

FROM FATWA TO COMPLIANCE IN ISLAMIC FINANCIAL ENFORCEMENT: DESIGNING GOVERNANCE AND SUPERVISION FRAMEWORKS FOR SHARIA FINTECH IN INDONESIA

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Abstract

This study examines how DSN-MUI fatwas can be transformed into operational and binding legal norms within the governance of Sharia fintech in Indonesia. The main problem identified is the absence of an integration mechanism between fatwas and OJK regulations, resulting in a dualistic supervisory framework that creates legal uncertainty and weakens the enforcement of Sharia compliance. Using a normative legal research method with legislative, conceptual, and comparative approaches, this study analyzes regulatory gaps, supervisory structures, and governance practices across several countries. The findings indicate that the dual authority model hampers regulatory effectiveness and undermines public trust in Sharia fintech. This study recommends an integrated governance framework through normative harmonization, the establishment of an OJK-DSN-MUI coordination platform, and the incorporation of fatwa provisions into formal regulations to strengthen legal legitimacy, ensure Sharia compliance, and enhance consumer protection. Study analyzes the transformation of fatwas into enforceable legal frameworks within the governance of Sharia fintech in Indonesia. Using a normative and comparative legal approach, this study examines the relationship between the regulations of the Financial Services Authority (OJK) and the fatwas issued by the National Sharia Council–Indonesian Ulema Council (DSN–MUI).

Keywords: *Sharia Fintech; OJK; DSN-MUI; Fatwa*

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Introduction

The rapid development of digital technology over the past decade has driven fundamental changes in the financial sector, including payment systems, financing mechanisms, and financial services. Over the past five years, financial technology (fintech) has experienced significant expansion, particularly in the areas of peer-to-peer (P2P) lending, crowdfunding, and digital payments. The use of machine learning, big data analytics, cloud computing, blockchain, and artificial intelligence (AI) has enabled the emergence of more efficient, accessible, and user-friendly financial service innovations. In general, fintech has made a meaningful contribution to improving financial inclusion and service efficiency, especially for individuals and small-scale enterprises.

In Indonesia, fintech began to develop in 2012 and accelerated in the P2P lending sector in 2015. Data from the Financial Services Authority (Otoritas Jasa Keuangan/OJK) in 2024 showed that there were 97 registered lending fintech platforms, both conventional and Sharia-based. Industry performance has also shown a positive trend: total assets increased from Rp7,043.40 billion in December 2023 to Rp8,638.36 billion in 2024 (a growth of 22.7%), while equity rose from Rp3,468.57 billion to Rp5,072.45 billion.

Although some firms continue to face profitability challenges, the overall structure of the industry is becoming increasingly robust, positioning fintech as a key pillar of digital transformation in the financial sector. In the context of this growth, sharia fintech has emerged as a strategic innovation that integrates the principles of *Maqāṣid al-Sharī'ah*, justice, benefit, and prohibition of usury, into the digital financial ecosystem. This normative framework is reinforced by the National Sharia Council Fatwa – Indonesian Ulema Council (DSN–MUI) No. 117/DSN-MUI/II/2018 on Information Technology-Based Financing Services Based on Sharia Principles, which regulates the prohibition of usury, *gharar*, and *maysir*, clarity of contracts, and the obligation to establish a Sharia Supervisory Board (DPS). The presence of this fatwa demonstrates institutional commitment to strengthening Sharia compliance in digital financial services.

In the context of this growth, Sharia fintech has emerged as a strategic innovation that integrates the principles of *Maqāṣid al-Sharī'ah*, justice, public benefit, and the prohibition of usury into the digital financial ecosystem. The normative framework is reinforced by the National Sharia Council–Indonesian Ulema Council (DSN–MUI) Fatwa No. 117/DSN-MUI/II/2018 on Sharia-Compliant Technology-Based Financing

Services, which regulates the prohibition of *riba*, *gharar*, and *maysir*, the clarity of contractual agreements, and the mandatory establishment of a Sharia Supervisory Board (DPS). This fatwa reflects institutional commitment to strengthening Sharia compliance within digital financial services.

However, existing studies indicated that Sharia fintech in Indonesia remains in an early stage of development and has yet to reach the level of maturity achieved by conventional fintech. Qudah (2023) emphasize that although Sharia fintech offers a distinct value proposition, such as interest-free financing and more equitable wealth distribution, its adoption is hindered by low public literacy, perceptions of service complexity, and limited consumer education¹. Studies further shows that unfamiliarity with Sharia-based mechanisms and heightened perceptions of risk continue to impede the uptake of Sharia² fintech platforms³.

A number of pioneering platforms, such as SyarQ, which was established in 2017, show that although the ecosystem developed relatively early, user interest remains limited due to service quality and operational consistency issues. Findings by Adawiyah and Madani (2021) showed that the clarity of contractual agreements, service quality, and operational stability significantly influence user satisfaction and trust⁴. Razia (2018) emphasized the importance of service responsiveness, while technical challenges, such as platform accessibility and inconsistent standard operating procedures (SOPs), continue to hinder user experience⁵. In addition, studies by Alrasyid (2023), and Aziz (2015), emphasized that trust and perceived security serve as key determinants shaping transactional intentions in Sharia financial services. Although these studies contribute

¹ Hanan Qudah et al., "Islamic Finance in the Era of Financial Technology: A Bibliometric Review of Future Trends," *International Journal of Financial Studies* 11, no. 2 (2023): 76.

² Al Adawiyah, "ANALYSIS OF PRACTICAL CONFORMITY ON SYARQ. COM BASED ON SYARIAH FINTECH WITH THE FATWA OF MUAMALAH MALIYAH DSN-MUI," *Global Sharia Economics Research and Actual Management* 1, no. 1 (2024): 30–44; Annisa Elvina et al., "Implementasi Riba Dalam Pinjaman Online Berbasis Syariah (Studi Tentang Pinjaman Online Pada PT. AMMANA FINTECH SYARIAH)," *Jurnal Ekonomi Syariah Pelita Bangsa* 9, no. 01 (2024): 19–28.

³ Neni Dwijayanti et al., "The Role of Islamic FinTech P2PL in Increasing Inclusion and Financial Literacy of MSMEs," *Journal of Islamic Finance* 11, no. 1 (2022): 94–101; Afif Noor et al., "Regulation and Consumer Protection of Fintech in Indonesia: The Case of Islamic Fintech Lending," *Linguistics and Culture Review* 6, no. on (2022): 49–63.

⁴ Adawiyah, "ANALYSIS OF PRACTICAL CONFORMITY ON SYARQ. COM BASED ON SYARIAH FINTECH WITH THE FATWA OF MUAMALAH MALIYAH DSN-MUI"; Elvina et al., "Implementasi Riba Dalam Pinjaman Online Berbasis Syariah (Studi Tentang Pinjaman Online Pada PT. AMMANA FINTECH SYARIAH)."

⁵ Bahaa Razia and Bahaa Awwad, "Review of Financial Technology Applications and Their Related Aspects," in *From Industry 4.0 to Industry 5.0* (Springer, 2023).

valuable insights, their scope remains limited as they primarily focus on user behavior, service quality, and risk perceptions⁶.

Studies on how regulatory and sharia compliance aspects shape user trust and adoption are still minimal. In fact, regulation is the primary foundation of sharia fintech governance. In the Indonesian regulatory context, there is a regulatory dualism issue: the separation of authority between the OJK and the DSN-MUI. The OJK's prudential regulations, as set out in POJK No. 77/2016 and POJK No. 10/2022, emphasize financial system stability, risk management, and consumer protection. In contrast, DSN-MUI Fatwa No. 117/2018 focuses on sharia compliance. The absence of a formal mechanism to harmonize the two regulatory regimes has created a regulatory gap: Sharia compliance standards lack the same legal enforcement power as prudential regulations, resulting in fragmented supervision, legal uncertainty, and weak enforcement of violations of Sharia principles.

The World Bank notes that Indonesia is among the countries with the largest number of fintech companies globally, underscoring its significant market potential within Southeast Asia. However, the primary challenge in advancing Sharia fintech lies in the weak regulatory integration between financial authorities (OJK and Bank Indonesia) and DSN-MUI fatwas. This raises the need to examine how regulatory harmonization between OJK and DSN-MUI can be effectively designed, and how a practical governance framework can ensure alignment between conventional regulation and Sharia principles. The issue of regulatory dualism can be further analyzed using legal theoretical frameworks. First, the Theory of Legal Harmonization highlights the necessity of aligning regulatory regimes to prevent normative conflicts and strengthen policy coherence. Second, the Theory of Legal Certainty (Fuller; Van Apeldoorn) explains how overlapping authorities can diminish rule clarity and erode public trust⁷. Third, Bentham's Theory of Legal Utility views regulation as an instrument to maximize social benefit;

⁶ Harun Alrasyid et al., "Embracing the Digital Economy: Exploring the Role of Trust, Perceived Ease of Use, and Religiosity on Intention to Use Islamic Peer-to-Peer Lending," *JEMA: Jurnal Ilmiah Bidang Akuntansi Dan Manajemen* 20, no. 2 (2023): 283–305; Noor Hidayah Ab Aziz et al., "Security, Risk and Trust Issues among Muslim Users for Online Businesses," *Procedia Economics and Finance* 31 (2015): 587–94.

⁷ Lawrence M. Friedman, "Legal Culture and Social Development," *Law & Society Review* 4, no. 1 (1969): 29–44.

however, the potential benefits of Sharia fintech remain underutilized due to insufficient regulatory integration.⁸

Given this broader context, the core issue that arises is the absence of an integrated governance framework and supervisory mechanism capable of transforming Sharia fatwas into effective and enforceable compliance rules within the Sharia fintech industry. The regulatory dualism between OJK and DSN–MUI has generated legal uncertainty, compliance gaps, and declining public confidence. Existing fintech regulations, reflected in POJK No. 77/2016 and POJK No. 10/2022, remain centered on legal-prudential aspects, while Sharia compliance requirements articulated in DSN-MUI Fatwa No. 117/2018 have not been integrated into Indonesia’s positive legal framework.

As a result, Sharia fintech supervision remains dualistic and has not yet ensured a comprehensive enforcement mechanism for compliance. Development of digital technology has driven major changes in the financial sector, including payment systems, financing, and financial services. Over the past five years, financial technology (fintech) has experienced rapid growth, particularly in the segments of peer-to-peer (P2P) lending, crowdfunding, and digital payment. The utilization of technologies such as machine learning, big data analytics, cloud computing, blockchain, and artificial intelligence (AI) has enabled the emergence of fintech innovations that are more efficient, accessible, and user-friendly.⁹ The presence of fintech has contributed to promoting financial inclusion, expanding access to financial services, and improving efficiency, especially for individuals and business actors.

Method

This study used a normative-comparative legal analysis to examine the regulatory landscape of Sharia fintech in Indonesia comprehensively. This approach is used to review, interpret, and compare policies, regulations, and Sharia legal principles that shape the governance of Sharia-based financial technology. The analysis used two primary methods: the statutory approach, which examines positive legal instruments such as OJK regulations, Bank Indonesia policies, and DSN–MUI fatwas; and the conceptual

⁸ Hans Kelsen, *Pengantar Teori Hukum* (Nusamedia, 2019).

⁹ Dwijayanti et al., “The Role of Islamic FinTech P2PL in Increasing Inclusion and Financial Literacy of MSMEs.”

approach, which explores maqāṣid al-sharī‘ah principles and the foundational values of fintech as a basis for formulating a substantive Sharia governance framework¹⁰.

This study used primary and secondary data. Primary data includes binding normative provisions, including Law No. 21/2011 on OJK, Law No. 21/2008 on Sharia Banking, POJK No. 77/2016, POJK No. 13/2018, as well as DSN–MUI Fatwas No. 117/2018 and No. 140/2021 as the core references for Sharia compliance principles. Secondary data are obtained from reputable scholarly publications published within the last five years that discuss fintech, Sharia fintech, Sharia compliance, and financial supervision. Additional secondary sources include global and national reports, such as the GIFT Report. Data collection is conducted through a document study of all relevant legal materials and literature¹¹.

The comparative approach was used to assess various models of integration between fatwas and positive law implemented in other jurisdictions, with the aim of identifying patterns that may be relevant to the Indonesian context. The results of this comparison are analyzed through an interpretive framework that considers three key dimensions, legal, Sharia, and industry practice, to understand how fatwas may acquire operational authority within the fintech ecosystem, not merely as ethical guidelines but as enforceable norms within the regulatory structure. The analytical model is strengthened by several theoretical frameworks: Lawrence M. Friedman's legal system theory (structure, substance, and legal culture) to map governance conditions; authority theory to evaluate the regulatory roles of OJK and DSN-MUI; and the theory of legal certainty to assess the necessity of normative harmonization so that fatwas can function as operational rules. Through this interpretive approach, the study formulates a model of Sharia supervisory integration that is not only normatively coherent but also institutionally effective in supporting the development of Sharia fintech in Indonesia. research employs a comparative normative legal analysis to comprehensively examine the legal landscape of Shariah fintech in Indonesia.

¹⁰ SHI Jonaedi Efendi et al., *Metode Penelitian Hukum: Normatif Dan Empiris* (Prenada Media, 2018); Nurul Qamar and Farah Syah Rezah, *Metode Penelitian Hukum: Doktrinal Dan Non-Doktrinal* (CV. Social Politic Genius (SIGn), 2020); Nurul Qamar et al., *Metode Penelitian Hukum (Legal Research Methods)* (CV. Social Politic Genius (SIGn), 2017).

¹¹ Qamar et al., *Metode Penelitian Hukum (Legal Research Methods)*.

Discussion

Regulation of Fintech through Sharia Fatwas and Positive Law in Indonesia

Between 2023 and 2024, the global transaction value of Islamic fintech reached USD 161 billion, with projections indicating a 13.6% increase by 2028. Indonesia ranks sixth among the world's leading fintech markets, following Turkey, with a transaction value of USD 7.5 billion. According to data from the *Global Islamic Fintech (GIFT)* report, Indonesia contributes 64 Islamic fintech companies out of 490 globally, positioning the country among those with the highest number of fintech entities.¹² Given Indonesia's position as the world's most populous Muslim-majority nation and its rapidly increasing internet penetration rate, supportive regulatory frameworks are essential to govern and facilitate the operation of fintech services in the country.

The fundamental concept of Islamic fintech in Indonesia represents an integration between the principles of Islamic finance and the advancement of digital technology to create innovative and efficient financial services. Islamic fintech is grounded in Islamic legal principles (Sharia), which strictly prohibit elements such as *riba* (interest), *gharar* (uncertainty), *maysir* (gambling), and investments in prohibited (haram) sectors.¹³

Islamic fintech can be understood as the application of digital technology and software systems to financial services while adhering to Sharia principles.¹⁴ The application of such technology enables Islamic financial institutions to develop various digital products, including Sharia-based peer-to-peer lending, *zakat* and *waqf* crowdfunding, and digital payment systems that are both efficient and accountable.¹⁵ From a normative standpoint, Hassan, Rabbani, and Mohd Ali (2020) emphasize that Islamic fintech is permissible as long as it does not contravene Sharia principles. Such conditions encourage innovation within the Islamic financial sector, which is even

¹² Dinar Standard and Elipses, *Global Islamic Fintech Report 2024/25* (Dubai: DinarStandard and Elipses, 2024), 1, <https://salaamgateway.com/reports/global-islamic-fintech-report-2024-25>.

¹³ Irwan Sugiarto and Hari Sutra Disemadi, "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): 437–52; Noor et al., "Regulation and Consumer Protection of Fintech in Indonesia: The Case of Islamic Fintech Lending."

¹⁴ Mutamimah Mutamimah and Maya Indriastuti, "Fintech, Financial Literacy, and Financial Inclusion in Indonesian SMEs," *International Journal of Entrepreneurship and Innovation Management* 27, nos. 1–2 (2023): 137–50.

¹⁵ Gökmen Kılıç and Yavuz Türkan, "The Emergence of Islamic Fintech and Its Applications," *International Journal of Islamic Economics and Finance Studies* 9, no. 2 (2023): 212–36; Faizi Faizi et al., "Ensuring Shariah Compliance in the Fintech: A Comprehensive Analysis from Indonesia," *Qualitative Research in Financial Markets*, Emerald Publishing Limited, 2025, 1–31.

considered commendable (*mustahabb*), provided that it excludes prohibited elements and promotes social welfare.¹⁶ Therefore, Islamic fintech not only focuses on technological advancement but also upholds *Shariah compliance* as the foundation of its operational legitimacy.

In contrast to conventional fintech, which prioritizes efficiency and profit maximization, Islamic fintech is grounded in the principles of social justice, transparency, moral accountability, and sustainability, values aligned with the objectives of *maqāṣid al-sharī'ah*, particularly the protection of wealth (*ḥifẓ al-māl*) and the promotion of collective prosperity.¹⁷ Consequently, Islamic fintech serves not only as a modern economic instrument but also as a medium for achieving communal welfare through the application of Islamic ethical and moral principles within digital finance systems.

Regulatory support is a fundamental aspect of ensuring that the implementation of financial technology in Indonesia operates safely, fairly, and aligns with the prevailing legal framework. As the financial sector's supervisory authority, the Financial Services Authority (OJK) plays a crucial role in formulating and enforcing regulations governing the operation of digital financial innovations.

Several key regulations form the legal foundation for fintech operations, including the OJK Regulation No. 77/POJK.01/2016 on Information Technology-Based Lending and Lending Services, which governs *peer-to-peer (P2P) lending*, and OJK Regulation No. 13/POJK.02/2018 on Digital Financial Innovation in the Financial Services Sector, which serves as a general oversight framework for the development of digital innovation in the financial industry.

Unlike conventional fintech, Islamic fintech is subject not only to OJK regulations but also to Islamic legal provisions established by the National Sharia Board of the Indonesian Ulema Council (Dewan Syariah Nasional–Majelis Ulama Indonesia, DSN–MUI). DSN-MUI fatwas serve as normative guidelines to ensure that transactions and contractual arrangements within fintech comply with Sharia principles. Two primary fatwas serve as references for Islamic fintech implementation: DSN-MUI Fatwa No.

¹⁶ Mustafa Raza Rabbani et al., “Exploring the Role of Islamic Fintech in Combating the Aftershocks of Covid-19: The Open Social Innovation of the Islamic Financial System,” *Journal of Open Innovation: Technology, Market, and Complexity* 7, no. 2 (2021): 136.

¹⁷ Elva Imeldatur Rohmah and Zainatul Ilmiah, “Reinterpretation of Maqashid Al-Sharia in Indonesian Legal Products,” *ALFIQH Islamic Law Review Journal* 2, no. 3 (2023): 3.

117/DSN-MUI/II/2018 on Information Technology-Based Financing Services Based on Sharia Principles, and DSN-MUI Fatwa No. 140/DSN-MUI/VIII/2021 on the Offering of Sharia Securities through Information Technology-Based Crowdfunding Services (Islamic Securities Crowdfunding). Both fatwas explicitly prohibit elements of *riba* (interest), *gharar* (uncertainty), and *maysir* (speculation), while promoting transparency, trust (*amanah*), and fairness in digital financial transactions.

The synergy between OJK and DSN-MUI is therefore crucial to ensure that the implementation of Islamic fintech aligns simultaneously with both positive law and Islamic financial principles. Through this harmonization, Islamic fintech is expected to evolve as a financial instrument that is not only technologically innovative but also ethical and socially just.

The implementation of Islamic fintech using profit-and-loss sharing and partnership-based financing models has proven effective in providing alternative access to financing, particularly for micro, small, and medium enterprises (MSMEs), which often face obstacles related to collateral requirements and interest-based systems in conventional financial institutions.¹⁸ Nonetheless, the effectiveness of existing regulations continues to face challenges in terms of their implementation and enforcement.

Table 1. Analysis of Sharia Fintech Regulations in Indonesia

Aspect / Subject	OJK Regulation No. 77/POJK.01/2016 (P2P Lending)	OJK Regulation No. 13/POJK.02/2018 (Digital Financial Innovation)	DSN-MUI Fatwa No. 117/DSN-MUI/II/2018 (Sharia-Based Financing)	DSN-MUI Fatwa No. 140/DSN-MUI/VIII/2021 (Islamic Securities Crowdfunding)
Regulatory Object	Information technology-based lending (P2P Lending)	Digital financial innovation in the financial services sector	Information technology-based financing based on Sharia principles (Islamic Fintech)	Information technology-based offering of Sharia-compliant securities (Islamic Securities Crowdfunding)

¹⁸ Dwijayanti et al., “The Role of Islamic FinTech P2PL in Increasing Inclusion and Financial Literacy of MSMEs”; Mutiara Eka Putri and Hanif Hanif, “The Role of Financial Technology in Promoting Growth in Islamic Finance in the Digital Era,” *Al Fiddhoh: Journal of Banking, Insurance, and Finance* 5, no. 1 (2024): 35–39.

Consumer Protection	Mandatory reporting and transparency	Consumer and data protection (Articles 18 & 22)	Trust (<i>amanah</i>) and justice as fundamental principles of <i>muamalah</i>	Trust (<i>amanah</i>), transparency, and the avoidance of <i>gharar</i> (uncertainty)
Licensing and Supervision	Registration and licensing under OJK	Regulatory sandbox and registration mechanism	Subject to OJK supervision	Subject to OJK supervision
Type of Transaction	Individual and business loans	All types of digital financial innovation	Sharia-compliant financing (e.g., <i>mudharabah</i> , <i>murabahah</i> , <i>ijarah</i> , etc.)	Sharia-compliant capital raising or investment activities
Prohibitions and Ethics	Must not contain elements of <i>riba</i> , <i>gharar</i> , or <i>maysir</i>	Emphasizes ethical innovation principles	Prohibits <i>riba</i> , <i>gharar</i> , <i>maysir</i> , and <i>tadlis</i> (deception)	Prohibits <i>riba</i> , <i>gharar</i> , <i>maysir</i> , and <i>dharar</i> (harm)
Regulatory / Fatwa Objective	Provides alternative financing solutions for society	Promotes inclusive digital innovation	Ensures Sharia legal certainty	Defines Sharia parameters for crowdfunding activities

Source: Author's Analysis, 2025

Based on the table above, there is a notable overlap between the regulations of the Financial Services Authority (OJK) and the fatwas issued by the National Sharia Board of the Indonesian Ulema Council (DSN-MUI). Several aspects demonstrate a degree of alignment between the two regulatory frameworks. However, upon closer examination, a critical issue emerges concerning the aspect of supervision, which constitutes a fundamental element in enhancing the implementation of Islamic fintech. Supervision plays a vital role in ensuring legal certainty and providing protection for both companies and business actors as consumers. The regulatory framework governing supervision is therefore significant in assessing the extent to which normative provisions can offer adequate safeguards for all stakeholders involved.

Table 2. Supervision Framework for Islamic Fintech in Indonesia

Regulation / Rule	Relevant Articles	Relevance to Islamic Fintech Supervision
OJK Regulation No. 77/POJK.01/2016	Article 9 stipulates OJK's supervisory authority over fintech lending operators, including the obligation to submit periodic reports.	Establishes formal supervision by OJK, but focuses solely on prudential and administrative aspects without distinguishing between conventional and Islamic fintech. No mechanism for Sharia supervision (Sharia Supervisory Board – <i>Dewan Pengawas Syariah</i> , DPS) is provided.
OJK Regulation No. 13/POJK.02/2018	Articles 17–22 outline the regulatory sandbox mechanism, monitoring and reporting procedures by OJK, and the obligation of operators to implement governance principles, risk management, and consumer protection.	Introduces a modern supervision concept (sandbox and monitoring) applicable to Islamic fintech. However, it does not explicitly regulate Sharia supervision; the mechanisms remain general and neutral in their religious nature.
DSN-MUI Fatwa No. 117/DSN-MUI/II/2018	Establishes the principle that every operator must have a Sharia Supervisory Board (DPS) to ensure operational compliance with Sharia principles. The DPS provides advice and supervises contracts (<i>akad</i>), financing systems, and fund flows to ensure freedom from <i>riba</i> , <i>gharar</i> , and <i>maysir</i> .	Reinforces Sharia supervision normatively. However, it does not define a formal coordination mechanism between the DPS and OJK, resulting in separate supervision systems for Sharia compliance and positive law oversight.

DSN-MUI Fatwa No. 140/DSN-MUI/VIII/2021	Regulates the obligation for internal Sharia supervision through the DPS in crowdfunding platforms, as well as external supervision by DSN-MUI to ensure Sharia compliance in all contracts and Islamic securities instruments.	Introduces a dual-layered supervision mechanism (internal DPS and external DSN-MUI). However, it lacks direct integration with OJK's supervisory system as stipulated in OJK Regulation No. 13/2018.
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Source: Author's Analysis, 2025

The supervisory framework for Islamic fintech implementation has not yet been explicitly regulated under the provisions of the Financial Services Authority (Otoritas Jasa Keuangan – OJK) as the competent authority. The absence of explicit and comprehensive regulations governing the operation and management of Islamic fintech may lead to differing interpretations between OJK regulations and DSN-MUI fatwas. For example, OJK Regulation No. 77/2016 only regulates conventional fintech lending and does not yet accommodate Sharia contracts such as *murabahah*, *musyarakah*, or *ijarah*. Second, the licensing mechanism remains divided between OJK and Bank Indonesia (BI), resulting in partial compliance with Islamic principles in the operation of Islamic fintech. Furthermore, the role of the Sharia Supervisory Board (*Dewan Pengawas Syariah*, DPS) remains inadequately defined, particularly in terms of delineating authority and establishing coordination channels within the governance structure of Islamic fintech.

Theoretical Analysis of the Dualism of Regulation and Supervision of Sharia Fintech in Indonesia

The regulatory dualism between OJK and DSN-MUI, as shown in Table 1 and Table 2, demonstrates that the supervisory framework for Sharia fintech in Indonesia has not yet reached a coherent and integrated form. To explore the roots of this issue more deeply, three legal theories are employed as analytical tools: the Theory of Legal Harmonization, the Theory of Legal Certainty, and the Theory of Legal Utility¹⁹. Together, these frameworks provide complementary perspectives for mapping the

¹⁹ Raymond Wacks, *Philosophy of Law: A Very Short Introduction*, vol. 147 (Oxford University Press, 2014).

structural, normative, and implementation-related challenges within Sharia fintech governance.

The Legal Harmonization Theory approach emphasizes that a good legal system must achieve harmony between rules, institutions, and implementation mechanisms. In the Indonesian context, legal pluralism between positive law (POJK) and sharia law (DSN-MUI fatwa) requires a harmonization mechanism to prevent contradictions. In Sharia fintech, disharmony is evident in several aspects, such as (1) Substantive inconsistency, where POJK 77/2016 adopts a religion-neutral regulatory approach and does not accommodate Sharia contracts, while Fatwa No. 117/2018 regulates Sharia-based contracts in a particular manner. (2) Dualism of supervisory institutions, with OJK overseeing prudential and administrative compliance and DSN-MUI, through the Sharia Supervisory Board (DPS), ensuring Sharia compliance. These authorities currently operate without an established bridging mechanism, and (3) Different interpretations of the law, especially regarding key terminology such as “profit,” “margin,” “interest,” and asset-based transaction risk management. This will result in regulatory fragmentation, a condition where two legal systems coexist but do not integrate with each other, creating potential conflicts of norms, inconsistencies in implementation, and ambiguity in law enforcement. The dualism of sharia fintech regulation can also be examined through the combined lens of the Theory of Legal Certainty (Fuller; Van Apeldoorn) and the Theory of Legal Utility (Bentham). These theories help explain how ambiguous regulations and overlapping authorities not only diminish the predictability and clarity of legal norms but also hinder the realization of broader public benefits, an essential objective of Sharia-based finance.

Table 3. Comparative Analysis of Legal Theory Approaches to Dualism in Sharia Fintech Regulation

Legal Theory	Analytical Focus	Key Findings in the Context of Islamic Fintech Regulation
Theory of Legal Harmonization	Alignment of norms and institutional coherence	- OJK Regulations (POJK) have not yet accommodated Sharia-based contracts. - DSN–MUI fatwas do not automatically obtain the status of positive law. -Absence of a formal coordination mechanism between OJK and DSN–MUI.- These

		conditions collectively create regulatory fragmentation within the Islamic fintech ecosystem.
Theory of Legal Certainty	Clarity, consistency, and enforceability of legal norms	- DSN–MUI fatwas remain normative and lack binding administrative authority.- The Sharia Supervisory Board (DPS) does not hold a formal position within OJK’s supervisory structure.- Inconsistent terminology between positive law and Sharia law (e.g., margin, ujah, interest).- These ambiguities increase the risk of Sharia-washing and weaken public trust.
Utilitarian Theory of Law (Bentham)	Optimization of social benefits and public welfare outcomes	- The potential benefits of Islamic fintech remain underutilized due to regulatory uncertainty.- Indeterminate regulations hinder the expansion of Sharia-inclusive financial services.- Absence of mandatory national standards for Sharia audit and compliance reporting.- Dualistic supervision reduces public confidence and limits the overall utility of Islamic fintech.

Source: Author's analysis, 2025

From the perspective of the Theory of Legal Certainty, the law must be clear, consistent, and enforceable through measurable mechanisms. However, in the context of Islamic fintech, several uncertainties remain evident, including: (1) DSN–MUI fatwas do not yet possess binding administrative authority, preventing the OJK from imposing sanctions for violations of Sharia compliance; (2) the Sharia Supervisory Board (DPS) does not hold a formal position within the OJK's supervisory structure, which results in Sharia oversight operating outside the state's regulatory mechanism (off-system supervision); and (3) discrepancies persist between positive-law terminology and Sharia terminology, such as the use of "interest," "margin," and "ujrah," as well as provisions related to contract objects. These conditions generate regulatory ambiguity and uncertainty for both industry operators and consumers. Such uncertainty directly affects public trust, which serves as a fundamental prerequisite for the growth of the Islamic fintech industry.

When there is no assurance that platform activities are supervised through uniform and enforceable Sharia standards, the risk of Sharia-washing increases; this risk can ultimately weaken both the moral and legal legitimacy of Islamic fintech, thereby reducing public willingness to adopt Sharia-based digital financial services. In an industry fundamentally built on trust, these legal uncertainties become structural obstacles to sustainable development.

Based on the perspective of the Theory of Legal Utility (Utilitarianism), the law should ideally produce the greatest benefit for society²⁰. Islamic fintech is expected to deliver several public benefits, including fair access to financing, consumer protection against *riba* and *gharar*, and the advancement of national financial inclusion. However, these benefits have not been fully realized due to the weak integration of regulation and supervision. Regulatory disharmony has resulted in the absence of: (a) mandatory national standards for Sharia audit, (b) a coordinated reporting mechanism for Sharia compliance between DPS and OJK, and (c) standardized operational guidelines for digital Sharia contracts. From a utilitarian perspective, this condition constitutes an under-realization of public utility, in which the potential social benefits cannot be achieved due to structural barriers within the legal system. In other words, a fragmented regulatory framework fails to deliver the “greatest good” envisioned in Bentham’s conception of law²¹.

This demonstrates that legal uncertainty not only creates normative confusion but also diminishes the public benefits that Islamic fintech should ideally generate. Accordingly, reconstructing governance through institutional integration, normative harmonization, and strengthened enforcement mechanisms has become increasingly urgent

Designing Sharia Governance in Fintech Development

In the implementation of Islamic fintech, which integrates Islamic financial principles with digital technological innovation, the establishment of Sharia governance constitutes a fundamental element to ensure sustainability, legitimacy, and public trust in the system. Effective regulation and supervision are necessary not only to ensure legal

²⁰ Gerald J Postema, *Utility, Publicity, and Law: Essays on Bentham’s Moral and Legal Philosophy* (Oxford University Press, 2019).

²¹ Postema, *Utility, Publicity, and Law: Essays on Bentham’s Moral and Legal Philosophy*.

certainty and consumer protection, but also to guarantee compliance with Sharia principles, which fundamentally distinguish Islamic fintech from conventional fintech. Within this context, both the OJK and the National Sharia Board of the Indonesian Ulema Council (DSN-MUI) play complementary roles in establishing a comprehensive, credible, and integrity-driven governance framework.

Sharia governance in fintech development cannot be separated from the theoretical foundations of law that explain how norms acquire binding force, how legal certainty is achieved, and how the law is utilized to generate public benefit. In designing such governance, it is essential to emphasize clarity of norms, consistency of rules, and predictable institutional structures to prevent ambiguity and uncertainty in digital economic practices. When DSN-MUI fatwas, such as Fatwa No. 117/2018 and Fatwa No. 140/2021, serve merely as normative guidance without administrative binding authority, a legal gap emerges that reduces legal certainty for Islamic fintech providers and users. This is consistent with Fuller's argument that a legal system fails when its norms cannot be consistently enforced through a recognized formal authority.

Furthermore, in developing Sharia fintech governance, the law must be used as an instrument to maximize public utility. The dualism of regulation between the OJK and DSN-MUI results in regulatory costs, slows down innovation, and reduces public trust. Thus, normative integration is a means to ensure that the socio-economic benefits of Sharia fintech can be optimally achieved, especially in expanding financial inclusion and consumer protection²².

Previous studies indicate that the Sharia financial supervision system in Indonesia remains dualistic. On one hand, OJK functions as an external supervisory body emphasizing legal, prudential, licensing, and consumer protection aspects, in accordance with Law No. 21 of 2011 concerning the OJK, as well as OJK Regulations No. 77 of 2016 and No. 13 of 2018. On the other hand, DSN-MUI, through the Sharia Supervisory Board (DPS), performs internal supervisory functions over Sharia compliance pursuant to Law No. 21 of 2008 on Islamic Banking, reinforced by DSN-MUI Fatwas No. 117 of 2018 and No. 140 of 2021. Within this framework, the DPS provides advisory services to the management of Islamic financial institutions, monitors product and business activities for

²² Faizi et al., "Ensuring Shariah Compliance in the Fintech: A Comprehensive Analysis from Indonesia"; Noor et al., "Regulation and Consumer Protection of Fintech in Indonesia: The Case of Islamic Fintech Lending."

Sharia compliance, and reports its findings to the DSN-MUI. Meanwhile, the OJK has the authority to establish regulations, conduct inspections, and impose administrative sanctions for violations of positive law in the financial sector.

Although conceptually these two institutions perform complementary functions, an integrative mechanism linking OJK and DSN-MUI supervision within a unified Islamic fintech governance framework has yet to be established. The absence of a regulatory bridge between OJK and DSN-MUI has resulted in a dualistic supervision structure, where the DPS is responsible for ensuring Sharia compliance but lacks formal legal recognition within OJK's statutory supervisory system. This condition has created a “grey area” in the governance of Islamic fintech, wherein Sharia compliance and legal certainty operate in parallel without clear coordination.

In practice, Islamic fintech governance also faces several challenges, including the lack of a legal mechanism for validating Sharia-compliant contracts electronically, such as the legitimacy of digital signatures, online *ijab-qabul* (offer and acceptance), and the validity of digital agreements under Islamic law. Furthermore, the role of the DPS in many fintech institutions remains largely symbolic, lacking standardized systems for Sharia auditing and reporting. The absence of a mandatory and integrated Sharia compliance audit system, aligned with financial reporting, further weakens supervision over the implementation of Sharia principles²³.

Additionally, discrepancies persist between the terminologies used in positive law and Sharia law, such as differences in the interpretation of “financing,” “interest,” and “profit.” Consequently, Sharia governance in fintech often relies more on mechanisms of self-regulation and moral compliance rather than on a formally enforceable legal system.

The model of the relationship between OJK and DSN-MUI, as applied within the Islamic banking system, should serve as a reference for integrating OJK's external supervisory role, focused on prudential and legal aspects, with DSN-MUI's internal oversight of Sharia compliance through the DPS. This partnership model necessitates continuous coordination and synergy between the two institutions. The relationship between these two institutions is one of partnership, with ongoing coordination and

²³ Mahdiah Aulia et al., “An Overview of Indonesian Regulatory Framework on Islamic Financial Technology (Fintech),” *Jurnal Ekonomi & Keuangan Islam*, 2020, 64–75; Dwi Fidhayanti et al., “Exploring The Legal Landscape of Islamic Fintech in Indonesia: A Comprehensive Analysis of Policies and Regulations,” *F1000Research* 13 (2024): 21.

synergy. Synergy between positive legal supervision and Sharia compliance is an essential prerequisite for maintaining transparency, accountability, and integrity in the Islamic financial industry, including the Islamic fintech sector. In the context of Islamic fintech, the substantive legal instruments, namely DSN-MUI fatwas and OJK regulations, operate in parallel, while the institutional structures of OJK and DSN-MUI function independently of one another. At the industry level, the prevailing legal culture relies heavily on self-regulation by the Sharia Supervisory Board (DPS), yet this oversight occurs without any standardized mechanisms.

Based on normative and comparative analysis, an integrative framework for Sharia governance must be developed to bridge the gap between regulators and Sharia authorities. This governance model should position DSN-MUI fatwas as operationally enforceable instruments within the positive legal system. The proposed framework encompasses three key pillars: (1) institutional integration between regulatory and Sharia authorities, (2) standardization of contracts and Sharia auditing, and (3) transformation of fatwas into legally binding norms. Within the institutional integration dimension, a National Sharia Fintech Supervisory Committee should be established, comprising representatives from both OJK and DSN-MUI. This committee would be responsible for setting national standards for Sharia compliance, accrediting DPS members for fintech institutions, and conducting periodic Sharia compliance audits of Islamic fintech operators.

In the implementation of Islamic fintech, essential elements reflecting Islamic principles, such as the validation of digital contracts, should be approved by accredited DPS members, and the results of Sharia audits must form part of the annual financial audit submitted to both OJK and DSN-MUI. This approach ensures systematic and measurable supervision of Sharia compliance²⁴.

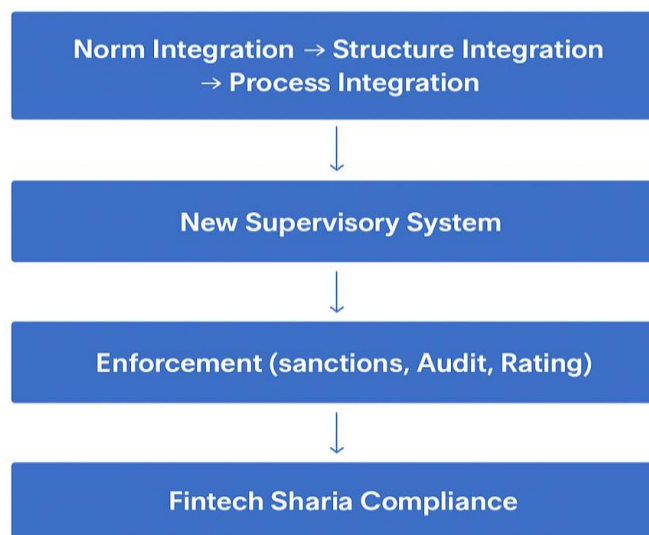
Moreover, DSN-MUI fatwas related to fintech should be incorporated into OJK regulations or other relevant instruments, such as Bank Indonesia Regulations, thereby granting them binding legal authority. Such reinforcement would elevate Sharia compliance from a mere ethical responsibility to a legally enforceable administrative obligation, with sanctions applicable in cases of violation.

²⁴ Gian Boeddu et al., “Consumer Risks of FinTech,” *World Bank, FIGI Symposium, May, 2021*; Faizi et al., “Ensuring Shariah Compliance in the Fintech: A Comprehensive Analysis from Indonesia.”

An integrated model of Sharia governance is therefore essential to reinforce Indonesia's positioning as a global hub for digital Islamic finance. Such a governance model should incorporate three essential elements: DSN-MUI fatwas as the foundational source of Sharia compliance and normative legitimacy; OJK and Bank Indonesia regulations as the formal instruments of legal enforcement endowed with administrative authority; and the regulatory sandbox mechanism as an experimental platform that enables innovation within Sharia-compliant parameters. The convergence of religious norms and positive legal regulation will enhance legal certainty for industry actors, strengthen consumer protection for Muslim users, and support the development of a credible, transparent, and sustainable Islamic fintech ecosystem.

Integration is carried out by incorporating the substance of the DSN-MUI fatwa into POJK/SEOJK, for example: a. Direct integration into regulations as the first layer (Substance Integration). The next stage of integration involves institutional integration, such as the formation of a national Sharia Fintech supervisory committee consisting of OJK (IKNB and Digital Finance Division), DSN-MUI BI (for payment systems), and certified DPS representatives. The next layer is carried out through Process Integration, such as digital contract standardization and Sharia Compliance Monitoring API (SCM-API).

Figure 4. Design of Sharia Fintech Supervision Governance Design



Source: Author's analysis, 2025

The sharia fintech governance design model shown in the diagram indicates that the establishment of an effective sharia compliance system must begin with the integration of norms, structures, and processes. The integration of norms is necessary to align sharia principles in DSN-MUI fatwas with formal regulations issued by OJK and other financial authorities. Furthermore, structural integration is carried out through the establishment of institutional mechanisms that enable effective coordination between supervisory authorities and Sharia authorities. Process integration includes the harmonization of operational procedures, audits, reporting, and risk assessment mechanisms between the two regulatory domains. These three types of integration result in a new supervisory system that not only ensures the validation of Sharia principles in fintech products and services but also lays the foundation for consistent enforcement through sanctions, Sharia audits, and compliance ratings.

Ultimately, such a system would establish a fair, transparent, and sustainable financial governance model that is consistent with the objectives of *Maqāṣid al-Sharī‘ah*, namely justice, transparency, and sustainability, as foundational principles of the national financial system. The transformation of fatwas into binding regulations represents not merely the reinforcement of normative standards but also an institutional and governance transformation that embeds Sharia values as an integral component of the modern financial legal framework. This approach ensures that Sharia compliance in Indonesia's fintech industry carries not only moral significance but also concrete legal consequences, thereby safeguarding the integrity and global competitiveness of the Islamic financial sector.

Islamic fintech represents a strategic innovation within the national financial system, integrating the principles of Islamic finance with the advancement of digital technology²⁵. Its development in Indonesia demonstrates significant potential for expanding financial inclusion, supporting the financing of productive sectors, and strengthening the halal economic ecosystem²⁶. However, the main challenge lies in the absence of an integrated Sharia governance system that harmonizes positive legal regulations with religious fatwas.

²⁵ Aulia et al., “An Overview of Indonesian Regulatory Framework on Islamic Financial Technology (Fintech).”

²⁶ Kılıç and Türkan, “The Emergence of Islamic Fintech and Its Applications.”

The Financial Services Authority (OJK) and the National Sharia Board of the Indonesian Ulema Council (Dewan Syariah Nasional–Majelis Ulama Indonesia, DSN-MUI) have complementary functions. OJK plays a central role in ensuring prudential regulation, legality, and consumer protection, while DSN-MUI, through the Sharia Supervisory Board (Dewan Pengawas Syariah, DPS), ensures compliance with Sharia principles. Nevertheless, the lack of an integrative mechanism between these institutions has resulted in Sharia compliance and legal certainty operating in parallel, without effective coordination.

The analysis indicates that Islamic fintech governance in Indonesia remains partial and has yet to fully position Sharia principles as an operational and legally enforceable foundation. Existing regulations, such as OJK Regulation No. 77/2016 and OJK Regulation No. 13/2018, are still oriented toward conventional fintech models and have not adequately accommodated the unique requirements of Islamic fintech, particularly regarding digital contracts (*akad*), Sharia validation, and compliance audit reporting. Meanwhile, DSN-MUI fatwas, such as Fatwa No. 117/2018 and Fatwa No. 140/2021, possess normative authority but lack administrative enforceability.

Thus, the transformation of fatwas into legally binding instruments represents not merely a normative adjustment but also an institutional transformation that reaffirms the position of Sharia values within the national legal system. The integration of fatwas with formal regulations will strengthen Indonesia's readiness to become a global hub for digital Islamic finance founded upon the objectives of *Maqāṣid al-Sharī'ah*, justice (*'adl*), public welfare (*maslahah*), and sustainability (*istidāmah*).

The results of normative and comparative analysis show that an ideal model of Islamic fintech governance must be established through institutional integration and legal harmonization. DSN-MUI fatwas should acquire legal force by being incorporated into OJK or Bank Indonesia regulations. Furthermore, the establishment of a National Sharia Fintech Supervisory Committee is essential as a platform for coordination, standardization of digital contracts, and Sharia auditing. Through such integration, the legal legitimacy of Islamic fintech will be strengthened, consumer protection will be enhanced, and Sharia compliance will be effectively enforced within an administrative framework.

Conclusion

This study shows that the governance of Islamic fintech in Indonesia is still fragmented due to the absence of an integrated regulatory framework that harmonizes OJK regulations with DSN-MUI fatwas. The dualistic supervisory structure, where prudential oversight, licensing, and consumer protection fall under the authority of OJK, while Sharia compliance is monitored internally by the Sharia Supervisory Board (DPS) and externally by DSN-MUI, creates legal uncertainty, weakens enforcement, and erodes public trust. Existing regulations, such as POJK No. 77/2016 and POJK No. 13/2018, have not fully accommodated the distinctive needs of Islamic fintech, whereas DSN–MUI fatwas, including Fatwa No. 117/2018 and No. 140/2021, have normative authority but lack binding administrative force. These conditions prevent the optimal operationalization of Sharia principles within the fintech ecosystem, resulting in the incomplete realization of maqāṣid al-sharī'ah, namely justice, transparency, and public welfare.

To address these challenges, this study recommends establishing an integrated Sharia fintech governance model through the harmonization of institutions, norms, and procedural mechanisms. The key recommendations include: (1) incorporating the substantive provisions of DSN-MUI fatwas into OJK or Bank Indonesia regulations so that they carry mandatory legal authority; (2) forming a National Sharia Fintech Supervisory Committee comprising OJK, DSN-MUI, Bank Indonesia, and certified DPS representatives; and (3) standardizing digital contracts, Sharia audit mechanisms, and integrated reporting systems to ensure consistent compliance. Through these measures, Indonesia can build a coherent, enforceable, and adaptive governance framework that strengthens legal certainty, enhances consumer protection, and elevates the global competitiveness of the Islamic fintech industry.

Bibliography

- Adawiyah, Al. “ANALYSIS OF PRACTICAL CONFORMITY ON SYARQ. COM BASED ON SYARIAH FINTECH WITH THE FATWA OF MUAMALAH MALIYAH DSN-MUI.” *Global Sharia Economics Research and Actual Management* 1, no. 1 (2024): 30–44.
- Alrasyid, Harun, Mustafa Raza Rabbani, and Afifudin Afifudin. “Embracing the Digital Economy: Exploring the Role of Trust, Perceived Ease of Use, and Religiosity on

- Intention to Use Islamic Peer-to-Peer Lending.” *JEMA: Jurnal Ilmiah Bidang Akuntansi Dan Manajemen* 20, no. 2 (2023): 283–305.
- Aulia, Mahdiah, Aulia Fitria Yustiardi, and Reni Oktavia Permatasari. “An Overview of Indonesian Regulatory Framework on Islamic Financial Technology (Fintech).” *Jurnal Ekonomi & Keuangan Islam*, 2020, 64–75.
- Aziz, Noor Hidayah Ab, Intan Salwani Mohamed, and Nor Balkish Zakaria. “Security, Risk and Trust Issues among Muslim Users for Online Businesses.” *Procedia Economics and Finance* 31 (2015): 587–94.
- Boeddu, Gian, Jennifer Chien, and Ivor Istuk. “Consumer Risks of FinTech.” *World Bank, FIGI Symposium, May, 2021*.
- DinarStandard and Elipses. *Global Islamic Fintech Report 2024/25*. DinarStandard and Elipses, 2024. <https://salaamgateway.com/reports/global-islamic-fintech-report-2024-25>.
- Dwijayanti, Neni, Muhammad Iqbal, and Muhammad Zulfikar. “The Role of Islamic FinTech P2PL in Increasing Inclusion and Financial Literacy of MSMEs.” *Journal of Islamic Finance* 11, no. 1 (2022): 94–101.
- Elvina, Annisa, Megi Saputra, Anggeline Rahmadani, and Nil Firdaus. “Implementasi Riba Dalam Pinjaman Online Berbasis Syariah (Studi Tentang Pinjaman Online Pada PT. AMMANA FINTECH SYARIAH).” *Jurnal Ekonomi Syariah Pelita Bangsa* 9, no. 01 (2024): 19–28.
- Faizi, Faizi, Ade Nur Rohim Rohim, Mhd Handika Surbakti Surbakti, Misbahul Munir, and Umi Qulsum Qulsum. “Ensuring Shariah Compliance in the Fintech: A Comprehensive Analysis from Indonesia.” *Qualitative Research in Financial Markets*, Emerald Publishing Limited, 2025, 1–31.
- 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): 21.
- Friedman, Lawrence M. “Legal Culture and Social Development.” *Law & Society Review* 4, no. 1 (1969): 29–44.
- Jonaedi Efendi, SHI, SH Johnny Ibrahim, and MM Se. *Metode Penelitian Hukum: Normatif Dan Empiris*. Prenada Media, 2018.
- Kelsen, Hans. *Pengantar Teori Hukum*. Nusamedia, 2019.
- Kılıç, Gökmen, and Yavuz Türkan. “The Emergence of Islamic Fintech and Its Applications.” *International Journal of Islamic Economics and Finance Studies* 9, no. 2 (2023): 212–36.

- Mutamimah, Mutamimah, and Maya Indriastuti. "Fintech, Financial Literacy, and Financial Inclusion in Indonesian SMEs." *International Journal of Entrepreneurship and Innovation Management* 27, nos. 1–2 (2023): 137–50.
- Noor, Afif, Haniff Ahamat, Ismail Marzuki, et al. "Regulation and Consumer Protection of Fintech in Indonesia: The Case of Islamic Fintech Lending." *Linguistics and Culture Review* 6, no. on (2022): 49–63.
- Postema, Gerald J. *Utility, Publicity, and Law: Essays on Bentham's Moral and Legal Philosophy*. Oxford University Press, 2019.
- Putri, Mutiara Eka, and Hanif Hanif. "The Role of Financial Technology in Promoting Growth in Islamic Finance in the Digital Era." *Al Fiddhoh: Journal of Banking, Insurance, and Finance* 5, no. 1 (2024): 35–39.
- Qamar, Nurul, and Farah Syah Rezah. *Metode Penelitian Hukum: Doktrinal Dan Non-Doktrinal*. CV. Social Politic Genius (SIGn), 2020.
- Qamar, Nurul, Muhammad Syarif, Dachran S Busthami, et al. *Metode Penelitian Hukum (Legal Research Methods)*. CV. Social Politic Genius (SIGn), 2017.
- Qudah, Hanan, Sari Malahim, Rula Airout, Mohammad Alomari, Aiman Abu Hamour, and Mohammad Alqudah. "Islamic Finance in the Era of Financial Technology: A Bibliometric Review of Future Trends." *International Journal of Financial Studies* 11, no. 2 (2023): 76.
- Rabbani, Mustafa Raza, Abu Bashar, Nishad Nawaz, et al. "Exploring the Role of Islamic Fintech in Combating the Aftershocks of Covid-19: The Open Social Innovation of the Islamic Financial System." *Journal of Open Innovation: Technology, Market, and Complexity* 7, no. 2 (2021): 136.
- Razia, Bahaa, and Bahaa Awwad. "Review of Financial Technology Applications and Their Related Aspects." In *From Industry 4.0 to Industry 5.0*. Springer, 2023.
- Rohmah, Elva Imeldatur, and Zainatul Ilmiah. "Reinterpretation of Maqashid Al-Sharia in Indonesian Legal Products." *ALFIQH Islamic Law Review Journal* 2, no. 3 (2023): 3.
- Sugiarto, Irwan, and Hari Sutra Disemadi. "Consumers Spiritual Rights In Indonesia: A Legal Study Of Sharia Fintech Implementation In The Consumers Protection In The Consumers Protection Perspective." *Jurnal IUS Kajian Hukum Dan Keadilan* 8, no. 3 (2020): 437–52.
- Wacks, Raymond. *Philosophy of Law: A Very Short Introduction*. Vol. 147. Oxford University Press, 2014.