

ARTIFICIAL INTELLIGENCE GOVERNANCE IN ISLAMIC BANKING: RECONSTRUCTING MAQASID AL-SHARI'AH-BASED ETHICAL FRAMEWORKS FOR DIGITAL FINANCIAL DECISION-MAKING

Badrudin¹, Ahmad Arif², Sutanto³

¹Faculty of Islamic Economics and Business, Universitas Islam Depok, Indonesia

²Faculty of Islamic Economics and Business, Universitas Islam Depok, Indonesia

³Mahasiswa Faculty of Islamic Economics and Business, Universitas Islam Depok, Indonesia

Correspondence: badrudin@uidepok.ac.id

Article Info

Article history:

Submission Augst 15, 2026

Revised Sept 21, 2026

Accepted Sept 22, 2026

Published Sept 26, 2026

Keywords:

Artificial Intelligence

Governance;

Islamic Banking;

Shari'ah Compliance;

Financial Decision-Making.

ABSTRACT

The accelerating integration of artificial intelligence (AI) into Islamic banking operations has produced an unresolved governance tension between the imperatives of digital financial efficiency and the normative demands of Islamic ethical jurisprudence. While classical Maqāṣid al-Sharī'ah scholarship offers a philosophically rich foundation for evaluating financial conduct, its systematic and operational application to algorithmic decision-making, automated credit scoring, machine-generated Shari'ah compliance screening, and AI-assisted customer services remains theoretically underdeveloped and practically underspecified. This study undertakes a systematic reconstruction of Maqāṣid al-Sharī'ah as a functional ethical governance architecture specifically adapted to AI deployment in Islamic banking institutions. Drawing on a rigorous qualitative systematic review of 40 peer-reviewed studies published between 2018 and 2026, and employing interpretive content analysis alongside conceptual synthesis, the study maps the five principal Maqāṣid objectives preservation of religion (Dīn), life (Nafs), intellect ('Aql), progeny (Nasl), and wealth (Māl) onto contemporary AI governance concerns within Islamic finance. The synthesis yields a reconstructed five-pillar framework designated AIGS-M (AI Governance in Islamic Finance based on Maqāṣid), which integrates human oversight mechanisms, algorithmic accountability structures, and Islamic ethical principles to guide digital financial decision-making. Results reveal significant structural misalignments between prevailing AI deployment practices in Islamic financial institutions and core Maqāṣid objectives, most prominently in the dimensions of algorithmic transparency, data privacy, fiduciary integrity, and the preservation of scholarly religious authority. The AIGS-M framework provides an operationalizable governance model with direct implications for Islamic financial regulators, Shari'ah advisory boards, fintech developers, and policymakers in Muslim-majority jurisdictions.

This is an open access article under the [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/) license.



Citation: Haryanti, Ely., Arif, Ahmad., Lubis, A.B. (2026) *Artificial Intelligence Governance In Islamic Banking: Reconstructing Maqasid Al-Shari'ah-Based Ethical Frameworks For Digital Financial Decision-Making*. Al Hisab: Journal of Islamic Economics and Finance 1(1), 15-30.

©Authors retain all copyrights

A. INTRODUCTION

The convergence of artificial intelligence and Islamic banking has inaugurated an era of remarkable operational transformation, simultaneously generating profound and largely unresolved governance tensions. Over the past decade, Islamic financial institutions across Southeast Asia, the Gulf Cooperation Council (GCC), and Sub-Saharan Africa have increasingly incorporated machine learning algorithms, natural language processing (NLP) systems, robotic process automation, and predictive analytics into core banking operations from automated Shari'ah compliance screening and AI-assisted murabahah product pricing to algorithmic credit risk assessment and intelligent customer advisory services. By 2026, the global Islamic finance industry valued conservatively at approximately USD 4 trillion in total assets is deploying AI tools across frontline operational processes at an unprecedented rate, fundamentally transforming the institutional mechanisms through which Islamic banks uphold their fiduciary, ethical, and religious obligations to Muslim depositors, borrowers, and investment clients.

This digital transformation occurs, however, within a profound and widening normative vacuum. Classical Islamic jurisprudence was elaborated centuries before the emergence of algorithmic systems, and the growing body of institutional Shari'ah governance standards including the guidelines issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI, 2023), the Islamic Financial Services Board (2023), and national central banking authorities offer limited operational guidance on how AI systems should be designed, trained, deployed, audited, or constrained within an Islamic ethical paradigm. While contemporary scholars have increasingly invoked Maqāṣid al-Shari'ah the overarching objectives of Islamic law as a normative anchor for evaluating new financial technologies, the translation of these philosophically rich but abstractly framed objectives into concrete AI governance mechanisms with measurable indicators and institutional enforcement procedures remains both theoretically underdeveloped and practically unspecified in ways that impede real-world implementation.

The urgency of this governance deficit is not merely academic. Artificial intelligence in Islamic banking directly affects millions of Muslim financial consumers whose access to credit, savings products, and insurance instruments is increasingly mediated by algorithms rather than human judgment. When an AI credit scoring system in an Indonesian Islamic bank denies a murabahah home financing application, the affected customer's right to redress, the transparency of the scoring methodology, and the Islamic bank's accountability to Shari'ah principles all hinge on governance structures that, at present, either do not exist in standardized form or have been borrowed wholesale from secular regulatory frameworks designed without Islamic normative considerations in mind. This structural absence of Islamic-specific AI governance is not a peripheral concern; it strikes at the institutional legitimacy of the Islamic banking model and its capacity to deliver on its foundational promise of financial justice and ethical conduct.

A comprehensive review of the extant literature reveals three structural research gaps that this study directly addresses. *First*, existing scholarship tends to treat AI governance and Islamic ethics as parallel rather than intersecting intellectual discourses: the former is addressed through secular regulatory frameworks such as the European Union AI Act, the OECD AI Principles, or the IEEE Ethically Aligned Design guidelines, while the latter remains confined to jurisprudential commentary and philosophical elaboration without generating institutional operationalization. This bifurcation prevents the development of an integrated governance architecture capable of satisfying both technical accountability requirements and Islamic normative demands simultaneously. *Second*, the Maqāṣid-based frameworks that have been proposed in the literature typically mapping the five classical objectives onto financial products or institutional policies were designed prior to the widespread deployment of AI and therefore fail systematically to account for AI-specific

risks such as data bias, explainability deficits, autonomous decision errors, and the systemic erosion of human scholarly oversight, all of which can disproportionately harm marginalized Muslim communities. *Third*, and most critically from a practical standpoint, the field lacks an empirically grounded and operationalizable governance model that Shari'ah advisory boards, regulatory authorities, and fintech developers can adopt as a practical reference standard in Islamic banking institutional contexts. These three gaps theoretical bifurcation, analytical anachronism, and operational deficit collectively constitute the research problem that this study is designed to resolve.

This study pursues three interrelated objectives: (1) to critically reconstruct Maqāṣid al-Shari'ah theory as an ethical governance architecture specifically adapted to AI deployment in Islamic banking; (2) to empirically map contemporary AI applications in Islamic banking against the five Maqāṣid dimensions to systematically identify patterns of alignment and misalignment; and (3) to propose the AIGS-M (AI Governance in Islamic Finance based on Maqāṣid) framework as an operationalizable, institution-level governance model. The central research question guiding the study is: How can Maqāṣid al-Shari'ah be systematically reconstructed as a functional governance framework for AI-driven digital financial decision-making in Islamic banking institutions? The study contributes both theoretically, by demonstrating that Maqāṣid al-Shari'ah is a dynamic normative system capable of generating actionable governance principles for advanced digital technologies, and practically, by providing structured governance tools for Islamic financial supervisory bodies, compliance officers, and technology developers.

B. LITERATURE REVIEW

1. Artificial Intelligence in Islamic Banking: Expanding Applications, Emerging Tensions

The adoption of artificial intelligence in Islamic banking has accelerated considerably since 2020, driven by competitive pressures from conventional financial institutions, the expanding expectations of digitally native Muslim consumer populations, and strategic mandates from national financial authorities promoting digital banking transformation. Syakirunni'am et al. (2025) document how Bank Syariah Indonesia the largest Islamic bank in Southeast Asia has deployed conversational AI, automated loan origination systems, and behavioral analytics across its retail banking operations, with demonstrable improvements in processing speed, operational cost efficiency, and measured customer engagement metrics. Similar digital transformation trajectories have been documented across Malaysia's Islamic banking sector, the UAE's nascent Islamic FinTech ecosystem, Saudi Arabia's Vision 2030-aligned digital finance initiatives, and Pakistan's State Bank-supervised Islamic banking expansion, where AI tools are progressively embedded within murabahah product pricing engines, credit risk assessment models, and regulatory reporting systems.

Harun et al. (2024) identify six principal AI application domains in Islamic banking: customer service automation through NLP chatbots, fraud detection and cybersecurity monitoring, credit scoring and eligibility determination, Shari'ah-compliant portfolio management, regulatory compliance monitoring and reporting, and AI-assisted Shari'ah contract screening. Each domain presents distinct governance challenges that existing frameworks have not adequately addressed. Credit scoring algorithms, for instance, may inadvertently encode socioeconomic, ethnic, or geographic biases that disproportionately disadvantage borrowers from lower-income Muslim communities an outcome that directly contravenes the Islamic banking mandate for financial inclusivity and social justice (maṣlaḥah 'āmmah). Gustanto et al. (2025) further demonstrate that risk management strategies in Islamic banks increasingly rely on AI-based predictive models that operate with limited transparency, raising accountability questions that neither

internal audit frameworks nor external Shari'ah supervisory procedures are currently equipped to address.

Automated Shari'ah contract screening presents perhaps the most theologically sensitive governance challenge. Billah & Zahid (2026) introduce the concept of 'algorithmic fatwa' compliance determinations made by machine learning systems without direct human scholarly oversight arguing that while AI can improve the speed and consistency of Shari'ah screening, the legitimacy and finality of compliance decisions must remain with qualified human scholars. Subli et al. (2025) extends this analysis to Malaysia's Islamic banking sector, finding that current AI deployments in Shari'ah secretariat functions operate without formal theological accountability structures, creating an institutional accountability vacuum that poses serious risks to the credibility of Malaysia's Islamic finance governance infrastructure. Azwar et al. (2025), in a bibliometric analysis of 147 peer-reviewed studies on AI and Islamic finance, reveal that the intersection of technical AI applications, Shari'ah compliance automation, and governance framework development accounts for fewer than eight percent of the reviewed literature a profound gap that validates the urgency of the present study.

2. Maqāṣid al-Sharī'ah: From Classical Scholarship to Contemporary Application

Maqāṣid al-Sharī'ah literally the 'higher objectives of Islamic law' represents one of the most sophisticated traditions of teleological legal reasoning within classical Islamic jurisprudence. First systematically articulated by Imām al-Ghazālī (d. 1111 CE) and brought to its classical zenith by Imām al-Shāṭibī (d. 1388 CE), the framework identifies five essential human interests that all provisions of Islamic law are ultimately designed to preserve and promote: religion (Dīn), life (Nafs), intellect ('Aql), progeny or lineage (Nasl), and property or wealth (Māl). These five objectives are organized into three hierarchical levels of necessity: essentials (ḍarūriyyāt), needs (ḥājiyyāt), and refinements (taḥsīniyyāt). In the contemporary Islamic scholarship of reformers such as Chapra (2018), Auda (2008), and Muhammad Hashim Kamali, the Maqāṣid framework has been expanded to incorporate dignity (karāmah), freedom (ḥurriyyah), equality (musāwāh), and social welfare as derivative but equally important higher objectives, enabling the framework to engage with modern political, economic, and technological realities that classical scholars could not have anticipated.

In the contemporary Islamic finance literature, Maqāṣid al-Sharī'ah has progressively displaced purely compliance-oriented frameworks as the normative benchmark for evaluating whether Islamic financial institutions genuinely advance Islamic values beyond formal adherence to prohibitions on ribā and gharar. Mergaliyev et al. (2019) developed one of the most empirically rigorous Maqāṣid-augmented performance frameworks for Islamic banks, demonstrating through quantitative analysis across twenty-five institutions in multiple countries that organizations with stronger Maqāṣid orientation consistently generate more equitable social outcomes and more authentic Islamic financial conduct than their formally compliant but substantively conventional counterparts. Alziyadat & Ahmed (2018) proposed a conceptual framework for ethical decision-making in Islamic financial institutions explicitly grounded in Maqāṣid principles, finding that this framework provides a superior and more institutionally actionable moral compass compared to conventional stakeholder theory, agency theory, or deontological rule-following. Alhammadi et al. (2020) subsequently validated the independent analytical power of the Maqāṣid lens by demonstrating that Maqāṣid-based ethical performance indices yield systematically different institutional assessments compared to conventional financial performance metrics.

Within the specific context of Islamic digital finance, Suardi et al. (2025) proposed a Maqasid-based governance framework for Islamic banking that integrates Value-Based

Intermediation (VBI), ESG criteria, and ethical digital transformation principles—demonstrating the conceptual adaptability of Maqāṣid to contemporary financial governance challenges. Hidayati & Cynthia (2024) specifically evaluated the role of Maqāṣid al-Sharī'ah in formulating ethical frameworks for AI in Islamic jurisprudence, concluding that while the framework's philosophical resources are sufficient to generate AI ethics principles, the translation from normative principle to institutional governance mechanism requires dedicated scholarly and regulatory effort that has not yet been systematically undertaken. Maiga (2025) further argues that achieving Maqāṣid al-Sharī'ah through AI is not merely possible but constitutionally obligatory for Islamic banking institutions, positioning AI governance as a religious duty (*fard kifāyah*) as well as a regulatory requirement.

3. Islamic Ethics and AI: The Emerging Governance Discourse

The application of Islamic ethical principles specifically to artificial intelligence governance represents a rapidly expanding but still nascent scholarly field. Raquib et al. (2022) were among the first to propose a comprehensive framework for Islamic virtue-based ethics applied to AI systems, arguing that the classical Islamic virtues of 'adl (justice), amānah (trustworthiness), shūrā (consultation), and maṣlaḥah (public welfare) provide a distinctive and philosophically coherent moral vocabulary for evaluating AI systems that complements rather than duplicates Western secular AI ethics frameworks. Elmahjub (2023) extended this analysis by advocating for 'pluralist ethical benchmarking' that treats Islamic ethics as one of several equally legitimate and intellectually independent normative traditions for guiding global AI governance, challenging the implicit universalism of mainstream AI ethics discourse. Ali et al. (2025), evaluating existing AI ethics frameworks through the lens of Islamic trusteeship ethics (*khilāfah*), concluded that while mainstream frameworks including IEEE's Ethically Aligned Design and the EU's Trustworthy AI principles align with Islamic values in their general orientation toward beneficence and non-harm, they lack the theological depth, accountability structures, and divine-authority grounding necessary for genuinely Islamic AI governance in religious institutional contexts.

The banking-specific dimension of Islamic AI ethics has received increasing attention since 2023. Mbaidin et al. (2023) demonstrated empirically that AI integration and governance standards significantly enhance financial reporting quality in Islamic banks, establishing a measurable and positive relationship between AI governance quality and institutional trustworthiness. Alghadi et al. (2023) examined how AI can enhance cyber governance in Islamic banks, finding that AI-enabled cybersecurity frameworks substantially improve institutional resilience but also introduce new governance vulnerabilities if deployed without explicit Islamic ethical constraints. Shalhoob (2025) provides targeted analysis of AI's role in enhancing Sharī'ah compliance efficiency and transparency, identifying specific technical mechanisms through which AI can strengthen rather than undermine religious governance, provided appropriate oversight structures are institutionally embedded. Ogeawuchi et al. (2024) and Ridzuan et al. (2024) both emphasize from a cross-sectoral perspective that AI deployment in financial decision-making requires ethically grounded governance frameworks capable of balancing operational efficiency with justice, transparency, and human welfare principles that align closely with Islamic banking's stated institutional mission but have not been formally codified in Islamic-specific AI governance standards.

The persistent gap in the literature is precisely the operationalization problem: how to move from Islamic ethical principles and Maqāṣid philosophical objectives to concrete, enforceable, and institutionally embedded AI governance standards that Islamic banking regulators, Sharī'ah advisory boards, and technology developers can practically implement. Arsyad et al. (2025) identify this operationalization gap as the central

challenge for the Islamic finance industry's AI governance agenda, noting that the absence of standardized Islamic AI governance frameworks creates regulatory arbitrage risks, institutional accountability vacuums, and the progressive erosion of the very Islamic values that the industry is constitutionally mandated to uphold. The present study responds directly to this challenge.

C. METHOD

1. Research Design

This study adopts a qualitative systematic review methodology, grounded in the tradition of interpretive content analysis and conceptual synthesis. This research design is appropriate for the primary objective of the study to reconstruct a governance framework by integrating and extending existing theoretical knowledge which requires rigorous and systematic synthesis of existing scholarship rather than primary empirical data collection from financial institutions. The study follows a modified PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol, adapted for conceptual-theoretical synthesis in Islamic finance and governance research. The interpretive approach enables the researcher to move beyond merely cataloging existing positions to actively engaging with, critiquing, and reconstructing the conceptual building blocks of the proposed framework, drawing on the full resources of both Islamic jurisprudential reasoning and contemporary AI governance theory.

Table 1 presents the methodological profile of the 40 studies included in the systematic review, organized by research methodology, geographic focus, and publication year. The distribution reflects the predominantly conceptual and theoretical character of current scholarship at the AI-Islamic banking governance intersection, as well as the geographic concentration of research output in Indonesia and Malaysia findings that themselves carry implications for the transferability of proposed governance frameworks to GCC and African Islamic banking contexts.

**Table 1. Methodological Profile of Studies Included
in the Systematic Review (n = 40)**

Category	No. of Studies	Percentage (%)	Geographic Focus
Conceptual / Theoretical	18	45.0	Indonesia (14)
Systematic Review / Bibliometric	8	20.0	Malaysia (9)
Empirical / Qualitative	9	22.5	GCC Countries (8)
Empirical / Quantitative	5	12.5	Pakistan (4)
Total	40	100.0	Multi-country/Global (5)

2. Literature Search and Selection Criteria

A comprehensive and systematic literature search was conducted across five academic databases: Scopus, Web of Science, Google Scholar, the ISRA International Journal of Islamic Finance electronic archive, and the AAOIFI research repository. Search terms were constructed using Boolean operators combining: 'artificial intelligence' AND ('Islamic banking' OR 'Islamic finance' OR 'Shari'ah'), 'Maqāṣid al-Shari'ah' AND ('AI' OR 'fintech' OR 'digital'), 'AI governance' AND 'Islamic ethics', and 'algorithmic accountability' AND 'Islamic financial institutions.' The initial comprehensive search yielded 287 potentially relevant documents. After a rigorous two-stage screening process first by title and abstract, then by full text applying predetermined inclusion and exclusion criteria, 40 studies were retained for full analytical inclusion.

Inclusion criteria required that studies: (a) be published in peer-reviewed journals, conference proceedings, or academic working papers with documented review processes; (b) address the intersection of AI governance, Islamic finance, or Islamic ethics with explicit reference to governance, ethics, or regulatory frameworks; (c) have been published between 2018 and 2026, to capture the governance discourse that emerged after the widespread deployment of deep learning systems in financial services; and (d) be available in English, Arabic, or Bahasa Indonesia with sufficient English abstract information for reliable coding. Studies exclusively addressing technical AI methodology without ethical or governance dimensions, or addressing Islamic finance topics without any AI component, were excluded. Figure 1 illustrates the PRISMA-adapted selection flow.

Figure 1. PRISMA-Adapted Literature Selection Flow

STEP 1: DATABASE SEARCH — n = 287 records identified
Scopus Web of Science Google Scholar ISRA Archive AAOIFI Repository
STEP 2: TITLE & ABSTRACT SCREENING — 119 retained 168 excluded
STEP 3: FULL-TEXT ELIGIBILITY REVIEW — 40 retained 79 excluded
FINAL INCLUDED STUDIES: n = 40 Publication Range: 2018-2026

3. Data Extraction and Analytical Framework

The 40 selected studies were subjected to a three-phase interpretive content analysis procedure. In Phase 1 (Descriptive Extraction), each study was systematically coded against a structured extraction matrix capturing six categories: (a) the primary theoretical framework employed; (b) the specific AI technologies or application domains addressed; (c) the Islamic ethical principles and jurisprudential concepts invoked; (d) governance mechanisms proposed or evaluated; (e) empirical evidence provided and its methodological quality; and (f) identified research gaps and future research recommendations. This phase produced a comprehensive coded dataset enabling systematic comparison across studies.

In Phase 2 (Thematic Synthesis), codes were grouped into thematic clusters using axial coding procedures drawn from grounded theory, with the explicit aim of identifying convergent and divergent perspectives across the reviewed studies with respect to Maqāṣid objectives, AI governance challenges, and proposed institutional responses. Four principal thematic clusters emerged from this process: (1) AI-Sharī'ah compliance tensions; (2) Maqāṣid-aligned AI design principles; (3) institutional governance mechanism proposals; and (4) regulatory framework gaps and recommendations. In Phase 3 (Framework Reconstruction), the thematic synthesis findings were integrated through theoretical reasoning grounded in both classical Maqāṣid scholarship and contemporary AI governance theory to produce the AIGS-M framework. The reconstruction process was iterative, with each proposed framework element cross-validated against the coded study evidence and evaluated for both Islamic normative consistency and institutional practicability.

D. RESULTS AND DISCUSSION

Results

1. Mapping AI Applications Against Maqāṣid Objectives: Alignment and Misalignment

The systematic review reveals a complex and largely inconsistent pattern of alignment between current AI applications in Islamic banking and the five Maqāṣid al-Sharī'ah objectives. Table 2 synthesizes the core findings of this mapping exercise,

drawing on evidence from across the 40 reviewed studies. The overall picture is one of moderate to low alignment across most Maqāṣid dimensions, with the preservation of wealth (Māl) exhibiting the highest though still imperfect alignment, and the preservation of intellect (‘Aql) and progeny (Nasl) exhibiting the most pronounced governance deficits.

Table 2. Mapping of Current AI Applications in Islamic Banking Against Maqāṣid al-Sharī'ah Objectives

Maqāṣid Objective	AI Application Domain	Alignment Status	Governance Challenges
Preservation of Religion (Dīn)	Sharī'ah screening AI; automated fatwa assistance; Halal product classification	Partial	Loss of scholarly authority; legitimacy of machine-generated rulings; erosion of human oversight in religious adjudication
Preservation of Life (Nafs)	Credit scoring algorithms; financial inclusion tools; poverty-targeting analytics	Partial	Algorithmic bias against marginalized groups; digital exclusion; welfare-reducing automated denials
Preservation of Intellect (‘Aql)	NLP chatbots; AI advisory systems; behavioral nudge technologies	Low	Explainability deficits; intellectual manipulation; cognitive dependency on opaque systems
Preservation of Progeny (Nasl)	Family banking product AI; customer demographic analytics; inheritance planning tools	Low	Unauthorized use of family data; privacy violations; cross-generational profiling risks
Preservation of Wealth (Māl)	Fraud detection AI; portfolio management; sukuk pricing algorithms	Moderate	Fiduciary integrity gaps; implicit riba encoding; automated wealth concentration risks

With respect to the preservation of religion (Dīn), the deployment of AI for automated Sharī'ah contract screening and compliance monitoring has produced demonstrable efficiency gains, as documented by Shalhoob (2025) and Sain & Adinugraha (2025). Islamic banks in Malaysia and the GCC have successfully implemented AI systems that can screen thousands of murabahah and ijarah contracts per hour for riba, gharar, and maysir elements a task that would require weeks of manual scholarly review. However, this efficiency comes at a significant theological cost. The reviewed literature converges strongly on the concern that automated compliance screening systems are not merely assistive tools but increasingly autonomous decision-makers, generating what Billah & Zahid (2026) term 'algorithmic fatwa' without the scholarly deliberation, contextual reasoning, and divine accountability that Islamic jurisprudence requires of legitimate religious rulings. Omar & Sa'ad (2024) specifically examined the potential of artificial neural networks in Sharī'ah decision-making for digital banking, concluding that while AI can support and enhance scholarly decision-making, it cannot and should not replace it a distinction that current institutional governance structures in many Islamic banks fail to operationalize with sufficient rigor.

The preservation of life (Nafs) in the context of AI-driven financial decision-making must be understood in its broadest Islamic sense as encompassing not merely physical survival but also economic welfare, livelihood security, and freedom from poverty. Credit scoring algorithms and automated financing eligibility systems perhaps the most consequential AI applications from a social welfare perspective exhibit deeply problematic alignment with this Maqāṣid objective. Anggriawan & Hamsin (2026)

provide particularly compelling evidence of this misalignment in their analysis of AI-driven Shari'ah credit scoring systems in Indonesia, documenting how these systems can encode and perpetuate socioeconomic biases that systematically disadvantage lower-income Muslim borrowers in ways that not only fail to serve but actively contravene the Islamic banking mandate for social justice and financial inclusion. Lasmiatun & Manteghi (2025) further demonstrate that the rapid deployment of AI in Islamic banking has paradoxically widened financial literacy gaps, as algorithmically mediated financial services often generate outcomes that Muslim consumers are unable to understand, question, or appeal directly undermining the principle of informed consent (*riḍā*) that underpins valid Islamic financial contracts.

The preservation of intellect ('Aql) perhaps the Maqāṣid objective most directly implicated by AI governance exhibits the most critical governance deficits in the reviewed literature. This objective encompasses not merely cognitive function but the right to informed, rational, and autonomous decision-making free from deception or manipulation. AI systems deployed in Islamic banking contexts, including behavioral analytics tools, algorithmic product recommendation engines, and NLP-based customer advisory chatbots, operate with degrees of opacity and complexity that make meaningful customer comprehension effectively impossible. Ridzuan et al. (2024) and Ogeawuchi et al. (2024) both identify explainability the capacity of AI systems to provide human-comprehensible justifications for their decisions as a prerequisite for ethical AI in financial services; yet the reviewed studies consistently document the near-total absence of explainability requirements in Islamic banking AI governance frameworks. This explainability deficit constitutes a direct violation of the 'Aql-preservation objective, which demands that financial decision-making processes be comprehensible, transparent, and open to scholarly and customer scrutiny.

The preservation of progeny (Nasl), extended by contemporary Maqāṣid scholars to encompass family rights, privacy, and intergenerational welfare, is implicated primarily through the extensive data collection, retention, and analytics practices that AI-enabled Islamic banking systems require. Mustapha et al. (2025) identify Islamic data privacy as a governance domain requiring dedicated normative elaboration, grounding it in the Quranic concept of *ḥurmat al-khusūṣiyyah* (the sanctity of private affairs) and arguing that Islamic banks have Islamic ethical obligations regarding customer data that extend beyond secular data protection regulations. The reviewed studies document a widespread practice among Islamic banks of deploying customer behavioral analytics and demographic profiling tools without explicit Islamic ethical consent frameworks, a practice that is misaligned with the Nasl-preservation objective regardless of its technical compliance with secular data protection regulations such as Indonesia's Personal Data Protection Law or Malaysia's PDPA. The preservation of wealth (Māl) exhibits the strongest though still qualified alignment with current AI applications, particularly in fraud detection and portfolio management domains. Sidik et al. (2026) and Zahid et al. (2025) both document how AI and Bayesian learning systems can significantly enhance the protection of depositors' and investors' wealth through improved fraud detection rates and more accurate portfolio risk management. However, Af & Villaruel (2026) identify asymmetric information as a persistent governance challenge in AI-mediated Islamic banking contracts, noting that the informational asymmetries created by complex algorithmic pricing models may inadvertently replicate the prohibition *gharar* (excessive uncertainty) that Islamic banking is designed to eliminate.

2. The AIGS-M Framework: Core Architecture and Governance Pillars

Drawing on the systematic mapping exercise, the thematic synthesis, and the reconstructed Maqāṣid analysis, the study proposes the AI Governance in Islamic Finance based on Maqāṣid (AIGS-M) framework as a five-pillar governance architecture

designed to guide the ethical deployment, oversight, and accountability of AI systems in Islamic banking institutions. The framework is presented in Table 3, which maps each governance pillar to its anchoring Maqāṣid objective, articulates the core governance principles that flow from that objective, and identifies the institutional mechanisms through which these principles should be operationalized.

Table 3. The AIGS-M Framework: Five-Pillar AI Governance Architecture for Islamic Banking

Framework Pillar (AIGS-M)	Primary Maqāṣid	Core Governance Principles	Institutional Mechanism
Theological Accountability (Hifẓ al-Dīn)	Dīn	Human scholarly authority over AI rulings; prohibition of unsupervised algorithmic fatwa; Islamic alignment review cycle	Shari'ah Advisory AI Review Panel (SAARP); mandatory religious impact assessments for AI deployments
Fiduciary Justice (Hifẓ al-Māl)	Māl	Transparent pricing algorithms; prohibition of riba-encoding; equitable profit-sharing in AI-mediated murabahah/musharakah	AI Audit Committee; algorithmic pricing disclosure; bi-annual Shari'ah compliance certification
Cognitive Autonomy (Hifẓ al-'Aql)	'Aql	Explainable AI (XAI) requirements; anti-manipulation design standards; right to human review of automated decisions	Islamic Explainable AI Standard (IEAS); mandatory customer redress mechanisms; XAI audit trails
Communal Dignity (Hifẓ al-Nasl)	Nasl	Data dignity principles; family financial privacy protection; consent-based data governance aligned with Islamic privacy ethics (ḥurmat al-khusūṣiyyah)	Islamic Data Governance Charter (IDGC); prohibition on non-consensual family data profiling
Life-Protective Equity (Hifẓ al-Nafs)	Nafs	Mandatory algorithmic bias auditing; financial inclusion quotas for AI credit systems; welfare impact assessments	Algorithmic Bias Correction Protocol (ABCP); social welfare KPIs embedded in AI performance metrics

The first pillar Theological Accountability (Hifẓ al-Dīn) constitutes the most distinctively Islamic element of the AIGS-M framework and the element with no direct analog in secular AI governance standards. This pillar mandates that human scholarly authority over AI-generated religious determinations must be structurally preserved and institutionally enforced. The reviewed literature reveals a strong consensus that while AI can legitimately serve as an assistive tool for Shari'ah compliance screening reducing processing time, improving consistency, and flagging potential violations for scholarly review it must never serve as the final or exclusive adjudicative authority in religious compliance matters. Billah & Zahid (2026) articulate the specific institutional form this oversight should take: a dedicated Shari'ah Advisory AI Review Panel (SAARP), embedded within or formally accountable to the institution's existing Shari'ah Supervisory Board, with the specific mandate to review, audit, and certify AI compliance determinations. This panel would also be responsible for conducting periodic Islamic alignment reviews of AI system design and training data to ensure that no implicit anti-Islamic biases have been encoded in the system's decision logic. Lubis (2024) and Maiga (2025) both provide conceptual support for this institutional mechanism, demonstrating that AI and Maqāṣid al-Shari'ah are not inherently incompatible but require deliberate institutional architecture to achieve productive integration.

The second pillar Fiduciary Justice (Hifẓ al-Māl) addresses the most directly financial governance dimension of the framework. Its core principle is that AI systems deployed in

Islamic banking must preserve and reinforce rather than undermine or circumvent the fiduciary integrity obligations that Islamic banking institutions owe to their depositors, borrowers, and investment clients. This pillar requires transparent algorithmic pricing to prevent the encoding of *riba*-equivalent profit structures within automated *murabahah* pricing engines; clear algorithmic disclosure enabling customers to understand the material parameters of automated financing decisions; and equitable AI-mediated profit-sharing mechanisms in *musharakah* and *mudarabah* products that do not unfairly advantage institutional counterparties. The reviewed studies by Mbaidin et al., (2023) and Baharom (2025) provide empirical evidence that robust AI governance structures particularly in audit and financial reporting domains are positively associated with higher institutional trustworthiness and better *Maqāṣid* performance outcomes, validating the AIGS-M framework's emphasis on institutionalized fiduciary accountability mechanisms.

The third pillar Cognitive Autonomy (*Hifẓ al-‘Aql*) addresses what the reviewed literature identifies as the most technically challenging dimension of Islamic AI governance. This pillar requires that AI systems deployed in Islamic banking conform to an Islamic Explainable AI Standard (IEAS) a set of technical and institutional requirements mandating that AI decision systems provide human-intelligible justifications for their determinations, enable meaningful customer review and appeal of automated decisions, and maintain transparent audit trails of algorithmic reasoning processes. Raquib et al. (2022) ground this requirement in the Islamic virtue of *amānah* (trustworthiness), arguing that financial institutions that deploy incomprehensible algorithmic systems on Muslim customers without providing meaningful explanations are violating their *amānah* obligations regardless of the technical accuracy of the algorithms' outputs. The IEAS proposed in the AIGS-M framework draws on the emerging technical literature on explainable AI (XAI) methods including LIME, SHAP, and counterfactual explanation techniques while adapting the explanation requirements to the specific informational needs of Islamic banking customers and the accountability requirements of Islamic financial governance.

The fourth pillar Communal Dignity (*Hifẓ al-Nasl*) recognizes the distinctively communal and relational character of Islamic family and social ethics in ways that secular data protection frameworks do not capture. The Islamic concept of *ḥurmat al-khusūṣiyyah* the inviolability of private affairs extends protections not merely to individual personal data but to the privacy and dignity of the family as a social unit. The AIGS-M framework's Islamic Data Governance Charter (IDGC) would require Islamic banks to obtain explicit Islamic ethical consent for all data collection and analytics activities involving customer family information; prohibit cross-generational data profiling without specific consent; and establish Islamic ethical review procedures for any AI applications that involve family financial behavior modeling. Wahab and Mahdiya (2026) provide supporting analysis from the *halal* industry governance context, demonstrating that *Maqāṣid*-based legal frameworks for data governance in digital economic contexts are both conceptually coherent and institutionally practicable.

The fifth pillar Life-Protective Equity (*Hifẓ al-Nafs*) addresses the social welfare and financial inclusion dimensions of AI governance in Islamic banking. This pillar mandates that Islamic banks implement systematic Algorithmic Bias Correction Protocols (ABCP) to detect and remediate socioeconomic, ethnic, and geographic biases in AI credit scoring and financing eligibility systems. It further requires the embedding of social welfare Key Performance Indicators (KPIs) within AI performance evaluation frameworks, to ensure that AI systems are assessed not solely on commercial performance metrics but also on their contribution to the Islamic banking mission of financial inclusion and poverty alleviation. Iqbal et al. (2025) provide a global bibliometric analysis confirming that AI deployment in Islamic finance is predominantly justified on efficiency and commercial

grounds, with social welfare and equity considerations central to the Islamic banking mandate receiving disproportionately limited attention in both academic research and institutional governance design. The AIGS-M framework's Life-Protective Equity pillar directly addresses this systematic neglect.

3. Governance Mechanism Design: Institutional and Regulatory Implications

The effective implementation of the AIGS-M framework requires coordinated action at three institutional levels: internal governance structures within individual Islamic banking institutions, Shari'ah supervisory and advisory board practices, and national and international Islamic financial regulatory frameworks. At the institutional level, the framework implies the creation of three new governance structures that do not currently exist in standardized form in the Islamic banking industry: the Shari'ah Advisory AI Review Panel (SAARP), the AI Audit Committee with specific Islamic governance mandates, and the Islamic Data Governance Charter compliance function. Arsyad et al. (2025) identify institutional capacity as the primary constraint on AI governance improvement in Islamic finance, noting that Shari'ah supervisory board members typically lack the technical AI literacy necessary to evaluate AI system designs and compliance claims effectively a gap that the AIGS-M framework addresses through the SAARP, which is designed to combine Islamic scholarly expertise with qualified AI technical competence.

At the regulatory level, the AIGS-M framework has implications for the governance standards issued by AAOIFI, the IFSB, and national central banking authorities in Indonesia, Malaysia, and the GCC. The framework suggests that existing Shari'ah governance standards including AAOIFI Governance Standard No. 1 and the IFSB's Guiding Principles on Shari'ah Governance require dedicated supplementary standards specifically addressing AI deployment accountability, algorithmic Shari'ah compliance procedures, and Islamic data governance. Ayub et al. (2023) call for a comprehensive revisitation of the Shari'ah governance paradigm for Islamic financial institutions in light of digital transformation, a call that the AIGS-M framework answers with a specific and actionable governance architecture grounded in Maqāṣid al-Shari'ah rather than imported from secular regulatory traditions. Alsaghir (2023) further demonstrates that digital risks in Islamic FinTech require a roadmap to social justice and financial inclusion that is structurally embedded in governance frameworks rather than aspirationally appended as policy rhetoric a design principle central to the AIGS-M framework's institutional mechanism proposals.

The AIGS-M framework's implementation pathway recognizes that governance reform in Islamic banking institutions is neither rapid nor costless, and proposes a phased adoption model responsive to institutional capacity constraints. In Phase 1 (Foundation: Years 1–2), institutions would establish the SAARP, develop an initial Islamic AI policy statement grounded in Maqāṣid principles, and conduct a baseline algorithmic bias audit of existing AI systems. In Phase 2 (Integration: Years 3–4), institutions would develop and deploy the IEAS and IDGC, embed social welfare KPIs in AI performance frameworks, and initiate external Shari'ah certification of AI compliance systems. In Phase 3 (Maturation: Year 5 onwards), institutions would contribute to the development of industry-wide Islamic AI governance standards, participate in cross-institutional AI governance knowledge-sharing networks, and publish annual Islamic AI governance reports as part of their sustainability and accountability disclosures. Smolo (2026) conceptualizes Islamic finance in the digital age as a 'civilizational tool' whose governance structures must reflect Islamic civilization's highest ethical aspirations a framing that positions the AIGS-M framework not merely as a technical regulatory document but as an expression of Islamic financial institutions' commitment to their foundational civilizational mission.

4. Limitations and Future Research Directions

This study carries several limitations that should be acknowledged transparently. First, as a systematic review and conceptual synthesis, the study does not present primary empirical data from Islamic banking institutions, and the AIGS-M framework's efficacy has not been empirically tested in institutional contexts. Future research should undertake structured implementation case studies in Islamic banking institutions across different jurisdictions to evaluate the framework's practical applicability, identify implementation barriers, and refine institutional mechanism specifications based on real-world evidence. Second, the study's geographic representation weighted toward Indonesia and Malaysia, reflecting the concentration of current scholarship may limit the framework's direct applicability to GCC-context Islamic banking institutions, which operate under different regulatory architectures, different schools of Islamic jurisprudence, and different AI technology adoption patterns. Dedicated extensions of the AIGS-M framework for GCC, South Asian, and African Islamic banking contexts would meaningfully advance the governance discourse. Third, the framework addresses current-generation AI technologies predominantly supervised machine learning, deep learning, and NLP systems and would require iterative updating as next-generation AI capabilities, including large language models deployed as Shari'ah advisory assistants and autonomous financial agents, enter Islamic banking contexts with qualitatively different governance challenges.

E. CONCLUSION

This study has undertaken a systematic and theoretically grounded reconstruction of Maqāṣid al-Sharī'ah as a functional governance architecture for artificial intelligence deployment in Islamic banking institutions. Through a rigorous qualitative systematic review of 40 peer-reviewed studies and interpretive content analysis informed by both classical Islamic jurisprudence and contemporary AI governance theory, the study has produced three principal contributions to the Islamic AI governance literature.

First, the study has demonstrated that current AI applications in Islamic banking exhibit systematic and significant misalignments with all five Maqāṣid al-Sharī'ah objectives, with the most critical governance deficits residing in the dimensions of algorithmic transparency (Hifẓ al-ʿAql), family data privacy (Hifẓ al-Nasl), and the preservation of human scholarly authority over religious compliance determinations (Hifẓ al-Dīn). These misalignments are not incidental to AI adoption but structural consequences of the absence of Islamic-specific governance frameworks guiding the design and deployment of AI systems in Islamic financial institutions.

Second, the study has proposed the AIGS-M framework a five-pillar AI governance architecture grounded in Maqāṣid al-Sharī'ah as an operationalizable response to these governance deficits. The five pillars of the framework Theological Accountability, Fiduciary Justice, Cognitive Autonomy, Communal Dignity, and Life-Protective Equity each anchor governance requirements in specific Maqāṣid objectives and specify institutional mechanisms through which these requirements can be practically enforced. The framework is designed not as a set of aspirational principles but as an actionable governance architecture with defined institutional structures, procedural requirements, and performance indicators.

Third, the study has advanced the theoretical argument that Maqāṣid al-Sharī'ah is not a static archival construct confined to classical jurisprudential commentary but a dynamic normative system with the philosophical resources and adaptive capacity to engage productively with the most advanced technological challenges of the digital age. The reconstruction of Maqāṣid al-Sharī'ah for AI governance presented in this study demonstrates the framework's continuing relevance and generative power as a living tradition of Islamic ethical reasoning capable of addressing novel governance challenges in ways that respect classical scholarship while responding to contemporary realities.

The implications of the study extend beyond the academic discourse to the practical governance of Islamic banking institutions and the regulatory frameworks through which they are supervised. Islamic financial regulators, Shari'ah advisory boards, and fintech developers operating in Muslim-majority jurisdictions would benefit from adopting the AIGS-M framework as a reference standard for AI governance one that positions Islamic banking not as a laggard in digital financial governance but as a pioneer in the development of ethically grounded, values-based AI governance frameworks that address the human rights, social welfare, and spiritual dimensions of algorithmic decision-making that secular frameworks have systematically neglected. As the Islamic finance industry navigates the transformative challenges and opportunities of the AI age, the integration of Maqāṣid al-Shari'ah into AI governance structures offers the most promising pathway to ensuring that digital transformation serves rather than subverts the foundational Islamic values of justice, trustworthiness, and human dignity that give Islamic banking its distinctive civilizational character and institutional legitimacy.

REFERENCES

- AAOIFI. (2023). *Shari'ah Standards (New Edition)*. AAOIFI.
- Af, M. S. F., & Villaruel, A. (2026). What Artificial Intelligence Can Do To Mitigate Asymmetric Information In Islamic Bank: A Conceptual Framework Revealed. *Referensi Islamika: Jurnal Studi Islam*. <https://doi.org/10.66053/ri.v4i2.342>
- Alghadi, M. Y., Alqudah, H., Lutfi, A., Ananzeh, H., Marei, A., Almaiah, M. A., & Al-Matari, Y. (2023). Enhancing cyber governance in Islamic banks: The influence of artificial intelligence and the moderating effect of Covid-19 pandemic. *International Journal of Data and Network Science*. <https://doi.org/10.5267/j.ijdns.2023.9.023>
- Alhammadi, S., Alotaibi, K., & Hakam, D. (2020). Analysing Islamic banking ethical performance from Maqāṣid al-Shari'ah perspective: evidence from Indonesia. *Journal of Sustainable Finance & Investment*, 12, 1171–1193. <https://doi.org/10.1080/20430795.2020.1848179>
- Ali, F., Bouzoubaa, K., Gelli, F., Hamzi, B., & Khan, S. (2025). Islamic Ethics and AI: An Evaluation of Existing Approaches to AI using Trusteeship Ethics. *Philosophy & Technology*, 38. <https://doi.org/10.1007/s13347-025-00922-4>
- Alsaghir, M. (2023). Digital risks and Islamic FinTech: a road map to social justice and financial inclusion. *Journal of Islamic Accounting and Business Research*. <https://doi.org/10.1108/jiabr-10-2022-0262>
- Alziyadat, N., & Ahmed, H. (2018). Ethical decision-making in Islamic financial institutions in light of Maqasid Al-Sharia: A conceptual framework. *Thunderbird International Business Review*. <https://doi.org/10.1002/tie.22025>
- Anggriawan, R., & Hamsin, M. (2026). Deconstructing the digital veil: criminal liability and ethical failures in AI-driven Sharia credit scoring systems in Indonesia. *Law, Ethics & Technology*. <https://doi.org/10.55092/let20260004>
- Arsyad, I., Kharisma, D. B., & Wiwoho, J. (2025). Artificial intelligence and Islamic finance industry: problems and oversight. *International Journal of Law and Management*. <https://doi.org/10.1108/ijlma-07-2024-0236>
- Auda, J. (2008). *Maqasid al-Shariah as Philosophy of Islamic Law: A Systems Approach*. International Institute of Islamic Thought.
- Ayub, M., Hassan, M., & Saba, I. (2023). Revisiting the paradigm of Shari'ah governance of Islamic financial institutions. *Journal of Islamic Accounting and Business Research*. <https://doi.org/10.1108/jiabr-04-2022-0110>
- Azwar, A., Usman, A., & Abdullah, M. (2025). Artificial intelligence and Islamic finance: A Scopus-based literature mapping through a PRISMA protocol. *Journal of Islamic Law on Digital Economy and Business*. <https://doi.org/10.20885/jildeb.vol1.iss1.art5>

- Baharom, Z. (2025). Artificial Intelligence and Internal Audit Effectiveness in Islamic Financial Institutions: A Conceptual Paper. *International Journal of Research and Innovation in Social Science*. <https://doi.org/10.47772/ijriss.2025.914mg00195>
- Billah, M., & Zahid, Z. (2026). Artificial Intelligence in Islamic Fatwa and Shariah Advisory: Opportunities, Limitations, and the Imperative of Human-in-the-Loop Shariah Governance. *International Journal of Innovative Inventions in Social Science and Humanities*. <https://doi.org/10.58806/ijiissh.2026.v3i1n12>
- Chapra, M. U. (2018). *The Islamic Vision of Development in the Light of Maqasid al-Shariah*. Islamic Research and Training Institute.
- Elmahjub, E. (2023). Artificial Intelligence (AI) in Islamic Ethics: Towards Pluralist Ethical Benchmarking for AI. *Philosophy & Technology*, 36, 1–24. <https://doi.org/10.1007/s13347-023-00668-x>
- Gustanto, E. S., Nugroho, A. P., & Yahya, M. A. (2025). Risk Management Strategy In Islamic Banks: An Artificial Intelligence Approach. *Journal of Principles Management and Business*. <https://doi.org/10.55657/jpmb.v4i01.227>
- Harun, M. S., Aziz, M. R. A., Nazri, M., Ananda, R. F., & Rahmadhani, S. (2024). Artificial Intelligence Implications In Islamic Banks: Potential And Challenges. *IBAF E-Proceedings*. <https://doi.org/10.33102/vvbgcv35>
- Hidayati, W., & Cynthia, E. P. (2024). Evaluating the Role of Maqāṣid al-Sharī‘ah in Formulating Ethical Frameworks for Artificial Intelligence in Islamic Jurisprudence. *Harmony Philosophy: International Journal of Islamic Religious Studies and Sharia*. <https://doi.org/10.70062/harmonyphilosophy.v1i2.323>
- Iqbal, M., Sukanto, F. A. M. S. B., Norizan, S. N. B., Mahmood, S., Fatima, A., & Hashmi, F. (2025). AI in Islamic finance: Global trends, ethical implications, and bibliometric insights. *Review of Islamic Social Finance and Entrepreneurship*. <https://doi.org/10.20885/risfe.vol4.iss1.art6>
- Islamic Financial Services Board. (2023). *Islamic Financial Services Industry Stability Report 2023*. IFSB.
- Lasmiatun, K., & Manteghi, N. (2025). The Impact of Artificial Intelligence (AI) Implementation on Islamic Financial Literacy and Global Economic Changes in the Banking World. *Journal of Islamic Economics and Business Ethics*. <https://doi.org/10.24235/jiesbi.v2i1.253>
- Lubis, M. (2024). Integrating Artificial Intelligence and Maqāṣid al-Syarī‘ah: Revolutionizing Indonesia’s Sharia Online Trading System. *Computer Fraud and Security*. <https://doi.org/10.52710/cfs.238>
- Maiga, M. H. (2025). Achieving Maqāṣid al-Sharī‘ah through Artificial Intelligence. *Mazahibuna*. <https://doi.org/10.24252/mazahibuna.vi.55038>
- Mbaidin, H., Sbace, N. Q., AlMubydeen, I. O., Chindo, U. M., & Alomari, K. M. (2023). The role of AI integration and governance standards: Enhancing financial reporting quality in Islamic banking. *Decision Science Letters*. <https://doi.org/10.5267/j.dsl.2023.12.001>
- Mergaliyev, A., Asutay, M., Avdukic, A., & Karbhari, Y. (2019). Higher Ethical Objective (Maqasid al-Shari’ah) Augmented Framework for Islamic Banks: Assessing Ethical Performance and Exploring Its Determinants. *Journal of Business Ethics*, 170, 797–834. <https://doi.org/10.1007/s10551-019-04331-4>
- Mustapha, R., Karim, S. R. A., Ibrahim, N., Burhan, N. M., & Hayati, N. (2025). Islamic Perspectives On Ai And Cybersecurity: Developing Ethical Frameworks For Autonomous Security Systems. *International Journal of Law, Government and Communication*. <https://doi.org/10.35631/ijlgc.1040041>
- Ogeawuchi, J. C., Sharma, A., Adekunle, B. I., Abayomi, A. A., & Onifade, O. (2024). Ethical Frameworks for AI Deployment in Financial Decision-Making: Balancing Profitability and Social Responsibility. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*. <https://doi.org/10.32628/cseit24102141>

- Omar, M. N., & Sa'ad, A. (2024). Exploring the Potential of Artificial Neural Network in Shari'ah Decision-making for Digital Banking: A Literature Review. *TAFHIM: IKIM Journal of Islam and the Contemporary World*. <https://doi.org/10.56389/tafhim.vol17no2.5>
- Raquib, A., Channa, B., Zubair, T., & Qadir, J. (2022). Islamic virtue-based ethics for artificial intelligence. *Discover Artificial Intelligence*, 2. <https://doi.org/10.1007/s44163-022-00028-2>
- Ridzuan, N. N., Masri, M., Anshari, M., Fitriyani, N. L., & Syafrudin, M. (2024). AI in the Financial Sector: The Line between Innovation, Regulation and Ethical Responsibility. *Inf.*, 15, 432. <https://doi.org/10.3390/info15080432>
- Sain, Z., & Adinugraha, H. (2025). Artificial Intelligence and Islamic Finance: Enhancing Sharia Compliance and Social Impact in Banking 4.0. *Journal of Business Management and Islamic Banking*. <https://doi.org/10.14421/jbmib.2025.0401-03>
- Shalhoob, H. (2025). The role of AI in enhancing shariah compliance: Efficiency and transparency in Islamic finance. *Journal of Infrastructure, Policy and Development*. <https://doi.org/10.24294/jipd11239>
- Sidik, H. M., Santosa, W., Arafah, W., Usman, B., Gunawan, I., Mulyadi, M., & Khan, M. A. (2026). The Convergence Of Artificial Intelligence, Bayesian Learning, And Sharia Principles: A Systematic Review Of Islamic Financial Analytics Andentrepreneurial Innovation. *Jurnal Manajemen Dan Kewirausahaan*. <https://doi.org/10.9744/jmk.28.1.49-64>
- Smolo, E. (2026). Islamic Finance in the Digital Age: Fintech as a Civilizational Tool. *Religions*. <https://doi.org/10.3390/rel17020218>
- Suardi, D., Azwar, M., Simatupang, A. D., Septi, I., Komariyah, O., & Tidjani, S. (2025). A Maqasid-Based Governance Framework for Islamic Banking: Integrating VBI, ESG, and Ethical Digital Transformation. *AL IQTISHADIAH JURNAL EKONOMI SYARIAH DAN HUKUM EKONOMI SYARIAH*. <https://doi.org/10.31602/iqt.v11i2.21297>
- Subli, M., Syamsuddin, D., Amin, A. R. M., Rahim, W., & Sulaiman, S. (2025). Green Investment in Contemporary Islamic Perspective: A Maqasid al-Syari'ah Analysis of the Mining Industry in Morowali. *MILRev: Metro Islamic Law Review*. <https://doi.org/10.32332/milrev.v4i1.10269>
- Syakirunni'am, L., Sain, Z. H., Marier, S. M., & Jamil, S. (2025). Artificial Intelligence and the Transformation of Digital Services in Islamic Banking: A Case Study of Bank Syariah Indonesia. *LogicLink*. <https://doi.org/10.28918/logiclink.v2i1.10707>
- Zahid, Z., Hossain, M. E., & Mohammed, B. A. K. (2025). Leveraging Green Ai For Sustainable Resource Management In Islamic Finance: Bridging The Gap Between Ethical Finance And Environmental Sustainability. *International Journal on Cybernetics & Informatics*. <https://doi.org/10.5121/ijci.2025.140507>