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Critical Tensions in Indonesian Sharia Financial Regulation: Institutional Fragmentation, Delegated Authority, and the Regulatory Limits of DSN-MUI Fatwas

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ABSTRACT : Indonesia's Sharia financial regulatory architecture relies heavily on the normative authority of fatwas, especially those produced by the Dewan Syariah Nasional-Majelis Ulama Indonesia (DSN-MUI), to legitimize and orient Islamic financial products. Over time this delegated model created strong doctrinal coherence and market legitimacy; yet it has also produced critical governance tensions. This paper examines three interlocking problems: (1) institutional fragmentation across state regulators, religious authorities, and industry bodies; (2) the political and procedural limits of delegated fatwa authority when transformed into de-facto regulatory gatekeeping; and (3) technological and temporal mismatches that expose DSN-MUI's deliberative issuance processes to fintech acceleration. Using systematic library research and regulatory governance theory, the study argues that Indonesia's fatwa-dependent governance achieves legitimacy but not always enforceability or agility. Reform should focus on building interoperable compliance architectures, clarifying delegation boundaries, and developing translation mechanisms (RegTech/semantic taxonomies) so fatwas can guide but not inadvertently bottleneck innovation, consumer protection, or regulatory accountability.

KEYWORDS: Fatwa; Regulation; DSN-MUI; Interoperability.

INTRODUCTION

Indonesia's attempt to institutionalize Islamic finance has been widely praised for combining doctrinal legitimacy with modern regulatory mechanisms. Central to this arrangement is the Dewan Syariah Nasional of the Majelis Ulama Indonesia (DSN-MUI), whose fatwas provide authoritative sharia guidance for banks, insurers, funds, and a growing fintech sector. Over the past two decades, DSN-MUI fatwas have become upstream normative filters: financial products and contracts are often evaluated against DSN rulings before regulators, rating agencies, or customers accept them. That delegated architecture, fatwa upstream, regulator downstream, created public confidence and helped catalyze Indonesia's Islamic finance growth (Setiawan, 2024).

Yet prevailing narratives that celebrate fatwa primacy understate several structural tensions that now constrain governance performance. First, institutional fragmentation: Indonesia's regulatory ecosystem for finance involves multiple agencies (Bank Indonesia, OJK, Ministry of Finance), quasi-state bodies (BPJPH for halal certification), industry self-regulators, and religious authorities (DSN-MUI and local ulema councils). These actors operate with overlapping remits, different evidentiary standards, and divergent time horizons, producing coordination failures, regulatory arbitrage opportunities, and unclear accountability lines when disputes arise (He et al., 2024).

Second, delegated authority exposes limits. Fatwas remain, technically, non-binding juridical opinions; their authority rests on social legitimacy and institutional deference rather than statutory force (Rosidi, 2025). Yet in practice DSN-MUI fatwas function as de-facto preconditions for market entry. Regulators and market actors treat fatwa approval as a necessary legitimizing step, which risks converting advisory opinions into gatekeeping instruments without the procedural safeguards, transparency, or appeal mechanisms normally associated with formal regulation. That shift raises questions about legitimacy, accountability, capture, and legal certainty when fatwa outputs materially affect market access, pricing, or consumer protection (Setiawan, 2024).

Third, technological and temporal mismatch. The deliberative collective processes that produce fatwas, consultation, scholarship review, consensus, are slow by design. They are suited to doctrinal reflection but ill-matched to fintech's rapid product cycles, algorithmic contract deployment, and automated risk screening. As Islamic finance products migrate to code (smart contracts), APIs, and algorithmic credit engines, the demand is for machine-readable rules, near-real-time assurance, and audit trails. DSN-MUI's textual fatwas do not automatically translate into these formats, creating an interoperability gap: products considered "halal" by juristic reasoning may still lack the technical metadata or governance connectors required for platform compliance and automated supervision (Längle et al., 2024).

Fourth, political economy and capture risk. When advisory bodies are effectively elevated to gatekeepers, they become attractive nodes for interest lobbying. Industry actors, political patrons, and technocrats may exert pressure on fatwa development, subtly shaping doctrinal outputs to favor certain products or business models. At the same time, the lack of procedural checks (transparent deliberation records, conflict-of-interest disclosures, appeals) increases the risk that legitimacy will be used instrumentally, undermining public confidence if supply-side interests predominate (Nicholson, 2021).

Fifth, legal plurality complicates enforcement. Indonesia's layered legal system (statutory law, administrative rules, judicial decisions, and religious opinions) produces situations where the normative status of a fatwa is ambiguous across jurisdictions and dispute forums—what counts as compliance in one setting may be irrelevant in another. This ambiguity creates legal uncertainty for cross-border products, for hybrid instruments (e.g., sukuk tokens), and for platform operators attempting to comply simultaneously with automated compliance engines and discretionary doctrinal assessments (Yanney, 2025).

Taken together, these tensions suggest that while fatwa-based governance supplies moral authority, it does not suffice by itself to deliver predictable, accountable, and tech-compatible regulatory outcomes. The succeeding sections develop these critiques, analyse how they play out empirically in financial product lifecycles, and propose governance design principles that reconcile doctrinal legitimacy with regulatory clarity and technological interoperability.

METHOD

This study uses systematic library research (Creswell, 2014; Ishaq, 2015) focused on the intersection of Islamic legal studies and contemporary regulatory governance. Primary materials include scholarly books, peer-reviewed articles, DSN-MUI fatwas (where accessible), Indonesian statutes (Banking Law, Financial Services Authority regulations), and policy reports on halal economy strategy. Secondary literature from regulatory theory (principles-based regulation, orchestration, RegTech) supplies analytical lenses (El Khoury et al., 2025).

The research process comprised: (1) scoping, dentifying conceptual clusters (delegation,fragmentation, interoperability); (2) systematic sourcing, searching academic databases, institutional repositories, and DSN/MUI publications for relevant doctrinal and policy texts; (3) critical extraction, coding texts for themes (authority mechanisms, procedural safeguards, technological form factors); and (4) synthesis, mapping governance tensions to product lifecycle stages (design, approval, distribution, supervision, dispute). Analytical emphasis falls on conceptual plausibility, comparative inference (other jurisdictions' RegTech and sandbox practices), and reconstructive policy recommendations rather than empirical statistical testing. Limitations include reliance on published material (not fresh field interviews) and the rapidly evolving nature of fintech regulation, which requires ongoing empirical updates.

RESULT AND DISCUSSION

Institutional Fragmentation and Regulatory Overlap in Indonesia's Sharia Financial System

Indonesia's Sharia financial governance is constructed within a plural regulatory ecosystem that brings together state regulators, religious normmaking institutions, and industry governance bodies. The system's foundational promise was regulatory dual legitimacy: statutory legality on one side and juristic Sharia legitimacy on the other (Alam, 2021). However, the operational reality of that promise is increasingly disrupted by institutional fragmentation, coordination asymmetry, overlapping mandates, non-converging compliance standards, and unclear delegation boundaries. These frictions produce legal uncertainty not only for Islamic banks but also for insurers, capital market operators, and fintech Sharia platforms developing hybrid Islamic financial instruments, algorithmic lending systems, and codified Sharia contracts (Asyiqin et al., 2024).

Unlike unitary regulatory systems found in several Muslim-majority jurisdictions, Indonesia's model distributes authority across multiple institutions. Bank Indonesia (BI) oversees monetary policy, macroprudential stability, and systemic risk control; the Financial Services Authority (OJK) regulates banking, insurance, and capital markets through administrative rulemaking, licensing, supervision, and enforcement; DSN-MUI produces economic fatwas that normatively validate contracts and financial product permissibility upstream; and BPJPH (created later in 2017 under the Ministry of Religious Affairs) manages halal certification legalization workflows for products circulating in broader consumer markets. Although Sharia banks rely primarily on DSN-MUI fatwas for product compliance orientation, OJK and BPJPH bear procedural statutory oversight for licensing and certification enforcement cycles (Jamaludin, 2023).

These multi-layered institutional jurisdictions create governance tensions because each actor operates under different normative time horizons, compliance evidentiary expectations, legal formality standards, and institutional incentives (Khidoyatov, 2025). BI and OJK adopt risk-based regulatory paradigms prioritizing market stability, prudential screening, auditability, transparency, enforceability, and consumer protection. Conversely, DSN-MUI fatwa production privileges doctrinal consultation, classical fiqh literacy, collective ijtihad, deliberative consensus, and jurisprudential moral legitimacy (Setiawan, 2024). The tension arises when fatwa outputs, treated normatively as upstream legal necessities by industry actors, fail to converge procedurally with statutory rule enforcement instruments, administrative appeal mechanisms, transparency benchmarks, or technological compliance architectures required by OJK-supervised institutions (Ercanbrack, 2019).

Historically, the arrangement succeeded because Indonesia focused on building market legitimacy for Islamic banking when the regulatory environment was still contract-text dominant and technology-neutral. DSN-MUI's upstream fatwa filters provided public religious legitimacy before product licensing approvals by state and administrative institutions. In that early adoption phase, doctrinal centralization was a feature, not a constraint, because compliance primarily required juristic texts, not machine-readable legal codification, rapid issuance, automated compliance engines, or platform-based supervision infrastructure. That system built trust, encouraged institutional adoption, and reduced grassroots legitimacy disputes within Islamic banking operations (Alam, 2021).

However, the same centralized doctrinal authority framework now produces sequential regulatory bottlenecks. Islamic banks and sharia financial institutions increasingly face duplication of governance screening layers across DSN-MUI doctrinal deliberations and OJK administrative regulation enforceability cycles. In dispute forums or administrative compliance enforcement cycles, industries must conform simultaneously to DSN-MUI fatwas whose normative authority is epistemic, NOT statutory, and BI-OJK regulations whose authority is statutory, enforceable, and procedurally accountable. The regulatory overlap does not strengthen compliance predictability, instead it creates validation dependency without governance convergence, resulting in slower approval cycles, inconsistent supervisory reasoning, legal ambiguities in enforcement forums, normative contestations between doctrine and administrative evidence, and opportunities for regulatory arbitrage (Desai, 2016).

The fragmentation exhibits several recurring structural symptoms:

1. Overlapping Mandates Without Formal Hierarchies
   DSN-MUI validates Sharia permissibility for Islamic financial contracts upstream, yet OJK licenses and monitors enforceability downstream without a formal hierarchy dictating how conflicts between religious and administrative reasoning should be resolved across forums (Tarmidzi et al., 2024). When regulatory bodies rely normatively on non-hierarchical

advisory opinions, the system produces delegation authority in practice without delegation accountability in procedure.

2. Absence of Appeal or Review Channels for Fatwa-Based Gatekeeping (S. Khan, 2024). Because fatwas are not formally categorized as positive law, market actors affected by fatwa dependency cannot easily appeal doctrinal validation reasoning in administrative or judicial forums. The consequence is legitimacy upstream without enforceability safeguards downstream.
3. Divergence in Regulatory Objectives and Compliance Evidence Standards BI-OJK regulate systemic stability with prudential risk screening, while DSN-MUI uses classical jurisprudential moral reasoning. That divergence creates normative discontinuities where a product can be juristically halal yet procedurally uncertified or unenforceable at governance-technology layers when supervised by administrative regulators (Sothy et al., 2025).
4. Different Temporal Expectations for Regulatory Validation DSN-MUI operates in a deliberative issuance cycle; BI-OJK operate in administrative rule cycles; fintech operates in platform acceleration cycles. The result is temporal asymmetry between doctrine and regulatory enforceability (Buckley et al., 2023).
5. Reliance on Delegated Religious Authority Without Digital Regulatory Translators. Indonesia has delegation authority but lacks middleware governance connectors, digital translators, semantic taxonomies, and regulatory APIs that convert Sharia opinions into real-time enforceability classification (Tarshany, 2024).

This institutional fragmentation generates at least seven major governance consequences:

1. Slower Product Approval Lifecycles Financial product approval increasingly depends on dual screening cycles: fatwa validation upstream and administrative rule endorsement downstream. However, because these cycles are not well synchronized, conflicts or duplication lead to delays, repetition, inconsistent reasoning grounds, or non-linear compliance pathways (Koditschek et al., 2004).
2. Forum Shopping and Regulatory Arbitrage, When disputes emergeespecially contract governance conflicts, product

legality validation uncertainties, or Sharia product innovation tensions, market actors may exploit the absence of formal fatwa hierarchies to seek advantage across multiple forums. This undermines legal certainty, accountability, and enforceability fairness (Pakpahan, 2025).

3. Unclear Accountability for Certifying Sharia Financial Products
Although fatwas guide product legitimacy, OJK and BI are the statutory institutions responsible if enforcement or financial product design failure impacts consumer rights, financial stability, or systemic risk. Yet, regulators sometimes defer to fatwa legitimacy without documenting the delegation boundaries. This creates a governance dilemma: Who is accountable when fatwa-approved products fail governance or systemic risk screening? The system delegates authority but not procedural accountability (Umam & Kimberly, 2021).

4. Public Legitimacy Is Strong, but Institutional Legality Is Ambiguous
Indonesia possesses one of the world's strongest public legitimacy bases for Islamic finance. However, industries may adopt Sharia products faster than legal-governance certification instruments can validate them institutionally, especially in platform finance ecosystems (Khidoyatov, 2025).

5. The Hierarchy Between Doctrine and Administrative Rule Is Operational, Not Legal
Regulators increasingly behave as if fatwas are procedural preconditions, yet fatwas remain advisory by formal law classification. That hierarchy is operational, not statutory. Without regulatory boundary documentation or interpretive convergence frameworks, legitimacy dependency becomes regulatory opacity (Black, 2008).

6. Legal Interoperability Gap With Digital Compliance Instruments
Regulatory governance literature emphasizes semantic codification, automated contract filtering, API-based supervision, real-time taxonomy engines, algorithmic auditing, and digital evidence traceability. Indonesia's Sharia regulatory system has doctrinal centralization but lacks native legal interoperability connectors that translate doctrine into platform governance compliance engines (Suadi & Affandi, 2023).

7. Institutional Autonomy May Be Strong, But Regulatory Design Coherence Is Weak
Indonesia's Sharia regulatory model preserves institutional autonomy for religious authority, yet regulatory design coherence that integrates these opinions into a predictable supervisory architecture remains weak (Raza et al., 2025).

Several scholars argue that Indonesia's legal ecosystem is not merely plural, it is also *delegatively negotiated*, where religious authorities influence the regulatory filter downstream without statutory conversion upstream (Hariri & Babussalam, 2024). Institutional plurality by itself is not a flaw; indeed, legal plurality can be a resource in normative democracies (Günther, 2020). However, Indonesia's case suggests legal plurality must incorporate procedural gateways, accountability hierarchies, appeal channels, semantic taxonomies, and digital translators that prevent doctrinal centralization from unintentionally functioning as a bottleneck for market governance, administrative accountability, or fintech product acceleration.

The system requires reform not to weaken fatwa authority but to clarify fatwa boundaries, strengthen delegation accountability, engineer semantic compliance taxonomies, develop digital regulatory connectors, introduce appeal instruments, and synchronize doctrinal issuance cycles with platform governance time horizons (Fenwick et al., 2019).

Fatwa Adoption as Normative Infrastructure in Islamic Legal Policy

The logic of delegated religious authority lies at the heart of Indonesia's Islamic finance governance model. The DSN-MUI (Dewan Syariah Nasional – Majelis Ulama Indonesia) serves as the principal Islamic norm producer whose fatwas operate as upstream doctrinal screening instruments for Islamic contractual permissibility. In practical markets, these fatwas are treated as quasi-obligatory compliance filters before product rollout, licensing submissions, or instrument innovation. However, in positive law classification, they remain advisory opinions rather than binding public law. The industry and regulators treat fatwas as necessary, but the law does not treat them as hierarchically enforceable (Ercanbrack, 2019).

This architecture is unique: the state delegates normative Sharia screening to a non-state institution without embedding a statutory hierarchy that forces legally accountable adherence or procedural auditability. Regulatory theorists observe that DSN-MUI fatwas function less like judicial or legislative pronouncements and more like doctrinal validators, *normative toll gates*, that operate outside of legal codification infrastructure, appeal mechanisms, judicial review, administrative reasoning documentation, or platform verification logic (Ali Ramdlani, 2025).

In most modern regulatory governance designs, delegated authority is accompanied by embedded procedural accountability instruments: statutory audit obligations, chain-of-delegation reasoning documentation, API audit trails, regulatory compliance checkability, enforceability connectors, evidence-based decision publication, and formal appeal routes. Delegation works not because of the delegator's prestige alone but because the delegation boundary has legal form, transparency expectations, and procedural liability safeguards (Sothy et al., 2025).

Indonesia has adopted delegation ideology but not delegation plumbing. DSN-MUI releases contract permissibility opinions, while BI (Bank Indonesia) and OJK (Otoritas Jasa Keuangan) bear statutory responsibility for licensing, enforcement, risk screening, consumer protection, or systemic financial stability. Regulators depend epistemically on fatwa validity; but if a fatwa-endorsed product generates systemic risk, consumer harm, governance opacity, or platform contract failure, the state regulator, not the fatwa producer, is held legally accountable. Yet fatwa dependency is rarely translated into legally documented delegation reasoning, data interoperability instruments, or procedural disclaimers for religious gatekeeping decisions (Purnama et al., 2025).

The consequence is paradoxical governance distribution (Purnama et al., 2025; Tarmidzi et al., 2024; Umam & Kimberly, 2021):

1. The authority to pronounce permissibility is religiously centralized (DSN-MUI),
2. The authority to enforce product legality is state-distributed (BI-OJK),
3. The authority to resolve fatwa-dependent regulatory confusion is legally unassigned.

This is delegation without a delegation paper trail.

Three dominant symptoms emerge from this delegation structure. First, there is dependency without formal doctrinal contestation channels. Islamic banks formulate product designs that technically mirror fatwas, but the procedural supervision and enforceability reasoning remain OJK-driven. When doctrinal ambiguity arises— especially for sukuk structuring, Sharia insurance agenda, gold-backed Sharia ETFs, mudaraba-musharaka hybrids, and algorithmic contract automation in Islamic fintech products — institutions cannot appeal upstream permissibility reasoning through administrative or judicial review channels, because fatwas are not categorized as formally appealable positive law instruments (Purnama et al., 2025).

Second, fatwas exhibit doctrinal irreversibility without procedural revisability. Because fatwas operate in a purely epistemic domain, revision depends on renewed internal religious deliberation instead of procedural regulatory evidence cycles. In fintech environments where market validation, product iteration, platform auditability, and ex-ante risk screening operate in fast-cycle regulatory time horizons, DSN-MUI issuance cycles appear structurally slow and inflexible. Product iteration moves faster than doctrinal issuance (Tarmidzi et al., 2024).

Third, the system suffers doctrinal legitimacy opacity. Fatwa legitimacy is socially powerful, but institutionally opaque. Markets observe that a product with DSN-MUI approval is halal, but no institution publishes delegation boundaries specifying how administrative regulators should interpret fatwa vagueness, competition between multiple fiqh opinions, product testing sandbox evidence, or technological legality screening results. Regulators defer to fatwas when convenient, and ignore them when inconvenient, because fatwas lack codified legal hierarchy (Setyawan, 2025).

This fatwa delegation model generates five major governance consequences (Hosen 2004; Black 2011):

1. Lack of Statutory Standard Accountability for Fatwas Indonesia's legal system cannot enforce fatwas as binding law, but industries are forced to comply with them as economic necessity standards. Without procedural accountability, fatwas enjoy authority without liability duty.
2. Regulatory Overlap Leads to Normative Uncertainty, Not Confirmation. Islamic banks are supervised by Sharia boards internalizing fatwas while simultaneously supervised administratively by OJK whose rule system is statutory. Regulatory overlap produces *duplication* without *alignment*, resulting in supervisory divergence in enforcement forums.
3. Platform Finance Becomes the Collateral Damage of Delayed Legal Translation Timing
Fintech Sharia platforms with algorithmic compliance engines require machine-readable legality translators, but Indonesia's fatwas are text-dominant and metadata-poor. They lack digital enforceability

tags or semantic API translators needed for compliance automation.

4. No Formal Legal-Standard Mechanism for Competing Sharia Validity Contestations When economic disputes involve multiple competing permissibility arguments, no statutory arbitration mechanism enforces fatwa resolution or appeal adjudication. The law has no arbitration engine for resolving epistemic normative conflicts created via delegated authority.
5. Markets Treat Fatwas as Regulation, while the Law Treats Fatwas as Opinion. This produces a regulatory legitimacy ambiguity where Islamic financial institutions must operate in dual legitimacy circles without dual legal safeguards.

Countries with advanced Islamic financial regulatory-fatwa design alignment embed fatwa opinions in legally enforceable codified hierarchies, document delegation reasoning, or equip fatwas with semantic taxonomies and platform-native compliance interoperability instruments. Malaysia's SAC-BNM decisions, for example, enjoy legally audit-documented institutional force, *not merely religious prestige* (Zulkifli 2012; Muneeza 2020).

Indonesia diverges because fatwas were historically conceived as *moral-religious governance validators*, not *regulatory evidence products.* They are strong on halal legitimacy but weak in five things modern regulation demands:

1. Hierarchy
2. Machine-readable enforceability taxonomies
3. Delegation audit trail transparency
4. Appealability & judicial review instruments
5. Temporal synchronization with platform compliance

Without these ingredients, regulatory delegation becomes regulatory dependency, and dependency becomes regulatory bottleneck (Majone, 2002).

Indonesia's governance ambitions for Sharia finance are market-driven: expansion of Islamic banking penetration, sukuk diversification, Sharia insurance intensification, gold-based Islamic portfolios, and domination of Southeast Asia's halal finance narrative. But governance realism is rule-based: licensing enforceability, auditability, and risk screening revolve inside state institutions, NOT religious deliberative councils whose outputs lack accountability requirements (Duberry, 2022).

The paradox is this:

1. DSN-MUI is trusted the most but accountable the least.
2. BI-OJK are trusted less but liable the most.

3. Fintech moves fastest but is validated slowest.

Delegation cannot operate efficiently if the institution that provides validation is not obliged to provide verificatory evidence, complaint processing, documented reasoning, digital compliance tagging, real-time audit trails, and appealability guarantees (Tarmidzi et al., 2024).

Regulatory-Technology Interoperability Limits in the DSN-MUI Fatwa Ecosystem

Indonesia's Islamic finance ecosystem has experienced unprecedented digital disruption since 2017, with fintech sharia platforms emerging as primary vectors for product innovation, consumer finance access, and capital mobilization. These platforms, encompassing peer-to-peer lending, tokenized sukuk, digital takaful insurance, algorithmic murabaha-mudaraba products, and blockchain-based halal verification, operate in near-real-time transaction cycles that fundamentally challenge traditional normative instruments (Nazim Ali & Hakim Jumat, 2024).

Historically, DSN-MUI fatwas were issued through deliberative councils characterized by collective reasoning, consensus building, and doctrinal review. While this methodology ensured epistemic legitimacy and moral consistency, it inherently produced slow issuance cycles that were misaligned with the tempo of digital markets (Purnama et al., 2025). A fintech platform cannot delay product launch for several months awaiting doctrinal review; yet, regulatory compliance frameworks, both statutory and market-driven, require fatwa legitimacy as a precondition for operational approval (Ercanbrack, 2019).

This mismatch generates a temporal regulatory gap: products may achieve public acceptance and market traction but remain normatively uncertified. This gap illustrates that fatwa authority, although socially and doctrinally strong, does not equate to digital enforceability. Regulatory-technology interoperability, the ability of a normative document to be operationalized within automated compliance systems, is therefore critically limited in Indonesia (M. N. I. Khan, 2022).

The operational challenge lies in translating textual fatwa content into machine-readable formats that digital platforms can interpret and enforce automatically. Unlike conventional banking instruments that rely on codified regulatory checklists, fintech platforms require:

1. Algorithmic interpretation of permissibility clauses (e.g., murabaha margin ratios, contract duration limits, investment segregation).
2. Automated risk-screening engines that align with DSN-MUI fatwa parameters.

3. Smart contract enforcement logic for sukuk, digital murabaha, and tokenized halal assets.
4. Blockchain auditability of halal certification and compliance pathways.
5. AI-mediated real-time monitoring of consumer protection compliance and financial risk limits.

Current DSN-MUI fatwa texts are primarily narrative and doctrinal. They are rarely annotated with semantic tags, structured data sets, or algorithm-ready conditions. Consequently, fintech developers must interpret permissibility manually, introducing human-in-the-loop compliance, which slows deployment, risks inconsistency, and may create legal exposure for both developers and regulators (Jamaludin, 2023).

A critical tension emerges between regulatory dependency and technological feasibility. Financial institutions and fintech platforms are legally and socially compelled to comply with DSN-MUI fatwas. Yet, the technical feasibility of encoding these fatwas into operational systems is limited, generating uncertainty. Platforms often launch products with provisional compliance, relying on retrospective fatwa validation, a practice that introduces governance lag and risk misalignment.

This scenario produces three observable effects:

1. Regulatory Catch-Up Pressure: State regulators, BI and OJK, must monitor rapidly evolving products without digital enforcement infrastructure to verify fatwa compliance automatically.
2. Market Risk Exposure: Consumers and investors are exposed to potential non-compliance or doctrinal misalignment, especially for complex instruments like algorithmic sukuk or AI-mediated lending platforms.
3. Institutional Bottleneck: DSN-MUI faces unprecedented pressure to accelerate issuance, sometimes at the expense of deliberative rigor, epistemic consistency, or doctrinal soundness (Zulkarnain 2020; Billah 2019).

Comparatively, other jurisdictions have integrated fatwa issuance with regulatory-technological frameworks. In Malaysia, SAC-BNM fatwas are codified into machine-readable compliance directives, integrated into real-time banking compliance engines, and accompanied by formal issuance metadata. The UAE's Sharia Supervisory Boards similarly employ automated templates to encode fatwa rulings into fintech contract algorithms. Singapore has explored digital fatwa translation into API-compatible compliance microservices.

Indonesia, in contrast, maintains text-based fatwa outputs without digital standardization. Regulatory interoperability is thus limited; DSN-MUI outputs remain normatively influential but technologically inert (Purnama et al., 2025; Setyawan, 2025). The country's rapid fintech growth exposes the gap between doctrinal authority and platform enforceability.

The lack of regulatory-technological interoperability produces cascading consequences across the Islamic finance ecosystem:

1. Delayed Product Launch: Platforms must wait for post-issuance fatwa approval cycles, delaying revenue generation and innovation.
2. Compliance Uncertainty: Ambiguous translation of textual fatwa into code creates legal risk, undermining trust in the system.
3. Institutional Overload: DSN-MUI deliberative structures are overloaded by urgent requests from fast-moving fintech firms.
4. Market Fragmentation: Firms with internal Sharia boards may preemptively interpret fatwas differently, resulting in inconsistent product offerings and market confusion.
5. Governance Paradox: Authority resides in fatwa institutions, yet operational enforceability depends on state regulators and fintech platforms, creating normative dependency without technological empowerment (Hooker 2008; Hosen 2007).

To address interoperability limits, scholars and practitioners suggest five reform pathways:

1. Digital Fatwa Encoding: Develop structured datasets and machine-readable annotations for fatwa rulings, enabling integration with smart contracts, risk-screening engines, and AI compliance modules.
2. Regulatory Sandbox Integration: Implement fintech sandboxes with embedded fatwa compliance frameworks to test interoperability in controlled environments.
3. Issuance Cycle Acceleration: Reconfigure DSN-MUI processes to reduce deliberative lag while preserving doctrinal rigor through pre-evaluation and modular approval processes.
4. Delegation Documentation: Establish procedural meta-data standards for fatwa issuance that link doctrinal reasoning with technological enforcement parameters.
5. Cross-Institutional Collaboration: Create formal coordination mechanisms between DSN-MUI, BI, OJK, and fintech developers to synchronize normative issuance, regulatory oversight, and technological deployment (Billah 2019; Muneeza 2020; Zulkarnain 2020).

The central theoretical insight is the distinction between normative authority and operational enforceability. While fatwas confer legitimacy and signal market compliance, they do not automatically translate into enforceable legal rules without interoperability infrastructure. This distinction reframes the policy debate: Indonesia’s challenge is no longer solely doctrinal compliance, but translating epistemic authority into governance-effective, technology-enabled legal instruments.

Failure to achieve this synchronization risks:

1. Consumer protection gaps,
2. Market fragmentation,
3. Stalled innovation in Islamic fintech,
4. Erosion of regulatory credibility.

Hence, interoperability is not merely technical; it is a strategic governance imperative. Digital enforceability mechanisms, semantic tagging, API-based validation, smart contract auditing, blockchain traceability, and AI compliance filters, must coexist with doctrinal authority to sustain institutional legitimacy and market growth (Rabbani, 2022).

In sum, Indonesia’s Islamic finance ecosystem confronts regulatory-technology limits that threaten to decouple doctrinal authority from operational enforceability. DSN-MUI fatwas remain epistemically authoritative but technologically inert, producing a temporal and structural gap in governance. Fintech platforms, regulatory agencies, and market actors are caught in a dependency paradox: required to comply with normative fatwas but lacking the tools for real-time, automated, enforceable verification. Addressing this tension demands reforms in digital fatwa encoding, procedural acceleration, sandbox testing, cross-institutional coordination, and technology-embedded compliance infrastructures. Without such reforms, Indonesia’s ambitious Sharia finance growth risks outpacing the normative and technological instruments necessary to sustain legitimacy, enforceability, and systemic stability.

CONCLUSION

Indonesia’s Islamic finance sector illustrates a critical tension between doctrinal authority and operational enforceability. DSN-MUI fatwas have historically provided epistemic legitimacy and normative guidance, shaping the compliance landscape for banks, fintech platforms, and other Sharia-compliant institutions. However, the rise of digital financial ecosystems has exposed structural limits in fatwa-based governance. Fintech platforms operate in near-real-time, requiring algorithmic, blockchain-auditable, and AI-verifiable compliance mechanisms—

capabilities that traditional fatwa issuance cycles and textual outputs cannot satisfy.

This governance-technology gap highlights a paradox: while Indonesia possesses strong normative authority and widespread market adherence to fatwas, the mechanisms to translate these rulings into operationally enforceable, technology-compatible instruments remain underdeveloped. The resulting dependency exposes regulatory vulnerabilities, compliance uncertainties, and potential market fragmentation. Without reform, the mismatch between doctrinal approval and digital enforceability could undermine both consumer protection and the systemic credibility of Sharia finance.

Addressing this challenge necessitates a multi-pronged reform strategy. Digitally encoding fatwa rulings, establishing regulatory sandboxes, accelerating issuance cycles, and fostering cross-institutional collaboration between DSN-MUI, regulators, and fintech providers are essential. Such measures would enable the synchronization of normative authority with operational governance, ensuring that fatwa legitimacy translates into enforceable compliance standards adaptable to digital platforms.

In conclusion, Indonesia's Islamic finance governance must evolve from a doctrinally centered paradigm to a hybrid model that balances epistemic legitimacy, technological enforceability, and market responsiveness. The future success of the sector depends not only on maintaining fatwa authority but on reconstructing its functional translatability into real-time, digitally auditable regulatory frameworks. By bridging the gap between normative guidance and technological implementation, Indonesia can sustain its leadership in Sharia finance, ensure systemic stability, and foster innovation in digital Islamic financial markets.

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