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DIGITAL IJTIHAD QAWAʿIDI: A MAQAṢIDIC EPISTEMOLOGY FOR BLOCKCHAIN-BASED ISLAMIC LEGAL SYSTEMS

Achmad Nursobah

Institut Agama Islam An-Nawawi Purworejo, Indonesia

Email: cahayapagi87@gmail.com

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ABSTRACT

This study proposes a novel epistemological framework in Islamic legal theory termed Digital Ijtihad Qawaʿidi, an integrative model that embeds qawaʿid fiqhiyah (legal maxims) and maqaṣid al-shariʿah (higher objectives of Islamic law) into blockchain-based legal architectures. Employing a qualitative–philosophical approach within a transdisciplinary framework, the research synthesizes uṣul al-fiqh epistemology, digital ethics, and the philosophy of technology. The study argues that the rise of autonomous algorithmic systems necessitates a paradigmatic shift from fiqh al-naṣṣ (text-centered legal reasoning) toward fiqh al-niẓam al-raqami (digital system–based legal reasoning). The proposed model consists of three interrelated stages: takyif al-waqiʿ al-raqami (analysis of digital structures), tanzil al-qawaʿid ʿala al-waqiʿ (operationalization of legal maxims within system functions), and taḥqiq al-maqaṣid al-raqamiyyah (evaluation of maqaṣid-oriented outcomes). Through conceptual mapping and illustrative cases namely SukukChain, ZakatChain, and Halal Chain this study demonstrates that qawaʿid fiqhiyah can be translated into algorithmic norms capable of ensuring legal certainty (yaqin), justice (ʿadl), and trust (amanah). This research contributes to the epistemological reconstruction of Islamic law in the context of non-human decision-making systems and establishes a maqaṣidic foundation for Shariah-oriented blockchain governance. Accordingly, Islamic law is repositioned not merely as a passive observer of technological change, but as an active normative framework shaping global digital ethics.

Keywords: *Digital Ijtihad; Qawa'id fiqhiyah; Maqaṣid al-Shariʿah; Blockchain Governance*

INTRODUCTION

The global digital transformation of the Fourth Industrial Revolution has triggered a fundamental shift in the way humans build trust, make contracts, and manage authority. One of the most transformative innovations in this context is blockchain technology, which serves as a decentralised trust infrastructure by replacing the role of human intermediaries and conventional institutions with algorithmic consensus mechanisms and cryptograph.[1] Through a *distributed ledger* system, blockchain brings data immutability, transparency, accountability, and collective verification

[1] Fadi Ghosn et al., "Tokenomics and Digital Economy in China: Analyzing the Influence of Blockchain Technology Integration on Traditional Business Models," *Economies* 13, no. 7 (July 2, 2025): 1–14, .

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unprecedented in the history of the financial system (Fahdil et al., 2024).[2] In the context of the Sharia digital economy, the potential is huge. *The Global Islamic Fintech Report (2022)* estimates that the value of the Islamic fintech market will reach USD 179 billion by 2026.[3] However, behind this optimism lie serious epistemological problems. When *niyyah* (intention) and *amānah* (moral responsibility) are represented in the form of algorithmic code, a fundamental question arises: Who is the subject of the law (*mukallaf*) in the view of sharia? How does Islamic law assess autonomous actions produced by non-human systems? These questions show a conceptual tension between the anthropocentric logic of Islamic law and the new algorithmic reality.

Various cutting-edge research in the field of Islamic fintech has indeed sought to integrate Islamic values with digital technology, but the approach is still technocratic and oriented towards formal compliance. For example, Zulkepli, Mohamad, and Azzuhri (2021) and Khamal (2021) highlight the potential *of smart contracts* in improving the efficiency of *tawarruq transactions* and legal compliance;[4] Rabbani et al. (2025) and Kismawadi et al. (2025) propose *the Mudaraba fintech* model and halal asset tokenisation to expand financial inclusion;[5] while Soualhi and Hasan (2024) added the dimension of *maqāṣid* so that digital innovation remains based on Islamic moral values.[6] In the realm of governance, Aisah et al. (2025), Zainuddin et al. (2025), and Kunhibava & Muneeza (2024) developed a blockchain-based audit system for the management of zakat and waqf.[7] Similarly, Mohiuddin & Abolola (2025) and Wu et al. (2025) designed a ledger and *smart contract audit system* for Islamic social institutions.[8] Overall, these studies illustrate the *state of the art* of digital Islamic finance that focuses on efficiency, transparency, and Sharia compliance.

Nevertheless, there are still significant philosophical and methodological gaps. Almost all existing studies treat blockchain only as an instrument of regulatory efficiency, rather than as an epistemic entity that challenges the way Islamic law understands actions, intentions, and

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[2] Fahdil et al., "Blockchain Technology in Accounting Transforming Financial Reporting and Auditing," *Journal of Ecohumanism* 3, no. 5 (September 4, 2024): 216–33, https://doi.org/10.62754/joe.v3i5.3903.

[3] Reem El Shafaki, "The Global Islamic Fintech (GIFT) Report 2022" (New York City, 2022), https://www.dinarstandard.com/post/global-islamic-fintech-report-2022.

[4] Azzuhri, "Smart Contract Concept and Its Potential to Tawarruq-Based Financing Transactions," *Jurnal Fiqh* 18, no. 2 (December 29, 2021): 345–76,

[5] Rabbani et al., "Smart Contract-Based Islamic Fintech Model for Mudaraba Financing," *International Journal of Business Innovation and Research* 36, no. 2 (2025): 248–62,

[6] Saleh, "Smart Contracts and the Prospects for Their Application in Social Banking: A Maqasid Jurisprudential Vision," *Malaysian Journal of Syariah and Law* 12, no. 2 (August 31, 2024): 490–510,.

[7] Zainuddin et al., "Enhancing Transparency and Accountability in Waqf Management Through Digital Accounting Practices," in *Integrating Artificial Intelligence, Security for Environmental and Business Sustainability* (Cham: Springer, 2025), 251–57, https://doi.org/10.1007/978-3-031-91424-9_23;

[8] Hua Ping Wu et al., "Revolutionizing Internal Auditing: Harnessing the Power of Blockchain," *Enterprise Information Systems* 19, no. 1–2 (February 2, 2025), https://doi.org/10.1080/17517575.2024.2448003.

responsibilities. To date, there is no conceptual framework that systematically links *qawa'id fiqhiyah* (universal legal principles) to the algorithmic structure of blockchain or formulates it as a normative algorithm that can govern authentication and accountability in the digital ecosystem. This gap forms a real research gap, namely the lack of *a uṣūliyyah* foundation for digital governance in the Islamic economy.

Within this framework, *qawāʿid fiqhiyah* must be repositioned not merely as derivative legal guidelines but as meta-normative principles capable of shaping the epistemic design of digital systems. Universal maxims such as *al-umūr bi maqāṣidihā*, *al-yaqīn lā yazūl bi al-shakk*, *al-ḍarar yuzāl*, *al-mashaqqah tajlibu al-taysīr*, and *al-ʿādah muḥakkamah* constitute a moral architecture that integrates sharia values with digital logic; classical scholars including al-Zarqā, al-Suyūṭī, and Ibn Nujaym have long affirmed these maxims as the logical framework of Islamic law. In the context of blockchain, these principles can be reformulated as algorithmic ethics, namely moral values that can be computationally embedded within digital systems, thereby transforming *maqāṣid al-sharīʿah* from an abstract normative horizon into measurable outcome variables such as the protection of property (*ḥifẓ al-māl*), honour (*ḥifẓ al-ʿird*), justice (*ʿadl*), trust, and public welfare (*maṣlaḥah ʿāmmah*). At the global level, this approach resonates with contemporary digital ethics discourses, such as Floridi's Information Ethics, which treats data integrity as a moral concern, Kamali's Islamic Digital Governance emphasizing normative governance and procedural justice, and Auda's Maqāṣidic Systems Ethics, which evaluates algorithmic systems based on the alignment between human intention, benefit, and ethical values.[9]

Despite their significant contributions to the discourse on digital ethics, existing approaches largely remain confined to normative and evaluative analyses. They have yet to articulate how Islamic law can function *internally* within algorithmic systems as an operational form of computational normative logic. Consequently, Islamic law is often positioned merely as an external ethical framework, rather than as an epistemic structure capable of governing autonomous digital processes. This epistemic limitation becomes increasingly problematic in the context of blockchain-based systems, where legal reasoning, accountability, and trust are embedded directly into code.

Positioned within this epistemic gap, this study seeks to construct an integrative framework that bridges *qawāʿid fiqhiyah* and blockchain architecture in order to formulate a model of digital Islamic law that is both operational and maqāṣid-oriented. It advances the argument that Islamic legal maxims

[9] Mohammad Hashim Kamali, "Ah and Its Higher Objectives (Maqāṣid)," no. October 2011 (n.d.): 3–6; Mohammad Hashim Kamali, *The Dignity of Man: An Islamic Perspective* (Cambridge: Islamic Texts Society, 2002).

should not be confined to post hoc moral evaluation, but can function as foundational logics governing authentication, accountability, and ethical automation within blockchain-based Islamic legal and economic systems. The principal novelty of this research lies in the formulation of the Digital Ijtihād Qawāʿidī Model, a theoretical construct that translates classical *qawāʿid fiqhiyah* into algorithmic governance principles, reconceptualizing them as ethical algorithms that regulate certainty (*yaqīn*), intention (*qaṣd*), justice (ʿ*adl*), and legal responsibility. Through the introduction of meta-normative reasoning, defined as the dynamic interaction between classical Islamic legal logic and digital ontology, this study lays the epistemological foundation for *fiqh al-niẓām al-raqamī*, namely the jurisprudence of digital systems in the algorithmic era.

Accordingly, this article seeks to reposition Islamic law from a reactive moral discourse to an active form of regulatory intelligence capable of guiding autonomous technological systems. By integrating *uṣūl fiqh* reasoning with blockchain ontology, this research not only enriches *maqāṣid*-based contemporary fiqh, but also contributes to the development of a transparent, just, and benefit-oriented Islamic digital economy. In the long term, it advances a new paradigm of digital jurisprudence in which Islamic law operates not only as a framework for human ethics, but also as a normative intelligence governing algorithmic decision-making.

RESEARCH METHOD

This study employs a qualitative–philosophical approach within a transdisciplinary framework, integrating *uṣūl al-fiqh*, philosophy of technology, and Islamic digital economics. The research aims to construct a normative–conceptual model explaining how *qawāʿid fiqhiyah* can function as an internal legal logic within blockchain-based systems, positioning blockchain not merely as a technical instrument but as an epistemic structure subject to Shariah-based interpretation[10]. Methodologically, the study adopts ijtihād istidlālī taʿlīlī, emphasizing purposive and rational legal reasoning that allows *qawāʿid fiqhiyah* to operate as meta-norms applicable to non-human, algorithmic systems without losing their theological and moral foundations.[11]

The research proceeds through four integrated stages: (1) hermeneutic interpretation of classical and contemporary *uṣūl al-fiqh* literature to extract the epistemological function of *qawāʿid fiqhiyah*; (2) analytical mapping of core blockchain features—immutability, consensus, traceability, and smart contracts against Shariah legal principles; (3) construction of the Digital Ijtihād Qawāʿidī Model,

[10] John W. Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 3rd ed. (Thousand Oaks, CA: Sage Publications, 2013).

[11] Jonathan Grix, *The Foundations of Research* (Basingstoke: Palgrave Macmillan, 2010).

linking *qawāʿid fiqhiyah*, blockchain architecture, and *maqāṣid al-sharīʿah*; and (4) conceptual validation through literature triangulation and heuristic case illustrations of SukukChain, ZakatChain, and HalalChain.[12]

Data analysis is conducted through Islamic legal hermeneutics and construction mapping, assessing the coherence of the proposed model with *maqāṣidic* values—particularly *ḥifẓ al-māl*, *ʿadl*, and *amānah*. To strengthen epistemic positioning, the model is comparatively situated within contemporary digital ethical frameworks, including Information Ethics and Islamic Digital Governance, demonstrating the capacity of the *qawāʿid–maqāṣid* paradigm to govern algorithmic systems ethically and systematically.

RESULTS AND DISCUSSION

Ontological Shift: Blockchain as Legal Subject

The emergence of blockchain as an autonomous and decentralized system signifies a fundamental epistemological shift in Islamic law from an anthropocentric *fiqh insānī* toward *fiqh niẓām raqamī*, a jurisprudence that engages with non-human systems. Classical Islamic legal theory presupposes that all legal agency (*al-maḥkūm ʿalayh*) is centered on human intention, will, and moral responsibility. Blockchain, however, operates through algorithmic consensus and automatic execution, whereby legal outcomes are generated not by personal authority but by procedural logic embedded in code. This transformation requires an expansion of *uṣūl al-fiqh* so that ijtihād no longer focuses solely on human acts (*fiʿl al-ʿāqil*), but also critically interprets systemic behavior (*fiʿl al-niẓām*) as a new locus of legal meaning. In this sense, ijtihād evolves into a form of *taʿlīlī* reasoning that locates legal values within digital architectures.[13]

Within this framework, the classical concept of *dhimmah* undergoes a functional reconfiguration into what may be termed *dhimmah raqmiyyah* (digital legal capacity). Although blockchain systems lack psychological intention (*niyyah*) and moral consciousness, they consistently enact ethical mandates programmed by human agents, such as transparency, trust, and protection of rights. Hermeneutically, such systems may be classified as a form of *dhimmah niyābah*, a representative legal capacity that operationalizes human ethical will in algorithmic form. From a *maqāṣid al-sharīʿah* perspective, this digital capacity fulfills core objectives of Islamic law,

[12] Sugiyono, *Metode Penelitian Kualitatif* (Bandung: Alfabeta, 2017).

[13] Nur Aisah, Siara Zazkia Juliana Putri, and Muhammad Riza Hafizi, "Blockchain Technology Innovation as an Optimization of Transaction Security in Islamic Financial Institutions.

particularly justice (*ʿadl*), trust (*amānah*), and the safeguarding of wealth (*ḥifẓ al-māl*), provided that it functions to preserve rights and promote public benefit (*maṣlaḥah*).

This ontological shift also necessitates a reconceptualization of contractual relations through the notion of *ʿaqd algorithmī*. Smart contracts represent legally binding agreements executed automatically by code once predefined conditions are met, without ongoing human intervention. From the standpoint of *uṣūl al-fiqh*, such contracts remain legally valid insofar as their structure and purpose conform to the *maqāṣid* and fundamental prohibitions of Islamic law, including the avoidance of *ribā*, *gharar*, and *tadlīs*.[14] The principle *al-umūr bi maqāṣidihā* thus enables *niyyah sharʿiyyah* to be embedded within algorithmic logic, transforming intention into a verifiable systemic function rather than a purely subjective state.

Furthermore, the blockchain ledger introduces a novel form of legal evidence that can be conceptualized as *ḥujjah ʿurfiyyah jadīdah* (new customary proof). Its immutability, distributed verification, and auditability establish a collective evidentiary mechanism recognized within contemporary digital custom (*ʿurf maʿmūl bihī*). Supported by the maxim *al-yaqīn lā yazūl bi al-shakk*, the ledger embodies legal certainty and serves as a concrete instrument for realizing justice, honesty, and asset protection. In this regard, blockchain functions as an epistemic infrastructure through which Islamic legal values are materially instantiated and continuously verifiable.

Taken together, these developments affirm the emergence of *dhimmah raqmiyyah* as a form of digital legal capacity that enables Islamic law to operate meaningfully within algorithmic environments. Rather than eroding the identity of Islamic jurisprudence, technological transformation provides a new domain for its normative expansion. Consequently, the subsequent analytical stage involves *tanzīl al-qawāʿid ʿalā al-wāqiʿ*, namely the systematic translation of universal *qawāʿid fiqhiyah* into blockchain parameters that govern authentication, accountability, and ethical automation within digital Islamic legal systems.

Mapping Qawāʿid Fiqhiyah to Blockchain Parameters

This stage of the research translates *qawāʿid fiqhiyah* from normative legal principles into operational parameters within blockchain architecture. Building on the prior ontological shift that recognizes blockchain as possessing *dhimmah raqmiyyah* a representative digital legal capacity this phase demonstrates how Islamic legal values can be embedded within algorithmic systems. Epistemologically, *qawāʿid fiqhiyah* function as an intermediary between revealed texts (*naṣṣ*) and

[14] Munawar Munawar, "The Legality of Smart Contract in the Perspectives of Indonesian Law and Islamic Law," *Al-Istinbath : Jurnal Hukum Islam* 7, no. 1 (May 30, 2022): 269–86, https://doi.org/10.29240/jhi.v7i1.4140.

empirical reality (*wāqiʿ*), enabling the transformation of textual norms into universal, adaptable guidelines. Within blockchain systems, these maxims operate as ethical logics that orient code behavior toward *maqāṣid al-sharīʿah*.[15] Through an *ijtihād istidlālī taʿlīlī* approach, this study maps causal relationships between legal maxims and blockchain features, positioning *qawāʿid* as normative regulators of legal validity, ethical governance, and maqāṣid-oriented systemic justice.

The first foundational maxim, *al-yaqīn lā yazūl bi al-shakk* (certainty is not removed by doubt), is reflected in blockchain's immutability and finality. Once data are validated through consensus, they cannot be altered unilaterally, generating what may be termed *digital yaqīn sharʿī*. This system-based legal certainty functions as a new form of *ḥujjah ʿurfiyyah jadīdah*, ensuring transaction authenticity and protecting rights. From a *maqāṣid* perspective, this directly serves *ḥifẓ al-māl* by preserving asset integrity and preventing manipulation or speculative doubt.

The maxim *al-ḍarar yuzāl* (harm must be eliminated) is operationalized through blockchain security mechanisms, including encryption, access control, and automated auditing. These features are not merely technical safeguards but constitute sharia-compliant protections against fraud, data breaches, and asset loss. By embedding harm prevention within system design, blockchain actualizes the maqāṣid of *ḥifẓ al-māl* and *ḥifẓ al-ʿird*, translating ethical mandates into enforceable digital norms that uphold justice and prevent *mafsadah*.[16]

The principle *al-umūr bi maqāṣidihā* (actions are judged by intentions) is realized through smart contracts that encode contractual objectives and compliance conditions prior to execution. In this framework, intention (*qaṣd sharʿī*) is transformed into programmable logic, ensuring that transactions operate only when aligned with sharia principles and free from *ribā*, *gharar*, and *tadlīs*. This represents a shift from purely internal intention to system-encoded intentionality, allowing moral purpose to be verified, audited, and enforced algorithmically.

The maxim *al-ʿādah muḥakkamah* (custom is authoritative) finds expression in blockchain consensus mechanisms such as Proof of Stake or Proof of Authority. These systems reflect *ʿurf jamāʿī raqamī*, a form of digital collective custom shaped by community participation. Analogous to *ijmāʿ ʿurfī* in classical fiqh, algorithmic consensus enables contextual adaptation while preserving sharia

[15] Ghassan Adhab Atiyah et al., "Legitimacy of Smart Contracts from the Perspective of Islamic Law: A Case Study of Blockchain Transactions," *Al-Istinbath: Jurnal Hukum Islam* 9, no. 1 (May 30, 2024): 155, https://doi.org/10.29240/jhi.v9i1.8726

[16] Mesi Herawati, "Analyzing the Islamic Securities Crowdfunding System through the Lens of Maqashid Sharia," *Jurnal Ilmiah Mizani: Wacana Hukum, Ekonomi Dan Keagamaan* 11, no. 2 (October 30, 2024): 464, https://doi.org/10.29300/mzn.v11i2.4785.

universality, thereby promoting *maṣlaḥah ʿāmmah* through transparent and participatory governance.[17]

Finally, *al-mashaqqah tajlibu al-taysīr* (hardship brings ease) is implemented through user-friendly interfaces and interoperable systems that facilitate access to Islamic digital finance. Features such as automated zakat calculation and halal asset tracking reduce complexity and expand inclusion, embodying *taysīr* as a form of *raḥmah muʿāmalah*. This ensures that technological advancement advances social justice (*ʿadl ijtimāʿī*) and broad participation within the digital Islamic legal ecosystem.

Table 1. Mapping of Qawa'id fiqhiyah to Blockchain Parameters

No	Qawa'id fiqhiyah	Blockchain Feature	Shariah Function	*Maqāṣid* al-Sharīʿah
1	*Al-yaqīn lā yazūl bi al-shakk*	Immutability & Finality Layer	Legal certainty	*Ḥifẓ al-māl*
2	*Al-ḍarar yuzāl*	Security Protocol & Encryption	Prevention of harm	*Ḥifẓ al-māl, Ḥifẓ al-ʿird*
3	*Al-umūr bi maqāṣidihā*	Smart Contract (Intention Flag)	Intention verification	*ʿAdl, Amānah*
4	*Al-ʿādah muḥakkamah*	Consensus Mechanism	Contextual adaptation	*Maṣlaḥah ʿāmmah*
5	*Al-mashaqqah tajlibu al-taysīr*	User-Friendly Access Layer	Accessibility & facilitation	*Maṣlaḥah ʿāmmah*

From this overall mapping, it can be concluded that *qawa'id fiqhiyah* has the epistemic ability to transform into the normative language of the digital system. Every rule that was originally abstract is now articulated into a moral logic embedded in the code. Through the integration of *the values of yaqīn*, *ʿadl*, *taysīr*, *ʿurf*, and *rafʿ al-ḍarar,* the sharia blockchain realises an authentic and *maqāṣid-based digital justice structure*. Technology no longer stands outside Islamic law, but becomes a vehicle for systemic actualisation of its values. Thus, Islamic law finds a new space in the digital system as an algorithmic moral and ethical architecture, where each layer of the system functions to maintain trust, justice, and benefits in the global blockchain ecosystem based on *maqāṣid al-sharīʿah*.

Digital *Ijtihād* and *Maqāṣid* Outcomes

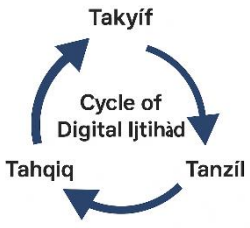
Since its formative period, *ijtihād* has functioned as the rational engine of Islamic law, enabling adaptation to changing realities without undermining the authority of revelation; however, the digital age introduces an unprecedented ontological challenge in which legal agency extends beyond human actors to autonomous algorithmic systems. This shift requires *ijtihād* to move from interpreting human conduct to examining systemic behavior and non-human logic. In response, this study proposes the Digital Ijtihād Qawāʿidī Model, an epistemological framework grounded in *qawāʿid*

[17] Othman, et al, "Digital Frontiers in Islamic Finance Advancing SDGs Through Maqasid and Maslahah," in *Digitalization of Islamic Finance*, 2024, 1–26, https://doi.org/10.4018/979-8-3693-5653-1.ch001

fiqhiyah that evaluates and guides digital systems, particularly blockchain so that they operate in alignment with *maqāṣid al-sharīʿah*. By treating technology as an epistemic structure with legal and moral implications rather than a neutral instrument, this model advances *ijtihād* beyond descriptive rulings toward structural interpretation of digital architectures, enabling values such as justice (*ʿadl*), trust (*amānah*), and protection of property (*ḥifẓ al-māl*) to be internalized within algorithmic systems.

The Digital Ijtihād Qawāʿidī Model developed in this study operates through three interrelated epistemic stages. *First*, *takyīf al-wāqiʿ al-raqamī* conceptualizes blockchain as a new legal object by analysing its ontological and technical structure, distinguishing between instrumental elements (*wasīlah*) and normative objectives (*maqṣad*), and interpreting components such as smart contracts and consensus mechanisms as expressions of legal intent and digital collective custom (*ʿurf jamāʿī raqmī*). *Second*, *tanzīl al-qawāʿid ʿalā al-wāqiʿ* translates *qawāʿid fiqhiyah* into algorithmic parameters, positioning them as meta-norms that govern system behaviour, certainty through immutability (*al-yaqīn lā yazūl bi al-shakk*), harm prevention via security protocols (*al-ḍarar yuzāl*), purposive transactions through intention-based smart contracts (*al-umūr bi maqāṣidihā*), contextual legitimacy in consensus (*al-ʿādah muḥakkamah*), and accessibility through facilitative design (*al-mashaqqah tajlibu al-taysīr*). *Third*, *taḥqīq al-maqāṣid al-raqamiyyah* evaluates substantive outcomes by assessing ethical consistency in achieving *ḥifẓ al-māl*, justice (*ʿadl*), trust (*amānah*), and public welfare (*maṣlaḥah ʿāmmah*), thereby redefining maqāṣid as ethical performance indicators that shift Islamic legal assessment from formal compliance to substantive moral realization within algorithmic systems.[18]

Cycle of Digital Ijtihād

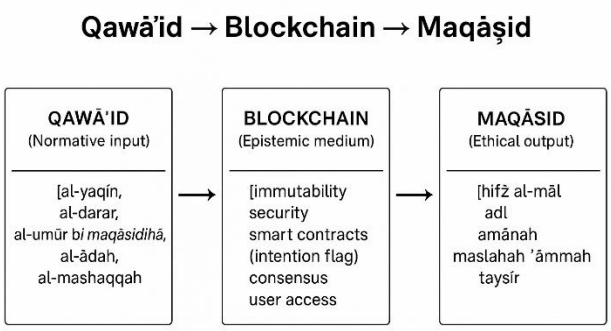


The Qawāʿid–Blockchain–Maqāṣid Integration Model constitutes an epistemic framework in which *qawāʿid fiqhiyah* function as normative inputs that provide ethical direction and legal structure,

[18] Xiaohang Ma, Yanxue Li, and Zhanyong Wu, "Design and Implementation of Digital Currency Transaction Security Mechanism Based on Block Chain," *Informatica* 49, no. 5 (January 2025): 109–21, https://doi.org/10.31449/inf.v49i5.7101.

blockchain operates as an epistemic and technical medium that mechanically implements these values through code and consensus, and *maqāṣid al-sharīʿah* serve as the axiological benchmark for evaluating whether the system substantively realises justice, honesty, and public benefit. Through this cyclical process, sharia values inform system design, the system autonomously executes those values, and its outcomes are assessed against maqāṣid, representing a process of *taḥwīl al-qiyam ilā al-niẓām*—the transformation of values into a functional digital legal system.

Model Integrasi "Qawāʿid–Blockchain–*Maqāṣid*"



The application of this model to several global sharia blockchain projects, such as *SukukChain Malaysia,*[19] *ZakatChain Bahrain*,[20] and *HalalChain UAE*,[21] shows the real impact of the integration of ethical-maqāṣidik in the digital system. *SukukChain* guarantees legal certainty of transactions based on *al-yaqīn lā yazūl bi al-shakk*, *ZakatChain* secures the funds of the ummah through automated audits based on *al-ḍarar yuzāl*, while *HalalChain* creates a global halal certification system that serves as *ḥujjah ʿurfiyyah jadīdah* for product authentication.

These cases show that blockchain not only improves efficiency and security but also upholds Islamic moral values in digital practice. Honesty (*amānah*), justice (*ʿadl*), and openness (*transparency*) are no longer just ethical, but institutionalised in an algorithmic system. Thus, *the digital ijtihād qawāʿidī* model proves that the integration between Islamic law and technology does not threaten religious values, but rather makes *maqāṣid al-sharīʿah* the moral architecture for the global digital ecosystem.

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[19] Nadhirah Sakinah Sidik and Azlin Alisa Ahmad, "Sukuk Blockchain: An Innovation—Opportunities and Challenges," in *Islamic Finance. Contributions to Management Science*, 2024, 273–82, https://doi.org/10.1007/978-3-031-48770-5_22;.

[20] Shahnawaz Khan, "A Blockchain Based Decentralized Zakat Collection and Distribution Platform," in *2023 7th International Conference on Software and E-Business* (New York, NY, USA: ACM, 2023), 9–13, https://doi.org/10.1145/3641067.3641071.

[21] Muhammad Muntasir Yakubu et al., "HalalChain: A Decentralized Blockchain Model for Enhanced Data Integrity, Real-Time Compliance, and Automated Verification in Halal Food Supply Chain," *Results in Engineering* 27 (September 2025): 106591.

Epistemological Reconstruction

Digital transformation has given birth to fundamental changes in the epistemology of Islamic law. If for centuries Islamic law has been based on the *paradigm of fiqh al-naṣ,* which is a deductive reading of normative texts and then developed into *fiqh al-wāqiʿ*, which interprets law in a social context, then the digital era demands the birth of a new paradigm: *fiqh al-niẓām al-raqamī*, i.e. an approach to Islamic law that understands the digital system as an epistemic and ethical entity. In this new paradigm, sharia texts no longer deal directly with the human individual, but with systemic structures that work autonomously through algorithmic logic. Blockchain, artificial intelligence, and smart contracts create an "*artificial legal reality*" that cannot be explained by traditional fiqh devices that know only human actors (*al-maḥkūm ʿalaih*). Thus, *fiqh al-niẓām al-raqamī* exists as an evolutionary continuation of the epistemology of Islamic law, not secularisation, but the reintegration *of maqāṣid* into the architecture of the digital system.

This paradigm makes technology not a threat to sharia, but rather a new platform for the manifestation of divine values, where justice and trust are not only created by humans, but also by systems designed based on *maqāṣid*. Thus, Islamic law remains relevant in the algorithmic ecosystem, becoming a value system that ensures justice and moral responsibility in an increasingly automated world.

Within the framework of this paradigm shift, *qawa'id fiqhiyah* serves as an *epistemological bridge* between legal texts and digital systems. If the text (naṣṣ) provides norms, and *the maqāṣid* sets ethical goals, then *the qawāʿid* is in charge of translating those normative values into operational logic[22] that can be implemented in the algorithm architecture. Rules such as *al-yaqīn lā yazūl bi al-shakk* are translated into data certainty parameters (*immutability*), *al-umūr bi maqāṣidihā* becomes *the intention flag* in smart contracts, while *al-ḍarar yuzāl* is manifested through *the design of risk mitigation* and *digital security algorithms*. In this way, *qawāʿid* becomes not only an ethical principle, but also *an epistemic code* that governs the behaviour of the system to remain in harmony with *maqāṣid al-sharīʿah*.

This function *of qawāʿid* is very important because it allows Islamic law to dialogue with the logic of the digital system, not just to judge it from the outside through fatwas, but to instil value within the structure of the code itself. *Qawa'id fiqhiyah* bridges the gap between the language of text

[22] Oguzhan Tan, "Naşş between Methodology and Ideology (Metodolojik ve İdeolojik Açıdan Naşş)," *Ankara Üniversitesi İlahiyat Fakültesi Dergisi* 65, no. 2 (November 30, 2024): 673–98, https://doi.org/10.33227/auifd.1496095;.

and the language of algorithms, so that Islamic law is able to transform into *programmable ethics* without losing its basic morality.

If qawāʿid serves as epistemic logic, then *maqāṣid al-sharīʿah* becomes *the axiological compass* that ensures the moral direction of the digital system. In the algorithmic world, efficiency is often the ultimate goal, but efficiency without value can give birth to inequality and dehumanisation.[23] This is where *maqāṣid* plays a role in keeping algorithmic performance on the side of justice, humanity, and responsibility.[24] The principle *of ḥifẓ al-māl* demands that blockchain systems guarantee data security and honesty; *ʿADL* affirms bias-free algorithmic justice; *amānah* demands transparency of digital contracts; and *maṣlaḥah ʿāmmah* ensures technology is used for the collective benefit, not the monopoly of elites. By using *maqāṣid* as an axiological guide, Islam assesses the success of the system not from speed or technical efficiency, but from the balance between algorithmic performance and moral justice. *Maqāṣid*, thus, restores the spiritual dimension in a world dominated by automation. He emphasised that the most Islamic system is not the fastest, but the fairest and trustworthy in serving humans.

The integration between *qawāʿid* and *maqāṣid* marked the birth of a new form of *digital fiqh uṣūl epistemology*. In it, qawāʿid regulates *how the system thinks*, while *maqāṣid* directs *why the system acts*. Both form a symbiosis between legal logic and technological architecture, creating digital systems that are not only efficient but also moral. This reconstruction shows that Islamic law is not left behind by the changing times, but rather Islamizes technology from within. Blockchain, artificial intelligence, and other algorithmic systems are no longer a challenge, but a space for the actualisation *of maqāṣid al-sharīʿah* in the global digital order. With this framework, Islamic law achieves its most progressive form of epistemological transformation: from the text that man reads to the values that are run by the system, from the law that is spoken to the law that is ethically operated by algorithmic logic.

CONCLUSION

This research shows that the integration between *qawa'id fiqhiyah* and blockchain technology represents an epistemological shift in Islamic law from the *paradigm of fiqh al-nass* to *fiqh al-nizām al-raqamī*, which is a form of Islamic law that is able to read and regulate autonomous digital systems. Blockchain serves not only as an economic instrument, but also as a value structure that demands a

[23] Mario D. Schultz et al., "Algorithms and Dehumanization: A Definition and Avoidance Model," *AI & SOCIETY* 40, no. 4 (April 11, 2025): 2191–2211, https://doi.org/10.1007/s00146-024-02123-7.

[24] Zainal Habib, "Ethics of Artificial Intelligence in Maqāṣid Al-Sharīa's Perspective," *KARSA Journal of Social and Islamic Culture* 33, no. 1 (June 19, 2025): 105–34, https://doi.org/10.19105/karsa.v33i1.19617.

new ethical and normative foundation. Within this framework, *qawa'id fiqhiyah* acts as an epistemological bridge between legal texts and algorithmic logic, while *maqāṣid al-sharīʿah* serves as an axiological compass that ensures that the efficiency of digital systems does not negate justice, trust, and benefit. The digital ijtihād qawāʿidī *model* developed in this study offers three methodological steps: *takyīf al-waqiʿ al-raqamī* (analysis of the structure of the system), *tanzīl al-qawāʿid ʿalā al-waqiʿ* (application of rules to algorithm functions), and *taḥqīq al-maqāṣid al-raqamiyyah (*evaluation of maqāṣid-based *results*). This model proves that Islamic law can be translated into technological logic without losing its moral dimension. The conceptual-empirical results of its application to platforms such as *SukukChain*, *ZakatChain*, and *HalalChain* show increased transparency (*ḥifẓ al-māl*), honesty of transactions (*ʿadl*), and public trust (*amānah*), confirming the relevance of Islamic law in global digital ethics.

Scientifically, this research contributes to three main dimensions: the renewal of the epistemology of Islamic law in the face of non-human systems; the development of a *value-system-based* ushul fiqh methodology (*qawāʿidī-maqāṣidī*); and the formulation of *the Shariah Blockchain Governance* framework, which has the potential to become a universal digital ethical model. Thus, *digital ijtihād qawāʿidī* is not only a new form of legal reasoning, but the foundation for Islamic digital civilisation that makes algorithms a means of realising justice and *maqāṣid* al-sharīʿah.

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