



Reconstructing Sharia Governance for Artificial Intelligence Adoption in Islamic Financial Institutions

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ABSTRAK

Kecerdasan buatan (Artificial Intelligence/AI) dengan cepat membentuk kembali arsitektur operasional dan pengambilan keputusan lembaga keuangan Islam (Islamic Financial Institutions/IFIs), namun mekanisme tata kelola yang diperlukan untuk memastikan bahwa teknologi tersebut tetap selaras dengan prinsip-prinsip Syariah masih bersifat terfragmentasi dan belum dikembangkan secara teoritis secara memadai. Studi ini merekonstruksi kerangka tata kelola Syariah untuk penerapan AI pada fungsi penyaringan, penilaian risiko kredit, dukungan fatwa, dan audit internal di IFIs. Dengan menggunakan tinjauan literatur sistematis yang berpedoman pada protokol PRISMA, sebanyak 25 artikel jurnal dan prosiding konferensi yang telah melalui proses peer review dan diterbitkan antara tahun 2023 dan 2026 dianalisis untuk memetakan bagaimana kajian yang ada mengonseptualisasikan keterkaitan antara AI, dewan pengawas Syariah, dan Maqasid al-Shariah. Tinjauan ini mengidentifikasi empat kesenjangan tata kelola yang berulang, yaitu ketidakjelasan algoritmik yang menghambat keterlacakan fatwa, ketidakjelasan pembagian tanggung jawab antara pengembang teknologi dan dewan Syariah, harmonisasi regulasi yang tidak merata di berbagai yurisdiksi, serta keterbatasan kapasitas teknis dewan pengawas Syariah dalam mengaudit keluaran yang dihasilkan oleh mesin. Berdasarkan kesenjangan tersebut, studi ini mengusulkan model tata kelola yang direkonstruksi dengan mengintegrasikan persyaratan AI yang dapat dijelaskan (*explainable AI*), mekanisme pengawasan dua lapis yang menggabungkan dewan Syariah dengan komite tata kelola AI khusus, serta titik pemeriksaan etis berbasis Maqasid di sepanjang siklus hidup AI. Temuan ini memberikan kontribusi secara teoretis terhadap literatur tata kelola keuangan Islam dan secara praktis bagi regulator serta IFIs yang ingin mengadopsi AI tanpa mengorbankan legitimasi Syariah, transparansi, dan kepercayaan publik dalam ekosistem keuangan yang semakin terdigitalisasi.

Kata Kunci: Kecerdasan buatan; tata kelola Syariah; keuangan Islam; Maqasid al-Shariah; AI yang dapat dijelaskan

ABSTRACT

Artificial intelligence (AI) is rapidly reshaping the operational and decision-making architecture of Islamic financial institutions (IFIs), yet governance mechanisms required to keep such technologies aligned with Shariah principles remain fragmented and under-theorized. This study reconstructs a Shariah governance framework for AI adoption across screening, credit-risk assessment, fatwa support, and internal audit functions in IFIs. Using a systematic literature review guided by the PRISMA protocol, twenty-five peer-reviewed journal articles and conference proceedings published between 2023 and 2026 were analyzed to map how existing scholarship conceptualizes the intersection of AI, Shariah supervisory boards, and Maqasid al-Shariah. The review identifies four recurring governance gaps: algorithmic opacity that undermines fatwa traceability, unclear allocation of liability between technology developers and Shariah boards, uneven regulatory harmonization across jurisdictions, and limited technical capacity within Shariah supervisory boards to audit machine-driven outputs. Building on these gaps, the study proposes a reconstructed governance model that embeds explainable-AI requirements, a dual-layer supervisory mechanism combining Shariah boards with dedicated AI governance committees, and Maqasid-based ethical checkpoints throughout



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the AI lifecycle. The findings contribute both theoretically to Islamic finance governance literature and practically to regulators and IFIs seeking to adopt AI without compromising Shariah legitimacy, transparency, and public trust in an increasingly digitalized financial ecosystem.

Keywords: artificial intelligence; Sharia governance; Islamic financial institutions; Maqasid al-Shariah; explainable AI

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INTRODUCTION

The global financial services industry has entered a period in which artificial intelligence (AI) is no longer an auxiliary tool but a central determinant of how institutions screen customers, price risk, detect fraud, and generate strategic decisions. Islamic financial institutions (IFIs) are participating fully in this transformation. Machine learning models now support credit scoring in Islamic banks, natural language processing tools assist Shariah scholars in searching fiqh literature, and predictive analytics inform sukuk structuring and zakat distribution. Recent bibliometric mapping confirms that scholarly output on AI in Islamic finance has grown sharply since 2023, spanning banking efficiency, fraud detection, Shariah compliance monitoring, and fintech regulation. Yet this proliferation of technical capability has outpaced the institutional architecture designed to govern it. Shariah governance in IFIs was historically built around human deliberation: Shariah Supervisory Boards (SSBs) review products, contracts, and disclosures through qualitative reasoning grounded in fiqh muamalat and Maqasid al-Shariah. AI systems, by contrast, operate through statistical inference over large datasets, often via architectures whose internal logic is not fully interpretable even to their designers. This mismatch between deliberative human governance and opaque algorithmic decision-making constitutes the central problem this article addresses.

Empirical accounts of AI adoption in Islamic finance illustrate the scale of this shift. Predictive learning models are increasingly used to forecast default risk and optimize portfolio allocation in Islamic banks, while natural language tools support the drafting and cross-referencing of fatwas across multiple madhhab positions. Internal audit functions in IFIs are beginning to trial AI-assisted anomaly detection to strengthen Shariah non-compliance risk monitoring, and robo-advisory platforms are being piloted for Islamic mutual fund distribution in markets including Indonesia, the United Kingdom, and Malaysia. Digital Islamic banks are also experimenting with AI-driven credit-risk assessment tools that claim to incorporate Shariah screening criteria directly into underwriting algorithms. Each of these applications promises efficiency gains, financial inclusion benefits, and improved consistency in compliance monitoring. However, each also introduces a distinct governance question: who verifies that a predictive default model has not implicitly learned to penalize borrowers based on proxies correlated with impermissible characteristics; who confirms that an NLP-assisted fatwa retrieval tool has not surfaced a minority opinion without appropriate context; and who audits whether a robo-advisor's portfolio construction logic remains faithful to the Shariah screening parameters it was configured to follow. The literature reviewed for this study shows that these questions are increasingly being asked, but rarely answered with an integrated governance solution.

The tension is not merely technical but jurisprudential. Shariah compliance requires that a financial outcome be traceable to a justifiable legal-ethical reasoning

process; an SSB must be able to explain why a contract, investment, or transaction is permissible. When an AI model recommends a credit decision, flags a transaction as suspicious, or scores an investment portfolio for Shariah purity, the reasoning embedded in that recommendation is distributed across millions of parameters rather than expressed as an auditable chain of legal argument. Several recent studies have shown that Shariah boards frequently lack the technical literacy to interrogate these systems, while AI developers rarely possess the fiqh training needed to encode Shariah constraints correctly into model design. This bidirectional capability gap creates a governance vacuum in which AI can be deployed faster than it can be meaningfully supervised.

Regulatory responses have been uneven. Malaysia's Shariah Governance Policy Document and its national AI ethics guidelines provide one of the more developed regulatory anchors, yet studies note that binding obligations specific to AI in Islamic banking remain limited even there. Indonesia's regulatory landscape for Islamic fintech continues to evolve through OJS-based reporting and sectoral regulation, but comprehensive AI-specific Shariah governance standards are still emerging. Gulf jurisdictions and other Islamic finance hubs display similarly fragmented approaches, often importing conventional AI governance instruments such as the EU AI Act or OECD AI Principles without adapting them to Maqasid-based ethical requirements. The absence of a harmonized, Shariah-anchored governance standard leaves IFIs to develop ad hoc internal controls, producing inconsistent practices across markets and undermining the comparability of Shariah compliance claims to global investors and regulators. This fragmentation is particularly consequential for cross-border Islamic financial products such as sukuk issuances and multi-jurisdictional takaful arrangements, where investors and regulators in one country must place implicit trust in the AI-assisted governance controls of institutions operating under an entirely different Shariah supervisory tradition.

A further complication concerns liability and accountability. When an AI-driven investment recommendation results in a Shariah non-compliance event, existing scholarship has not resolved whether responsibility rests with the technology vendor, the deploying institution, the SSB that approved the system's use, or some distributed combination of these actors. Conventional AI liability frameworks emphasize technical fault and foreseeability, but Islamic legal reasoning additionally asks whether due diligence (ihtiyat) was exercised and whether the institution acted as an amanah-holder toward depositors and investors. Without a clear allocation of accountability, both innovation and compliance suffer: institutions may either avoid beneficial AI applications out of legal uncertainty or adopt them without adequate safeguards, and Shariah boards themselves may face reputational and even legal exposure for approving systems they cannot fully interrogate.

Despite a rapidly growing body of literature addressing AI and Islamic finance individually, and a smaller but expanding stream addressing Shariah governance of AI specifically, three interconnected gaps persist. First, most existing frameworks are either purely technical (focused on explainable AI methods) or purely jurisprudential (focused on Maqasid interpretation), with few studies integrating both dimensions into an operational governance architecture that SSBs and institutions can implement. Second, the literature remains heavily conceptual; empirical validation of proposed governance models against actual AI deployments in IFIs is scarce, leaving practitioners without tested benchmarks. Third, existing proposals rarely specify how governance responsibilities should be distributed across the AI lifecycle stages of data acquisition, model training, deployment, and post-deployment monitoring, treating Shariah

governance instead as a single approval checkpoint rather than a continuous supervisory process.

This study addresses these gaps by reconstructing a Shariah governance model that integrates technical explainability requirements, Maqasid-based ethical checkpoints, and a dual-layer institutional structure spanning the entire AI lifecycle. The novelty of this study lies in three contributions. First, rather than treating explainable AI (XAI) and Maqasid al-Shariah as separate literatures, this study synthesizes them into a single lifecycle-based governance architecture, showing precisely where technical transparency mechanisms intersect with specific Maqasid dimensions of preserving religion, life, intellect, wealth, and lineage. Second, the study introduces a dual-layer supervisory mechanism, pairing the traditional Shariah Supervisory Board with a newly conceptualized AI Governance Committee, whose combined mandate resolves the liability ambiguity identified in prior research by assigning clear, stage-specific accountability. Third, the reconstructed model is derived through a systematic, PRISMA-guided synthesis of twenty-five recent sources spanning banking, capital markets, fatwa institutions, and internal audit contexts, giving it a breadth of empirical grounding that single-institution or single-country studies cannot offer.

The remainder of this article proceeds as follows. The methodology section details the systematic literature review protocol, including the search strategy, inclusion and exclusion criteria, and the PRISMA flow diagram documenting the screening process. The results and discussion section presents thematic findings on AI applications in Islamic finance, governance risks identified across the reviewed literature, and the reconstructed governance framework itself, supported by a comparative table of governance mechanisms. The conclusion summarizes the theoretical and practical implications of the study and outlines directions for future empirical research, particularly the need for pilot implementations of the proposed dual-layer supervisory mechanism within operating Islamic banks, takaful operators, and Islamic capital market institutions.

METHOD

This study employs a systematic literature review (SLR) guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol to identify, screen, and synthesize scholarly work on Shariah governance of artificial intelligence in Islamic financial institutions. A systematic approach was selected because the field is emergent, conceptually fragmented across law, finance, and computer science literatures, and requires a transparent, replicable method of evidence aggregation rather than a narrative or purely doctrinal review.

The search was conducted across Google Scholar, Scopus-indexed sources, and publisher platforms (Emerald, ScienceDirect, and dedicated Islamic finance and law journals) using combinations of the keywords "artificial intelligence," "Shariah governance," "Islamic financial institutions," "Maqasid al-Shariah," "Shariah supervisory board," and "explainable AI." The initial search returned 158 records. Records were restricted to publications from 2023 through 2026 to ensure currency, given the rapid evolution of both AI capability and regulatory response in this domain. Inclusion criteria required that a source (a) directly address artificial intelligence or a specific AI application within an Islamic finance or Shariah governance context, (b) be published in a peer-reviewed journal or peer-reviewed conference proceedings, and (c) possess an active, resolvable digital object identifier (DOI). Exclusion criteria removed sources that addressed conventional (non-Islamic) AI governance without any Shariah-specific dimension, duplicate records across databases, and non-peer-reviewed commentary or news items.

Following title and abstract screening, full-text eligibility assessment was conducted on the remaining records. Twenty-five sources met all inclusion criteria and were retained for final synthesis, comprising journal articles and one peer-reviewed conference paper spanning Islamic banking, capital markets, fatwa institutions, awqaf administration, and internal Shariah audit. Data extracted from each source included the AI application discussed, the governance mechanism proposed or critiqued, the jurisdiction of focus, and the theoretical lens employed (e.g., Maqasid al-Shariah, Technology Acceptance Model, Institutional Theory, agency theory). Extracted data were thematically coded using an inductive approach, with themes iteratively refined through comparison across sources until a stable set of governance-relevant categories emerged: technical transparency, liability and accountability, regulatory harmonization, and supervisory capacity. Figure 1 presents the PRISMA flow diagram documenting the identification, screening, eligibility, and inclusion stages of this process.

The synthesis proceeded in two analytical stages. In the first stage, thematic content analysis was used to catalogue how each source characterizes AI applications and their associated Shariah compliance risks. In the second stage, the identified governance mechanisms across the twenty-five sources were compared and integrated into a single reconstructed framework, using the AI lifecycle (data acquisition, model development, deployment, and post-deployment monitoring) as an organizing structure. This lifecycle-based synthesis distinguishes the present study from prior reviews that catalogue AI applications or governance principles in isolation without mapping them onto a sequential institutional process that Shariah boards and AI governance committees can operationalize.

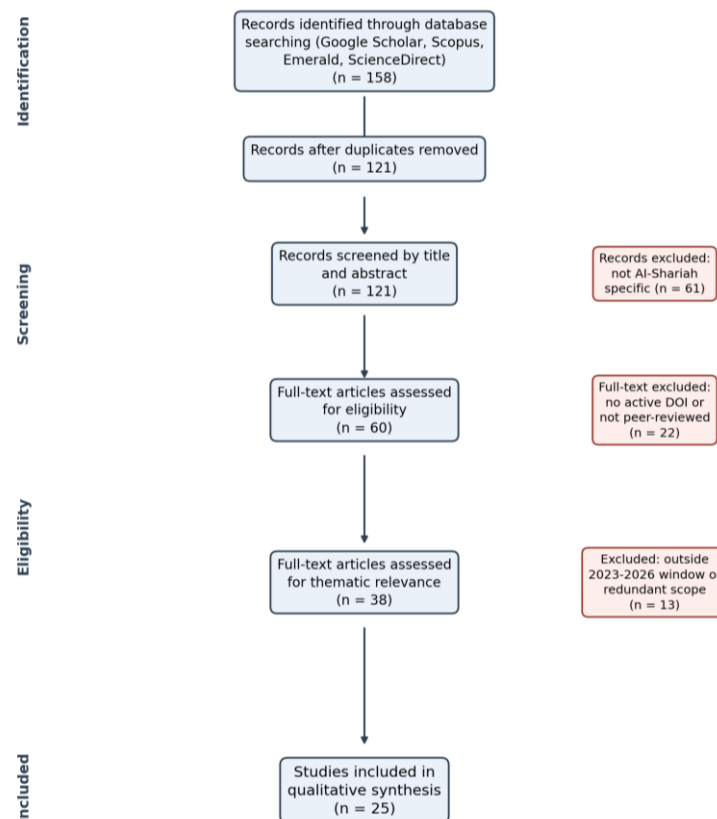


Figure 1. PRISMA Flow Diagram of the Study Selection Process

RESULT AND DISCUSSION

Landscape of AI Applications in Islamic Financial Institutions

The twenty-five reviewed sources collectively map a wide spectrum of AI applications already operating or being piloted within Islamic financial institutions. Credit and financing risk assessment emerges as the most frequently discussed application, with several studies documenting the use of machine learning to score borrower creditworthiness while attempting to embed Shariah screening filters directly into the underwriting pipeline. A second cluster of applications concerns fatwa support and Shariah advisory: natural language processing tools are increasingly used to retrieve relevant fiqh precedent, cross-reference madhhab positions, and draft preliminary fatwa language for scholarly review, provided that clear ethical guidelines govern their use (Rahim et al., 2025; Priantina et al., 2025). A third cluster addresses internal Shariah audit and compliance monitoring, where AI-assisted anomaly detection is proposed as a mechanism to flag transactions or contracts that deviate from approved Shariah parameters more quickly than manual review permits. A fourth and smaller cluster addresses robo-advisory and portfolio management for Islamic mutual funds, awqaf digital governance, and fiduciary supervision systems, reflecting the extension of AI beyond core banking into capital markets and social finance institutions.

Across these clusters, the reviewed literature is broadly optimistic about efficiency, consistency, and financial inclusion gains, echoing findings from bibliometric analyses showing rapid growth in AI-Islamic finance scholarship since 2023 (Iqbal et al., 2025; Azwar et al., 2025). Predictive learning applications are reported to improve default forecasting and portfolio optimization (Dey et al., 2025), while robo-advisory platforms for Islamic mutual funds are being piloted across Indonesia, the United Kingdom, and Malaysia with calls for a harmonized regulatory framework to accompany their expansion (Kharisma et al., 2025). Awqaf institutions are similarly exploring AI to strengthen digital governance and reporting transparency (Alkaabi & Yaacob, 2026), and fiduciary supervision systems are being reconceived around AI-assisted monitoring consistent with Islamic legal principles (Wazin et al., 2025). However, optimism is consistently paired with caution regarding governance readiness. A recurring observation across the reviewed sources is that technological capability has advanced faster than the institutional and jurisprudential infrastructure needed to supervise it, creating what several authors describe as a widening "governance lag" (Darmawan, 2026; Raza et al., 2026).

Governance Risks Identified Across the Literature

Thematic coding of the twenty-five sources produced four dominant governance risk categories, summarized in Table 1.

Table 1. Governance Risks Identified in the Literature and the Reconstructed Governance Mechanisms

Governance Risk	Description	Reconstructed Mechanism	Representative Sources
Algorithmic opacity	AI outputs (especially deep learning/ensemble models) are difficult to trace to an interpretable,	Mandatory explainability specification mapping model features to Shariah criteria; joint review by data scientists	Baharom (2025); Arsyad et al. (2025); Shalhoob (2025)

	Shariah-legible reasoning path.	and Shariah scholars before deployment.	
Liability and accountability ambiguity	Unclear allocation of responsibility among technology vendors, institutions, and Shariah boards when non-compliance occurs.	Dual-layer supervisory mechanism (Shariah Supervisory Board + AI Governance Committee) with stage-specific, documented accountability.	Bin Abdul Rahim (2025); Mbaidin et al. (2023); Billah & Zahid (2026)
Regulatory fragmentation	Uneven, non-harmonized AI-Shariah governance standards across Islamic finance jurisdictions.	Lifecycle-based governance architecture designed for cross-jurisdictional adoption, generating an auditable, disclosable evidence trail.	Safriatullah et al. (2025); Wahab & Mahdiya (2025); Bin Abdul Rahim (2025)
Limited supervisory capacity	Shariah Supervisory Board members typically lack technical literacy; AI development teams typically lack fiqh training.	Continuous algorithmic audit with recurring technical briefings tied to real audit findings, building applied literacy over time.	Tohyala (2026); Sidik et al. (2026); Zulkepli et al. (2026)

The first and most frequently cited risk is algorithmic opacity. Multiple sources emphasize that machine learning models, particularly deep learning and ensemble methods, produce outputs that are difficult to trace back to an interpretable decision path (Baharom, 2025; Arsyad et al., 2025). For Shariah governance, this opacity is not a generic transparency concern but a jurisprudential one: an SSB approving a product or process must be able to articulate the legal-ethical reasoning underlying its permissibility determination, and an uninterpretable model denies the board the evidentiary basis for that determination (Bin Abdul Rahim, 2025). Several reviewed studies propose explainable AI (XAI) techniques, such as feature-attribution methods and simplified surrogate models, as partial remedies, though the literature cautions that technical explainability does not automatically translate into Shariah-legible reasoning without deliberate design effort to map model outputs onto fiqh categories (Shalhoob, 2025; Shalhoob & Babiker, 2025).

The second risk concerns liability and accountability allocation. Several sources note that existing Shariah governance frameworks, including foundational policy documents from leading regulators, were drafted before AI-specific liability questions arose and therefore do not clearly assign responsibility when an AI system produces a non-compliant outcome (Bin Abdul Rahim, 2025; Mbaidin et al., 2023). This ambiguity is compounded by the multi-actor nature of AI deployment, which typically involves a technology vendor, an internal IT function, business units, and the SSB itself, each of which may reasonably dispute primary responsibility for a compliance failure (Billah & Zahid, 2026).

The third risk is regulatory fragmentation. Comparative studies included in this review show that Malaysia possesses relatively developed Shariah governance policy alongside emerging national AI ethics guidelines, but binding, AI-specific Shariah obligations remain limited even within this comparatively advanced jurisdiction (Bin Abdul Rahim, 2025). Indonesia's regulatory apparatus for Islamic fintech continues to mature but lacks a unified AI-Shariah governance standard (Safriatullah et al., 2025), and other Islamic finance jurisdictions display similarly uneven regulatory development (Wahab & Mahdiya, 2025). Several reviewed sources argue that this fragmentation risks

a "race to the bottom" in which institutions locate AI-driven products in jurisdictions with the least onerous Shariah-AI oversight, undermining the credibility of Shariah compliance claims industry-wide.

The fourth risk is limited supervisory capacity. Multiple sources report that SSB members are typically trained in fiqh muamalat and Islamic commercial law but rarely possess the technical literacy needed to interrogate machine learning systems, data pipelines, or model validation reports (Tohyala, 2026; Sidik et al., 2026). Conversely, AI development teams typically lack formal training in Shariah reasoning, producing a capability mismatch on both sides of the governance relationship. Some reviewed studies propose upskilling programs or the appointment of hybrid "Shariah-tech" specialists as a partial solution, though such proposals remain largely conceptual and are not yet empirically validated at scale (Zulkepli et al., 2026; Priantina et al., 2025).

Reconstructing the Shariah Governance Framework

Building on the four risk categories identified above, this study reconstructs a Shariah governance framework organized around the AI lifecycle rather than a single approval checkpoint. At the data acquisition stage, the framework requires documented Shariah data provenance review, verifying that training data does not embed proxies for impermissible characteristics or transactions and that data collection itself complies with privacy and consent norms consistent with Islamic ethical principles. At the model development stage, the framework requires mandatory explainability specification, meaning that any model proposed for deployment in a Shariah-sensitive function must be accompanied by a documented mapping between its key decision features and the Shariah criteria they are intended to operationalize, reviewed jointly by data scientists and Shariah scholars before development proceeds further.

At the deployment stage, the framework introduces the dual-layer supervisory mechanism that constitutes this study's central structural contribution, extending proposals for dual governance mechanisms combining Shariah boards with technical oversight bodies (Wahab & Mahdiya, 2025; Baharom, 2025). Rather than treating the Shariah Supervisory Board as the sole gatekeeper, the reconstructed model pairs the SSB with an AI Governance Committee (AIGC) composed of data scientists, risk officers, and legal counsel, whose formal mandate includes technical validation, incident logging, and liability documentation. The SSB retains final authority over Shariah permissibility, but the AIGC is contractually and institutionally accountable for the technical soundness of the explainability documentation the SSB relies upon, resolving the liability ambiguity identified in Section 3.2 by creating a clear division of accountability: technical fault traces to the AIGC, while jurisprudential misjudgment traces to the SSB, with joint liability applying only where both functions failed to exercise the due diligence their mandate requires.

At the post-deployment monitoring stage, the framework requires continuous algorithmic audit, periodic re-certification of models against Maqasid al-Shariah checkpoints, and a formal escalation pathway through which frontline staff or customers can flag suspected non-compliance for joint SSB-AIGC review. This continuous monitoring requirement directly addresses the supervisory capacity risk identified in the reviewed literature by institutionalizing capacity-building: SSB members participate in recurring technical briefings tied to actual audit findings rather than abstract training programs, building applied technical literacy over time.

Comparative Positioning and Theoretical Implications

Table 1 also situates the reconstructed framework relative to the governance mechanisms proposed across the reviewed literature. Several prior studies propose either purely technical solutions, such as XAI implementation, or purely institutional solutions, such as strengthened SSB mandates, but few integrate both into a single lifecycle-based structure with explicit liability allocation. The reconstructed framework's dual-layer mechanism most directly extends proposals for embedding AI Governance Committees alongside Shariah boards, while its lifecycle structure operationalizes calls for treating Shariah compliance as a continuous process rather than a discrete approval event. Its explicit mapping between explainability requirements and specific Maqasid dimensions extends conceptual work situating AI within Maqasid categories by providing an implementable checklist rather than a purely normative discussion.

The practical implication for regulators is that Shariah governance policy documents should be revised to formally recognize AI Governance Committees as a required institutional structure alongside Shariah Supervisory Boards, with clear statutory or regulatory language allocating liability consistent with the technical-versus-jurisprudential distinction proposed here. For IFIs, the practical implication is that AI procurement and development processes should incorporate Shariah-relevant checkpoints from the earliest data acquisition stage rather than treating Shariah review as a final-stage compliance sign-off. For Shariah scholars and fiqh academies, the implication is a need for continuing education initiatives that build sufficient technical literacy to engage substantively with AI governance committees, without requiring scholars themselves to become data scientists.

A related stream of literature examines AI's role in strengthening financial reporting quality and internal audit effectiveness specifically. Evidence from Islamic banking contexts suggests that AI integration, when paired with adequate governance standards, is associated with improved financial reporting quality, though the same studies caution that the governance standards themselves must evolve in tandem with the technology rather than remaining static (Mbaidin et al., 2023). Reimagining internal Shariah audit through AI similarly requires reconsidering the auditor's role: rather than manually sampling transactions, AI-assisted audit shifts the auditor's function toward validating model logic and reviewing flagged exceptions, a shift that several reviewed studies argue demands new competency frameworks for Shariah audit professionals (Raza et al., 2026; Baharom, 2025). These findings reinforce the lifecycle-based structure adopted in the reconstructed framework, since post-deployment monitoring cannot function effectively without auditors who are equipped to interpret AI-generated exception reports through both a technical and a Shariah lens.

Transforming Islamic financial management more broadly also depends on how institutions balance innovation opportunities against the global regulatory challenges documented across the reviewed sources (Sari, 2025). Institutions that move fastest to adopt AI without corresponding governance investment risk the greatest reputational exposure should a Shariah non-compliance event occur, while institutions that delay adoption risk competitive disadvantage relative to conventional finance providers already deploying comparable AI tools. The reconstructed framework is designed to reduce this tradeoff by making governance investment a prerequisite embedded within, rather than a bottleneck external to, the AI adoption process itself.

Finally, the reconstructed framework carries implications for how Shariah compliance itself is evidenced to external stakeholders. Investors, depositors, and cross-border regulators currently rely largely on an institution's self-reported Shariah compliance status, with limited visibility into the AI systems underlying that status. By requiring documented explainability mappings and periodic re-certification against

Maqasid checkpoints, the reconstructed framework generates an auditable evidence trail that can, in principle, be disclosed or independently verified, addressing the comparability concern raised by the regulatory fragmentation discussed earlier (Kismawadi et al., 2024; Lubis, 2024). This evidentiary function distinguishes the reconstructed framework from purely internal governance proposals, positioning it as a potential foundation for future industry-wide Shariah-AI certification standards analogous to existing Shariah compliance audit regimes.

CONCLUSION

This study set out to reconstruct a Shariah governance framework capable of accommodating the accelerating adoption of artificial intelligence within Islamic financial institutions. Through a PRISMA-guided systematic review of twenty-five recent sources, the study identified four persistent governance gaps: algorithmic opacity that undermines the jurisprudential traceability Shariah boards require, unresolved liability allocation among developers, institutions, and supervisory boards, regulatory fragmentation across jurisdictions, and limited technical capacity within Shariah Supervisory Boards to interrogate machine-driven outputs. In response, the study proposed a reconstructed, lifecycle-based governance architecture anchored in a dual-layer supervisory mechanism that pairs Shariah Supervisory Boards with dedicated AI Governance Committees, supported by explainability requirements and Maqasid-based checkpoints applied continuously from data acquisition through post-deployment monitoring.

Theoretically, this study contributes to the Islamic finance governance literature by integrating technical explainability and Maqasid al-Shariah into a single operational structure rather than treating them as parallel, disconnected literatures, and by explicitly resolving the liability ambiguity that has constrained prior conceptual proposals. Practically, the study offers regulators, Islamic financial institutions, and Shariah advisory bodies a concrete institutional design that can inform the revision of Shariah governance policy documents and internal AI adoption protocols.

The study is not without limitations. As a literature-based synthesis, the reconstructed framework has not yet been empirically tested within an operating Islamic financial institution, and its dual-layer supervisory mechanism, while grounded in patterns observed across the reviewed literature, requires pilot implementation to assess feasibility, cost, and institutional acceptance. Future research should therefore pursue case study or action research designs that trial the AI Governance Committee structure within Islamic banks, takaful operators, or Islamic capital market institutions, measuring its effect on both Shariah compliance outcomes and AI adoption efficiency. Comparative empirical work across jurisdictions would also help determine which elements of the proposed framework require adaptation to local regulatory and fiqh traditions rather than functioning as universal design principles. As AI capability continues to advance, sustained collaboration between Shariah scholars, technologists, and regulators will remain essential to ensuring that innovation in Islamic finance proceeds without compromising the ethical and jurisprudential foundations that distinguish it

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