The Honeycomb Metaphor for Knowledge Integration: A Symbiotic Model for Human Resource Development in Islamic Higher Education

Muhamad Fajri

Islamic Education Department, Universitas Islam Negeri Sultan Aji Muhammad Idris Samarinda, Samarinda, East Kalimantan, Indonesia
Email: m.fajri@uinsi.ac.id

Abstract:

This study aims to analyze the concept of Human Resource (HR) development through the metaphorical philosophy of the hive, bees, and honey, and examine its relevance to the integration of knowledge, lecturer professionalism, and social contribution. This study uses a qualitative, case-study approach. Data collection techniques included interviews, observations, and documentation. Data analysis was conducted interactively, including content analysis and interpretive analysis of field findings. The results show that the university is understood as a "hive" that provides structure and governance, human resources as productive, collaborative, and benefit-oriented "bees," and knowledge as the "honey" produced and disseminated to the community. Competency data collection and career planning for lecturers have been carried out, but the implementation of job acceleration, feedback mechanisms, and knowledge-based development is still limited. The philosophy of the hive, bees, and honey emphasizes the integration of spiritual, intellectual, and professional values, as well as the relevance of the curriculum and tridharma activities to community needs. The research provides implications that the philosophy of the hive, bees, and honey encourages integrated human resource development—spiritual, intellectual, and professional—strengthening lecturer collaboration, supporting career planning, increasing the relevance of the tridharma for society, and encouraging curriculum innovation and academic services.

Keywords: *Human Resources, Honeycomb, Lecturer Professionalism, Academic Services*

Abstrak:

Penelitian ini bertujuan untuk menganalisis konsep pengembangan Sumber Daya Manusia (SDM) melalui filosofi metafora sarang, lebah dan madu, serta mengkaji relevansinya terhadap integrasi ilmu, profesionalitas dosen, dan kontribusi sosial. Penelitian ini menggunakan pendekatan kualitatif dengan jenis studi kasus. Teknik pengumpulan data dilakukan melalui wawancara, observasi, dan studi dokumentasi. Analisis data dilakukan secara interaktif, termasuk analisis konten dan interpretatif terhadap temuan lapangan. Hasil penelitian menunjukkan bahwa universitas dipahami sebagai "sarang" yang menyediakan struktur dan tata kelola, SDM sebagai "lebah" yang produktif, kolaboratif, dan berorientasi pada manfaat, serta ilmu sebagai "madu" yang dihasilkan dan disebarkan kepada masyarakat. Pendataan kompetensi dan perencanaan karir dosen telah dilakukan, tetapi implementasi akselerasi jabatan, mekanisme umpan balik, dan pengembangan berbasis keilmuan masih terbatas. Filosofi sarang, lebah dan madu menekankan integrasi nilai spiritual, intelektual, dan profesional, serta relevansi kurikulum dan aktivitas tridharma dengan kebutuhan masyarakat. Penelitian

memberikan implikasi bahwa filosofi sarang, lebah dan madu mendorong pengembangan SDM secara terintegrasi—spiritual, intelektual, dan profesional—memperkuat kolaborasi dosen, mendukung perencanaan karir, meningkatkan relevansi tridharma bagi masyarakat, serta mendorong inovasi kurikulum dan pelayanan akademik.

Kata Kunci: *Sumber Daya Manusia, Sarang Lebah-Madu, Profesionalisme Dosen, Pelayanan Akademik*

INTRODUCTION

Islamic higher education faces significant challenges in meeting the rapidly evolving demands of globalization and modernity (Hajar, 2024; Hasanah, 2024; Rahman & Azzahra, 2024). Islamic universities in Indonesia, particularly those under the Ministry of Religious Affairs, must play an active role in producing human resources (HR) who are not only academically competent but also uphold the integrity of Islamic values. In this context, the greatest challenge is integrating religious knowledge with general knowledge within an effective and efficient education system (Syukri & Rosyad, 2025; Utari et al., 2025). This research is significant because it addresses knowledge integration across two crucial domains: religion and science. Without solid integration, gaps will emerge that hinder the development of science and quality human resources (Din, 2025; Hanafiah, 2025; Utari et al., 2025). Therefore, this research can make a significant contribution to society by offering more applicable solutions in the management of Islamic education that prioritize integrative values.

Islamic higher education in Indonesia often faces a fundamental problem: a silo mentality within the organizational structure of higher education institutions, where faculties or study programs tend to operate in isolation, failing to collaborate (Ikpuri, 2023; Muller, 2025; Musendekwa, 2025). This results in limited and partial human resource development within the higher education environment (Jeske & Olson, 2025; Mhlongo, 2025). Lecturers who focus on religious studies are often disconnected from developments in science and technology, while science lecturers feel alienated from the Islamic context. This situation leads to low synergy between disciplines, which should be a key driving force in the development of knowledge in Islamic universities. Therefore, it is crucial to address this problem so that the integration of religious and general sciences can be fully realized within the education system.

Field observations indicate that many Islamic universities that have transformed into State Islamic Universities (UIN) face a dilemma in implementing this integration. This transformation process is often merely administrative, with little change in human resource development. Faculties or study programs continue to operate separately, hindering synergy between religious and general sciences. At UIN Sultan Aji Muhammad Idris Samarinda, despite the change in institutional status, the integration of religious and general sciences remains hampered by this silo mentality. Therefore, a new approach is needed to address this problem and bring about more concrete changes in the integration of sciences in Islamic universities.

Several previous studies have attempted to address knowledge integration in Islamic education, both from a curriculum perspective and from an abstract

philosophical perspective (Ciptadi & Tobroni, 2024; Desfita et al., 2024; Mahmudulhassan et al., 2025). One important contribution comes from the concept of integrating knowledge, introduced to address the negative impact of the dichotomy between religious and general knowledge. (Pitriani et al., 2024; Utari et al., 2025). Meanwhile, Amin Abdullah and Azyumardi Azra proposed the concept of knowledge integration through metaphors, depicting the relationship between religious and secular knowledge as dialogical and mutually reinforcing (Irham, 2025; Kautsar et al., 2025; Muwaffiqillah et al., 2025; Ngisomudin et al., 2025). However, most of these studies focused on the curriculum or philosophy and failed to address the operational and managerial aspects, which are crucial to implementing knowledge integration.

Although research on knowledge integration has been conducted previously, no study has specifically addressed the managerial aspects of human resource development using a metaphorical approach. This study, which uses the metaphor of a honeycomb, offers a new perspective on how Islamic universities can manage knowledge integration more efficiently and inclusively. A major weakness of previous research is the lack of an approach that connects the philosophy of knowledge integration with concrete human resource management practices at the institutional level. Therefore, this study is crucial in filling this gap by offering a managerial model based on interdisciplinary symbiosis and more collaborative human resource development.

The novelty of this research lies in the use of a metaphorical-biomimetic approach to managing human resource development in Islamic higher education. The honeycomb metaphor (HHM) used in this study offers a symbiotic model in which each discipline shares space and reinforces the others, in contrast to a rigid hierarchical model. This approach contributes theoretically to the literature on Islamic educational management and offers an operational model applicable to Islamic higher education. This research also focuses on practical implementation by introducing concepts directly applicable to policymakers in Islamic higher education.

The main research problem formulation of this study is the relevance of the honeycomb metaphorical integration concept in human resource development at UINSI Samarinda. This study aims to explore how human resource management based on interdisciplinary collaboration can improve the quality of education and produce human resources capable of competing globally. The tentative argument of this study is that, by adopting a symbiotic model grounded in interconnectedness and collaboration, Islamic higher education institutions can overcome silo issues and integrate religious and general disciplines more dynamically and efficiently.

The hive, bees and honey metaphor-based approach, which emphasizes collaboration across disciplines, is expected to provide a more dynamic and efficient solution for achieving scientific integration in Islamic higher education, particularly at UINSI Samarinda, which is currently undergoing institutional transformation. Furthermore, this research can provide more applicable solutions for Islamic higher education institutions to produce graduates who excel not only in science but also possess spiritual depth in accordance with Islamic teachings.

Thus, this research contributes to the development of human resource management in Islamic higher education institutions, making them more holistic and integrated.

RESEARCH METHODS

This research employed a qualitative research design with a case study approach (Cole, 2024; Viera, 2023). This approach was chosen because it focused on an in-depth understanding of knowledge integration at UINSI Samarinda, particularly in human resource development, using the honeycomb metaphor. Case studies allow researchers to explore in detail the context and dynamics on the ground, as well as examine the impact of knowledge integration within Islamic educational institutions. Using this approach, this research can yield a more comprehensive and applicable understanding of human resource management in Islamic higher education institutions.

This research was conducted at UINSI Samarinda, the only state Islamic university in East and North Kalimantan. This location was chosen based on the ongoing institutional transformation process at UINSI Samarinda, which was previously an IAIN and now a UIN. This transformation has impacted the development of knowledge and the integration of religious and general knowledge. Furthermore, UIN Samarinda also promotes the honeycomb metaphor in knowledge integration, which serves as the basis for this research. This location is highly relevant for exploring how this knowledge integration model is implemented in the context of Islamic higher education institutions in Indonesia.

Data collection in this study utilized three main techniques: documentation, interviews, and observation (Chand, 2025; Opara et al., 2023). Documentation was used to collect key materials, including curricula, technical guidelines, and documents related to the scientific development paradigm at UINSI Samarinda. Interviews were conducted with UINSI Samarinda leaders, the conceptor of scientific integration, and other informants deemed to have a deep understanding of the research topic. Observations were used to verify data from documentation and interviews and to assess the implementation of the scientific integration concept in the field. The following table shows the data sources and data collection techniques used in this study.

In data analysis, this study employed the interactive analysis model developed by Miles, Huberman, and Saldana. This model consists of three main stages: data collection, data condensation, data presentation, and conclusion. During data collection, information was obtained through documentation, interviews, and observations. The collected data were then condensed and presented in accordance with the research objectives. Conclusions were drawn by verifying the findings obtained from each research indicator. This stage was iterative, with the collected data continuously analyzed and updated until valid and relevant conclusions were reached. This process ensures that the research results address the research questions appropriately and make useful contributions to the development of human resources in Islamic higher education.

RESULTS AND DISCUSSION
Results
Bees and Honey: A Metaphor for Human Resource Development

Based on field studies, human resource development at UINSI Samarinda is operationally defined as a series of efforts aimed at improving the quality and professionalism of lecturers and students, the primary subjects of scientific development on campus. In this research, human resources encompass lecturers, who are responsible for transferring knowledge, and students, who are both recipients and active participants in the scientific process. Human resource development is defined not only in terms of quantity, but also in terms of achieving functional positions, academic qualifications, and professionalism that support academic performance and scientific integration.

Interviews with the Head of the LPM UINSI Samarinda revealed that the institution does not yet have formal guidelines for human resource development. He stated, "We do not have such guidelines because human resources are more focused on planning tasks and functions; we focus on quality assurance, referring to the SN-Dikti." This statement indicates that human resource development is more administrative and oriented towards external quality standards rather than towards internal strategies to improve human resource quality. The researcher's interpretation indicates a gap between lecturers' professional development needs and existing regulations; without internal guidelines, development efforts rely on individual and work-unit initiatives.

The Vice Rector for General Administration, Planning, and Finance confirmed a similar situation: "There are no such guidelines yet; it is still a matter of awareness for each lecturer and study program to strive based on established benchmarks." Data from the personnel team coordinator added that their primary references are the Teacher and Lecturer Law and the Minister of Administrative and Bureaucratic Reform's Regulation regarding lecturer functional positions. Researchers view human resource development at UINSI Samarinda as reactive and normative, focusing on compliance with formal regulations rather than on comprehensive internal strategic planning. This leaves some lecturers—especially P3K—without clear guarantees of career development.

Observations of UINSI Samarinda's lecturer profiles indicate that of the 215 lecturers, only 11 (5.1%) have attained the rank of professor. Lecturers comprise 156 civil servants and 59 P3K, with P3K lacking any career development arrangements. Researchers interpret this data as indicating an imbalance between quantitative human resource growth and academic quality achievement. This underscores the need for a structured, measurable human resource development strategy to ensure that all lecturers have the opportunity to reach the pinnacle of professionalism. Overall, the research data confirms that UINSI Samarinda's human resource development remains normative, reactive, and uneven. Only a small proportion of lecturers have attained high-level functional positions, while P3K (Planning and Training) staff have limited access to career development. This restatement makes it easier for readers to understand that the primary problem is not simply the quantity of human resources, but rather the stagnation of quality, which impacts institutional performance and the implementation of the expected integration of knowledge.

The data pattern demonstrates an imbalance between the quantity and quality of human resources. An increase in the quality of functional positions or professionalism does not accompany the growth in the number of lecturers. This pattern is consistent with a reliance on external regulations, a lack of internal guidelines, and the view that lecturers' individual awareness is the primary driver of development. In the context of the hive, bees and honey metaphor, low-quality human resources are like bees unable to produce honey or build a superior hive, providing the basis for the argument for strategic planning to improve human resource quality before demanding optimal academic results.

The Philosophy of the Honeycomb Metaphor and the Development of Higher Education Human Resources

Based on field studies and the literature, human resource development at UINSI Samarinda is operationally defined as an integrative process that connects the spiritual, intellectual, and professional values of lecturers, students, and alumni with the university's institutional structure. The university is understood as a "hive," lecturers and students as "bees," and knowledge as the "honey" produced and disseminated. This definition emphasizes the integration of Islamic values, the development of knowledge, and the benefit to society. Thus, human resource development encompasses not only quantitative growth but also quality, the implementation of the Tridharma (three pillars of Islamic values), and an orientation towards community needs.

Table 1. Ontology of Hive, Bees and Honey

Dimensions	Ontological Terms	University/Human Resources Concept
Bee	Natural structures resulting from God's guidance; a place for honey to live, process, and store.	The university is a structured, solid, and beneficial institution of higher education based on Islamic values that supports academic life.
Hive	Social life, role specialization, obedience, cooperation, and competition.	Lecturers and students are productive, collaborative, loyal, and competent human resources in the development of knowledge.
Honey	Products of the hive and bees' existence, with value and sustainability.	The knowledge produced by human resources through the university is meaningful, applicable, and beneficial to society.

Ontological studies emphasize that universities, as hives, have a dual function: providing education while supporting the ongoing development of knowledge. Bees emphasize the orderly role of human resources, requiring institutions to establish structures and mechanisms that ensure compliance, professionalism, and collaboration. Honey emphasizes that academic (scientific) outcomes are inseparable from the quality of human resources and institutional order; consequently, universities must become platforms that enable human resources to produce useful knowledge.

Table 2. Epistemology of Bees as a Metaphor for Human Resources

Study Dimensions	Epistemological Terms	Lecturers/Students/Alumni
Sources	Allah SWT, Wahyu Takwini	Spirituality: the most important principle in activities
Methods	Obedience, obedience, eating fruit or flower nectar, and laying eggs.	Intellectualism: analytical, critical, and scientific
Validation	Reproduction, building nests, and making honey	Professionalism: completeness and appropriateness of results

Epistemological studies indicate that the human resource development process must be rooted in religious values (tawhid), implemented through intellectual and collaborative methods, and validated through tangible results—both in the form of useful knowledge and academic products. This emphasizes the continuity between sources of inspiration, work methodologies, and validation of results within the Islamic higher education system.

Researchers have established a terminology for this finding, stating that the concept of "sources in bees" for human resources at UINSI Samarinda aligns with the UINSI Samarinda motto: "Spirituality, Intellectuality, and Professionalism are Source, Method, and Validation." This aligns with ontological studies, which emphasize the religious principle of tawhidic awareness. Therefore, in its epistemology, UINSI Samarinda's human resources also derive from spirituality, meaning that Islamic religious experience can influence their socio-religious practices, whether as lecturers, students, or alums. Intellectualism can also be positioned as a resource, but more practically, it relates to work that is clearly visible in the academic culture of higher education. Therefore, intellectualism, driven by spirituality, is the method of UINSI Samarinda's human resources. The meaning of intellectualism in academia is, of course, critical creativity. Its concrete implementation is teaching, expanding discoveries; research is the process of discovery and creation; and community service is the original form of knowledge that can be felt universally. This is part of professionalism. UINSI Samarinda's human resources are recognized as productive and knowledgeable when they have successfully implemented their knowledge through the Tri Dharma of Higher Education, particularly in community service. The metaphorical document for the integration of the knowledge model states that spirituality produces sincere work, intellectuality produces intelligent work, and professionalism produces thorough work.

Table 3. Axiology of the Nest as a Metaphor for the University

Axiological Components	Axiological Terms	University Concept
Truth Values as Functions	A place where bees live, as well as a place to store and process honey	A platform for human resources (lecturers, students, and alumni) to access, produce, and disseminate knowledge
Beauty Values as Abstractions	Safety, comfort, order, and direction	Academic values, scientific merit, sustainability, and implementation accuracy
Goodness Values as Goals	Protecting and maintaining honey; and providing shade	Protection of intellectual property rights, provision and delivery of

	and a central control center for bees	facilities, and services for the Tri Dharma of Higher Education
Happiness Values as Implications	Implementing a healthy ecosystem for bees and their environment	Impact of achieving objectives: increased human resource development, research and community service, public services, and the number of students and alumni

Based on the summary in Table 3, several points need further elaboration. It is a truth that universities are places for lecturers to teach and research, for students to learn and research, and for alums to serve. Serving does not mean returning to campus to work, but rather making the campus a place to build achievements and a reason to do things that benefit society. This indirectly facilitates access to, production of, and dissemination of knowledge.

It is a beautiful thing if a university has created and fostered an academic culture through scientific traditions, a commitment to the reality of science, and the accuracy of its implementation to societal needs. Furthermore, the benefits include institutionalizing knowledge, such as protecting research results through Intellectual Property Rights for researchers and providing facilities for implementing the Tri Dharma of Higher Education, both for human resources and the community. This can take the form of establishing units, institutions, study centers, and the like.

As previously mentioned, the UINSI Samarinda profile, comprising 5 Units, 2 Institutes, and 4 Faculties, has not been optimally implemented to achieve its vision of community development. It is necessary to identify the potential for each unit, institution, and faculty to contribute optimally to society, not just within the framework of fieldwork and real-world work experience for students. This description forms the basis for a study of the relevance of implementing curriculum and human resource development at UINSI Samarinda.

Table 4. Bee Axiology as a Metaphor for Human Resources

Axiological Components	Axiological Terms	Human Resources Concept (Lecturers, Students, and Alumni)
Truth Values as Functions	1. Nest builder and shaper 2. Honey maker 3. Reproduction	1. Institutionalizing and disciplining science 2. Developing science 3. Disseminating knowledge through teaching
Beauty Values as Abstractions	Productive, Collaborative, Contributive, and Selective	1. Knowledge production through the Tri Dharma of Higher Education 2. Collaboration between experts, scientists, and all levels of society
Goodness Values as Goals	1. Produces quality honey 2. Maintains the hive 3. Gives birth to new colonies	1. Quality and implicational knowledge 2. Maintaining the university's academic existence 3. Implementing education and teaching

Happiness Values as Implications	1. Benefits of Honey 2. Healing 3. Personal and Nest Hygiene	Impact of achieving these objectives: 1. Creating a healthy social order 2. Community satisfaction 3. Improving the dignity and status of the university

The axiology of bees aligns with the axiology of human resources at UINSI Samarinda. Consequently, lecturers and students are truly capable of disciplining knowledge through the establishment of scientific research institutions, including educational institutions at various levels, such as study programs and faculties. Their potential also allows for the development of knowledge, as illustrated in the bee's life cycle, in the simple description of the human resources at UINSI Samarinda, and in the study of epistemology. The dissemination of knowledge is also a function of its many methods, including the implementation of the Tri Dharma of Higher Education. Categorical divisions are also implied in this description, such as Shihab's detailed description of the metamorphosis of bees, from egg, then larva, to pupa, and finally to adult bee. This concept is translated into curriculum development based on these stages.

The beauty and amazement expressed by these six interpretive studies demonstrate the collaboration of UINSI Samarinda's human resources, lecturers, students, and the community in ensuring the successful implementation of the Tri Dharma of Higher Education. This vision of community development is achieved because educational activities, teaching, research, and community service are all grounded in the needs of the community, both regionally, nationally, and internationally. All of this potential and supporting tools demonstrate broad access, ensuring that no human resources are left undeveloped. This foundation is also part of its virtue: the goal of UINSI Samarinda's human resources, which are currently undergoing and have undergone knowledge exchange, is to produce quality knowledge, with indicators that can be implemented in society. This is also part of maintaining the university's academic existence.

The implication or value of this happiness is the creation of a healthy social order, made possible by the foundation of this knowledge development model. Continuously measuring community satisfaction can also be used; efforts to increase it are concrete ways to enhance the university's dignity and prestige. Ontologically, the definitive concept of UINSI Samarinda's human resources, from the perspective of the honeycomb metaphor, is rational and emotional human beings who produce and process knowledge. This demonstrates the relevance of the three philosophical studies of the hive, bees and honey metaphor to the concept of knowledge integration at UINSI Samarinda.

Table 5. Axiology of Honey as a Metaphor of Science

Axiological Components	Axiological Terms	Science / Output
Truth Values as Functions	1. Produced by Bees 2. Maintained by Hives	1. Knowledge is processed by human resources 2. Knowledge is legalized by universities
Beauty Values as Abstractions	Purity, usefulness, sustainability and natural quality	1. Easy to access and use 2. Developed and followed up 3. Authentic / academic ethics

Goodness Values as Goals	1. Drink and digest 2. Used for health 3. The basis of herbal medicine	1. Object of scientific development 2. Can be understood and implemented by the community 3. Developed using various methods and approaches
Happiness Values as Implications	1. Proven bee productivity 2. Proven hive maintenance 3. Utilization of the contained medicine	The impact of this achievement is to increase: 1. The dignity of university human resources and alumni 2. The dignity of the university 3. The dignity of humans and society, the nation, and the state

Axiological studies emphasize the value orientation, goals, and implications of human resources and university activities. The value of truth emphasizes academic functionality; the value of beauty emphasizes productivity and collaboration; the value of goodness emphasizes social benefits and educational quality; while the value of happiness emphasizes the sustainability of human resource contributions to society. Universities and human resources are only successful when these values are harmonious and sustainable.

Critically, the three tables (ontology, epistemology, and axiology) demonstrate a systematic pattern in human resource development: Human resources must have a spiritual foundation, a productive scientific method, and the ability to validate their results. The university acts as a nest, providing structure and facilities. Knowledge, as honey, is an indicator of success, enjoyed not only by the institution but also by the wider community. This pattern emphasizes the integration of religious, intellectual, and social values within a sustainable Islamic higher education model.

Based on document reviews and interviews, UINSI Samarinda has incorporated hive, bees and honey principles into its vision, mission, and curriculum, although its implementation still requires optimization. New study programs are developed based on community needs and the integration of academic disciplines. Lecturer and student activities have not fully adopted collaborative, social, and project-based learning methods. However, the potential for hive, bees and honey implementation is evident in the Tri Dharma-based curriculum structure and the development of community-responsive study programs. Researchers interpret the hive, bees and honey philosophy as a conceptual framework that links spiritual, intellectual, and professional values with tangible academic output.

Overall, the findings indicate that UINSI Samarinda's human resource development can be understood through the honeycomb metaphor: the university as the hive, human resources as the bees, and knowledge as the honey. Ontology emphasizes structure and function, epistemology emphasizes sources, methods, and validation, while axiology emphasizes values, goals, and implications. This

pattern emphasizes that the success of Islamic higher education must be holistic, integrative, and oriented toward social, academic, and spiritual benefits.

Integrative Value-Based Academic Human Resource Development

UINSI Samarinda's human resource development is operationally defined as a systematic process that includes competency data collection, identification of development potential, goal setting, planning, and measuring the progress of lecturers, students, and alums. Human resources are understood as the primary agents in actualizing the university's vision of creating a society that is rahmatan lil alamin (blessing for the universe) and prosperous. This definition emphasizes the alignment between the individual character of human resources, the university's institutional structure, and outputs in the form of knowledge and community service, in accordance with the philosophy of the hive, bees and honey metaphor.

Table 6. Academic Human Resource Development Based on Integrative Values

Interview Data / Observation	Description	Code
Interview with the Vice Rector for Academic Affairs & Institutional Development	University human resources are directed to build community character through curriculum development and academic activities, adhering to the principles of bee work (bureaucracy, governance, and division of tasks).	Character-Based Human Resources; Integration of hive, bees and honey Philosophy
Table V Data – Lecturer Profile 2019–2025	Increased number of lecturers at the Professor level by 11, Associate Lecturers by 35 (27 Doctors), Lecturers by 97 (26 Doctors), and Assistant Experts by 72 (6 Doctors).	Increasing the quantity of human resources; Potential for career acceleration
Interview with the Vice Rector for Academic Affairs – Branch of Science	Development of 58 Islamic Religious Education (PAI) lecturer branches to support the Professor level.	Knowledge-Based Human Resources Development Planning
Interview with the Vice Rector for General Administration & Finance	Competency data collection is available, but feedback and follow-up are not yet optimal; the process still relies on personal awareness.	Gap between data collection and implementation of human resources development
Rector's Decree Document 2015–2023	Displays formal guidelines regarding workload, educational management systems, career development, rewards and punishments, and a lecturer code of ethics, but some operational aspects are incomplete.	Formal Human Resources Framework; Lack of SOPs for implementation

Table 6 shows that UINSI Samarinda has a formal foundation in the form of documents and guidelines related to human resource development, but its implementation remains partial. Interview data demonstrates leadership awareness of the hive, bees and honey philosophy, which positions human resources as productive, collaborative, and community-oriented "bees." However, the lecturer career development system, particularly P3K, is not yet fully

structured, resulting in limited development of academic competencies and limited acceleration of functional positions. This pattern indicates an imbalance between administrative capacity and field implementation.

Furthermore, human resource development based on scientific disciplines and functional positions emphasizes scientific foundations as the basis for professional growth. Despite a significant increase in the number of doctoral-educated lecturers at various levels, implementation of the acceleration strategy to reach the top position (Professor) still requires systematic support, structured evaluation, and effective feedback mechanisms. This suggests that although the hive, bees and honey philosophy has become a conceptual guideline, implementing its principles remains hampered by regulatory complexity, staffing constraints, and internal institutional readiness.

Lecturer competency data collection has been systematically conducted through various internal systems *(e-kinerja, e-BKD, Sister)*. However, there has not been full integration between data collection, development planning, and outcome evaluation. Observations of curriculum documents, study programs, and institutional structures demonstrate the relevance of the hive, bees and honey philosophy to scientific development, but human resource development is not yet fully operational. This underscores the need for formal alignment, the development of SOPs, and acceleration mechanisms to realize the university's vision of integrating science and community development.

In summary, the findings indicate that UINSI Samarinda's human resource development has a strong conceptual foundation based on the hive, bees and honey philosophy: the university as a hive, human resources as bees, and knowledge as honey. Competency data collection and lecturer career planning have been implemented, but feedback mechanisms, job acceleration, and operational system integration are still limited. Thus, human resource and curriculum development are conceptually and policy-relevant, but their implementation requires optimization to achieve the university's vision and provide tangible benefits to the community.

Discussion

The research results show that UINSI Samarinda's human resource development, based on the metaphorical philosophy of the honeycomb, emphasizes the integration of the institutional structure (the hive), the active role of human resources as lecturers, students, and alumni (the bees), and academic output in the form of knowledge and social contributions (the honeycomb). This finding is consistent with the literature on human resource development in Islamic higher education, which emphasizes the importance of harmony among religious values, intellectualism, and professionalism (Gano et al., 2024; Ikhwan et al., 2025; Umami & Yasin, 2024). However, its implementation differs: the literature tends to emphasize formal procedures and performance-based management, whereas UINSI Samarinda integrates natural philosophy and metaphor as a conceptual foundation.

Ontologically, the hive-as-university metaphor suggests that the institutional structure must be robust, orderly, and beneficial, supporting all

human resource activities. The literature on higher education management emphasizes the importance of governance, hierarchy, and accountability in human resource development (Chowdhury et al., 2024; Darmawangsa & Arifuddin, 2025; Yahya et al., 2023). The research findings confirm this alignment but add a unique religious and ethical dimension, emphasizing the utility of knowledge for society, thus transforming the institutional concept into more than just administrative but also normative and philosophical. The theoretical implication is the need to expand the traditional HR management framework with concrete ethical, spiritual, and social principles; in practice, universities need to translate this philosophy into standard operating procedures (SOPs), evaluations, and lecturer career paths.

From an epistemological perspective, this research demonstrates that knowledge, as a human resource output, originates from revelation and human experience, is processed through analytical, critical, and collaborative methods, and is validated through tangible outcomes that benefit society. The literature on higher education epistemology emphasizes the importance of integrating theory and practice within the Tri Dharma Perguruan Tinggi (Three Pillars of Higher Education) (Lailia & Mascarinas, 2023; Muhsyanur et al., 2025), and the findings of this study align with this concept but add the metaphorical value of hive, bees and honey as a symbol of continuity and regularity in the academic process. The theoretical implications point to the need for an educational model that combines spirituality, intellectualism, and professionalism. Practically, universities must ensure that human resources have access to knowledge sources, training, and effective validation mechanisms.

In terms of axiology, the study found that UINSI Samarinda's human resources are not only required to be productive and collaborative, but also to emphasize social benefits and sustainability, including tangible contributions to society through the Tridharma (three pillars). This finding is consistent with the human resource development literature, which emphasizes beneficial outcomes as a benchmark for performance (Barkun et al., 2023; Bonsel et al., 2024; Fazlollahi et al., 2023), but differs in that it emphasizes the principles of monotheism and collective benefit as the basis for evaluation. The theoretical implication is that the axiological concept of human resources must incorporate ethical and spiritual dimensions. At the same time, practically, universities need to adapt human resource performance indicators to measure both scientific contributions and social impact.

Data analysis shows that although competency data collection and career planning for lecturers have been conducted, feedback mechanisms and functional level acceleration remain limited, particularly for P3K and high-potential lecturers. The literature on academic career development emphasizes the importance of monitoring, feedback, and acceleration programs to maintain the quality of human resources (Kurniasi & Akbar, 2025; McDonald & Hite, 2023; Okafor et al., 2025), and this study's findings demonstrate a similar strategic need. Theoretically, this underscores the need for an adaptive and systematic HR development model; practically, universities need to strengthen mentoring mechanisms, regular evaluations, and functional position acceleration programs to realize the hive, bees

and honey philosophy.

Overall, this study confirms the relevance of the honeycomb philosophy to HR development and the curriculum at UINSI Samarinda, emphasizing the integration of spiritual, intellectual, and professional values. These findings align with the literature on value integration in higher education management, but differ in their metaphorical and concrete philosophical approach. The theoretical implication is that HR development must be understood as a multidimensional process that simultaneously connects structure, process, and output. In contrast, the practical implications highlight the need for systematic implementation through internal guidelines, career paths, social-benefit-based evaluation, and the integration of curriculum with HR development to ensure real contributions to society and institutional sustainability.

CONCLUSION

This study finds that the honeycomb metaphor (HBM) philosophy provides a strong conceptual framework for understanding human resource development and curriculum at UINSI Samarinda. The most important lesson from this study is that human resource development is not merely administrative or quantitative, but must be integrated with spiritual, intellectual, and professional values, and oriented towards tangible benefits for society. The university, as the "hive," provides structure and governance, human resources, as the "bees," play an active role, and knowledge, as the "honey," produces beneficial and sustainable output. This approach emphasizes that human resource quality must be developed holistically to ensure the sustainability of knowledge and social contribution. Therefore, the HBM philosophy can be used as a pedagogical and managerial model in Islamic higher education.

The main strength of this paper lies in its scholarly contribution, namely, the introduction of an integrative model that connects the ontology, epistemology, and axiology of human resource development with Islamic philosophy and natural metaphors. In practice, this research provides conceptual guidelines for universities in developing curricula, planning lecturer careers, and developing human resource competencies aligned with social benefits. The limitations of this study lie in its narrow focus on lecturers, students, and UINSI Samarinda alums, without extensive quantitative analysis or comparisons with other institutions. Future research could expand this study by using longitudinal and comparative methods to empirically assess the impact of hive, bees and honey implementation on graduate quality, human resource productivity, and social contributions.

ACKNOWLEDGMENT

REFERENCES

Barkun, J., Clavien, P., & Pawlik, T. M. (2023). The Benefits of Benchmarking-A New Perspective on Measuring Quality in Surgery. *JAMA Surgery, 158*(4), 341–342. https://doi.org/10.1001/jamasurg.2022.5831

Bonsel, J. M., Itiola, A. J., Huberts, A. S., Bonsel, G. J., & Penton, H. (2024). The Use of Patient-Reported Outcome Measures to Improve Patient-Related Outcomes-A Systematic Review. *Health and Quality of Life Outcomes, 22*(1), 101. https://doi.org/10.1186/s12955-024-02312-4

Chand, S. P. (2025). Methods of Data Collection in Qualitative Research: Interviews, Focus Groups, Observations, and Document Analysis. *Advances in Educational Research and Evaluation, 6*(1), 303–317. https://doi.org/10.25082/AERE.2025.01.001

Chowdhury, S., Budhwar, P., & Wood, G. (2024). Generative Artificial Intelligence in Business: Towards a Strategic Human Resource Management Framework. *British Journal of Management, 35*(4), 1680–1691. https://doi.org/10.1111/1467-8551.12824

Ciptadi, T., & Tobroni, T. (2024). The Integration of Philosophy in the Development of Islamic Religious Education Curriculum: An Epistemological And Applied Analysis. *Edukasi Islami: Jurnal Pendidikan Islam, 13*(04), 789–800.

Cole, R. (2024). Inter-Rater Reliability Methods in Qualitative Case Study Research. *Sociological Methods & Research, 53*(4), 1944–1975. https://doi.org/10.1177/00491241231156971

Darmawangsa, D., & Arifuddin, A. (2025). Human Resource Development Strategies for Achieving Good University Governance: A Literature Review. In *9th International Conference on Accounting, Management, and Economics 2024 (ICAME 2024)* (pp. 2877–2882). https://doi.org/10.2991/978-94-6463-758-8_234

Desfita, V., Salminawati, S., & Usiono, U. (2024). Integration of Science in the Perspective of Islamic Educational Philosophy and Its Implications in Realizing Holistic Education. *Jurnal As-Salam, 8*(2), 114–134. https://doi.org/10.37249/assalam.v8i2.714

Din, H. T. (2025). The Contribution of Islamic Education to Bridging Global Knowledge Gaps. *Pakistan Journal of Islamic Philosophy, 7*(1), 9–17.

Fazlollahi, A. M., Yilmaz, R., Winkler-Schwartz, A., Mirchi, N., Ledwos, N., Bakhaidar, M., Alsayegh, A., & Del Maestro, R. F. (2023). AI in Surgical Curriculum Design and Unintended Outcomes for Technical Competencies in Simulation Training. *JAMA Network Open, 6*(9), e2334658. https://doi.org/10.1001/jamanetworkopen.2023.34658

Gano, A. A., Abdullahi, N., Adam, Z. L., & Setyawan, C. E. (2024). Integrating Islamic Principles into Human Resource Management: Advancing Organizational Success through Islamic Education and Ethical Practices. *Tadibia Islamika, 4*(2), 62–74. https://doi.org/10.28918/tadibia.v4i2.9125

Hajar, A. (2024). Navigating Globalization: Reforming Islamic Education for the 21st Century. *Sinergi International Journal of Islamic Studies, 2*(1), 53–65. https://doi.org/10.61194/ijis.v2i1.599

Hanafiah, Y. (2025). Bridging Science and Religion: A Governance Strategy Islamic Education Institutions at the Secondary Level Based on Scientific Integration. *Al-Fahim: Jurnal Manajemen Pendidikan Islam, 7*(1), 150–167. https://doi.org/10.54396/alfahim.v7i1.1892

Hasanah, N. A. (2024). Opportunities and Challenges for Islamic Education in Society 5.0. *Islam Transformatif: Journal of Islamic Studies, 8*(2), 264–281. https://doi.org/10.30983/it.v8i2.8650

Ikhwan, A., Rohmad, A., & Zukhrufin, F. K. (2025). Integrating Emotional and Spiritual Quotient (ESQ) With Prophetic Values in Human Resource Development. *Afkar: Jurnal Akidah Dan Pemikiran Islam, 27*(1), 383–426. https://doi.org/10.22452/afkar.vol27no1.10

Ikpuri, E. O. (2023). Rethinking Collaboration: Breaking Silos Between Academic and Student Affairs to Foster Collegial Culture. Barry University.

Irham. (2025). Policies and Patterns of Integration of Science and Religion in Indonesian Islamic Higher Education. *Higher Education, 90*(5), 1311–1328. https://doi.org/10.1007/s10734-024-01378-9

Jeske, D., & Olson, D. (2025). Silo Mentality in Teams: Emergence, Repercussions and Recommended Options for Change. *Journal of Work-Applied Management, 17*(1), 20–33. https://doi.org/10.1108/JWAM-07-2023-0064

Kautsar, E. S., Alwiyah, U., & Jabbar, A. (2025). The Practice of Qur'anic and Tafsir Integration in Thesis Writing: Challenges and Patterns at Biology Education Department UIN Alauddin Makassar. *EDUKASI: Jurnal Penelitian Pendidikan Agama Dan Keagamaan, 23*(1), 148–169. https://doi.org/10.32729/edukasi.v23i1.1942

Kurniasi, I., & Akbar, I. (2025). Human Resource Development Programs and Their Contribution to Employee Career Advancement in State Universities. *Maroon Journal De Management, 2*(4), 196–208. https://doi.org/10.37899/mjdm.v2i4.254

Lailia, Z. N., & Mascarinas, A. M. (2023). Exploring the Experience of Novice ELT Lecturers to Build Their Professional Identity Based on Tri Dharma Perguruan Tinggi. *Journal of Applied Linguistics and English Education, 1*(1), 28–38. https://doi.org/10.36456/jalle.v1i1.7320

Mahmudulhassan, M., Elbanna, M., & Abuzar, M. (2025). The Philosophical Foundations of Holistic Education in the 21st Century (Challenges and Obstacles to the Development of Islamic Education). *Jurnal Pedagogy, 18*(1), 1–9. https://doi.org/10.63889/pedagogy.v18i1.305

McDonald, K. S., & Hite, L. M. (2023). *Career Development: A Human Resource Development Perspective.* Routledge. https://doi.org/10.4324/9781003246381

Mhlongo, P. M. (2025). Breaking Silos to Foster Knowledge Sharing in Universities: A Systems Thinking Perspective. *European Conference on Knowledge Management, 1*, 644–651. https://doi.org/10.34190/eckm.26.1.3622

Muhsyanur, M., Umrati, U., Mansur, M., & Najamuddin, A. (2025). Tri Dharma Perguruan Tinggi in Indonesia: Concept, Principles, and Implementation in Academic World. *VORS: Journal of Community Service, 3*(8), 19–26.

Muller, S. (2025). Beyond Information Silos: Transformative Knowledge Management Practices in Higher Education Governance Structures. Northeastern University.

Musendekwa, M. (2025). Breaking Down Silos: Strategies for Collaborative Technology Integration in Higher Education. In *Institutes of Higher Education (IHE) and Workforce Collaboration for Digital Literacy* (pp. 1–48). IGI Global Scientific Publishing. https://doi.org/10.4018/979-8-3373-0004-7.ch001

Muwaffiqillah, M., Zulfa, I., & al-Akiti, M. A. (2025). Revisiting Ibn Rushd's Demonstrative Philosophy: Bridging Classical Thought and Scientific Integration in Contemporary Islamic Higher Education. *Tribakti: Jurnal Pemikiran Keislaman, 36*(1), 123–146. https://doi.org/10.33367/tribakti.v36i1.6628

Ngisomudin, M., Mahmudah, S., & Susanto, I. (2025). The Role of Scientific Integration in Strengthening Religious Moderation on Islamic Higher Education Institution in Indonesia. *Kalam, 19*(1). https://doi.org/10.24042/20251911461

Okafor, C. M., Wedraogo, L., Essandoh, S., Sakyi, J. K., Ibrahim, A. K., Babalola, A. S., & Adenuga, M. A. (2025). Analysis of Human Resource Development Initiatives and Employee Career Progression. https://doi.org/10.54660/IJMFD.2025.6.1.55-64

Opara, V., Spangsdorf, S., & Ryan, M. K. (2023). Reflecting on the Use of Google Docs for Online Interviews: Innovation in Qualitative Data Collection. *Qualitative Research, 23*(3), 561–578. https://doi.org/10.1177/14687941211045192

Pitriani, L., Hadistia, M., & Basyari, A. M. (2024). Integration of General Knowledge and Religion: Strategies for Building Holistic Education in a Multidisciplinary Era. https://doi.org/10.54801/vj2ccc16

Rahman, N. A., & Azzahra, A. (2024). The Role of Islamic Education in Preserving Cultural Identity Amidst Global Modernity. *Sinergi International Journal of Islamic Studies, 2*(4), 257–271. https://doi.org/10.61194/ijis.v2i4.707

Syukri, M. D. A., & Rosyad, A. (2025). Integrating Modern Technology in Islamic Religious Education: Challenges and Opportunities for Teachers. *The Journal of Academic Science, 2*(4), 1148–1156.

Umami, I. O. N., & Yasin, M. (2024). Integrating Islamic Ethical Values Into Human Resource Development: Enhancing Educational Quality in Indonesian Islamic Schools. *Dirosatuna: Journal of Islamic Studies, 7*(2), 99–110. https://doi.org/10.31538/dirosatuna.v7i2.7683

Utari, D., Abidin, M., Yuniar, Y., & Junaidah, J. (2025). Integration of General Knowledge and Religion Policy for the Emergence of Integrated Islamic Schools. *International Journal of Education and Literature, 4*(1), 267–278. https://doi.org/10.55606/ijel.v4i1.217

Viera, C. A. (2023). Case Study as a Qualitative Research Methodology. *Performance Improvement, 62*(4), 125–129. https://doi.org/10.56811/PFI-23-0005

Yahya, N., Said, J., Zakaria, N. B., & Baltov, M. (2023). Enhancing Organisational Accountability: The Role of Human Resource Management in Malaysian Statutory Bodies. *Journal of Nusantara Studies (JONUS), 8*(3), 453–479. https://doi.org/10.24200/jonus.vol8iss3pp453-479