Comparative Epistemological Models of Knowledge Integration in Four State Islamic Higher Education Institutions in Indonesia

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Abstract

Several Indonesian Islamic Higher Education Institutions (Perguruan Tinggi Keagamaan Islam/PTKIN) experienced a transformation from Institut Agama Islam Negeri (IAIN) to Universitas Islam Negeri (UIN) in the early 2000s. This transformation not only involved an institutional change, but also marked a significant epistemological shift from a single religious identity toward a multidisciplinary university model that integrates religious and general sciences. This study aims to analyse four models of knowledge integration developed at UIN Sunan Kalijaga, UIN Syarif Hidayatullah Jakarta, UIN Maulana Malik Ibrahim Malang, and UIN Sunan Gunung Djati Bandung. Employing a qualitative comparative approach based on a literature review, this study examines the philosophical foundations, epistemological orientations, and patterns of implementation of each model. The findings indicate that the four models emerged from a shared historical context, namely the transformation from IAIN to UIN, and are grounded in relatively similar philosophical foundations that position monotheism and revelation as central epistemic references. However, these foundations are articulated through different conceptual metaphors and epistemological emphases. The implementation of the models has been institutionalised through curricula, academic policies, and organisational culture. The implications of these models for the transformation of Islamic higher education in the digital and global era are complementary and mutually reinforcing. This study also identifies implementation challenges related to academic governance, curriculum synchronisation, and faculty capacity. Overall, the four models of knowledge integration enrich Islamic higher education by integrating spirituality, scientific rationality, and social responsibility, while highlighting the need to strengthen academic governance and sustainable professional development.

Keywords: Epistemology; Interdisciplinarity, Islamic Higher Education, Knowledge Integration

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Abstrak

Beberapa Perguruan Tinggi Keagamaan Islam (PTKIN) di Indonesia pada awal tahun 2000-an mengalami transformasi dari Institut Agama Islam Negeri (IAIN) menjadi Universitas Islam Negeri (UIN). Transformasi ini tidak hanya bersifat kelembagaan, tetapi juga menandai pergeseran epistemologis pendidikan tinggi Islam dari identitas tunggal keagamaan menuju model universitas multidisipliner yang mengintegrasikan ilmu agama dan ilmu umum. Penelitian ini bertujuan untuk menganalisis empat model integrasi ilmu yang berkembang di UIN Sunan Kalijaga Yogyakarta, UIN Syarif Hidayatullah Jakarta, UIN Maulana Malik Ibrahim Malang, dan UIN Sunan Gunung Djati Bandung. Penelitian ini menggunakan pendekatan kualitatif komparatif melalui telaah literatur untuk mengkaji landasan filosofis, orientasi epistemologis, dan pola implementasi masing-masing model. Hasil penelitian menunjukkan bahwa keempat model lahir dari konteks sejarah yang sama, yaitu transformasi IAIN menjadi UIN, serta memiliki landasan filosofis yang relatif serupa dengan menjadikan tauhid dan wahyu sebagai rujukan epistemik utama. Namun, landasan tersebut diartikulasikan melalui metafora konseptual dan penekanan epistemologis yang berbeda. Implementasi model integrasi ilmu telah terinstitusionalisasi melalui kurikulum, kebijakan akademik, dan kultur kelembagaan. Implikasi keempat model terhadap transformasi pendidikan tinggi Islam di era digital dan global bersifat komplementer dan saling menguatkan. Penelitian ini juga mengidentifikasi tantangan implementasi yang berkaitan dengan tata kelola akademik, sinkronisasi kurikulum, dan kapasitas dosen. Secara keseluruhan, keempat model integrasi ilmu memperkaya pendidikan tinggi Islam melalui integrasi spiritualitas, rasionalitas ilmiah, dan kepedulian sosial, sekaligus menegaskan pentingnya penguatan tata kelola akademik dan pengembangan profesional berkelanjutan.

Kata kunci: Epistemologi; Integrasi Ilmu, Interdisiplin, Pendidikan Tinggi Islam

Introduction

Over the last two decades, Indonesian higher education (Perguruan Tinggi Keagamaan Islam Negeri/PTKIN) has undergone a significant transformation marked by an increasing demand for the integration of knowledge, values, and social needs. Universities are no longer positioned merely as institutions for knowledge transmission but are increasingly expected to function as agents of social transformation and innovation that are responsive to the challenges of the digital era (Irham, 2025). Rapid technological development, globalisation, and the growing complexity of humanitarian issues have intensified the need for holistic, transdisciplinary, and value-oriented approaches to knowledge production.

PTKIN, particularly Universitas Islam Negeri (UIN), occupy a strategic position. The institutional transformation from Institut Agama Islam Negeri (IAIN) to UIN since the early 2000s has signified a fundamental

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epistemological shift from a dichotomous separation between religious and general sciences toward a more dialogical, interdisciplinary, and contextual integration of knowledge (Haqqi et al., 2024; Yusaini et al., 2022). This transformation extends beyond curricular restructuring to encompass a broader paradigm aimed at integrating revelation, reason, and empirical reality within academic governance, curriculum development, and research practices (Busahdiar et al., 2022). Consequently, concepts such as knowledge integration and integration interconnection have emerged as central frameworks in contemporary PTKIN in Indonesia (Anggreni, 2019).

Previous studies have documented various models of knowledge integration developed by UINs, highlighting their philosophical foundations and normative aspirations. However, most existing research tends to focus on single institutional cases, emphasise normative philosophical discussions, or examine integration at a conceptual level without systematic comparison (Muthohirin et al., 2025; Suwendi et al., 2024). Comparative studies that simultaneously analyse multiple integration models, particularly about their epistemological orientations, implementation patterns, and implications for Islamic higher education in the digital and global era, remain limited. This gap has resulted in the absence of a comprehensive analytical map explaining how different models of knowledge integration complement, diverge from, or challenge one another in practice.

In Indonesia, four major UINs have developed distinctive models of knowledge integration. UIN Sunan Kalijaga Yogyakarta introduced the *Spider Web of Knowledge* model; UIN Syarif Hidayatullah Jakarta developed a *Humanistic Integration–Interconnection* model; UIN Maulana Malik Ibrahim Malang formulated the *Tree of Knowledge (Syajarat al-'Ilm)* model; and UIN Sunan Gunung Djati Bandung articulated the *Revelation-Guided Knowledge (Wahyu Memandu Ilmu)* paradigm. While these models are often regarded as conceptually robust, empirical studies indicate persistent gaps between their ideal designs and institutional implementation. These gaps raise critical

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questions regarding the effectiveness, coherence, and sustainability of knowledge integration within Islamic higher education institutions.

The urgency of this study is grounded in three interrelated considerations. First, the persistence of epistemological dichotomies between religion and science continues to hinder Islamic higher education institutions from producing graduates capable of addressing complex contemporary challenges (Paling et al., 2023; Rif'ah & Husnaini, 2024). Second, the institutional transformation from IAIN to UIN imposes structural and academic demands on PTKIN to formulate integrated epistemological frameworks that respond to both spiritual and scientific (Tunru, 2018). Third, from a practical perspective, PTKIN graduates are expected to function not only as disciplinary experts but also as agents of civilisation, thereby necessitating integration models that are theoretically sound and operationally applicable (Pettalongi, 2022).

Accordingly, this study addresses the following research questions: (1) How are the epistemological foundations and implementation patterns of the four knowledge integration models developed at UIN Sunan Kalijaga Yogyakarta, UIN Syarif Hidayatullah Jakarta, UIN Maulana Malik Ibrahim Malang, and UIN Sunan Gunung Djati Bandung? (2) What are the key conceptual, methodological, and practical similarities and differences among these models? (3) What implications do these differences have for the transformation of Islamic higher education in the digital and global era?. By answering these questions, this study aims to contribute an analytical and reflective understanding of knowledge integration in Indonesian Islamic higher education, offering both theoretical insights and practical considerations for institutional development.

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Methods

This study employed a qualitative research design with a comparative library research approach. Qualitative library research is appropriate for examining conceptual frameworks, epistemological assumptions, and institutional models through systematic analysis of academic and policy documents (Bungin, 2003; Creswell & Poth, 2018). The objects of the study consisted of academic publications, institutional policy documents, curriculum guidelines, and strategic reports related to the implementation of knowledge integration at four Indonesian State Islamic Universities (UIN), namely UIN Sunan Kalijaga Yogyakarta, UIN Syarif Hidayatullah Jakarta, UIN Maulana Malik Ibrahim Malang, and UIN Sunan Gunung Djati Bandung. Document-based research was selected to capture both normative frameworks and institutional practices of knowledge integration (Bowen, 2009).

Data were collected through a systematic literature review based on relevance to the research focus, academic credibility of sources, and publication within the last ten years, except for seminal theoretical works. The main research instrument was a document analysis matrix used to categorise data according to epistemological foundations, conceptual metaphors, implementation strategies, and institutional challenges. Data analysis was conducted using comparative qualitative analysis through stages of data reduction, thematic categorisation, cross-case comparison, and analytical synthesis (Miles et al., 2014). To ensure data validity and trustworthiness, this study applied source triangulation by comparing multiple types of documents and theoretical triangulation by interpreting findings using various perspectives on knowledge integration in Islamic higher education (Creswell & Poth, 2018).

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Results

The results of this study indicate that the four models of knowledge integration developed at Indonesian State Islamic Higher Education Institutions share a common epistemological objective, namely, overcoming the dichotomy between religious sciences and general sciences. This objective is consistently articulated in institutional policies and academic discourses surrounding the transformation of PTKIN from IAIN to UIN, which emphasise the integration of revelation, reason, and empirical knowledge as a unified epistemological foundation (Haqqi et al., 2024; Yusaini et al., 2022). However, the findings also reveal significant differences among the models in terms of conceptual metaphors, epistemological structures, and implementation strategies. These differences reflect institutional interpretations of integration that have been shaped by historical trajectories, academic cultures, and strategic orientations of each university (Muthohirin et al., 2025; Suwendi et al., 2024).

Table 1 presents a comparative overview of the four models of knowledge integration, highlighting their epistemological orientation and main focus of implementation as identified from institutional documents and relevant scholarly literature.

Table 1. Comparative Overview of Knowledge Integration Models

University	Integration Model	Epistemological Orientation	Main Implementation Focus
UIN Sunan Kalijaga	Spider Web of Knowledge	Non-hierarchical, dialogical integration	Curriculum design and interdisciplinary research
UIN Syarif Hidayatullah	Humanistic Integration-Interconnection	Dialogical and human-centred integration	Ethical and social dimensions of learning
UIN Maulana Malik Ibrahim	Tree of Knowledge (*Syajarat al-'Ilm*)	Hierarchical, spiritually grounded integration	Character formation and spiritual development
UIN Sunan Gunung Djati	Wahyu Memandu Ilmu	Revelation-centred integrative framework	Institutional policy and academic governance

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As shown in Table 1, while all four models emphasise knowledge integration as a shared epistemological goal, their modes of implementation differ according to institutional vision, cultural context, and academic priorities. Similar patterns of institutional diversity in the implementation of knowledge integration within PTKIN have also been identified in previous studies, which underline the contextual and non-uniform nature of integration practices in Islamic higher education (Irham, 2025; Suwendi et al., 2024).

Discussion

The findings of this study demonstrate that knowledge integration in Indonesian Islamic higher education is not implemented through a single epistemological framework, but through diverse models that reflect distinct philosophical assumptions and institutional strategies. This plurality confirms the argument that integration of knowledge within Islamic education is inherently contextual and cannot be reduced to a uniform or monolithic paradigm (Abdullah, 2017a; Zarkasyi, 2018). The Spider Web of Knowledge model developed at UIN Sunan Kalijaga represents a non-hierarchical epistemology that emphasises dialogical interaction among various disciplines. This approach resonates with the integration–interconnection framework proposed (Abdullah, 2017a) which views knowledge as a dynamic network where religious and scientific domains interact without rigid boundaries. Such a model is particularly relevant in responding to interdisciplinary challenges in the digital era, where complex problems require cross-disciplinary engagement.

In contrast, the Tree of Knowledge (*Syajarat al-'Ilm*) model implemented at UIN Maulana Malik Ibrahim Malang adopts a hierarchical epistemological structure that places spiritual and religious foundations as the roots of all scientific development. This orientation resonates with Islamic educational thought that prioritises moral and spiritual formation as

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the core objective of education (Azim et al., 2023). Within this framework, scientific inquiry is not negated, but is normatively guided to ensure alignment with Islamic values and character development. The Humanistic Integration Interconnection model implemented at UIN Syarif Hidayatullah Jakarta highlights the ethical and social dimensions of knowledge integration. This model reflects humanistic educational theories that stress the inseparability of knowledge, morality, and social responsibility. Previous studies have noted that such an approach strengthens civic engagement and ethical awareness among students in Islamic higher education institutions (Suwendi et al., 2024)

Meanwhile, the Revelation-Guided Knowledge (*Wahyu Memandu Ilmu*) paradigm at UIN Sunan Gunung Djati Bandung positions revelation as the primary epistemic reference that guides scientific inquiry and institutional governance. This paradigm corresponds with Islamic epistemological views that regard revelation as the ultimate source of meaning and value, ensuring that scientific advancement remains ethically grounded and socially accountable (Zarkasyi, 2018).

Taken together, these findings suggest that the diversity of integration models should be understood as complementary rather than contradictory. Each model contributes specific strengths to the transformation of Islamic higher education, particularly in addressing contemporary challenges such as digitalisation, moral disorientation, and the demand for socially responsible graduates (Irham, 2025; Muthohirin et al., 2025). This supports earlier scholarship that advocates for flexible and plural approaches to knowledge integration within PTKIN, allowing institutions to adapt integration strategies to their unique contexts and missions.

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Conclusion

This study analysed four models of knowledge integration developed at Indonesian Universitas Islam Negeri, namely the Spider Web of Knowledge model, the Humanistic Integration Interconnection model, the Tree of Knowledge (*Syajarat al-'Ilm*) model, and the Revelation Guided Knowledge (*Wahyu Memandu Ilmu*) paradigm. The conclusions are formulated by synthesising the findings in direct relation to the three research questions.

Regarding the first research question, this study concludes that all four models are grounded in a shared epistemological commitment to overcoming the dichotomy between religious sciences and general sciences through the integration of revelation, reason, and empirical knowledge. From the researcher's perspective, this common orientation reflects a structural epistemological shift within PTKIN after the transformation from IAIN to UIN, indicating that integration of knowledge has become a foundational paradigm rather than a peripheral discourse.

In response to the second research question, the comparative analysis reveals that the models differ substantially in epistemological structure, conceptual metaphor, and implementation strategy. The researcher argues that these differences should not be interpreted as theoretical contradictions, but rather as context-driven institutional responses shaped by historical trajectories, academic cultures, and strategic priorities. This finding supports the view that knowledge integration in Islamic higher education is inherently plural and cannot be reduced to a single universal model (Abdullah, 2017b; Zarkasyi, 2018).

With respect to the third research question, this study finds that the plurality of integration models provides a flexible epistemological foundation for the transformation of Islamic higher education in the digital and global era. Such plurality enables PTKIN to respond more adaptively to interdisciplinary challenges, ethical issues, and rapid technological change. Instead of standardising a single model, institutional capacity can be

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strengthened through selective and contextual adoption of integrative elements. In this regard, each model contributes distinctive strengths: the Spider Web of Knowledge model offers flexibility for interdisciplinary engagement; the Humanistic Integration–Interconnection model reinforces ethical and civic responsibility; the Tree of Knowledge model strengthens spiritual and character development; and the Revelation-Guided Knowledge paradigm provides a clear normative compass for scientific and technological advancement (Irham, 2025).

Overall, this study affirms that knowledge integration in Indonesian Islamic higher education is best understood as a dynamic and contextual process. Theoretically, it contributes a comparative epistemological perspective that moves beyond normative assertions toward analytical synthesis. Practically, it suggests that policymakers and academic leaders should prioritise contextual coherence and institutional reflexivity when developing integration strategies, rather than pursuing uniformity across PTKIN. Future research is recommended to extend this comparative framework through empirical field studies examining the impact of knowledge integration models on learning outcomes, research productivity, and graduate profiles in Islamic higher education institutions.

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