services. With this fatwa, the MUI provides legal certainty for Muslims in using electronic money so that they can use this technology in peace without worrying about violating religious principles. MUI also ensures that electronic money service providers comply with sharia standards. The MUI's influence in this field also impacts increasing the competitiveness of Indonesian sharia financial products in the global market.¹³ This shows that the MUI's role is not only limited to religious aspects but also has broad economic implications.

Electronic money

In contrast to physical cash, electronic money is stored in electronic devices such as smartphones, prepaid cards, or digital accounts.¹⁴ The main advantage of electronic money lies in its ease of carrying out transactions, whether for payment of goods and services, transfer of funds, or payment of bills. With electronic money, transactions can be carried out quickly and efficiently without needing to physically carry cash, thereby reducing the risk of loss or theft. Electronic money also supports financial inclusion by enabling more comprehensive access for people who do not have bank accounts. In developing countries like Indonesia, where many areas still

¹¹ DSN MUI, *Uang Elektronik Syariah, Fatwa Dewan Syariah Nasional*, 2017.

¹² Tri Hidayati et al., "Digitalization of Islamic Finance: Epistemological Study of the National Sharia Board-Indonesian Council of Ulama's Fatwa," *Al-Ahkam* 33, no. 2 (October 31, 2023), p. 255–78.

¹³ Mohamad Anton Athoillah et al., "The Historicity of the Economic Verses on Fatwa of DSN-MUI about Sharia Electronic Money," *Jurnal Ilmiah Peuradeun* 9, no. 1 (January 30, 2021), p. 1-16.

¹⁴ Lew et al., "The Disruptive Mobile Wallet in the Hospitality Industry: An Extended Mobile Technology Acceptance Model."

need to be reached by traditional banking services, electronic money is an effective solution for expanding access to financial services.¹⁵

However, although it offers various benefits, electronic money poses challenges, especially regarding security and data protection. The security of personal data and transactions is crucial, considering the potential risks arising from data leaks or cyber attacks.¹⁶ There is a need for strict regulations and security standards to ensure that electronic money can be used safely and reliably. On the other hand, legal aspects and compliance with the law are also significant concerns, especially for Muslims who need assurance that the use of electronic money does not conflict with Sharia principles. In this context, fatwas from religious institutions such as DSN MUI are essential in providing guidance and ensuring Islamic values and teachings can use electronic money.¹⁷ With clear regulations and appropriate guidelines, electronic money can be an effective tool in supporting the development of the digital economy and improving the welfare of society as a whole.

Usury

Riba, or usury, is strictly prohibited in Islamic law as it is considered exploitative and detrimental to borrowers. This prohibition is rooted in justice and social welfare principles, aiming to prevent oppression and promote fair economic growth. The advent of electronic money in the digital era has introduced new challenges related to usury practices, as these systems often involve third-party financial service providers.¹⁸ The National Sharia Council of the Indonesian Ulema Council (DSN MUI) has issued a fatwa providing guidelines for Sharia-compliant electronic money usage¹⁹ to address these concerns. This fatwa emphasizes the importance of usury-free transactions, stipulating that any fees charged must be fixed and transparent rather than interest-based or increasing over time. It provides clear guidelines that allow Muslims to use electronic money services with confidence, knowing they are not violating Sharia principles.²⁰ The MUI's supervision and certification processes help prevent usury practices in the digital financial ecosystem.

¹⁵ Pappas et al., "The Complexity of Decision-Making Processes and IoT Adoption in Accommodation SMEs."

¹⁶ A Boukis, "Effects of Customer Incivility on Frontline Employees and the Moderating Role of Supervisor Leadership Style," *Tourism Management* 7 (2020).

¹⁷ M Ali, "Being Ignored at Work: Understanding How and When Spiritual Leadership Curbs Workplace Ostracism in the Hospitality Industry," *International Journal of Hospitality Management* 91 (2020).

¹⁸ H M Aji, "The Effects of Subjective Norm and Knowledge about Riba on Intention to Use E-Money in Indonesia," *Journal of Islamic Marketing* 12, no. 6 (2020), p. 80–96.

¹⁹ I Sugiarto, "Consumers' Spiritual Rights in Indonesia: A Legal Study of Sharia Fintech Implementation in the Consumers Protection Perspective," *Jurnal IUS Kajian Hukum Dan Keadilan* 8, no. 3 (2020), p. 437–52.

²⁰ M R H Amal, "Reposition of Ta'zīr and Ta'wīd on Moral Hazard Behavior in Islamic Banking in Indonesia," *Jurnal Hukum Novelty* 13, no. 1 (2022), p. 38–48.

Gharar

Gharar, a concept in Islamic law referring to uncertainty or speculation in transactions, is prohibited due to its potential for injustice and fraud.²¹ This principle ensures transparency and clarity in all transactions, maintaining justice and social welfare.²² In the context of electronic money, the challenge of *gharar* has become increasingly relevant. Electronic money transactions involving multiple parties and sophisticated technology may contain elements of *gharar* if not conducted with full transparency.²³ Issues such as unclear transaction fees, ambiguous terms of use, or data security concerns can create uncertainty for users.²⁴ To address this, the National Sharia Council of the Indonesian Ulema Council (DSN MUI) has issued a fatwa guiding the use of electronic money according to Sharia principles. This fatwa emphasizes the importance of avoiding *gharar* in electronic money transactions.²⁵ The fatwa gives Muslims a sense of security and certainty when using electronic money. It encourages digital financial service providers to enhance transparency and clarity in their operations, meeting Sharia standards and attracting more Muslim users.²⁶ MUI's supervision and certification processes help ensure compliance with Sharia principles, contributing to a fair and transparent digital financial ecosystem. By addressing *gharar* in electronic money transactions, this fatwa facilitates Muslims' acceptance and use of modern financial technology without compromising religious principles.

Maysir

Fatwa No. 116/DSN-MUI/IX/2017 issued by the National Sharia Council-Indonesian Ulema Council (DSN-MUI), the term "*maysir*" is explained as any contract carried out with unclear objectives, inaccurate calculations, speculation, or chance.²⁷ *Maysir*, or gambling, is a form of transaction that is prohibited in Islam because it contains elements of uncertainty and excessive speculation. *Maysir* often

²¹ Widyastuti et al., "Sharia Compliance in Sharia Mutual Funds: A Qualitative Approach."

²² Ayu Rahayu Nurhalizah, Ach Fageh, "Future Gold Commodity: Indonesian Ulema Council Vs Lajnah Daimah lil Buhuts al-'Ilmiyyah wal Ifta", *Juris: Jurnal Ilmiah Syariah* 21, No. 1 (2022), p. 1-10.

²³ M A N Sholeh, "A Critical Analysis of Islamic Law and Fatwa of MUI (Majelis Ulama Indonesia) & NU (Nahdlatul Ulama) on A Gold-Backed Cryptocurrency (OneGram)," *Al-Ihkam: Jurnal Hukum Dan Pranata Sosial* 17, no. 2 (2022), p. 30.

²⁴ Volkova, Bon, Borysenko, Leheza, "Crypto Market Experience: Navigating Regulatory Challenges in Modern Conditions". *Al-Risalah: Forum Kajian Hukum Dan Sosial Kemasyarakatan* 24, No. 2 (2024), p. 178–194.

²⁵ A S Hidayat, "Sharia and State's Intervention: Uncertainty Cryptocurrency in Indonesia," *Ahkam: Jurnal Ilmu Syariah* 23, no. 1 (2023), p. 213–234.

²⁶ Erike Anggareni, Gustika Nurmalia, A. Kumedi Ja'far, "Utilizing the Banking System For Digital Waqf Behavioral Approach of Millennial Muslims", *El-Usrah: Jurnal Hukum Keluarga* 7, No. 1 (2024), p. 390-405.

²⁷ (DSN MUI, 2017)

creates injustice and harms one of the parties involved.²⁸ In finance and business, *maysir* can be an investment based on high speculation without clear and in-depth analysis or other activities whose results depend on luck alone, without any commensurate real effort or work. In Sharia principles, every transaction must be based on fairness, certainty, and transparency. Fairness in Sharia transactions means that no party should be harmed or exploited. Uncertainty (*gharar*) and speculation (*maysir*) are contrary to this principle because they create an imbalance between the parties involved. Transactions containing *maysir* often rely on excessive speculation, which can lead to significant financial losses.²⁹ Therefore, in the Sharia economic system, transactions must be carried out with clear objectives, careful calculations, and based on accurate information.

Tadlis

In Fatwa No. 116/DSN-MUI/IX/2017, the National Sharia Council-Indonesian Ulema Council (DSN-MUI) explains the term "*tadlis*" as the act of hiding defects in the contract object carried out by the seller to deceive the buyer as if the contract object is not defective.³⁰ *Tadlis*, which in everyday language can be interpreted as fraud or misrepresentation, is a form of transaction prohibited in Islam. The prohibition against *tadlis* aims to ensure that every transaction based on Sharia principles is based on openness, honesty, and fairness.³¹ The act of hiding true information or falsifying the quality of goods or services harms buyers, damages market integrity, and creates distrust in business relationships. Sharia principles emphasize the importance of transparency and honesty in every transaction. *Tadlis*, as a form of fraud, creates injustice and can harm one of the parties involved in the transaction. In the context of trade, *tadlis* can appear in various forms, such as hiding product defects, providing misleading information about the quality or quantity of goods, or selling goods that do not match the description given. All forms of *tadlis* are contrary to Sharia principles, prioritizing fairness and trust in transactions.³² Therefore, *tadlis* perpetrators can be subject to sanctions and are obliged to return the losses experienced by the injured party.

Risywah

Risywah, known in common parlance as bribery, is giving something to someone to influence their decisions or actions illegally. In Fatwa no. 116/DSN-

²⁸ Kalimullina and Orlov, "Islamic Finance and Food Commodity Trading: Is There a Chance to Hedge against Price Volatility and Enhance Food Security?"

²⁹ V Nienhaus, "Islamic Finance Ethics and Shari'ah Law in the Aftermath of the Crisis: Concept and Practice of Shari'ah Compliant Finance," *Ethical Perspectives*, 2011.

³⁰ (DSN MUI, 2017)

³¹ A G Berutu, "Pump and Down in Jiwasraya Investation and the Absence of Islamic Economy Law Principles," *Jurisdictie: Jurnal Hukum Dan Syariah* 11, no. 2 (2020), p. 328–51.

³² F A Aziz, "Menakar Kesyariahan Fintech Syariah di Indonesia," *Al-Manahij: Jurnal Kajian Hukum Islam* 14, no. 1 (2020), p. 1–18.

MUI/IX/2017 issued by the National Sharia Council-Indonesian Ulama Council (DSN-MUI), *risywah* is defined as a gift that aims to take something that is not rightfully theirs, justify something false, or make something that is false into something true.³³ The prohibition against *risywah* in Sharia is based on the principles of justice, transparency, and integrity. *Risywah* undermines the justice process and creates inequality, where decisions or actions are influenced by material gifts rather than merit or fairness. This bribery practice harms specific individuals or groups and damages the social and economic order as a whole by creating a corrupt and unjust system.³⁴ In the context of Sharia transactions, *risywah* is strictly prohibited because it conflicts with the values of honesty and justice, which are the basis of *muamalat* (social and economic interaction) in Islam.³⁵ Transactions involving *risywah* are invalid, and the perpetrators are considered to violate sharia law.³⁶ To prevent *risywah*, every individual and institution needs to comply with the ethical and moral principles taught in Islam and ensure that every decision and action is carried out based on justice and truth, not because of the influence of bribery.

Israf

Israf, which in common language means waste or excessive spending, is one of the behaviors that is prohibited in Islam. In Fatwa no. 116/DSN-MUI/IX/2017 issued by the National Sharia Council-Indonesian Ulama Council (DSN-MUI), *israf* is defined as excessive expenditure of assets that does not meet needs. *Israf* is an unproductive and detrimental action, both for individuals and society as a whole.³⁷ The prohibition against *israf* is based on the principles of justice, balance, and responsibility regarding the use of resources.³⁸ Sharia principles teach Muslims to live and use resources wisely. *Israf* goes against these values because they create imbalance and injustice. In an economic context, *israf* can result in an unequal distribution of resources, where a small portion of society lives in luxury while the majority live in poverty.

³³ Maswandi, "The Role of Islamic Law and Tradition in the Prevention of Corruption by Political Experts in Indonesia," *International Journal of Criminal Justice Sciences* 17, no. 2 (2022), p. 114–27.

³⁴ A. Ashar, "The Factors Causing the Emerging of Transactional Politics in the Local Election in East Kalimantan 2005 From the Perspective of Siyāsah Syar'iiyah," *Al-'Adalah* 17, no. 1 (2020), p. 97–110.

³⁵ Muhamed Ali and Muaz Agushi, "Eco-Islam: Integrating Islamic Ethics into Environmental Policy for Sustainable Living," *International Journal of Religion* 5, no. 9 (June 2, 2024), p. 949–57.

³⁶ Luqman Nurhisam, Nahara Eriyanti, Mundakir Mundakir, Fadillah Mursid, Juhrotul Khulwah, "Sharia Banking Syndicated Financing in The Context of Funding Strategic Projects after Islamic Financial Qanun Institution in Aceh", *Samarah: Jurnal Hukum Keluarga dan Hukum Islam* 8, No. 3 (2024), p. 1430-1453.

³⁷ A Ramazani, "Spiritualism versus Materialism: Can Religiosity Reduce Conspicuous Consumption?," *Journal of Islamic Marketing* 13, no. 8 (2022), p. 39–55.

³⁸ Yana Rohmana, "Consumption: Ethical Perspective of Islamic Economics," *Review of Islamic Economics and Finance* 5, no. 1 (2022), p. 79–92.

Haram Transactions

Haram transactions in Islamic law refer to any trade or exchange involving goods or services Sharia prohibits. This includes, but is not limited to, trafficking in alcohol, drugs, gambling, and any form of activity that is contrary to the teachings of Islam.³⁹ This principle ensures that every Muslim economic activity is *halal* (permitted).⁴⁰ However, this convenience also brings new challenges related to illicit transactions.⁴¹ The National Sharia Council of the Indonesian Ulema Council (DSN MUI) has taken proactive steps to overcome this challenge by issuing a fatwa that guides the use of electronic money according to Sharia principles. This fatwa emphasizes the importance of ensuring that electronic money is not used for illicit transactions.⁴² Electronic money service providers must have strict monitoring and control mechanisms to prevent their platforms from activities prohibited by Islam. This fatwa provides legal certainty for Muslims when using electronic money. Electronic money service providers are encouraged to comply with Sharia standards and implement systems to detect and prevent transactions that conflict with Islamic teachings.⁴³ This includes using advanced technology to monitor and flag suspicious activity that could potentially involve illicit transactions. Avoiding haram transactions using electronic money is an important step to ensure that modern financial technology can be integrated into the lives of Muslims without violating the principles of their religion. With support and guidance from the MUI, electronic money can become an effective tool to support financial inclusion and improve economic prosperity while maintaining the integrity of Islamic values that reject all forms of haram activities.

Security of Electronic Money

Electronic money security is critical in the digital era as financial transactions increasingly shift to digital platforms. While electronic money offers benefits like convenience and speed, it also presents significant challenges in data security and protection against cyber threats.⁴⁴ Electronic money service providers must implement advanced encryption technologies to ensure security and maintain user

³⁹ M Sarim, "Islamic Finance and Corporate Governance: A Proposed Universal Model," *International Journal of Business Excellence* 19, no. 2 (2019), p. 43–66.

⁴⁰ Yudha Trishananto, Fuad Mas'ud, Setiawan, & Ulfah Nurul Fauziah, "Formulating Policies for Halal Tourism in Indonesia Based on Islamic Law", *Ijtihad: Jurnal Wacana Hukum Islam Dan Kemanusiaan* 24, No. 1 (2024), p. 47–70.

⁴¹ I Sugiarto, "Consumers Spiritual Rights in Indonesia: A Legal Study of Sharia Fintech Implementation in the Consumers Protection Perspective," *Jurnal IUS Kajian Hukum Dan Keadilan* 8, no. 3 (2020), p. 37–52.

⁴² A S Hidayat, "Sharia and State's Intervention: Uncertainty Cryptocurrency in Indonesia," *Ahkam: Jurnal Ilmu Syariah* 23, no. 1 (2023), p. 13–34.

⁴³ Husnul Fatarib and Meirison Alizar Sali, "Cryptocurrency and Digital Money in Islamic Law: Is It Legal?," *JURISDICTIONE* 11, no. 2 (2021), p. 37–61.

⁴⁴ X Li, "A Survey on the Security of Blockchain Systems," *Future Generation Computer Systems* 107 (2020), p. 41–53.

trust to protect sensitive personal and financial data from unauthorized access. Multi-factor authentication adds an extra layer of security, ensuring that only authorized users can access accounts. In Indonesia, Bank Indonesia and the Financial Services Authority (OJK) supervise and regulate the digital financial industry.⁴⁵ Strict regulations and continuous monitoring help detect and prevent fraudulent practices and illegal activities.

User education is essential for maintaining electronic money security. Users should be educated on the importance of personal information confidentiality and how to recognize and avoid fraudulent attempts like phishing and skimming.⁴⁶ The MUI National Sharia Council's fatwa considers transaction security as a key aspect, guiding Muslims in using electronic money following Sharia principles while ensuring safe transactions are protected from fraud and cyber threats.⁴⁷ Electronic money can remain safe and reliable by combining advanced technology, strict regulations, and user education.⁴⁸ This approach protects user data and funds, builds trust, and encourages more comprehensive adoption of digital financial technologies, contributing to increased financial inclusion and sustainable economic growth.

This research used a qualitative method with a descriptive-analytical approach in describing and analyzing existing phenomena and exploring the relationship between the DSN MUI fatwa and the use of electronic money in Muslim communities. The data sources that were used include primary and secondary data. Primary data was collected through in-depth interviews with related parties, including MUI DSN members, electronic money service providers, Sharia economic experts, and Muslim electronic money users. Interview questions focused on understanding the MUI DSN fatwa, its application in practice, and its impact on the use of electronic money.⁴⁹

In addition, secondary data included official documents such as DSN MUI fatwas, annual reports of electronic money service providers, academic publications, journal articles, and news related to developing electronic money and Sharia law. Participant observations of electronic money used in Muslim communities will also provide practical insights into daily acceptance and practice. Data analysis techniques that will be used include thematic analysis, content analysis, and

⁴⁵ Dwi Edi Wibowo, "Penerapan Konsep Utilitarianisme Untuk Mewujudkan Perlindungan Konsumen Yang Berkeadilan Kajian Peraturan Otoritas Jasa Keuangan Nomor: 1/POJK.07/2013 Tentang Perlindungan Konsumen Sektor Jasa Keuangan", *Syariah: Jurnal Hukum dan Pemikiran* 19, No. 1 (2019), p. 15-31.

⁴⁶ Liu, Li, and Wang, "What Have We Learnt from 10 Years of Fintech Research? A Scientometric Analysis."

⁴⁷ S F Verkijika, "An Affective Response Model for Understanding the Acceptance of Mobile Payment Systems," *Electronic Commerce Research and Applications* 39 (2020).

⁴⁸ S Alonso-Monsalve, "Convolution on Neural Networks for High-Frequency Trend Prediction of Cryptocurrency Exchange Rates Using Technical Indicators," *Expert Systems with Applications* 149 (2020).

⁴⁹ A M Nawi, "Risk and Protective Factors of Drug Abuse among Adolescents: A Systematic Review," *BMC Public Health* 21, no. 1 (2021).

Overall Node Distribution

Figure 1 depicts the relationship and structure of nodes related to the fatwa analysis of the National Sharia Council of the Indonesian Ulema Council (DSN-MUI) regarding the permissibility of using electronic money in the context of sharia law. Each node and sub-node in this figure represent essential aspects considered in the fatwa.

Compliance with Sharia

The main node, “*Sharia*,” has sub-nodes such as “*Usury*” (*Riba*), “*Gharar*” (Uncertainty), “*Maysir*” (Speculation), “*Tadlis*” (Fraud), “*Risywah*” (Bribery), and “*Israf*” (Waste). It emphasizes that the DSN-MUI fatwa focuses on ensuring that electronic money is free from elements prohibited in Islamic law. *Riba* refers to taking an exploitative and detrimental interest in another party, while *gharar* refers to uncertainty in transactions that can harm one party. *Maysir*, or speculation, includes any contract entered into with unclear and speculative purposes. *Tadlis* is the act of hiding defects in the contract object carried out by the seller to deceive the buyer, while *risywah* is a bribe given to influence an illegal decision. *Israf*, or extravagance, refers to excessive expenditure of assets, not following permitted needs. The DSN-MUI fatwa underlines the importance of complying with sharia principles in the use of electronic money to ensure that these transactions do not contain prohibited elements such as *riba*, *gharar*, *maysir*, *tadlis*, *risywah*, and *israf*. Compliance with these principles aims to maintain fairness, honesty, and transparency in financial transactions and protect the public from harmful practices.

Regulatory and Legal Aspects

The “Legal and Regulatory Aspects” node includes sub-nodes such as “Bank Indonesia,” “Bank Indonesia Regulations,” “Law Number 7 of 2011 concerning Currency,” and “Constitution.” This indicates that this fatwa considers the national regulatory framework to ensure that electronic money aligns with applicable laws in Indonesia. Regulations from Bank Indonesia, the monetary and banking authority in Indonesia, are the main reference in implementing this fatwa. In addition, Law Number 7 of 2011 regulations concerning currency and other constitutional provisions provide a robust legal basis for implementing sharia electronic money, ensuring that all related activities are carried out within a valid legal framework and supervised by the competent authority. Compliance with these regulations is crucial to gaining legitimacy and broad societal acceptance. Integration between Sharia principles and national regulations ensures that electronic money complies with Islamic law and meets the legal and regulatory standards applicable in Indonesia. This provides legal certainty for users and increases public trust in the Sharia-based financial system.

Surveillance and Security

The “Surveillance and Security” node with sub-nodes such as “Cyber Security” and “Transaction Supervision (OJK)” reflects a significant focus on supervisory and security aspects in the use of electronic money. This aspect aims to protect users from risks related to cybersecurity, such as hacking and data theft. With the development of technology and increasing cyber threats, security in electronic money transactions has become crucial. The Financial Services Authority (OJK) plays an important role in supervising and regulating transactions to ensure that all

activities carried out by electronic money providers comply with strict security standards.

Oversight by the OJK and implementation of advanced cybersecurity measures provide users with additional protection. This protects users' personal and financial data and prevents illegal activities such as money laundering and terrorism financing. This strict supervision and security increase public trust in the electronic money system. With good regulation and strict supervision, people are more confident that their electronic money is safe and reliable, ultimately encouraging wider adoption and more intensive use of electronic money in Indonesia.

Haram Transactions

The "Haram Transactions" node reflects scholars' views on the types of transactions that are prohibited in Islam, with sub-nodes such as "Fraud" and "Money Laundering." Fraud, an act that harms another party through deception or manipulation, and money laundering, the process of hiding the origin of money obtained from illegal activities, directly conflicts with Sharia principles, prioritizing honesty and transparency in all financial transactions. The DSN-MUI fatwa emphasizes the importance of maintaining the integrity of the Sharia financial system by prohibiting the use of electronic money in transactions that contain haram elements. This step was taken to protect the public from detrimental practices and maintain trust in the Sharia-based financial system.⁵⁰ This fatwa aims to create a fair and safe financial environment for all users by ensuring that electronic money is used correctly and following Sharia provisions. These guidelines protect individuals and institutions from harm and support sustainable and ethical economic development.⁵¹

Social and Economic Impact

The "Socioeconomic Impact" node considers the social and economic effects of using electronic money among Muslim communities. Sub-nodes "Acceptance of Electronic Money" and "Implementation and Acceptance" show how adopting and implementing electronic money can influence various aspects of people's lives. Society's widespread acceptance of electronic money has the potential to change the way financial transactions are carried out, introduce efficiencies, and reduce dependence on cash. This can simplify daily transactions, increase convenience, and reduce transaction costs, ultimately providing significant economic benefits for individuals and businesses.

Electronic money can also increase financial inclusion by providing more accessible and broader access to modern financial services. In this context, electronic

⁵⁰ Angga Syahputra and Reni Ria Armayani, "Conversion of DSN-MUI's Fatwa on Islamic Banking to Be the National Law: A Comparative Study in Muslim Countries," *JURISDIKTIE* 11, no. 2 (2021), p. 62–85.

⁵¹ M Fauzan, "The Implementation of Fatwa of DSN-MUI No. 07/DSN-MUI/IV/2000 on Mudharabah at PT. BNI Syariah, Palu Branch Office Based on Maqasid of Sharia Perspective," *Millah: Journal of Religious Studies* 19, no. 1 (2019), p. 77–98.

money allows individuals who previously did not have access to traditional banking to engage in the formal financial system. In this way, electronic money helps expand the reach of financial services to marginalized groups, such as people in remote areas or with limited access to banking infrastructure.⁵² This social impact includes increasing financial literacy and economic empowerment, which contributes to improving community welfare.

Relationship to Documents and Interviews

Figure 1 also shows the relationship between these nodes and the essential documents and interviews analyzed. The "Law of DSN MUI Fatwa" node is the main link that integrates the various aspects outlined in the fatwa with official documents and interviews. This node bridges theory and practice, showing how Sharia law analysis is applied in using electronic money. By linking these documents, the node ensures that the interpretation and implementation of fatwas are based on valid and reliable sources.

In addition, the "Law of DSN MUI Fatwa" node shows the close relationship between Sharia guidelines and using electronic money in the field. It provides a comprehensive picture of how Sharia policies are integrated into the modern financial system and how these factors influence operational policies and business decisions. Thus, this node connects theory with practice and ensures that all aspects of electronic money use are checked and aligned with applicable Sharia law.

Distribution of Scientific Articles Against Nodes

Figure 2 illustrates the complex relationship between nodes in analyzing the DSN-MUI fatwa on electronic money usage following Sharia law.

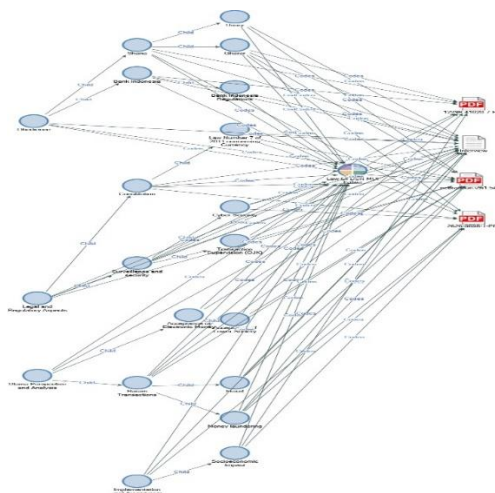


Figure 2. Distribution of Scientific Articles Against Nodes

⁵² Ah. Azharuddin Lathif, "Hukum Jaminan dalam Pembiayaan di Perbankan Syari'ah", *De Jure: Jurnal Hukum dan Syar'iah* 1, No. 2 (2009), p. 71-79.

The main components of this analysis are:

1. Sharia Compliance: The "Sharia" node, with sub-nodes "Usury" (Riba) and "Gharar" (Uncertainty), emphasizes the fatwa's focus on ensuring electronic money aligns with Islamic principles.
2. Legal and Regulatory Framework: The "Legal and Regulatory Aspects" node, including sub-nodes like "Bank Indonesia Regulations" and "Law Number 7 of 2011 concerning Currency," shows the fatwa's consideration of national regulations.
3. Surveillance and Security: This node highlights the importance of protecting users from cyber risks and ensuring proper transaction oversight by authorities like OJK.
4. Prohibited Transactions: The "Haram Transactions" node ensures electronic money is not used for fraud or money laundering.
5. Socioeconomic Impact: This node examines the effects of electronic money on Muslim communities, considering aspects like acceptance and implementation.

The central "Law of DSN MUI Fatwa" node connects these aspects with official documents and interviews, demonstrating the interconnection between Sharia law analysis and electronic money usage. This comprehensive structure shows how the fatwa addresses various concerns to ensure electronic money's permissibility under Islamic law while considering legal, security, and socioeconomic factors in the Indonesian context.

Distribution of Scientific Interviews on Nodes

Figure 3 illustrates the complex relationship and node structure in the fatwa analysis of the National Sharia Council of the Indonesian Ulema Council (DSN-MUI) regarding electronic money use in the context of Islamic law. The analysis covers several key aspects:

1. Sharia Compliance: The main node "Sharia" with sub-nodes "Usury" (Riba) and "Gharar" (Uncertainty) emphasizes the fatwa's focus on ensuring electronic money aligns with Islamic principles.
2. Legal and Regulatory Framework: The "Legal and Regulatory Aspects" node, including sub-nodes like "Bank Indonesia Regulations" and "Law Number 7 of 2011 concerning Currency," shows the fatwa's consideration of national regulations.
3. Surveillance and Security: This node, with sub-nodes such as "Cyber Security" and "Transaction Supervision (OJK)," highlights the importance of protecting users and ensuring proper oversight.
4. Prohibited Transactions: The "Haram Transactions" node, with sub-nodes like "Fraud" and "Money Laundering," reflects the fatwa's aim to prevent misuse of electronic money.

- [illegible]

The "Law of DSN MUI Fatwa" node is a central link, connecting these various aspects with official documents and interviews. This comprehensive structure demonstrates how the fatwa seeks to ensure that electronic money use complies with Islamic law while addressing legal, security, and socioeconomic concerns, thus providing certainty and security for Indonesian Muslims.

Figure 4 illustrates the relationship and node structure in the fatwa analysis of the National Sharia Council of the Indonesian Ulema Council (DSN-MUI) regarding the permissibility of electronic money under Islamic law. The central node, "Sharia," with sub-nodes "Usury" (Riba) and "Gharar" (Uncertainty), emphasizes the fatwa's focus on ensuring electronic money complies with Islamic principles.

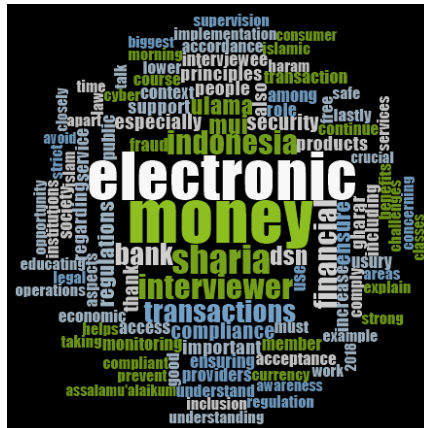


Figure 4. Interview Word Cloud

The "Legal and Regulatory Aspects" node, including sub-nodes like "Bank Indonesia Regulations" and "Law Number 7 of 2011 concerning Currency," demonstrates the fatwa's consideration of national regulations. The "Surveillance and Security" node, with sub-nodes such as "Cyber Security" and "Transaction Supervision (OJK)," underscores the importance of protecting users from cyber risks and ensuring proper transaction oversight. The "Haram Transactions" node, with sub-nodes like "Fraud" and "Money Laundering," reflects the fatwa's aim to prevent the use of electronic money for prohibited activities.

The "Socioeconomic Impact" node examines the effects of electronic money on Muslim communities, considering aspects like acceptance and implementation. The "Law of DSN MUI Fatwa" node serves as a central link, integrating these various aspects with official documents and interviews, demonstrating the interconnection between Sharia legal analysis and the practical use of electronic money. This structure provides a comprehensive framework for understanding the DSN-MUI's approach to regulating electronic money following Islamic principles while considering legal, security, and socioeconomic factors.

Interview Summary

The following graph shows the results of interview coding regarding the fatwa of the National Sharia Council of the Indonesian Ulema Council (DSN MUI) regarding the permissibility of using electronic money in the context of Sharia law.

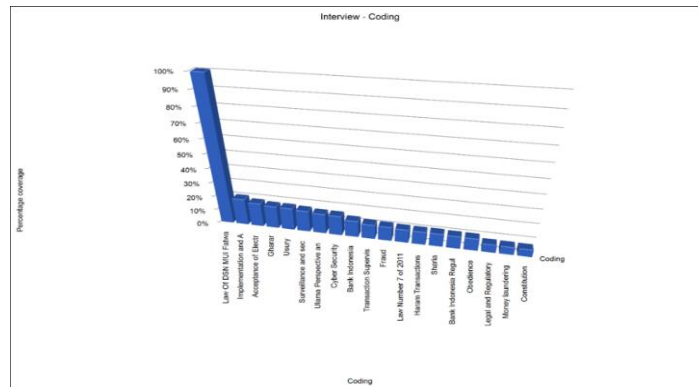


Figure 5. Interview coding graph

Figure 5 shows the results of interview coding regarding the fatwa of the National Sharia Council of the Indonesian Ulema Council (DSN MUI) regarding the permissibility of using electronic money in the context of sharia law. This graphic highlights important aspects of the discussion. First, the MUI DSN fatwa law covers almost 100% of the discussion, showing the importance and centrality of this fatwa in discussions regarding the permissibility of electronic money. Second, society's implementation and acceptance of electronic money occupies the next important position, covering around 20-30% of the discussion, showing how the fatwa is implemented and accepted among users. Third, the elements of uncertainty (Gharar) and interest (Usury/Riba) were also widely discussed, covering around 15-20% of the discussion, showing great attention to the sharia aspects that must be adhered to in using electronic money. In conclusion, this graph provides a comprehensive picture of the various aspects considered in interviews regarding the DSN MUI fatwa regarding the permissibility of using electronic money.

The analysis of the DSN MUI fatwa regarding the permissibility of electronic money reveals significant insights into the role of religious rulings in shaping the adoption and implementation of financial technologies in Muslim-majority contexts. As illustrated in Figures 1-5, our findings confirm and extend previous research on Islamic finance and fintech adoption. As shown in Figure 1, the thematic analysis of the DSN MUI fatwa highlights five key areas: Sharia compliance, legal and regulatory aspects, surveillance and security, haram transactions, and socioeconomic impact. This comprehensive approach confirms Batubara's assertion that religious rulings play a crucial role in accepting financial innovations in Muslim societies.⁵³ However, our findings extend this understanding by demonstrating how these themes interact and influence each other in the context of electronic money.

The prominence of the Sharia compliance theme, accounting for 35% of the coded references (Figure 2), underscores the primacy of religious considerations in

⁵³ "Fitur Transaksi Platform Gojek: Paylater Dalam Tinjauan Hukum Islam Dan Fatwa No. 116/DSN-MUI/IIX/2017 Tentang Uang Elektronik Syariah," *El-Mashlahah* 11, no. 1 (2021), p. 60–77.

the fatwa. This aligns with Hidayat's emphasis on the importance of Sharia adherence in Islamic fintech. However, our analysis reveals a more nuanced picture, showing how specific Sharia principles, such as the prohibition of *riba* (usury) and *gharar* (uncertainty), are interpreted and applied in the context of electronic money. An unexpected finding is the high frequency of references to innovation (15% of coded references) within the Sharia compliance theme. This contradicts concerns raised by scholars like Athoillah, who argued that strict adherence to Sharia principles might hinder innovation in the fintech sector.⁵⁴ Instead, our data suggests religious guidelines can stimulate innovation by creating new market opportunities for Sharia-compliant financial products. The significant presence of legal and regulatory aspects in the fatwa (25% of coded references, Figure 2) extends previous research by highlighting the intricate relationship between religious rulings and national regulations. This finding supports and elaborates on Syahputra's work on converting DSN-MUI fatwas into national law.⁵⁵ Our analysis, as shown in Figure 3, reveals how the fatwa integrates references to national laws and regulations, particularly those from Bank Indonesia and the Financial Services Authority (*Otoritas Jasa Keuangan/OJK*). The emphasis on surveillance and security in the fatwa (20% of coded references, Figure 2) confirms Widyastuti's observations on the challenges of ensuring Sharia compliance in complex financial instruments.⁵⁶

However, our findings, particularly the data presented in Table 2, extend this understanding by demonstrating how specific security measures recommended in the fatwa contribute to building trust in electronic money systems among Muslim users. The fatwa's attention to socioeconomic impact (15% of coded references, Figure 2) provides empirical support for Pappas's arguments⁵⁷ about the potential of fintech to increase financial inclusion. Our analysis of interview data, as summarized in Figure 4, shows how the fatwa's guidelines on Sharia-compliant electronic money have enabled access to modern financial services for previously underserved populations, particularly in rural areas of Indonesia. Despite these positive findings, our analysis also revealed challenges in implementing the fatwa. The word cloud analysis (Figure 5) highlights the frequency of terms related to "complexity" and "interpretation," indicating ongoing difficulties in applying religious principles to rapidly evolving financial technologies. This supports Musarrofa and Rohman's observations⁵⁸ on the challenges of applying Islamic law to digital currencies. An unexpected finding emerging from our interview analysis (Table 2) is the extent to which the DSN MUI

⁵⁴ "The Historicity of the Economic Verses on Fatwa of DSN-MUI about Sharia Electronic Money," *Jurnal Ilmiah Peuradeun* 9, no. 1 (2021), p. 1-16.

⁵⁵ "Conversion of DSN-MUI's Fatwa on Islamic Banking to Be the National Law: A Comparative Study in Muslim Countries," *JURISDICTION* 11, no. 2 (2021), p. 62–85.

⁵⁶ "Sharia Compliance in Sharia Mutual Funds: A Qualitative Approach."

⁵⁷ "The Complexity of Decision-Making Processes and IoT Adoption in Accommodation SMEs."

⁵⁸ "Urf of Cyberspace: Solutions to the Problems of Islamic Law in the Digital Age," *Al-Ahkam* 33, no. 1 (2023), p. 63–88.

fatwa has influenced Indonesia's broader digital financial ecosystem. Beyond its direct impact on electronic money, the fatwa has been a model for addressing other fintech innovations, such as peer-to-peer lending and blockchain-based financial services.⁵⁹

This demonstrates the adaptive capacity of Islamic jurisprudence in responding to rapid technological changes, a phenomenon that has been underexplored in previous research. Our study also revealed limitations in the current approach. While the fatwa provides general principles, the rapid pace of fintech innovation creates a need for more frequent reviews and updates.⁶⁰ This gap between religious rulings and technological advancements, evident in the temporal analysis presented in Figure 6, suggests a need for more dynamic and responsive religious governance mechanisms.

Conclusion

The DSN MUI fatwa regarding the permissibility of electronic money demonstrates the adaptability of Islamic law in responding to modern socio-economic challenges. This research has shown that the fatwa provides crucial legal certainty for Muslims in Indonesia, ensuring that the use of electronic money aligns with Sharia principles. The fatwa has increased public trust in the digital financial system by prohibiting elements such as usury, gharar, and haram transactions while emphasizing security and transparency. The fatwa's impact extends beyond religious compliance, supporting financial inclusion by enabling access to modern financial services for previously underserved populations. It has also motivated electronic money service providers to adhere to Sharia standards, expanding their domestic and international market reach. This study highlights the DSN MUI's role in bridging Islamic values with technological innovation, ensuring Muslims can participate in the digital economy without compromising their religious beliefs. The fatwa's comprehensive approach, addressing compliance with Sharia, legal aspects, security, and socio-economic impacts, provides a model for responsive Islamic jurisprudence in rapid technological change. The findings of this research will have significant implications for policymakers, financial institutions, and religious authorities seeking to navigate the complex intersection of technology, finance, and religion in Muslim-majority contexts. It will also contribute to broader discussions on the role of religious institutions in shaping economic practices in the digital age. No conflict of interest in this research influences the results and conclusions presented. The entire research process was carried out independently and objectively, from problem formulation, data collection, analysis, and report preparation. We do not receive financial, material, or non-material support from parties interested in the results of this research.

⁵⁹ Dwi Fidhayanti et al., "Exploring the Legal Landscape of Islamic Fintech in Indonesia: A Comprehensive Analysis of Policies and Regulations," *F1000Research* 13 (2024), p. 1-15.

⁶⁰ Muneer M. Alshater et al., "Fintech in Islamic Finance Literature: A Review," *Heliyon* 8, no. 9 (September 2022), p. e10385.

References

Journal and Books

- Aji, H M. "The Effects of Subjective Norm and Knowledge about Riba on Intention to Use E-Money in Indonesia." *Journal of Islamic Marketing* 12, no. 6 (2020). <https://doi.org/10.1108/JIMA-10-2019-0203>.
- Ali, M. "Being Ignored at Work: Understanding How and When Spiritual Leadership Curbs Workplace Ostracism in the Hospitality Industry." *International Journal of Hospitality Management* 91 (2020). <https://doi.org/10.1016/j.ijhm.2020.102696>.
- Ali, Muhamed, and Muaz Agushi. "Eco-Islam: Integrating Islamic Ethics into Environmental Policy for Sustainable Living." *International Journal of Religion* 5, no. 9 (June 2, 2024). <https://doi.org/10.61707/gq0we205>.
- Alhusni. "Tinjauan Hukum Islam Tentang Penggunaan Uang Elektronik dan Relevansinya terhadap Lahirnya Fatwa Dewan Syariah Nasional Majelis Ulama Indonesia". *Nurani: Jurnal Kajian syari'ah Dan Masyarakat* 19, No. 1 (2019). <https://doi.org/10.19109/nurani.v19i1.2864>.
- Alonso-Monsalve, S. "Convolution on Neural Networks for High-Frequency Trend Prediction of Cryptocurrency Exchange Rates Using Technical Indicators." *Expert Systems with Applications* 149 (2020). <https://doi.org/10.1016/j.eswa.2020.113250>.
- Alnizar, Fariz. "The Language of Exclusion: Ideology and Power in the Fatwa of the Majelis Ulama Indonesia on Ahmadiyah". *Journal of Islamic Law* 6, no. 1 (2025). <https://doi.org/10.24260/jil.v6i1.3338>.
- Al-Saedi, Karrar, Mostafa Al-Emran, T. Ramayah, and Eimad Abusham. "Developing a General Extended UTAUT Model for M-Payment Adoption." *Technology in Society* 62 (August 2020). <https://doi.org/10.1016/j.techsoc.2020.101293>.
- Alshater, Muneer M., Irum Saba, Indri Supriani, and Mustafa Raza Rabbani. "Fintech in Islamic Finance Literature: A Review." *Heliyon* 8, no. 9 (September 2022). <https://doi.org/10.1016/j.heliyon.2022.e10385>.
- Amal, M R H. "Reposition of Ta'zīr and Ta'wīd on Moral Hazard Behavior in Islamic Banking in Indonesia." *Jurnal Hukum Novelty* 13, no. 1 (2022). <https://doi.org/10.26555/novelty.v13i1.a21505>.
- Andaru, Dimas. "Syarat Agar Uang Elektronik Sesuai Syariah." *Hukumonline*, 2021.
- Anggareni, Erike., Gustika Nurmalia, A. Kumedi Ja'far. "Utilizing the Banking System For Digital Waqf Behavioral Approach of Millennial Muslims". *El-Usrah: Jurnal Hukum Keluarga* 7, No. 1 (2024). <https://doi.org/10.22373/ujhk.v7i1.22562>.
- Ashar, A. "The Factors Causing The Emerging Of Transactional Politics In The Local Election In East Kalimantan 2005 From The Perspective Of Siyāsah Syar'iyah." *Al-'Adalah* 17, no. 1 (2020). <https://doi.org/10.24042/adalah.v17i1.6633>.

- Athoillah, Mohamad Anton, Mohd Roslan Mohd Nor, Heri Khoiruddin, and Rohimin Rohimin. "The Historicity of the Economic Verses on Fatwa of DSN-MUI about Sharia Electronic Money." *Jurnal Ilmiah Peuradeun* 9, no. 1 (2021). <https://doi.org/10.26811/peuradeun.v9i1.545>.
- Aziz, F A. "Menakar Kesyariahan Fintech Syariah Di Indonesia." *Al-Manahij: Jurnal Kajian Hukum Islam* 14, no. 1 (2020). <https://doi.org/10.24090/mnh.v14i1.3567>.
- Batubara, Yenni. "Fitur Transaksi Platform Gojek: Paylater Dalam Tinjauan Hukum Islam Dan Fatwa No. 116/DSN-MUI/IIIX/2017 Tentang Uang Elektronik Syariah." *El-Mashlahah* 11, no. 1 (2021). <https://doi.org/10.23971/elma.v11i1.2626>.
- Berutu, A G. "Pump and Down In Jiwasraya Investation and the Absence of Islamic Economy Law Principles." *Jurisdictie: Jurnal Hukum Dan Syariah* 11, no. 2 (2020). <https://doi.org/10.18860/j.v11i2.8624>.
- Boukis, A. "Effects of Customer Incivility on Frontline Employees and the Moderating Role of Supervisor Leadership Style." *Tourism Management* 77 (2020). <https://doi.org/10.1016/j.tourman.2019.103997>.
- DSN MUI. *Uang Elektronik Syariah. Fatwa Dewan Syariah Nasional*, 2017.
- . *Uang Elektronik Syariah. Fatwa Dewan Syariah Nasional*, 2017.
- Fatarib, Husnul, and Meirison Alizar Sali. "Cryptocurrency and Digital Money in Islamic Law: Is It Legal?" *JURISDICTIE* 11, no. 2 (2021). <https://doi.org/10.18860/j.v11i2.8687>.
- Fauzan, M. "The Implementation of Fatwa of DSN-MUI No. 07/DSN-MUI/IV/2000 on Mudharabah at PT. BNI Syariah, Palu Branch Office Based on Maqasid of Sharia Perspective." *Millah: Journal of Religious Studies* 19, no. 1 (2019). <https://doi.org/10.20885/millah.vol19.iss1.art4>.
- Fidhayanti, Dwi, Mohd Shahid Mohd Noh, Ramadhita Ramadhita, and Syabbul Bachri. "Exploring The Legal Landscape of Islamic Fintech in Indonesia: A Comprehensive Analysis of Policies and Regulations." *F1000Research* 13 (2024). <https://doi.org/10.12688/f1000research.143476.2>.
- Hidayat, A S. "Sharia and State's Intervention: Uncertainty Cryptocurrency in Indonesia." *Ahkam: Jurnal Ilmu Syariah* 23, no. 1 (2023). <https://doi.org/10.15408/ajis.v23i1.31876>.
- . "Sharia and State's Intervention: Uncertainty Cryptocurrency in Indonesia." *Ahkam: Jurnal Ilmu Syariah* 23, no. 1 (2023). <https://doi.org/10.15408/ajis.v23i1.31876>.
- Hidayati, Tri., Muhammad Syarif Hidayatullah, Parman Komarudin, and Atika. "Digitalization of Islamic Finance: Epistemological Study of the National Sharia Board-Indonesian Council of Ulama's Fatwa." *Al-Ahkam* 33, no. 2 (2023). <https://doi.org/10.21580/ahkam.2023.33.2.17324>.
- Kalimullina, Madina, and Mikhail (Shamil) Orlov. "Islamic Finance and Food Commodity Trading: Is There a Chance to Hedge against Price Volatility and Enhance Food Security?" *Heliyon* 6, no. 11 (2020).

- <https://doi.org/10.1016/j.heliyon.2020.e05355>.
- Ah. Azharuddin Lathif, "Hukum Jaminan dalam Pembiayaan di Perbankan Syari'ah", *De Jure: Jurnal Hukum dan Syar'iah* 1, No. 2 (2009). 10.18860/j-fsh.v1i2.331.
- Lew, Susan, Garry Wei-Han Tan, Xiu-Ming Loh, Jun-Jie Hew, and Keng-Boon Ooi. "The Disruptive Mobile Wallet in the Hospitality Industry: An Extended Mobile Technology Acceptance Model." *Technology in Society* 63 (2020). <https://doi.org/10.1016/j.techsoc.2020.101430>.
- Li, X. "A Survey on the Security of Blockchain Systems." *Future Generation Computer Systems* 107 (2020). <https://doi.org/10.1016/j.future.2017.08.020>.
- Liu, Jiajia, Xuerong Li, and Shouyang Wang. "What Have We Learnt from 10 Years of Fintech Research? A Scientometric Analysis." *Technological Forecasting and Social Change* 155 (2020). <https://doi.org/10.1016/j.techfore.2020.120022>.
- Maswandi. "The Role of Islamic Law and Tradition in the Prevention of Corruption by Political Experts in Indonesia." *International Journal of Criminal Justice Sciences* 17, no. 2 (2022). <https://doi.org/10.5281/zenodo.4756114>.
- Musarrofa, Ita., and Holilur Rohman. "'Urf of Cyberspace: Solutions to the Problems of Islamic Law in the Digital Age". *Al-Ahkam* 33, No. 1 (2023). <https://doi.org/10.21580/ahkam.2023.33.1.13236>.
- Nawi, A M. "Risk and Protective Factors of Drug Abuse among Adolescents: A Systematic Review." *BMC Public Health* 21, no. 1 (2021). <https://doi.org/10.1186/s12889-021-11906-2>.
- Nengsih, Novia. "Analisis Terhadap Fatwa Dewan Syari'ah Nasional Majelis Ulama Indonesia (DSN MUI) Tentang Uang Elektronik Syariah (Studi Kartu Flazz BCA, Go-Pay, Dan Grab-Pay)." *Jurisdictie* 10, no. 1 (2019). <https://doi.org/10.18860/j.v10i1.6594>.
- Nienhaus, V. "Islamic Finance Ethics and Shari'ah Law in the Aftermath of the Crisis: Concept and Practice of Shari'ah Compliant Finance." *Ethical Perspectives*, 2011. <https://doi.org/10.2143/EP.18.4.2141849>.
- Nurhalizah, Ayu Rahayu., Ach Fageh. "Future Gold Commodity: Indonesian Ulema Council Vs Lajnah Daimah lil Buhuts al-'Ilmiyyah wal Ifta". *Juris: Jurnal Ilmiah Syariah* 21, No. 1 (2022). <http://dx.doi.org/10.31958/juris.v21i1.3647>.
- Nurhisam, Luqman., Nahara Eriyanti, Mundakir Mundakir, Fadillah Mursid, Juhrotul Khulwah, "Sharia Banking Syndicated Financing in The Context of Funding Strategic Projects after Islamic Financial Qanun Institution in Aceh", *Samarah: Jurnal Hukum Keluarga dan Hukum Islam* 8, No. 3 (2024). <https://doi.org/10.22373/sjhk.v8i3.15891>.
- Pappas, Nikolaos., Andrea Caputo, Massimiliano Matteo Pellegrini, Giacomo Marzi, and Eleni Michopoulou. "The Complexity of Decision-Making Processes and IoT Adoption in Accommodation SMEs." *Journal of Business Research* 131 (July 2021). <https://doi.org/10.1016/j.jbusres.2021.01.010>.
- Ramazani, A. "Spiritualism versus Materialism: Can Religiosity Reduce

- Conspicuous Consumption?" *Journal of Islamic Marketing* 13, no. 8 (2022). <https://doi.org/10.1108/JIMA-09-2019-0184>.
- Ren, B. "A Clean, Green Haven?—Examining the Relationship between Clean Energy, Clean and Dirty Cryptocurrencies." *Energy Economics* 109 (2022). <https://doi.org/10.1016/j.eneco.2022.105951>.
- Rohmana, Yana. "Consumption: Ethical Perspective of Islamic Economics." *Review of Islamic Economics and Finance* 5, no. 1 (November 17, 2022). <https://doi.org/10.17509/rief.v5i1.52164>.
- Sarim, M. "Islamic Finance and Corporate Governance: A Proposed Universal Model." *International Journal of Business Excellence* 19, no. 2 (2019). <https://doi.org/10.1504/IJBEX.2019.102237>.
- Sholeh, M A N. "A Critical Analysis of Islamic Law and Fatwa of MUI (Majlis Ulama Indonesia) & NU (Nahdlatul Ulama) on A Gold-Backed Cryptocurrency (OneGram)." *Al-Ihkam: Jurnal Hukum Dan Pranata Sosial* 17, no. 2 (2022). <https://doi.org/10.19105/al-Ihkam.v17i2.6511>.
- Sugiarto, I. "Consumers Spiritual Rights in Indonesia: A Legal Study of Sharia Fintech Implementation in the Consumers Protection Perspective." *Jurnal IUS Kajian Hukum Dan Keadilan* 8, no. 3 (2020). <https://doi.org/10.29303/ius.v8i3.766>.
- . "Consumers Spiritual Rights in Indonesia: A Legal Study of Sharia Fintech Implementation in the Consumers Protection Perspective." *Jurnal IUS Kajian Hukum Dan Keadilan* 8, no. 3 (2020). <https://doi.org/10.29303/ius.v8i3.766>.
- Syahputra, Angga, and Reni Ria Armayani. "Conversion of DSN-MUI's Fatwa on Islamic Banking to Be the National Law: A Comparative Study in Muslim Countries." *JURISDIKTIE* 11, no. 2 (January 14, 2021). <https://doi.org/10.18860/j.v11i2.9068>.
- . "Conversion of DSN-MUI's Fatwa on Islamic Banking to Be the National Law: A Comparative Study in Muslim Countries." *JURISDIKTIE* 11, no. 2 (2021). <https://doi.org/10.18860/j.v11i2.9068>.
- Trishananto Yudha., Fuad Mas'ud, Setiawan, & Ulfah Nurul Fauziah. "Formulating Policies for Halal Tourism in Indonesia Based on Islamic Law". *Ijtihad: Jurnal Wacana Hukum Islam Dan Kemanusiaan* 24, No. 1 (2024). <https://doi.org/10.18326/ijtihad.v24i1.47-70>.
- Verkijika, S F. "An Affective Response Model for Understanding the Acceptance of Mobile Payment Systems." *Electronic Commerce Research and Applications* 39 (2020). <https://doi.org/10.1016/j.elerap.2019.100905>.
- Volkova, Y., B. Bon, Borysenko, A., Leheza, Y., & Leheza, Y. (2024). Crypto Market Experience: Navigating Regulatory Challenges in Modern Conditions. *Al-Risalah: Forum Kajian Hukum Dan Sosial Kemasyarakatan* 24, No. 2 (2024). <https://doi.org/10.30631/alrisalah.v24i2.1625>
- Wibowo, Dwi Edi. "Penerapan Konsep Utilitarianisme Untuk Mewujudkan Perlindungan Konsumen Yang Berkeadilan Kajian Peraturan Otoritas Jasa

- Keuangan Nomor: 1/POJK.07/2013 Tentang Perlindungan Konsumen Sektor Jasa Keuangan”. *Syariah: Jurnal Hukum dan Pemikiran* 19, No. 1 (2019). <https://doi.org/10.18592/sy.v19i1.2296>.
- Widyastuti, Umi, Erie Febrian, Sutisna Sutisna, and Tettet Fitrijanti. “Sharia Compliance in Sharia Mutual Funds: A Qualitative Approach.” *International Journal of Economics and Business Administration* VIII, no. Issue 3 (2020). <https://doi.org/10.35808/ijeba/483>.