

Regulatory Challenges of Islamic Fintech in Indonesia: A Policy Analysis of the Harmonization of Sharia Principles and Technological Innovation

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Article history

Submitted: 2026/02/01; Revised: 2026/03/11; Accepted: 2026/06/23

Abstract

The rapid growth of Islamic financial technology (fintech) in Indonesia presents a significant regulatory challenge. Although Indonesia ranks third globally in the Global Islamic Fintech Ecosystem Index (GIFT Index) 2024/25 with a market value of USD 8.5 billion, only a small proportion of licensed peer-to-peer lending providers operate under Sharia principles. This study aims to examine the existing Islamic fintech regulatory framework, identify gaps between the Financial Services Authority (OJK) regulations and the National Sharia Board (DSN-MUI) fatwas, and formulate policy recommendations to harmonize Sharia principles with technological innovation. Using a qualitative normative legal research approach, the study combines literature review, content analysis, and comparative policy analysis. The findings indicate that Indonesia's Islamic fintech governance is characterized by regulatory fragmentation, limited legal enforceability of Sharia compliance, emerging legal uncertainties regarding digital technologies, and insufficient technical capacity of Sharia Supervisory Boards (DPS). Strengthening regulatory integration and institutional capacity is essential to support sustainable Islamic fintech development.

Keywords

Islamic Fintech, Regulation, Policy Harmonization, OJK, DSN-MUI, Technological Innovation, Maqashid Shariah, Financial Inclusion



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INTRODUCTION

Digital transformation in the global financial sector is not merely a passing trend—it represents a fundamental shift in how people conduct transactions, invest, and access financial services. In the midst of this transformation, financial technology (fintech) has emerged as a disruptive force that breaks conventional boundaries in the financial industry. Indonesia, home to the world's largest Muslim population, has an extraordinary opportunity to position itself as the global epicenter of Islamic fintech. However, beneath this promising potential lies a complex set of regulatory challenges that have not been fully resolved.

According to the Global Islamic Fintech Report 2024/2025, Indonesia's Islamic

fintech market value reached USD 8.5 billion (equivalent to IDR 142.8 trillion) in 2023. This places Indonesia fifth globally in terms of market share, and third in the Global Islamic Fintech Ecosystem Index (GIFT Index). Indonesia's Islamic fintech market is projected to grow at a compound annual growth rate (CAGR) of 12.9%, with potential value reaching USD 15.7 billion by 2028. These figures reflect the high level of global confidence in Indonesia's Islamic finance ecosystem (Ardianto et al., 2024).

Yet, these statistics also hide a troubling paradox. Of the 97 licensed peer-to-peer (P2P) lending operators in Indonesia as of 2025, only 7 operate based on Sharia principles—representing just 7.2% of the total. Furthermore, the 2024 National Financial Literacy and Inclusion Survey (SNLIK) shows that the Islamic financial literacy index stands at only 39.11%, while the inclusion index is just 12.88%. This gap between the enormous demographic potential and the still-limited market share is not simply a matter of market demand. It signals the presence of structural and regulatory barriers that need to be urgently identified and addressed (Kusnanto et al., 2024).

The root of the problem can be traced to the complexity of the Islamic fintech regulatory architecture in Indonesia. Islamic fintech services are governed by DSN-MUI Fatwa No. 117/DSN-MUI/II/2018 on Information Technology-Based Financing Services Based on Sharia Principles, while technical supervision rests with the Financial Services Authority (OJK). This dual oversight system—one religious and normative through DSN-MUI fatwa, the other technical and administrative through OJK regulations—creates a governance ecosystem that is unique yet prone to implementation gaps (Kholifah, Siti Nur, Eko Arif Susanto, 2024).

Numerous studies show that Islamic fintech regulation in Indonesia still faces challenges of rule fragmentation and the absence of a comprehensive legal framework specifically governing the Islamic fintech industry. This situation highlights the need for harmonization between DSN-MUI fatwa and OJK regulations to create stronger legal certainty. Furthermore, Indonesia's sectoral and fragmented regulatory approach—in contrast to Malaysia's more integrated system—puts Indonesia behind in cross-institutional oversight efficiency, even though its ecosystem is considered globally competitive (Putri et al., 2026; Asyari et al., 2025).

The tension between two opposing forces—adherence to Sharia principles on one side and the demands of technological innovation on the other—is a key challenge facing regulators. Previous research has emphasized the importance of regulatory harmonization among financial authorities, institutions, and industry

players, while recommending the development of a more responsive Islamic economic legal framework that keeps pace with evolving technology while also ensuring legal certainty and Sharia integrity. The need for balance between these two dimensions—what can be called the ‘sharia-tech nexus’—has not yet received adequate attention in Indonesian academic literature (Anadila et al., 2026).

A number of previous studies have attempted to address parts of this problem from various perspectives. Noor examined consumer protection in Islamic fintech (Noor et al., 2022); Rahmaddina, Toni, and Candra explored financial literacy barriers in the Industry 4.0 era (Rahmaddina et al., 2023); Fidhayanti analyzed the legal landscape of Islamic fintech in Indonesia through a comprehensive policy and regulatory analysis in F1000Research (Fidhayanti et al., 2024); and Suaidi examined the harmonization between DSN-MUI fatwa and OJK regulations toward an innovative and inclusive Islamic fintech ecosystem (Suaidi et al., 2025). However, these studies remain partial—some focus only on consumer protection, others on literacy aspects, while still others emphasize financial inclusion without integrating an analysis of regulatory challenges, Sharia principle harmonization, and technological innovation dynamics all at once (Purnama et al., 2025; Mishbakhuzein & Vidiati, 2021).

These studies have also not comprehensively analyzed the challenges of technology-based supervision within the context of Indonesia’s unique dual regulatory system, nor have they explored the regulatory implications of Islamic digital banking for achieving Indonesia’s National Financial Inclusion Strategy targets. This gap is the *raison d’être* of this research (Aprilia et al., 2026).

Based on the above, this study aims: first, to comprehensively map the Islamic fintech regulatory framework in Indonesia and its harmonization challenges; second, to analyze the policy tension between Sharia compliance requirements and the acceleration of technological innovation; and third, to formulate policy recommendations that can serve as a foundation for reforming Islamic fintech regulation in a more adaptive, inclusive way that remains grounded in the values of *maqashid syariah*. Adaptive, comprehensive, and innovation-oriented regulation is a key prerequisite for the sustainable growth of the Islamic fintech ecosystem and its competitiveness in the technology-driven financial era. Harmonization among these regulations is a critical issue that requires serious academic attention (Aprilia et al., 2026).

This research aims to make a meaningful contribution—both theoretically and practically—to strengthen the regulatory foundation of Islamic fintech in Indonesia,

so that the aspiration of making Indonesia a leading global hub for digital Islamic finance becomes not merely a wish, but a planned and well-managed reality.

METHODS

This study uses a qualitative approach with a normative legal research method. This approach examines laws, fatwa, and applicable policies as the primary objects of analysis. It was chosen because the issues being studied are conceptual and regulatory in nature—analyzing the harmonization between Sharia principles and technological innovation within the Islamic fintech policy framework in Indonesia. Data sources include primary legal materials (POJK No. 10/POJK.05/2022, DSN-MUI Fatwa No. 117/2018, and other relevant regulations), secondary legal materials (scientific journals, official reports from OJK, Bank Indonesia, and the Global Islamic Fintech Report 2024/25), and tertiary legal materials (legal dictionaries, encyclopedias, and supporting references). Data collection was conducted through systematic literature review of all sources relevant to the research topic.

The data analysis technique used is content analysis combined with policy analysis. Through content analysis, the researcher examines in depth the substance of regulations, fatwa, and policy documents to identify gaps, overlaps, and inconsistencies between existing legal instruments. Policy analysis is used to evaluate the effectiveness of the current regulatory framework and to formulate more adaptive policy reform recommendations that respond to the dynamics of technological innovation without compromising the integrity of Sharia principles.

FINDINGS AND DISCUSSION

The Islamic Fintech Regulatory Framework in Indonesia: Foundation and Complexity

Regulation is the primary foundation that shapes the direction and quality of an industry's development, including the Islamic fintech industry. In Indonesia, the Islamic fintech regulatory framework is not built on a single legal instrument. Instead, it is spread across several layers of policy issued by different institutions. The framework is supported by a dual legal system: DSN-MUI fatwa sets Sharia compliance standards, while OJK regulations (POJK) govern the technical and operational aspects of Sharia-based digital financial services. This dualism reflects the unique nature of Indonesia's legal system, which combines Islamic law (*fiqh muamalah*) and state positive law within an imperfectly integrated financial ecosystem (Anadila et al., 2026).

Historically, Islamic fintech regulation in Indonesia has gone through several important phases. In the early stage, applicable regulations were general and did not specifically separate conventional fintech from Islamic fintech. Bank Indonesia Regulation No. 19/12/PBI/2017 and OJK Regulation (POJK) No. 77/POJK.01/2016 still lacked clear separation between conventional and Islamic fintech rules. In 2018, DSN-MUI Fatwa No. 117/DSN-MUI/II/2018 on Information Technology-Based Financing Services Based on Sharia Principles was issued, providing more specific and comprehensive guidance on Islamic fintech. This development marked a new chapter in efforts to provide legal certainty for the national Islamic fintech industry (Jatnika & Mutiara, 2024).

In terms of technical operational regulation, OJK plays a central role as the main supervisory authority. Bank Indonesia, through PBI No. 19/12/PBI/2017, established the fintech oversight framework for the payment system dimension, while OJK issued the regulatory framework for fintech financing through POJK No. 77/2016 and its updates in 2022–2023, which further strengthened consumer protection. On the religious authority side, DSN-MUI issued Fatwa No. 117/DSN-MUI/II/2018, which serves as the formal and mandatory foundation for all Islamic fintech operators in Indonesia. The coexistence of two supervisory authorities—OJK in the technical domain and DSN-MUI in the Sharia domain—distinguishes Indonesia’s Islamic fintech regulatory system from many other countries (Gazali, 2025).

POJK No. 10/POJK.05/2022, as an update of the previous POJK, is a key milestone in the evolution of Islamic fintech regulation. It specifically governs the operation of Sharia-based information technology financing services, sets licensing requirements, operational standards, and comprehensive oversight mechanisms. DSN-MUI has also issued several fatwa supporting the implementation of Islamic digital financial services, including Fatwa No. 116/DSN-MUI/IX/2017 on Islamic Electronic Money, Fatwa No. 117/DSN-MUI/II/2018 on IT-Based Financing Services, and Fatwa No. 136/DSN-MUI/VIII/2020 on Islamic Financial Education. This series of fatwa reflects DSN-MUI’s increasingly active response to the dynamics of financial technology development (Aprilia et al., 2026).

Although this regulatory framework appears formally complete, the reality on the ground presents a different picture. The main problem is the absence of a comprehensive and integrated Islamic fintech regulation. Currently, governance is still spread across the Islamic Banking Law, various POJKs, and DSN-MUI fatwa. This fragmentation can lead to legal uncertainty—which is a fundamental problem, as legal certainty is one of the primary goals of civil law. This situation poses a real

challenge for Islamic fintech industry players, who must comply with multiple legal instruments of varying hierarchy and binding force.

The question of legal certainty becomes even more complex when it comes to the status of DSN-MUI fatwa within Indonesia's positive legal system. DSN-MUI Fatwa No. 117/DSN-MUI/II/2018 gives Sharia legitimacy to Islamic fintech practices and regulates the types of contracts (*akad*) that can be used along with general operational principles. In Indonesian civil law practice, DSN-MUI fatwa serves as a material source of law and a reference for the substance of agreements. However, fatwa does not carry the same binding force as legislation. Therefore, integrating fatwa into positive regulation is necessary to ensure that consumer protection is not only moral but also legal. This fundamental weakness means that compliance with fatwa depends heavily on the awareness and goodwill of industry players, rather than on firm legal sanctions.

From a *maqashid shariah* perspective, the existing Islamic fintech regulatory framework needs to be evaluated more deeply. The protection of wealth (*hifz al-mal*) is the most relevant dimension of *maqashid shariah* in the context of Islamic fintech regulation, covering the protection of consumers from *riba* (interest), *gharar* (excessive uncertainty), *maysir* (speculation), and exploitation. The *maqashid al-shariah* framework provides theological legitimacy as well as practical guidance for regulators. By using *maqashid shariah* as an evaluation benchmark, Islamic fintech regulation can be assessed not only on its legal formality but also on its substance in delivering real benefit to the community (Aprilia et al., 2026).

Consumer protection is one of the most critical dimensions in the Islamic fintech regulatory framework. Research findings show that the existing regulatory framework—such as POJK 77/2016 (replaced by POJK 10/2022), PBI 19/2017, and DSN-MUI Fatwa 117/2018—has provided an important legal foundation, but inconsistencies and gaps remain, especially in harmonizing OJK regulations and DSN-MUI fatwa. Consumer protection still faces challenges related to information transparency, complaint handling, and digital literacy. Sharia compliance also requires stricter supervision and clearer standards. This suggests that the existing regulatory design has only scratched the surface of the problem and has yet to comprehensively address the complexity of challenges in practice (L. Wijayanti, 2025).

The multi-layered institutional governance structure is both a characteristic and a weakness of Indonesia's Islamic fintech regulatory framework. The regulation of Islamic fintech in Indonesia involves several interconnected institutions: OJK as the

main regulator of the financial services sector, DSN-MUI as the body that issues fatwa as Sharia compliance guidelines, and the Sharia Supervisory Board (DPS) as the entity-level Sharia compliance overseer. The simultaneous involvement of three institutions—each with different authorities, mechanisms, and standards—creates bureaucratic complexity that can hinder the efficiency and effectiveness of oversight (Putri et al., 2026).

Taking all the above dimensions into account, it can be concluded that Indonesia's Islamic fintech regulatory framework has an adequate foundation but contains structural weaknesses that need to be addressed promptly. Across the various regulations issued by OJK and Bank Indonesia, there is still a lack of clear separation between rules for conventional fintech and Islamic fintech. It is therefore necessary for the government to provide clarity and protect Islamic fintech in Indonesia through a unified regulatory umbrella, so that the need for comprehensive Islamic fintech regulation can be realized as soon as possible. The need for a single legally binding regulatory framework that is also sensitive to Sharia values is the most urgent policy agenda that needs to be fulfilled in the near future (Alfaris et al., 2019).

Policy Fragmentation and Implementation Gaps Between OJK and DSN-MUI

Policy fragmentation is one of the most fundamental problems hindering the optimal development of the Islamic fintech ecosystem in Indonesia. This occurs when multiple regulatory instruments governing the same subject are not connected within a coherent framework, resulting in overlaps, inconsistencies, and legal vacuums. Indonesia still faces challenges in harmonizing fatwa and formal regulations to create stronger legal certainty. This fragmentation not only creates confusion at the industry level but also directly weakens consumer protection and creates an uncertain investment climate (Putri et al., 2026).

The root of this policy fragmentation lies in the fundamental difference between the working logic of OJK's technical regulations and the normative logic of DSN-MUI fatwa. OJK regulations are administrative, legally binding, and focused on procedural aspects such as licensing, reporting, and data protection. DSN-MUI fatwa, on the other hand, is religious and normative, setting halal product standards and regulating contract mechanisms in accordance with Islamic principles. The interaction between DSN-MUI fatwa and OJK's technical regulations often creates implementation gaps in the field, given the complex intersection of banking law, Islamic law, and technology regulation—each evolving at a different pace and with a

different logic. This clash between two different logics is the root of the various implementation problems faced by the industry (Putri et al., 2026).

One of the clearest manifestations of this implementation gap is the mismatch between Sharia compliance standards in fatwa and the technical standards in POJK. Although Islamic fintech has begun to grow, OJK has not yet fully incorporated DSN-MUI Fatwa into binding regulations. The DPS, as the supervisory institution for Islamic financial entities, must follow the decisions made by DSN-MUI for these entities to operate in a Sharia-compliant manner—which is part of shariah compliance. Studies show that Islamic fintech operators still need stronger legal instruments to effectively enforce Sharia compliance. This creates a situation where Sharia principles are recognized normatively but cannot be effectively enforced through existing legal mechanisms (Ishak & Ilham, 2022).

Implementation gaps are also evident in the issue of cross-institutional coordination that has not yet worked optimally. In an ideal regulatory ecosystem, OJK and DSN-MUI should operate within a continuous policy coordination framework, where updates to fatwa are followed by updates to POJK, and vice versa. In reality, the two institutions often move on unsynchronized tracks. Collaboration between OJK and DSN-MUI is not merely an administrative need, but a vital foundation for building a progressive, ethical Islamic fintech ecosystem that stays within the bounds of maqashid shariah. More formalized and closer cooperation between the two authorities is a need that can no longer be postponed (Asyari et al., 2025).

Policy fragmentation also has serious implications for consumer protection. When technical regulations and Sharia standards are not aligned, Islamic fintech consumers are in a vulnerable position because there is no clear legal certainty regarding their rights in the event of a dispute or violation. Consumer protection still faces challenges related to information transparency, complaint handling, and digital literacy, while Sharia compliance also requires stricter oversight and clearer standards. This places Islamic fintech consumers in an even weaker position than conventional fintech consumers—an irony that contradicts the spirit of justice at the core of Islamic finance (L. Wijayanti, 2025).

The low level of public Islamic financial literacy further worsens the impact of existing policy fragmentation. When regulations are unclear, industry players tend to exploit the gaps for their own benefit, while consumers with limited literacy lack the ability to detect and report violations. Although the Muslim population is very large, public understanding of Islamic contract concepts, profit-sharing mechanisms, halal

investment principles, and the characteristics of Islamic fintech remains relatively low. This means the adoption of Islamic fintech services has not grown optimally compared to the available market potential. Low literacy creates a vicious cycle: without sufficient literacy, community-based oversight does not work; without effective oversight, public trust is hard to build; and without trust, Islamic fintech adoption stagnates (Putri et al., 2026).

In a broader context, the fragmentation of Islamic fintech policy in Indonesia actually reflects a more fundamental problem in the national legal system—the absence of a systemic synchronization between Islamic law and state positive law. Various rules governing Islamic fintech are still spread across OJK regulations, DSN-MUI fatwa, and other regulations that have not been fully integrated into a comprehensive legal framework. Moreover, DSN-MUI fatwa, as a guide to Sharia compliance, does not yet carry the same legally binding force as state regulations, creating implementation gaps in the field. Addressing this fragmentation ultimately requires more than just technical regulatory fixes—it requires fundamental institutional reform (Putri et al., 2026).

Tension Between Sharia Principles and Technological Innovation

The tension between Sharia principles and technological innovation is the most dynamic and challenging issue in the discussion of Islamic fintech regulation. On one hand, Sharia principles have a normative foundation rooted in the Quran, Hadith, and scholarly *ijtihad*, which is relatively stable. On the other hand, technological innovation moves at an exponential pace that knows no boundaries of time or geography. The meeting of these two currents at different speeds naturally creates tension that is not easy to manage. The main challenge in implementing Islamic fintech regulation is ensuring that Sharia principles can be applied consistently in a digital environment that has fundamentally different characteristics from conventional banking. This is a conceptual challenge that must be seriously addressed by academics, scholars, and policymakers working together (Putri et al., 2026).

One of the most critical dimensions of this tension is the question of contract (*akad*) validity in the digital medium. In *fiqh muamalah*, a valid contract requires an offer (*ijab*) and acceptance (*qabul*) that fulfill certain conditions, including the clear identification of the parties, the object, and the value of the transaction. In the context of fintech, this entire process takes place electronically, without physical meeting between the parties. Implementing Islamic fintech faces significant challenges in validating and adapting traditional contracts to the digital context, where smart

contracts and technology governance remain legally unresolved. This legal ambiguity creates a grey zone that can harm all parties involved (Gazali, 2025; Asyari et al., 2025).

Blockchain technology and smart contracts are two of the most promising yet controversial innovations in the context of Islamic fintech. Blockchain offers transparency, security, and decentralization that in principle align with Islamic values such as honesty and justice. However, from a regulatory and Sharia compliance perspective, this technology still raises many unanswered questions. The concept of the regulatory sandbox, introduced by OJK through POJK No. 13/2018 and updated through more recent regulations, provides space for Islamic fintech innovators to test new products and services in a controlled oversight environment. This mechanism enables the development of products such as blockchain-based smart contracts implementing *mudharabah* or *musyarakah akad*, technology-based Islamic crowdfunding platforms, and robo-advisory systems that incorporate Sharia principles (Putri et al., 2026).

However, the regulatory sandbox mechanism alone is not sufficient to resolve all the complexity of the tension between Sharia principles and technological innovation. A more fundamental challenge lies in the absence of specific Sharia guidance for these new technologies. There is no OJK regulation that explains how Sharia audits of algorithms are conducted, how to ensure that the datasets used are free from information that could lead to discrimination, or how to determine legal responsibility when automated decisions go wrong. This regulatory vacuum in the realm of cutting-edge technology is a dangerous gap if left unaddressed (Asyari et al., 2025).

The tension between Sharia principles and technological innovation is also clear in the context of crypto assets and decentralized technology. On one hand, crypto assets offer an alternative financial system independent of conventional banking institutions. On the other hand, their speculative nature and high volatility raise serious concerns from the perspective of the Islamic prohibitions on *gharar* and *maysir*. The lack of uniformity in fatwa regarding cryptocurrency use further complicates the implementation of blockchain in Islamic fintech. Islamic fintech companies struggle to adopt this technology optimally without clear guidance from Sharia institutions, and the legal uncertainty combined with the potential for Sharia violations makes many Islamic fintech companies hesitant to develop blockchain and crypto-based products—hindering innovation and the development of Islamic technology in the digital realm (Jalal & Rosyadi, 2025).

Beyond specific technology issues, a more fundamental tension lies in the difference in pace between fatwa production and the speed of technological innovation. The *ijtihad* process for producing a fatwa requires deep deliberation and scholarly consensus, which inherently takes considerable time. Meanwhile, financial technology innovation produces new products and services within months, or even weeks. The greatest challenge is ensuring that all automated processes—from risk assessment, financing recommendations, to portfolio construction—remain within the bounds of Sharia. In this context, technology integration cannot be done reactively; it must go through a disciplined regulatory framework oriented toward the principle of caution. A more responsive fatwa production mechanism is needed that can keep up with technology dynamics without sacrificing the rigor and depth of *fiqhiyah* analysis (Asyari et al., 2025).

Cross-disciplinary collaboration among Islamic scholars, technology experts, economic academics, and legal practitioners is an indispensable prerequisite for bridging this tension. Without structured and ongoing collaboration, technological innovation will continue to move beyond the comprehension capacity of fatwa and regulation makers. Rapid innovation in the technology sector often raises concerns about adherence to Sharia principles, making closer collaboration between Islamic banking institutions, regulators, and the Sharia Supervisory Board absolutely essential. A rigorous supervision process must be in place to ensure that every applied innovation complies with Islamic law, and Sharia supervisory institutions must play an important role in issuing fatwa and certification for new products (Wahab & Ihsan, 2025).

The Role of the Sharia Supervisory Board and Strengthening Governance

The Sharia Supervisory Board (DPS) is the institution at the frontline of ensuring Sharia compliance at the entity level of Islamic fintech. The existence of DPS is not merely an administrative requirement; it is a substantive mechanism to maintain the integrity of fintech products and services so that they remain consistent with Islamic principles. DSN-MUI Fatwa No. 117/DSN-MUI/II/2018 not only specifies the permitted contracts but also requires the presence of a DPS on every platform to ensure ongoing Sharia compliance supervision. This mandatory DPS requirement reflects the understanding that Sharia compliance cannot be left solely to the goodwill of industry players; it requires a structured and independent supervisory mechanism (Gazali, 2025).

In practice, however, the effectiveness of DPS in overseeing Islamic fintech operations faces several significant obstacles. One major obstacle is the limited

technical competence of DPS members in understanding the technological architecture of fintech platforms. DPS members who have deep expertise in fiqh muamalah but limited knowledge of information technology will struggle to detect potential Sharia violations hidden within the technical layers of a system. The main challenge in implementing regulation is ensuring that Sharia principles can be applied consistently in a digital environment with different characteristics from conventional banking—and this requires a competent DPS with Sharia compliance mechanisms integrated into the technology system (Putri et al., 2026).

The capacity issue of DPS becomes even more critical when faced with the development of increasingly complex and high-tech Islamic fintech products. Products such as AI-based robo-advisory, blockchain-based crowdfunding, and algorithm-based Islamic investment services require deep technical understanding to be accurately evaluated from a Sharia perspective. Sharia supervisory institutions must play an important role in issuing fatwa and certification for new products offered by Islamic banks and Islamic fintech companies, and closer collaboration between regulators and DPS is essential to ensure that every applied innovation complies with Islamic law. Strengthening DPS capacity in financial technology is a highly strategic institutional investment that cannot be delayed (Wahab & Ihsan, 2025).

From a regulatory standpoint, the obligation of DPS presence in every Islamic fintech entity has been established, but qualification standards and accountability mechanisms for DPS remain inadequately defined. This creates a very large variation in oversight quality from one platform to another. Harmonization between OJK and DSN-MUI regulations has a significant impact on the sustainability of the Islamic fintech industry. With clear and integrated guidelines, fintech operators will have a definite direction for developing innovation without disregarding Sharia boundaries, and combined regulations can strengthen public trust because the community receives assurance that the technology used has passed dual oversight from OJK and DSN-MUI. Standardizing DPS qualifications and strengthening accountability mechanisms are concrete steps that need to be implemented immediately (Asyari et al., 2025).

Good governance in the context of Islamic fintech is not limited to internal Sharia compliance; it also encompasses transparency, accountability, and responsiveness to consumer interests. An effective DPS should not only function as a guardian of internal compliance but also serve as a bridge between the industry, regulators, and consumers. The rapid growth of Islamic fintech offers easier access to

financial services but also introduces new complex risks—including Sharia compliance risk, operational risk, and personal data protection risk—all of which require stricter oversight and clearer standards. A competent and active DPS is key to minimizing these risks (L. Wijayanti, 2025).

In the broader context of Sharia governance, the role of DSN-MUI as the body that produces normative standards also needs to be strengthened. DSN-MUI is not only expected to produce fatwa that are valid from a fiqhiyah standpoint, but also fatwa that are technically operative—so that they can be genuinely implemented by industry players and effectively overseen by DPS and OJK. Consistency between DSN-MUI fatwa and OJK’s technical regulations is a key determinant for the successful implementation of a sustainable and trustworthy Islamic digital financial system. This consistency can only be achieved through a formalized coordination mechanism between DSN-MUI and OJK (Kholiq & Pujianto, 2023).

Innovation in Sharia supervisory governance also deserves serious attention. RegTech (Regulatory Technology) that enables automatic, real-time compliance monitoring can be a highly relevant solution for improving the effectiveness of DPS oversight over Islamic fintech platform operations. The development of products such as blockchain-based smart contracts implementing mudharabah or musyarakah akad, technology-based Islamic crowdfunding platforms, and Sharia-compliant robo-advisory systems requires more sophisticated technical oversight than conventional document inspections. The adoption of RegTech by DPS and OJK can be a revolutionary step in enhancing the quality of Sharia oversight in the digital era (Kholiq & Pujianto, 2023).

Policy Recommendations Toward Adaptive and Inclusive Harmonization

Based on the comprehensive analysis conducted in the previous sections, this study identifies that the solution to Islamic fintech regulatory challenges in Indonesia cannot be achieved through a piecemeal approach. What is needed is systemic, comprehensive policy reform oriented toward a long-term goal: making Indonesia a world-leading center of Islamic fintech. This study recommends the development of a more responsive Islamic economic legal framework that keeps pace with evolving technology, while ensuring legal certainty and Sharia integrity, and emphasizing the importance of regulatory harmonization among financial authorities, institutions, and industry players. The following recommendations are based on the findings of the analysis and tailored to the institutional and legal context in Indonesia (Anadila et al., 2026).

The first recommendation is the establishment of a single comprehensive and legally binding regulatory umbrella for Islamic fintech. This umbrella regulation should be designed to integrate all existing legal instruments—from POJK and PBI to DSN-MUI fatwa—into a coherent and non-conflicting framework. The government needs to provide clarity to protect Islamic fintech in Indonesia through a unified regulatory umbrella, so that the need for comprehensive fintech regulation can be realized as quickly as possible. Indonesia's Law on Financial Sector Development and Strengthening (UU P2SK) of 2023 can serve as an appropriate legal foundation for developing derivative regulations that specifically govern Islamic fintech in an integrated manner (Alfaris et al., 2019).

The second recommendation is to elevate the legal standing of DSN-MUI fatwa through appropriate legislative mechanisms. As long as fatwa remains voluntary and lacks firm legal sanctions, industry compliance will always depend on factors outside the law. Indonesia can make Sharia standards established by DSN-MUI an integral part of legislation, rather than merely a normative reference (Hamzah, 2025).

The third recommendation is to strengthen the regulatory sandbox mechanism, specifically designed for Islamic fintech innovation. Currently, the existing regulatory sandbox is general in nature and does not explicitly accommodate the testing needs of Sharia principle-based products. The regulatory sandbox plays a role in providing consumer protection before fintech innovations are widely launched. This mechanism is regulated by two main institutions: OJK through POJK No. 13/POJK.02/2018 on Digital Financial Innovation, and Bank Indonesia through PADG No. 19/14/PADG/2017 on Financial Technology Limited Trial Space. Developing a sharia-specific regulatory sandbox that involves DSN-MUI as a supervisory partner can be a policy breakthrough that allows Islamic innovations to develop safely and measurably.

The fourth recommendation relates to strengthening DPS institutional capacity through standardized certification and training programs. All DPS members overseeing Islamic fintech platforms should be required to have basic competencies in financial technology, in addition to their existing fiqh muamalah expertise. Technology integration in Islamic fintech cannot be done reactively; it must go through a disciplined regulatory framework oriented toward the principle of caution—and this requires supervisory human resources with adequate technical capacity. A structured DPS capacity development program, jointly funded by the government and industry, needs to be designed and implemented nationally without delay (Asyari et al., 2025).

The fifth recommendation is to develop more technical and operative fatwa standards for the latest financial technologies, including blockchain, smart contracts, and Sharia-based digital assets. Technical and operative fatwa will provide more concrete guidance for industry players and make it easier for DPS and OJK to conduct oversight. There is currently no regulation explaining how Sharia audits of algorithms are conducted, how to ensure that the datasets used are free from discriminatory information, or how to determine legal responsibility when automated decisions go wrong—so this technical guidance gap needs to be urgently filled through more operative fatwa. DSN-MUI needs to establish a permanent technical team responsible for monitoring technology developments and formulating appropriate and timely Sharia responses (Asyari et al., 2025).

The sixth recommendation concerns more comprehensive and specific consumer protection for Islamic fintech services. Islamic fintech consumers face a dual vulnerability: vulnerability as consumers of digital services in general, and vulnerability as users of Sharia principle-based services that require higher standards of transparency and accountability. Consumer protection still faces challenges regarding information transparency, complaint handling, and digital literacy, making it necessary to have more specific and binding consumer protection standards for the Islamic fintech industry. Developing fast, affordable, and Sharia-based dispute resolution mechanisms is an urgent need that should be accommodated within a comprehensive policy framework (A. Wijayanti, 2019).

The seventh recommendation is to massively and comprehensively scale up Islamic digital financial literacy programs. Without a strong literacy ecosystem, even the best regulations will not produce optimal impact. The development of Islamic fintech requires not only technological innovation and strong regulation, but also a robust Islamic financial literacy ecosystem. Without adequate literacy, people will not be able to use Islamic fintech services optimally or protect themselves from potential Sharia violations. Effective literacy programs need to be designed inclusively, reaching not only digitally literate urban communities but also people in remote areas who actually have the greatest need for inclusive financial services (Putri et al., 2026).

The eighth recommendation is to leverage comparative international experience as a source of inspiration for policy reform. A comparative study of best practices from countries such as Malaysia, the United Kingdom, and Bahrain can provide a valuable roadmap for reforming Indonesia's Islamic fintech regulation. Malaysia's experience is particularly notable—featuring a centralized regulatory system under

BNM and the SAC, as well as an effective regulatory sandbox mechanism—and serves as an important reference for Indonesia in designing a more integrated and adaptive regulatory model. Learning from other countries' experiences does not mean blindly copying them; it means adapting best practices to Indonesia's unique legal, cultural, and institutional context.

CONCLUSION

This study examines the regulatory challenges of Islamic fintech in Indonesia by focusing on the regulatory framework, policy fragmentation, the tension between Sharia principles and technological innovation, and the role of the Sharia Supervisory Board (DPS). The findings indicate that Indonesia has established a basic regulatory foundation through POJK No. 10/2022 and DSN-MUI Fatwa No. 117/2018. However, significant challenges remain in harmonizing technical regulations and Sharia compliance standards, particularly regarding consumer protection, information transparency, complaint mechanisms, and digital literacy. The study reveals that policy fragmentation constitutes the most significant obstacle to effective Islamic fintech governance. Unlike Malaysia, where Sharia compliance standards are integrated into the state regulatory framework, Indonesia still relies on a dual system in which DSN-MUI fatwas lack direct legal enforceability. This situation creates legal uncertainty and weakens regulatory effectiveness. Furthermore, the rapid development of technologies such as artificial intelligence, blockchain, digital contracts, and crypto assets continuously generates new legal and Sharia-related challenges that require adaptive and responsive regulatory mechanisms.

The research also highlights the importance of strengthening DPS capacity through systematic certification and specialized training to ensure effective supervision of increasingly complex fintech products. To address these challenges, the study recommends harmonizing Sharia fatwas with technical regulations, strengthening Islamic fintech-specific regulatory sandbox mechanisms, and implementing institutional reforms that provide stronger legal authority for Sharia governance. Overall, Indonesia possesses substantial potential to become a global leader in Islamic fintech. Achieving this goal requires regulatory reforms that are integrated, adaptive, inclusive, and aligned with the principles of maqashid shariah to support sustainable industry development.

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