ISSN : 2962-9195 E-ISSN : 2963-8992

Journal of Educational Management Research
Vol. 05 No. 05 (2026) : 6893-6911-
Available online at https://serambi.org/index.php/jemr

Integrating the Philosophy of Science into Islamic Educational Administration: Toward an Integrative Transcendental Governance Model

Muhammad Nur Mahmud*, Wiwit Joko Prasetyo, Hizbul Muflihin, Sri Winarsih
Universitas Islam Negeri Prof. K.H. Saifuddin Zuhri Purwokerto, Indonesia
Email : muhammadnurmahmud99@gmail.com

DOI: https://doi.org/10.61987/jemr.v5i5.3326

Keywords:
Islamic Educational Administration; Philosophy of Science; Falsifiability; Transcendental Governance

****Corresponding Author***

ABSTRACT

Islamic educational institutions face the challenge of achieving administrative efficiency while maintaining Islamic values. However, administrative practices often rely on routine procedures, lack evidence-based decision-making, and accommodate claims that are difficult to empirically verify. This study aims to integrate the philosophy of science, particularly epistemology and Karl Popper's falsifiability criterion, into Islamic educational administration and develop an integrative governance model. A qualitative library research method was employed using a descriptive-analytical and integrative-transcendental approach. Relevant literature published between 2021 and 2026 was examined through thematic analysis, theoretical comparison, and conceptual synthesis. The findings propose the Integrative Transcendental Administration Model, comprising three interconnected layers: an epistemic framework integrating falsifiability with bayani, burhani, and irfani reasoning; four foundational principles of tawhid, amanah, 'adl, and itqan; and eight administrative domains covering core institutional management functions. Furthermore, the model generates five testable propositions supported by measurable indicators and explicit rejection criteria. The study implies that Islamic educational administration should move beyond conventional managerial efficiency toward an integrated system of scientific accountability, ethical governance, and spiritual responsibility (*muhasabah*). This model provides a conceptual foundation for developing transparent, evidence-based, and value-oriented administrative practices in the digital era. Empirical validation is recommended for future research.

Article History:
Received: August 2026; Revised: September 2026; Accepted: October 2026

Please cite this article in APA style as:
Fadhlurrahman, M. (2026). Integrating the Philosophy of Science into Islamic Educational Administration: Toward an Integrative Transcendental Governance Model. *Journal of Educational Management Research, 5*(5), 6893-6911.

This journal is an open-access article under a CC BY-NC-SA 4.0 license. © 2026, the author(s)

INTRODUCTION

Education serves as a fundamental pillar of civilization by transmitting knowledge, values, skills, and culture across generations. In Islamic contexts, education extends beyond knowledge transfer (*ta'lim*) to include moral cultivation (*ta'dib*) and the holistic development of human potential (*tarbiyah*). Therefore, Islamic educational institutions must establish governance systems that balance administrative effectiveness with Islamic values. Previous studies emphasize that educational management functions should be guided by ethical principles (Apiyani, 2024), while prophetic leadership demonstrates the interconnectedness of exemplary conduct and institutional management (Fathih et al., 2024). These perspectives indicate that administrative quality directly influences institutional accountability and educational sustainability. Consequently, developing an integrated administrative framework is important for strengthening the quality, credibility, and social responsibility of Islamic educational institutions.

Islamic educational institutions face persistent challenges in translating normative religious values into measurable administrative practices. Administrative decisions may rely heavily on established routines, limited empirical evidence, and undocumented accountability mechanisms. These conditions create difficulties in evaluating institutional performance, identifying management weaknesses, and ensuring transparent decision-making. The growing demand for digital transformation further complicates these challenges because technology alone cannot guarantee ethical and effective governance. Institutions require a systematic framework that establishes clear standards for evaluating administrative claims while maintaining their religious foundations. Without such a framework, managerial efficiency and spiritual accountability risk developing as separate institutional objectives. This situation highlights the need to reconsider how scientific reasoning and Islamic principles can jointly guide educational administration.

These challenges are reflected in discussions concerning digital transformation and institutional accountability in Islamic education. Research has examined digitalization strategies in Islamic boarding schools in Banyuwangi (Anwar et al., 2023), proposed information technology-based governance models to strengthen public accountability (Hilman & Samad, 2025), and systematically reviewed accountability practices in Islamic boarding schools (Nurkhin et al., 2024). Hadi and Sukandar (2026) further emphasize the transition from digital administration toward value-based governance. Collectively, these studies indicate that institutional transformation involves more than adopting digital technologies. It requires administrative decisions supported by verifiable evidence, ethical standards, and clearly documented responsibilities. However, the practical integration of these requirements into a unified epistemological and administrative framework remains insufficiently developed.

Previous research provides important theoretical foundations for addressing this issue. The philosophy of science offers critical standards for distinguishing scientific knowledge from unsupported claims through Popper's (2002) falsifiability criterion. Contemporary discussions continue to examine its relevance. Sepetyi (2024) identifies falsifiability as an essential requirement for empirical hypotheses, while Boudry (2022) distinguishes territorial and normative approaches to demarcation. Hirvonen and Karisto (2022) trace developments in demarcation research, and Carvalho (2022) highlights its social and political dimensions. Meanwhile, Islamic epistemology recognizes three modes of reasoning: *bayani*, *burhani*, and *irfani*, whose integration has received scholarly attention (Erdiyani & Syarif, 2025; Ramadhan, 2025; Ulviana, 2024). Nevertheless, these epistemological discussions have not been sufficiently translated into operational standards for administrative decision-making.

Research on educational administration has also established operational foundations for managing curricula, human resources, finance, infrastructure, and institutional relations within schools as open social systems. Relevant studies have examined Islamic leadership (Muflihin, 2024), operational curriculum administration (Muflihin & Novikasari, 2026), and madrasah leadership in implementing the independent curriculum to improve educational quality (Winarsih & Purnomo, 2023). At the international level, a systematic review highlights the importance of professional competencies, adaptability, and informative data in educational leadership decision-making (Mat Shoib et al., 2025). Although these studies contribute to understanding institutional management, they primarily address managerial functions, leadership practices, or epistemological principles separately. An integrated framework connecting scientific verification, Islamic epistemology, and transcendental values within administrative functions remains insufficiently articulated.

This study introduces the Integrative Transcendental Administration Model (ITAM) as a conceptual contribution to bridging this theoretical gap. Its novelty lies in establishing an epistemic gate that combines Popper's falsifiability criterion with *bayani*, *burhani*, and *irfani* reasoning before administrative claims are accepted as decision-making foundations. The model subsequently integrates four transcendental principles: *tawhid*, *amanah*, *'adl*, and *itqan*, into eight administrative domains. Unlike approaches that position scientific management and Islamic spirituality as separate dimensions, ITAM connects epistemic accountability, ethical governance, and operational performance within one coherent structure. Furthermore, the model translates its conceptual foundations into five testable propositions, supported by measurable indicators and explicit rejection criteria, providing a basis for subsequent empirical investigation.

Accordingly, this study addresses three research questions: (1) How can epistemological foundations and demarcation criteria be applied to Islamic educational administration? (2) How can universal administrative theories be integrated with the transcendental principles of *tawhid*, *amanah*, *'adl*, and *itqan*? and (3) How can the resulting framework be operationalized across eight administrative domains through empirically testable propositions? This study argues that effective Islamic educational governance requires administrative decisions to satisfy both scientific scrutiny and transcendental accountability. The proposed model contributes a conceptual foundation for developing ethical, evidence-based, measurable, and transparent institutional management. Its propositions also establish opportunities for empirical validation, allowing future research to assess the model's explanatory capacity and practical applicability.

RESEARCH METHODS

This study employed a qualitative library research design using descriptive-analytical and integrative-transcendental approaches. This design was selected because the research aims to develop a conceptual governance model through theoretical examination rather than empirical observation or hypothesis testing. The descriptive-analytical approach enabled the examination, comparison, and interpretation of relevant theories, while the integrative-transcendental approach connected scientific and managerial perspectives with Islamic principles derived from the Qur'an and Hadith. The study adopted a narrative literature review with a transparent and replicable literature selection process (Barry et al., 2022; Turnbull et al., 2023).

As a library-based study, this research did not involve a specific geographical research location because its primary focus was the analysis of academic literature and documentary sources. Therefore, no physical research site or field observation was required. Literature was obtained from academic databases, journal publishers' websites, DOI databases, Garuda, and university repositories. These sources were selected based on their academic relevance, accessibility, and bibliographic traceability. Document analysis provided the methodological foundation for examining theoretical perspectives, institutional concepts, and educational governance principles (Morgan, 2022; Sankofa, 2023).

Data were collected through systematic literature searching, document identification, screening, and critical reading. The selection process applied predefined inclusion and exclusion criteria, prioritizing Indonesian and English publications published between 2021 and 2026, including journal articles, books,

and conference proceedings. Relevant classical publications were retained as theoretical foundations. The selected literature covered three main areas: philosophy of science and demarcation, Islamic epistemology and educational governance, and educational administration. Each selected document was examined and recorded in a literature synthesis matrix containing its main concepts, supporting arguments, and relevance to the research objectives (Chigbu et al., 2023; Barry et al., 2022).

Data analysis followed four interconnected stages: data condensation, data display, data verification, and conceptual synthesis. Data condensation involved identifying, selecting, and categorizing relevant concepts, epistemological principles, transcendental values, and administrative functions. Data display organized the findings into comparative matrices to identify conceptual relationships, similarities, and differences. Data verification involved cross-checking sources, assessing internal consistency, and maintaining an audit trail of the literature selection process. Finally, conceptual synthesis integrated the findings into a proposed governance model and generated five testable propositions. This analytical process followed established approaches to qualitative data analysis and values-based qualitative research reporting (Bingham, 2023; Braun & Clarke, 2025).

Table 1. Literature Search and Selection Protocol

Component	Description
Search sources	Academic web search engines; journal publishers' websites and DOI databases; Garuda for Indonesian publications; and university repositories. Replication searches are recommended using Scopus and Google Scholar.
Indonesian keywords	"filsafat ilmu"; "problem demarkasi"; "epistemologi bayani burhani irfani"; "administrasi pendidikan Islam"; "tata kelola pendidikan Islam".
English keywords	"demarcation problem" AND falsifiability; "Islamic education management" AND governance; "digital transformation" AND pesantren; "data-driven decision making" AND educational leadership.
Period and language	2021–2026 for contemporary sources; classical works retained as conceptual foundations; Indonesian and English languages.
Inclusion criteria	Journal articles, books, and conference proceedings from identifiable publishers; directly relevant to epistemology, Islamic educational governance, or educational administration; complete bibliographic information.
Exclusion criteria	Non-academic opinions; incomplete bibliographic information; and topics outside the research scope. Sources consulted only through abstracts were not used to support detailed findings.
Selection process	[Records identified] → [Title and abstract screening] → [Full-text assessment] → [Selected sources included in the References].

Source: Developed by the authors (2026).

RESULTS AND DISCUSSION

Results

Epistemological Foundations and the Demarcation Problem

The literature synthesis identifies falsifiability as a central epistemological criterion for evaluating scientific claims and administrative practices. Popper (2002) establishes falsifiability as a criterion distinguishing scientific theories from claims that cannot be empirically challenged. Under this criterion, a scientific claim must specify conditions under which observations could demonstrate its inadequacy. Sepetyi (2024) further identifies two dimensions of falsifiability: the logical content of a theory and the critical attitude of researchers toward testing and revising their claims. These dimensions establish that scientific accountability requires both testable propositions and institutional openness to criticism.

Contemporary literature presents a more differentiated understanding of the demarcation problem. Boudry (2022) distinguishes territorial from normative demarcation and emphasizes that pseudoscience should not be conflated with other scientific failures, including fraud. Hirvonen and Karisto (2022) identify four contemporary research directions: the philosophy of pseudoscience, social epistemology concerning scientific disagreement, agnotology, and the evaluation of expertise. Carvalho (2022) characterizes demarcation as both an epistemological-methodological and a value-related issue with political and social implications. These perspectives establish that falsifiability should function as an evaluative criterion without being treated as the sole determinant of scientific legitimacy.

Within Islamic educational administration, the epistemological synthesis identifies three requirements for evaluating administrative claims: observable indicators, explicit conditions of failure, and institutional mechanisms for reviewing decisions. Administrative programs should therefore specify their intended outcomes, measurable indicators, and criteria for revision. For example, a teacher development program may establish a target improvement in lesson-planning quality within one semester and specify that the program requires revision if the target is not achieved. Similarly, financial accountability requires verifiable expenditure reports, while curriculum integration requires observable indicators for evaluating learning outcomes and character development.

The Qur'anic principles of verification provide an additional normative foundation for this framework. QS. Al-Hujurat [49]: 6 instructs believers to verify information before acting upon it, while QS. Al-Isra' [17]: 36 prohibits following matters without adequate knowledge. These principles establish verification and responsible knowledge acquisition as relevant considerations in administrative decision-making. Accordingly, the synthesis positions falsifiability alongside the Islamic epistemological tradition rather than as a replacement for its normative foundations.

Islamic epistemology further contributes three interconnected modes of reasoning: *bayani*, *burhani*, and *irfani*. The *bayani* mode relies on revelation and textual authority, *burhani* emphasizes rational demonstration and evidence, and *irfani* involves intuition and spiritual awareness. Ramadhan (2025) identifies their integration as an important direction for Islamic intellectual development. Ulviana (2024) examines their application within Amin Abdullah's integration-interconnection paradigm, while Erdiyani and Syarif (2025) identify partial implementation of these modes in Islamic educational institutions and propose an integrative-interconnective framework. Based on this literature, the present synthesis assigns complementary administrative functions to the three modes, as presented in Table 2.

Table 2. Epistemic Framework for Administrative Decision-Making

Epistemic function	Source of authority	Administrative questions	Application examples
Normative (*bayani*)	The Qur'an and Hadith	Does the policy comply with Islamic values and Sharia boundaries?	Financing policies prohibit usury (*riba*) and contracts involving excessive uncertainty (*gharar*).
Demonstrative (*burhani*)	Evidence, data, and logic	What policy hypothesis is being tested? Which indicators demonstrate failure, and what are the rejection criteria?	Teacher training programs establish measurable targets for improving lesson-planning quality and specify revision criteria.
Reflective-spiritual (*irfani*)	Conscience and *muhasabah*	Is the decision made sincerely and accountable before Allah and institutional stakeholders?	Periodic self-evaluation and transparent reporting to foundation administrators and parents.
Falsifiability test	Popper (2002); Sepetyi (2024)	Can observations demonstrate that a claim is false, and has critical evaluation been institutionalized?	Limited program trials using predefined failure criteria before wider implementation.

Source: Authors' synthesis (2026).

Integration of Universal Administrative Theory and Transcendental Principles

The literature synthesis identifies educational administration as an operational framework encompassing organizational structures, task allocation, planning, organizing, implementation, and supervision. Educational institutions function as open social systems in which leadership, organizational structures, and interactions with external environments influence institutional effectiveness (Goode et al., 2023). Furthermore, organizational effectiveness is shaped by ethical leadership, employee motivation, knowledge sharing, and job performance (Udin, 2024; Wang et al., 2024). Within Islamic educational contexts, Muflihin (2024) examines leadership from an Islamic perspective, while Winarsih and Purnomo (2023) examine madrasah leadership in implementing the independent curriculum to improve educational quality.

The integration of these administrative functions with Islamic values produces four transcendental principles: *tawhid*, *amanah*, *'adl*, and *itqan*. First, *tawhid* establishes Allah as the ultimate orientation of institutional activities, as reflected in QS. Al-An'am [6]: 162. Second, *amanah* emphasizes the fulfillment of entrusted responsibilities and the fair allocation of institutional resources, as stated in QS. An-Nisa [4]: 58. Third, *'adl* establishes justice as a principle governing transparency, compensation, and workload distribution, as reflected in QS. An-Nahl [16]: 90. Fourth, *itqan* emphasizes precision, professionalism, and quality in institutional activities, as indicated in QS. An-Naml [27]: 88. The principle of *muhasabah*, grounded in QS. Al-Hasyr [59]: 18, provides a mechanism for institutional self-evaluation and accountability. The administrative interpretation of these principles is summarized in Table 3.

Table 3. Transcendental Principles and Their Administrative Implications

Principle	Administrative meaning	Observable indicators	Falsification conditions
Tawhid	Institutional governance activities are oriented toward Allah and understood as acts of worship.	Institutional vision and mission documents incorporate Islamic values that are reflected in operational procedures.	Institutional procedures contradict declared values without corrective action.
Amanah	Merit-based personnel placement and honest management of institutional resources.	Transparent recruitment criteria, asset and budget records, and the absence of unresolved conflicts of interest.	Appointments cannot be traced to publicly established competency and integrity criteria.
'Adl	Transparency, equitable workload distribution, and fair compensation.	Published budget realization reports, workload distribution records, and complaint-handling mechanisms.	Reports are inaccessible to stakeholders or workload inequalities remain unaddressed.
Itqan	Professionalism and continuous quality improvement.	Established quality standards and documented follow-up actions on supervisory findings.	Repeated supervisory findings remain unresolved across subsequent evaluation cycles.

Source: Authors' synthesis (2026), based on the Ministry of Religious Affairs of the Republic of Indonesia (2019).

The synthesis establishes that transcendental principles and administrative systems perform complementary functions. Transcendental principles provide ethical and spiritual orientations, whereas administrative procedures establish operational responsibilities and measurable standards. In the context of digital governance, the literature identifies the integration of academic and financial information systems, data governance, human resource capacity development, and organizational culture transformation as relevant components of value-based administration (Hadi & Sukandar, 2026).

Miftahussurur et al. (2025) also examine *maqasid al-sharia* ethics in Islamic educational management. These conceptual foundations are incorporated into the proposed framework through the requirement that administrative decisions undergo epistemic evaluation before implementation.

Integrative Transcendental Administration Model (ITAM)

The conceptual synthesis produces the Integrative Transcendental Administration Model (ITAM), illustrated in Figure 1. The model comprises three interconnected layers. The first layer is the epistemic gate, which combines falsifiability with the *bayani*, *burhani*, and *irfani* modes of reasoning. The second layer consists of four transcendental principles: *tawhid*, *amanah*, *'adl*, and *itqan*. The third layer encompasses eight operational domains of Islamic educational administration.

The model identifies two dimensions of institutional accountability. Horizontal accountability concerns responsibilities toward institutional stakeholders, including parents, administrators, and governing bodies. Vertical accountability concerns responsibility before Allah, expressed through *muhasabah*. Continuous evaluation and corrective action connect institutional outcomes to the epistemic gate, creating a cyclical governance structure that allows administrative decisions to be reassessed and revised.

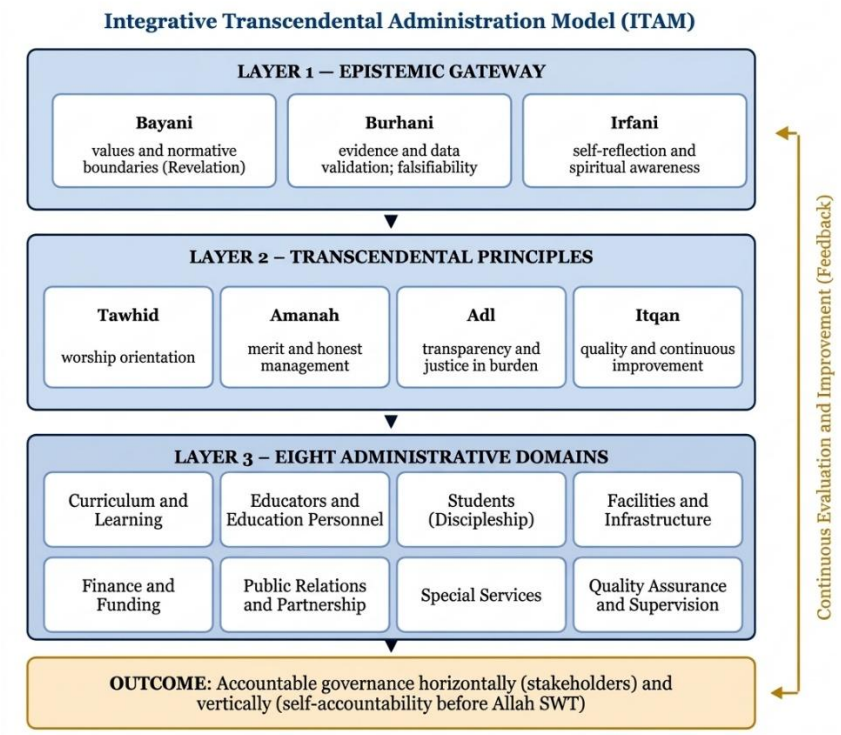


Figure 1. Integrative Transcendental Administration Model (ITAM)

The model operates through two interconnected directions. The downward process establishes the requirements for administrative decisions: normative compliance, empirical testability, and spiritual accountability. Decisions that satisfy these requirements are subsequently implemented through the four transcendental principles across the relevant administrative domains. The upward process returns implementation results and institutional evidence to the epistemic gate for evaluation. This structure establishes an iterative relationship between decision-making, implementation, monitoring, and institutional improvement.

Operationalization of ITAM Across Eight Administrative Domains

The model is operationalized through eight administrative domains. Each domain incorporates relevant transcendental principles and corresponding epistemic evaluation criteria. Table 4 presents the proposed implementation framework, including observable evidence and conditions indicating potential administrative failure.

Table 4. Operationalization of ITAM Across Eight Administrative Domains

No.	Administrative domain	Transcendental implementation	Epistemic evaluation (evidence and failure criteria)
1	Curriculum and learning	Integration of religious and scientific knowledge without dichotomy; measurable institutional operational curriculum.	Learning outcomes and character development are assessed during each cycle; curriculum is revised when established targets are not achieved.
2	Educators and educational personnel	Recruitment based on competence and Islamic ethical integrity; management of motivation and performance.	Performance and motivation data are collected; training programs are evaluated against predefined improvement targets.
3	Students and boarding students	Continuous documentation of academic achievement, interests, talents, and moral development.	Longitudinal records are maintained; development programs are revised when progress indicators show no improvement.
4	Facilities and infrastructure	Transparent asset inventory and maintenance based on cleanliness and *itqan*.	Asset and maintenance records are maintained; recurring damage indicates potential maintenance failure.
5	Finance and financing	Transparent and publicly accountable management of ZISWAF and formal budgets, free from *riba* and *fasad*.	Budget realization reports are accessible; audit findings are expected to decrease across successive cycles.
6	Public relations	Open institutional	Stakeholder feedback and

	and partnerships	relationships with parents, community leaders, and external organizations.	partnership outcomes are documented and followed up.
7	Specialized services	Islamic counseling, boarding management, and halal-*tayyib* canteen services.	Service utilization and complaint data are monitored; recurring complaints trigger service adjustments.
8	Quality assurance and supervision	Data-based academic and managerial supervision for continuous improvement.	Supervisory findings are linked to documented follow-up actions and subsequent evaluations.

Source: Authors' synthesis (2026).

In curriculum and learning management, ITAM incorporates the integration of religious and scientific knowledge and measurable institutional operational curricula. Muflihin and Novikasari (2026) examine operational curriculum as a component of educational administration. Winarsih and Purnomo (2023) examine the relationship between madrasah leadership, independent curriculum implementation, and educational quality. Within ITAM, curriculum implementation is evaluated through learning achievement and character development indicators, with revision required when established targets are not achieved.

In human resource management, *amanah* provides the normative foundation for competence-based recruitment, professional placement, and personnel accountability. Employee motivation, ethical leadership, and job performance represent important dimensions of organizational effectiveness (Udin, 2024; Wang et al., 2024). The proposed framework requires staff development programs to establish measurable improvement targets and predefined revision criteria. Student and boarding student administration similarly emphasizes continuous documentation of academic achievement, interests, talents, and moral development. Longitudinal records provide the basis for evaluating the progress of educational and character development programs.

Facilities and infrastructure management incorporates transparent asset inventories and documented maintenance procedures. These practices represent institutional responsibility for entrusted resources. In financial administration, *'adl* requires transparent budget management and public accountability, including the management of ZISWAF resources in accordance with Islamic principles. Existing studies examine Islamic boarding school accountability (Nurkhin et al., 2024) and propose information technology-based governance to strengthen public accountability (Hilman & Samad, 2025). ITAM translates these requirements into observable indicators, including accessible budget realization reports and documented audit findings across successive evaluation cycles.

Public relations and partnership management are positioned within the open-system perspective of educational institutions. Institutional interactions with parents, community leaders, and external organizations are documented as part of horizontal accountability. Specialized services encompass Islamic counseling, boarding management, and halal-*tayyib* canteen services. Their evaluation relies on service utilization records and stakeholder complaints. Finally, quality assurance and supervision involve data-based academic and managerial evaluation, with supervisory findings connected to documented corrective actions. This arrangement incorporates the importance of data-informed decision-making in educational leadership identified by Mat Shoib et al. (2025).

Testable Propositions and Digital Governance

To establish empirical testability, the conceptual model generates five propositions, each accompanied by measurement indicators and rejection criteria. These propositions translate the model's epistemological and transcendental foundations into relationships that can be examined through subsequent empirical research. Table 5 presents the five propositions and their corresponding evaluation criteria.

Table 5. Research Propositions, Measurement Indicators, and Rejection Criteria

Proposition	Statement	Measurement indicators	Rejection criteria
P1	Institutions requiring policy hypotheses and explicit failure indicators demonstrate higher decision quality.	Proportion of policies with documented hypotheses and failure criteria; proportion of policies revised following evaluation.	No difference in decision quality between institutions implementing and not implementing these requirements.
P2	Merit-based personnel placement (*amanah*) is positively associated with staff performance and trust.	Transparent recruitment criteria; staff performance scores; staff trust scales.	No positive association after controlling for institutional size and level.
P3	Transparent financial reporting (*'adl*) is positively associated with stakeholder trust and ZISWAF participation.	Accessibility of financial reports; audit findings across evaluation cycles; donor and parent trust.	No difference in stakeholder trust and participation between institutions with transparent and non-transparent reporting.
P4	Scheduled institutional *muhasabah* is associated with a reduction in recurring supervisory findings (*itqan*).	Frequency of self-evaluation; recurring findings across supervision cycles.	Recurring findings do not decrease in institutions implementing scheduled *muhasabah*.

P5	Non-dichotomous curriculum integration is associated with learning outcomes and character indicators.	Curriculum integration rubrics; learning achievement; character observations.	No association between the level of curriculum integration and the specified outcomes.

Source: Authors' formulation (2026).

The digital governance component of ITAM incorporates information systems and institutional data as instruments for administrative evaluation. Digitalization strategies in Islamic boarding schools have been examined by Anwar et al. (2023), while Hadi and Sukandar (2026) emphasize the importance of moving beyond digital administration toward value-based governance. Within the proposed model, institutional information systems support the *burhani* function by providing evidence for administrative evaluation. Meanwhile, *amanah* and *'adl* establish ethical requirements for data management, financial reporting, and information transparency. *Muhasabah* provides an additional dimension of institutional accountability in the use of digital systems.

Implementation Roadmap and Risk Mitigation

The conceptual model generates a five-stage implementation roadmap designed to accommodate differences in institutional capacity. The stages comprise institutional diagnosis, policy hypothesis formulation, limited implementation, evaluation and *muhasabah*, and institutionalization or revision. This sequence establishes a structured process for translating the model into administrative procedures. Its orientation toward professional competencies and data-informed evaluation is consistent with the educational leadership findings reported by Mat Shoib et al. (2025).

Table 6. ITAM Implementation Roadmap

Stage	Main activities	Expected outputs	Responsible parties
1. Diagnosis	Mapping existing administrative practices across eight domains and identifying claims without measurable indicators.	Initial institutional map and list of claims that cannot yet be tested.	Institutional leaders and quality assurance units.
2. Policy hypothesis formulation	Defining objectives, indicators, and failure criteria for each priority program.	Policy documents containing hypotheses and explicit failure criteria.	Domain coordinators.
3. Limited implementation	Implementing selected programs within one institutional unit or	Implementation data and field records.	Program implementation teams.

	evaluation cycle.		
4. Evaluation and *muhasabah*	Comparing results with predefined failure criteria and communicating findings to stakeholders.	Evaluation reports and public summaries.	Quality assurance units and foundation administrators.
5. Institutionalization or revision	Expanding successful programs and revising or discontinuing unsuccessful programs without stigmatization.	Updated standard operating procedures.	Institutional leaders.

Source: Authors' formulation (2026).

The implementation framework also identifies five potential risks and corresponding mitigation measures.

First, excessive quantification may cause easily measurable indicators to replace broader educational objectives. The proposed mitigation is to combine quantitative and qualitative indicators while maintaining Islamic values as normative boundaries.

Second, formalistic *muhasabah* may reduce institutional self-evaluation to an administrative ritual. Its mitigation requires connecting self-evaluation activities with documented and auditable corrective actions.

Third, digital image management may encourage institutions to prioritize institutional reputation over accountability. The mitigation involves applying *amanah* and *'adl* to information management, reporting, and data disclosure. This concern is consistent with the need to integrate Islamic values into digital governance identified by Hadi and Sukandar (2026).

Fourth, additional administrative requirements may increase the workload of educators and institutional staff. The proposed mitigation is to use the initial diagnostic stage to identify and eliminate documents that do not provide additional evidence, rather than simply introducing new reporting requirements.

Fifth, the misuse of students' and employees' personal data may undermine institutional trust. The proposed mitigation involves establishing clear data governance procedures grounded in *amanah*, including appropriate responsibilities for data access, management, and disclosure.

Discussion

The findings extend previous research on Islamic educational governance by integrating epistemic accountability into value-based institutional management. Hadi and Sukandar (2026) emphasize the transition from digital administration toward governance grounded in institutional values, particularly through information system integration, data governance, and organizational

culture. Similarly, Miftahussurur et al. (2025) highlight the ethical significance of *maqasid al-sharia* in Islamic educational management. While these studies establish the importance of values and governance systems, the present study extends their perspectives by introducing falsifiability as an explicit requirement for evaluating administrative decisions. This integration suggests that value-based governance requires not only ethical orientation and technological infrastructure but also verifiable evidence, measurable indicators, and predefined conditions for policy revision.

The epistemic foundation of ITAM also contributes to ongoing debates concerning the demarcation of scientific knowledge. Popper's (2002) falsifiability criterion provides the basis for requiring administrative claims to remain open to empirical criticism. This position is consistent with Sepetyi (2024), who emphasizes both the logical testability of theories and the critical attitude of researchers. However, Boudry (2022) and Hirvonen and Karisto (2022) demonstrate that demarcation involves broader epistemological and social considerations that cannot be reduced to a single criterion. Carvalho (2022) further identifies its normative and political dimensions. In response, ITAM positions falsifiability as an essential evaluative mechanism rather than an exclusive standard of legitimacy, allowing empirical scrutiny to operate alongside ethical and religious considerations.

The integration of *bayani*, *burhani*, and *irfani* represents another contribution to Islamic epistemological scholarship. Previous studies have examined these three modes as complementary foundations for integrating Islamic knowledge and contemporary intellectual paradigms (Erdiyani & Syarif, 2025; Ramadhan, 2025; Ulviana, 2024). Nevertheless, their application within administrative decision-making requires further conceptual elaboration. ITAM extends this discussion by assigning distinct but interconnected functions to each mode: *bayani* establishes normative boundaries, *burhani* evaluates claims through evidence and logical reasoning, and *irfani* strengthens spiritual reflection through *muhasabah*. This operational mapping connects epistemological integration with institutional governance. It also complements the verification principles expressed in QS. Al-Hujurat [49]: 6 and QS. Al-Isra' [17]: 36.

Regarding educational administration, ITAM maintains the operational relevance of universal management theories while incorporating Islamic transcendental principles. Educational institutions can be understood as open social systems in which leadership, organizational structures, institutional resources, and external environments interact to shape organizational effectiveness (Goode et al., 2023). Furthermore, organizational performance is influenced by work motivation, ethical leadership, and employee performance (Udin, 2024; Wang et al., 2024). These perspectives are compatible with the

administrative functions examined in Islamic educational leadership studies (Muflihin, 2024; Winarsih & Purnomo, 2023). Fathih et al. (2024) also emphasize the relationship between prophetic exemplary leadership and Islamic educational management. The contribution of ITAM lies in connecting these managerial and ethical perspectives through four principles: *tawhid*, *amanah*, *'adl*, and *itqan*. Unlike approaches that primarily describe leadership values or administrative functions, the proposed model translates these principles into observable indicators and institutional evaluation criteria.

The model's principal novelty lies in connecting epistemological verification, transcendental principles, and eight administrative domains within one conceptual governance framework. Previous studies have examined individual components, including Islamic leadership (Muflihin, 2024), curriculum administration (Muflihin & Novikasari, 2026), institutional accountability (Nurkhin et al., 2024), and technology-based governance (Hilman & Samad, 2025). Similarly, Mat Shoib et al. (2025) emphasize the importance of professional competencies, adaptability, and data-informed decision-making in educational leadership. ITAM brings these dimensions together through five testable propositions, measurable indicators, and explicit rejection criteria. This structure distinguishes the model from purely normative frameworks because its propositions can be examined and potentially rejected through empirical investigation. Nevertheless, the proposed relationships remain theoretical and require subsequent validation.

The practical contribution of ITAM concerns the development of institutional procedures that connect administrative performance with ethical and spiritual accountability. Its five-stage implementation roadmap provides a proposed sequence for institutional diagnosis, policy formulation, limited implementation, evaluation, and institutionalization or revision. This approach also identifies risks associated with excessive quantification, formalistic *muhasabah*, digital image management, administrative burden, and personal data misuse. These considerations reinforce the need to balance measurable performance with institutional values and responsible information management (Hadi & Sukandar, 2026). However, the model remains conceptual, and its explanatory capacity has not yet been empirically established. Future studies should validate its propositions through expert assessment and empirical testing across different types of Islamic educational institutions.

CONCLUSION

This study concludes that integrating the philosophy of science with Islamic educational administration provides a conceptual foundation for more accountable institutional governance. The most important finding is the

Integrative Transcendental Administration Model (ITAM), which combines epistemic verification through falsifiability and *bayani*, *burhani*, and *irfani* reasoning, four transcendental principles (*tawhid*, *amanah*, *'adl*, and *itqan*), and eight administrative domains. The central lesson is that effective Islamic educational governance requires more than managerial efficiency; it must integrate scientific accountability, ethical conduct, and spiritual responsibility through *muhasabah*. The implications of this research include strengthening evidence-based decision-making, merit-based management, financial transparency, and value-oriented digital governance. The study contributes to educational administration scholarship by connecting epistemological scrutiny with Islamic transcendental principles and translating them into five empirically testable propositions. Nevertheless, its conceptual nature and narrative literature review limit empirical generalization. Future research should validate the five propositions across madrasahs, Islamic boarding schools, and Islamic higher education institutions, develop measurement instruments for epistemic accountability and institutional *muhasabah*, and examine the model's applicability across different institutional contexts.

REFERENCES

Anwar, H. S., Denata, R., & Firdaus, A. I. I. (2023). Integration of Tradition and Technology: Digitalization Strategies in Islamic Education at Pesantren in Banyuwangi, Indonesia. *Journal of Islamic Education Research, 6*(1), 1–18. https://doi.org/10.35719/jier.v6i1.446

Apiyani, A. (2024). Concept and Function of Educational Management in Islamic Perspective. *International Journal of Islamic Educational Research, 1*(3), 42–51. https://doi.org/10.61132/ijier.v1i3.51

Barry, E. S., Merkebu, J., & Varpio, L. (2022). State-of-the-Art Literature Review Methodology: A Six-Step Approach for Knowledge Synthesis. *Perspectives on Medical Education, 11*, 281–288. https://doi.org/10.1007/s40037-022-00725-9

Bingham, A. J. (2023). From Data Management to Actionable Findings: A Five-Phase Process of Qualitative Data Analysis. *International Journal of Qualitative Methods, 22*, 1–11. https://doi.org/10.1177/16094069231183620

Boudry, M. (2022). Diagnosing Pseudoscience: By Getting Rid of the Demarcation Problem. *Journal for General Philosophy of Science, 53*(2), 83–101. https://doi.org/10.1007/s10838-021-09572-4

Braun, V., & Clarke, V. (2025). Reporting Guidelines for Qualitative Research: A Values-Based Approach. *Qualitative Research in Psychology, 22*(2), 399–438. https://doi.org/10.1080/14780887.2024.2382244

Carvalho, R. R. (2022). As Três Fases do Problema da Demarcação [The Demarcation Problem's Three Phases]. *Griot: Revista de Filosofia, 22*(1), 227–250. https://doi.org/10.31977/grirfi.v22i1.2704

Chigbu, U. E., Atiku, S. O., & Du Plessis, C. C. (2023). The Science of Literature Reviews: Searching, Identifying, Selecting, and Synthesising. *Publications, 11*(1), Article 2. https://doi.org/10.3390/publications11010002

Erdiyani, F., & Syarif, Z. (2025). Integrasi Epistemologi (Bayani, Burhani, dan Irfani) dalam Pendidikan Islam Kontemporer. *Kartika: Jurnal Studi Keislaman, 5*(3).

Fathih, M. A., Muhlis, N. K., & Yahya, M. A. (2024). Leadership Management of the Prophet Muhammad SAW and Its Relationship with Islamic Education Management. *Eduprof: Islamic Education Journal, 6*(1), 55–63. https://doi.org/10.47453/eduprof.v6i1.261

Goode, H., Drysdale, L., & Gurr, D. (2023). What We Know About Successful School Leadership from Australian Cases and an Open Systems Model of School Leadership. https://doi.org/10.3390/educsci13111142

Hadi, A., & Sukandar, A. (2026). Digitalizing Islamic Education Management in the Industry 5.0 Era: From Digital Administration to Value-Based Governance. *Jurnal Manajemen dan Pendidikan Agama Islam, 4*(1). https://doi.org/10.61132/jmpai.v4i1.1808

Hilman, C., & Samad, M. R. (2025). Information Technology Based Governance Model for Islamic Education Management in Realizing Contemporary Public Accountability. *Khazanah: Journal of Islamic Education and Science, 1*(2), 79–96. https://doi.org/10.61815/khazanah.v1i2.874

Hirvonen, I., & Karisto, J. (2022). Demarcation Without Dogmas. *Theoria, 88*(3), 701–720. https://doi.org/10.1111/theo.12395

Mat Shoib, N. A., Talip, R., & Sukor, N. (2025). Decision Making and Educational Leadership: A Comprehensive Systematic Review. *International Journal of Education, Psychology and Counselling, 10*(57), 933–959. https://doi.org/10.35631/IJEPC.1057060

Miftahussurur, W., Goffar, A., & As, A. H. (2025). Maqasid Syariah and the Ethical Turn in Islamic Educational Management. *ALMUSTOFA: Journal of Islamic Studies and Research, 2*(2), 268–285. https://doi.org/10.62509/hjis.v2i2.311

Morgan, H. (2022). Conducting a Qualitative Document Analysis. *The Qualitative Report, 27*(1), 64–77. https://doi.org/10.46743/2160-3715/2022.5044

Muflihin, M. H. (2024). *Manajemen Kepemimpinan dalam Perspektif Islam*. Berkah Aksara Cipta Karya.

Muflihin, M. H., & Novikasari, I. (2026). *Administrasi Pendidikan: Kurikulum Operasional Satuan Pendidikan*. Saizu Publisher.

Nurkhin, A., Rohman, A., & Prabowo, T. J. W. (2024). Accountability of Pondok Pesantren: A Systematic Literature Review. *Cogent Business & Management, 11*(1), Article 2332503. https://doi.org/10.1080/23311975.2024.2332503

Popper, K. R. (2002). *The Logic of Scientific Discovery*. Routledge.

Ramadhan, A. S. (2025). The Relations Between Epistemology System of Bayani, Burhani, and Irfani. *ABHATS: Jurnal Islam Ulil Albab, 6*(1), 1–12. https://doi.org/10.20885/abhats.vol6.iss1.art1

Sankofa, N. (2023). Critical Method of Document Analysis. *International Journal of Social Research Methodology, 26*(6), 745–757. https://doi.org/10.1080/13645579.2022.2113664

Sepetyi, D. (2024). The Demarcation Problem: Karl Popper's Solution in the Contemporary Retrospective. *Actual Problems of Mind, 25*(1), 48–73. https://doi.org/10.55056/apm.7730

Turnbull, D., Chugh, R., & Luck, J. (2023). Systematic-Narrative Hybrid Literature Review: A Strategy for Integrating a Concise Methodology into a Manuscript. *Social Sciences & Humanities Open, 7*(1), Article 100381. https://doi.org/10.1016/j.ssaho.2022.100381

Udin, U. (2024). Ethical Leadership and Employee Performance: The Role of Islamic Work Ethics and Knowledge Sharing. *Human Systems Management, 43*(1), 51–63. https://doi.org/10.3233/HSM-220197

Ulviana. (2024). Hubungan Nalar Bayani, Nalar Burhani, dan Nalar Irfani dalam Integrasi Interkoneksi Keilmuwan Amin Abdullah. *Salimiya: Jurnal Studi Ilmu Keagamaan Islam, 5*(3). https://doi.org/10.58401/salimiya.v5i3.1479

Wang, N., Luan, Y., & Ma, R. (2024). Detecting Causal Relationships Between Work Motivation and Job Performance: A Meta-Analytic Review of Cross-Lagged Studies. *Humanities and Social Sciences Communications, 11*, Article 595. https://doi.org/10.1057/s41599-024-03038-w

Winarsih, S., & Purnomo, S. (2023). School Principal Leadership and Implementation of Independent Curriculum in Improving the Quality of Education in Indonesia. *International Journal of Social Science and Human Research, 6*(12), 7236–7243. https://doi.org/10.47191/ijsshr/v6-i12-07