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## **Divine Meaning Through Science: A Holistic Study of Islamic Integration in Addressing Modern Multidimensional Crises**

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### **Abstract**

This article examines the search for divine meaning in science through a holistic integrative framework grounded in Islamic epistemology, particularly in response to the multidimensional crises characterizing modern society. Contemporary science, while technologically advanced, often operates within a reductionist and value-neutral paradigm that marginalizes ethical and spiritual dimensions. This study aims to analyze how the integration of Islamic spiritual principles can reorient scientific inquiry toward a more meaningful and ethically grounded paradigm. Employing a qualitative library-based research method, the study conducts a critical-descriptive analysis of classical and contemporary scholarly works on science-religion integration, holistic epistemology, and modern civilizational crises. The discussion demonstrates that positioning science within a tauhid-based worldview enables a reconceptualization of natural phenomena as both empirical realities and signs of divine order, thereby restoring ethical orientation, existential meaning, and epistemic coherence in scientific practice. The scholarly contribution of this article lies in its formulation of “divine meaning in science” as a conceptual epistemological framework that bridges empirical inquiry with spiritual consciousness, rather than merely advocating methodological dialogue between science and religion. This approach provides a specific conceptual alternative for addressing ecological, moral, and existential crises by repositioning science as a value-oriented and integrative human endeavor.

**Keywords:** *Divine meaning in science, Islamic epistemology of science, Tauhid-based scientific paradigm, Science-spirituality integration, Modern multidimensional crisis.*

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## 1. INTRODUCTION

Contemporary scientific development has significantly transformed human civilization through technological advancement and empirical rationality. However, a growing body of scholarship has pointed out that modern science largely operates within a reductionist and value-neutral paradigm, which tends to marginalize ethical, spiritual, and existential dimensions of knowledge. This epistemological orientation has contributed to various multidimensional crises, including ecological degradation, moral disorientation, and the erosion of existential meaning. While numerous studies have addressed the relationship between science and religion, much of the existing literature focuses either on methodological dialogue or normative reconciliation without sufficiently elaborating a coherent epistemological framework that integrates spiritual meaning into scientific knowledge itself.

This problem becomes more apparent in the context of the multidimensional crises characterizing modern society. Environmental degradation, humanitarian conflicts, economic inequality, moral decline, and growing existential anxiety coexist with unprecedented scientific and technological development<sup>1, 2</sup>. Although science has successfully explained the mechanisms of the physical world, it has shown limited capacity to address the crisis of meaning experienced by modern humanity. The reductionist orientation of modern science, which confines reality to empirically observable phenomena, has marginalized values, ethics, and spirituality, resulting in a morally disoriented trajectory of knowledge and technology<sup>3</sup>.

Within the Islamic intellectual tradition, the search for meaning in science is not positioned as a rejection of rationality, but rather as an effort to restore science within a tauhid-based worldview<sup>4</sup>. Nature is understood not merely as an experimental object, but as *ayat kauniyyah*—signs that reflect divine wisdom and order<sup>5</sup>. Scientific observation, therefore, is not limited to technical analysis but also functions as a contemplative process that connects empirical inquiry with spiritual awareness<sup>6</sup>. This perspective situates science as both an epistemological and spiritual endeavor aimed at understanding reality in an integrated manner.

Methodologically, this perspective finds its foundation in a holistic approach that does not separate science, philosophy, ethics, and spirituality into isolated domains. Instead, these dimensions are understood as mutually reinforcing components of knowledge. A holistic framework enables dialogue between empirical facts and metaphysical meaning, allowing science to move beyond material causality toward a

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<sup>1</sup> Seyyed Hossein Nasr, *Problematika Krisis Spiritual Manusia Kontemporer ter. M. Muhibbuddin* (Yogyakarta: IRCiSiD, 2022), h. 7.

<sup>2</sup> Farah Nur Fadhilah, "Ironi Kemajuan Teknologi Vs Kerusakan Lingkungan," *Teknologi*, 2025, <https://teknologi.id/teknologi/ironi-kemajuan-teknologi-vs-kerusakan-lingkungan>.

<sup>3</sup> Rossa Audina Syahrini, Siti Oktarina Afisyah, dan Heni Ani Nuraeni, "Melampaui Sekularisme : Harmoni Integrasi Islam dan Sains dalam Mengatasi Kerapuhan Sains Modern," *Jurnal Pendidikan Tambusai* 8, no. 2 (2024): 17899–908, <https://doi.org/10.31004/jptam.v8i2.14932>.

<sup>4</sup> Ayu Savana Humairoh dan Ahmad Mustafidin, "Integrasi Ilmu Agama Dan Sains Dalam Pendidikan Islam Kontemporer," *NAAFI: Jurnal Ilmiah Mahasiswa* 2, no. 3 (2025): 528–38, <https://doi.org/10.62387/naafijurnalilmiahmahasiswa.v2i3.203>.

<sup>5</sup> Faizin, "Integrasi Agama Dan Sains Dalam Tafsir Ilmi Kementerian Agama Ri," *Jurnal ushuluddin* 25, no. 1 (2017): 19–33, <https://doi.org/10.24014/jush.v25i1.2560>.

<sup>6</sup> Andi Rosa, *Islam dan Sains dalam Kajian Epistemologi Tafsir Al-Qur'an: Al-Tafsir Al ilmi Al Kauni* (Serang : A-Empat, 2021), h. 31.

deeper understanding of human–cosmic–divine interconnectedness<sup>7</sup>. Such an approach offers a conceptual alternative to the fragmented epistemology that dominates modern scientific paradigms.

In an academic context, this research holds significant relevance as it offers an integrative perspective for understanding the relationship between Islam and science in a more substantial way. It has long been recognized that modern science produces strong material achievements, yet it has not been able to fully address humanitarian and spiritual issues. What remains unanswered is how the Islamic perspective, through a holistic study approach, can build a model for seeking divine meaning in science as a conceptual solution to the multidimensional crises of the modern era. This question becomes a space for scientific investigation that needs to be further explored.

Previous studies on Islam and science have predominantly emphasized Islamization of knowledge, ethical critiques of modern science, or comparative analyses between religious and scientific worldviews. Although these approaches provide valuable insights, they often leave unresolved the question of how divine meaning can function epistemologically within scientific inquiry rather than merely as an external ethical supplement. Research conducted by Ika et al<sup>8</sup>, titled '*Integrasi Agama dan Sains dalam Kehidupan Modern*,' emphasizes the integration of religion and science as a unity of spiritual and rational aspects in understanding reality. Meanwhile, the research by Rosa Audina Syahrini et al<sup>9</sup>, in the work '*Melampaui Sekularisme: Harmoni Integrasi Islam dan Sains dalam Mengatasi Kerapuhan Sains Modern*,' focuses attention on critiques of the secularism paradigm in modern science.

Other research by Miftahul Afkarina et al<sup>10</sup>, *Konflik, Dialog, dan Integrasi: Sebuah Eksplorasi Filosofis tentang Hubungan Sains dan Agama*, presents a philosophical review of three models of the relationship between science and religion: conflict, dialogue, and integration. Another significant contribution comes from the research of Amin Rais Iswanto and Khalid Mawardi<sup>11</sup> through the work titled '*Relevansi Pemikiran Nurcholish Madjid tentang Integrasi Islam dan Sains dalam Era Modern*', This research shows how Nurcholish Madjid's neo-modernist ideas place the integration of Islam and science in a progressive manner, not only maintaining religious principles in contemporary life but also encouraging analytical and comprehensive thinking.

Furthermore, research by Faizin<sup>12</sup> entitled '*Integrasi Agama dan Sains dalam Tafsir Ilmi Kementerian Agama RI*', presents an implementative perspective of the integration of religion and science through the scientific interpretation method. Although the five studies examined the integration of Islam and science, there are important differences with this study. The five previous studies generally discussed integration in the general context, epistemological criticism, philosophical-ethical approaches, perspectives of certain figures, and implementation in interpretation. However, there has

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<sup>7</sup> Faizin, "Integrasi Agama Dan Sains Dalam Tafsir Ilmi Kementerian Agama Ri."

<sup>8</sup> "Integrasi Agama Dan Sains Dalam Kehidupan Modern," *JKIS: Jurnal Kajian Islam Dan Sosial Keagamaan* 2, no. 1 (2024): 68–74, <https://jurnal.itc.web.id/index.php/jkis/index>.

<sup>9</sup> "Melampaui Sekularisme : Harmoni Integrasi Islam dan Sains dalam Mengatasi Kerapuhan Sains Modern."

<sup>10</sup> "Konflik, Dialog, dan Integrasi: Sebuah Eksplorasi Filosofis tentang Hubungan Sains dan Agama," *Santhet: Jurnal sejarah, pendidikan, dan humaniora* 8, no. 2 (2024): 2533–40, <https://doi.org/10.36526/js.v3i2>.

<sup>11</sup> "Relevansi Pemikiran Nurcholish Madjid tentang Integrasi Islam dan Sains dalam Era Modern," *JURNAL KEPENDIDIKAN* 12, no. 1 (2024): 69–84, <https://doi.org/10.24090/jk.v12i1.9802>.

<sup>12</sup> "Integrasi Agama Dan Sains Dalam Tafsir Ilmi Kementerian Agama Ri."

been no research that has specifically examined the search for divine meaning in science as an epistemological model to answer the multidimensional crisis of the modern era through a holistic study approach.

Despite the growing body of literature on Islam and science, existing studies largely focus on ethical critiques of modern science, dialogical models of science–religion relations, philosophical explorations, or implementation within specific interpretive frameworks. While these studies provide important contributions, they often treat spirituality as an external moral supplement rather than as an internal epistemological component of scientific knowledge. Consequently, the research gap lies in the absence of a systematic epistemological model that explicitly conceptualizes the search for divine meaning within science as a foundational framework for addressing modern multidimensional crises.

To address this gap, this study proposes a tauhid-based epistemological model that positions divine meaning as an intrinsic orientation of scientific inquiry rather than an auxiliary ethical addition. This study does not propose a new theological paradigm of science–religion integration. Instead, its contribution lies in restructuring the notion of “divine meaning” into an analytically operational framework within scientific understanding. Specifically, the novelty of this study consists of three aspects:

1. The conceptual differentiation of divine meaning into ontological, epistemological, and axiological dimensions,
2. The translation of these dimensions into operational orientations within scientific practice, and
3. The positioning of divine meaning not as an external ethical supplement, but as an internal interpretive horizon within scientific reasoning.

This study aims to present a theoretical construction that positions the search for Divine meaning as the epistemological orientation of science that not only combines religion and science, but also restores the function of spirituality as a foundation in the scientific process. This study aims to fill this research gap through the formulation of an Islamic integration model of science based on monotheistic awareness, the search for meaning, and holistic studies as a conceptual response to the multidimensional crisis of the modern era. Accordingly, the objective of this study is to formulate and analyze a holistic integrative model of science based on Islamic epistemology that reorients scientific knowledge toward spiritual, moral, and social transformation, thereby addressing the multidimensional crises of modern society.

## **2. METHOD**

This study employs a qualitative conceptual analysis with an explicit analytical framework designed to reconstruct the notion of divine meaning within scientific discourse. Rather than treating literature as descriptive material, the study approaches texts as analytical data to be systematically interpreted and compared.

The analysis proceeds through three structured stages. First, a diagnostic mapping is conducted to identify dominant epistemological assumptions in modern scientific discourse, particularly forms of reductionism and their critiques within both Western philosophy of science and Islamic thought. Second, a comparative analysis examines existing models of science-religion integration (e.g., Islamization of knowledge, perennialist perspectives, and dialogical frameworks) in order to identify their conceptual limitations, especially regarding the position of meaning within scientific reasoning. Third, the study undertakes a conceptual reconstruction, in which the notion of divine meaning is reformulated into analytically distinguishable dimensions—ontological,

epistemological, and axiological, based on recurring patterns identified across the analyzed sources.

To ensure analytical transparency, each stage of the discussion corresponds to this methodological structure: Section 1 reflects the diagnostic phase, Section 2 the comparative critique, Section 3 the conceptual reconstruction, and Section 4 the operational articulation. Through this structured approach, the study seeks to demonstrate not only its conclusions but also the analytical pathway through which they are derived.

### 3. DISCUSSION

#### 3.1. Epistemic Reductionism and the Crisis of Meaning

The development of modern science has significantly transformed humanity's understanding of nature, knowledge, and technological capability. Through empirical observation, experimentation, and mathematical modeling, modern science has achieved an unprecedented capacity to explain and manipulate natural phenomena<sup>13</sup>. However, alongside these achievements, a growing body of philosophical reflection has questioned whether the epistemological framework underlying modern scientific practice sufficiently addresses broader questions of meaning, value, and human purpose. In this regard, the contemporary discourse on science increasingly recognizes that scientific success does not necessarily resolve deeper existential and ethical concerns embedded within modern civilization<sup>14</sup>.

One of the central issues frequently highlighted in this debate is the tendency toward epistemic reductionism within modern scientific methodology. Reductionism, in this context, refers to the inclination to interpret complex realities exclusively through measurable, quantifiable, and empirically verifiable variables<sup>15</sup>. While such an approach has proven methodologically effective in producing reliable knowledge, it simultaneously narrows the scope through which reality is interpreted. Phenomena related to moral orientation, metaphysical meaning, and existential reflection often fall outside the domain considered scientifically legitimate<sup>16</sup>.

Philosophers of science have long recognized that scientific knowledge does not operate in a purely neutral or absolute epistemic vacuum<sup>17</sup>. Thomas Kuhn, for instance, demonstrated that scientific inquiry develops within historically situated paradigms that shape the questions scientists ask, the methods they employ, and the interpretations they consider plausible<sup>18</sup>. Scientific knowledge, therefore, is not merely the accumulation of objective facts but is also structured by interpretive frameworks that guide scientific

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<sup>13</sup>. Muhammad Yusuf dan Hasyim Haddade, "Islamic Epistemology: Solution To The Crisis Of Modern Science, Technology And The Impact Of Globalization," *Ar-Raniry: International Journal of Islamic Studies* 8, no. 1 (2021), <https://doi.org/10.22452/afkar.vol25no2.7>.

<sup>14</sup>. Bilkis Bharucha, "Islam, Science, and the Environment: An Application of Ibrahim Kalin's 'Three Views of Science in the Islamic World,'" *AJIS: American Journal Of Islam And Society* 42, no. 3–4 (2025), <https://doi.org/10.35632/ajis.v39i3--4.3724>.

<sup>15</sup>. Budi Afriandi et al., "Objek-Objek Kajian Filsafat Ilmu (Ontologi, Epistemologi, Aksiologi) dan Urgensinya Dalam Kajian Keislaman," *Jurnal Kajian dan Pengembangan Umat* 7, no. 1 (2024), <https://doi.org/10.31869/jkpu.v7i1.5524>.

<sup>16</sup>. Bharucha, "Islam, Science, and the Environment: An Application of Ibrahim Kalin's 'Three Views of Science in the Islamic World.'"

<sup>17</sup>. Ulfa Kesuma dan Ahmad Wahyu Hidayat, "Pemikiran Thomas S. Kuhn Teori Revolusi Paradigma," *Islamadina: Jurnal Pemikiran Islam* 21, no. 2 (2020), <https://doi.org/10.30595/islamadina.v0i0.6043>.

<sup>18</sup>. Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: university Of Chicago Press, 1962).

reasoning<sup>19</sup>. This insight reveals that science is not entirely detached from broader philosophical assumptions about reality.

Similarly, Karl Popper's philosophy of science challenges the notion of absolute scientific certainty by emphasizing the principle of falsifiability. According to Popper, scientific theories remain provisional and open to revision rather than representing final truths about reality<sup>20</sup>. This fallibilistic understanding of science suggests that scientific knowledge should not be interpreted as an exhaustive account of reality but rather as an evolving process of approximation. Such a perspective implicitly acknowledges that the scope of scientific explanation remains limited<sup>21</sup>.

Beyond philosophy of science, several scholars have explored how the modern scientific worldview interacts with broader cultural and moral frameworks. Alasdair MacIntyre, for example, argues that modern societies experience a form of moral fragmentation due to the loss of shared teleological narratives that once provided coherence to ethical reasoning. In the absence of such narratives, moral discourse becomes increasingly procedural and instrumental<sup>22</sup>. While MacIntyre's critique primarily addresses moral philosophy, it indirectly highlights how modern epistemological structures often detach knowledge from broader frameworks of meaning.

In a similar vein, Charles Taylor describes the emergence of what he terms the "buffered self" in modern secular societies. Within this condition, individuals perceive themselves as autonomous agents separated from transcendent or metaphysical sources of meaning<sup>23</sup>. Scientific rationality, while intellectually powerful, can contribute to this condition when it implicitly frames reality as a closed system governed exclusively by material causality. The resulting worldview may provide explanatory clarity yet leave unresolved questions about ultimate purpose and existential orientation<sup>24</sup>.

These critiques do not necessarily reject scientific methodology itself. Rather, they problematize the assumption that empirical knowledge alone can fully account for the complexity of human experience. Scientific explanation, by its nature, focuses on causal mechanisms and observable relationships. Questions concerning moral responsibility, metaphysical meaning, and ultimate purpose operate within different dimensions of human reflection that cannot be entirely reduced to empirical variables.

Within Islamic intellectual discourse, comparable concerns have been articulated through critiques of scientism and ontological reductionism. Thinkers such as Seyyed Hossein Nasr and Osman Bakar argue that the modern scientific worldview often isolates empirical investigation from its broader metaphysical and ethical context<sup>25</sup>. In classical

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<sup>19</sup>. Muhammad Sabilillah dan Mulyo RizkyRamadhani, "An Epistemological Critique By Syed Naquid Al-Attas on The Relativism of Truth in Thomas Kuhn's Paradigm," *TATHO: International Journal of Islamic Thought and Sciences* 2, no. 4 (2025), <https://doi.org/10.70512/tatho.v2i4.145>.

<sup>20</sup>. Karl Popper, *The Logic of Scientific Discovery (Logika Penemuan Ilmiah)*, terj. Saut Pasaribu & Aji Sastrowardoyo (Yogyakarta: Pustaka Pelajar, 2008), h. 6.

<sup>21</sup>. Komarudin, "Falsifikasi Karl Raimund Popper dan kemungkinan penerapannya dalam keilmuan Islam," *At-Taqadum* 6, no. 2 (2014), <https://doi.org/10.21580/at.v6i2.720>.

<sup>22</sup>. Joshua Hochschild, "Alasdair MacIntyre's Service to Theology," *Church Life Journal*, 2023, <https://churchlifejournal.nd.edu/articles/alsadair-macintyre-philosophical-ethics-as-a-service-to-theology>.

<sup>23</sup>. Charles Taylor, *A Secular Age* (Cambridge: The Belknap Press of Harvard University Press, 2007), h. 19-20.

<sup>24</sup>. Narwastuyati Petronela Mbeo, "Analisa Charles Taylor Tentang Sekularisasi Dan Apa Yang Dapat Dipelajari Indonesia Daripadanya", Disertasi, (Sekolah Tinggi Filsafat Driyarkara, 2020).

<sup>25</sup>. Seyyed Hossein Nasr, *Pengetahuan dan Kesucian: Dialektika Ilmu, Filsafat, dan Spiritualitas Manusia*, terj. M. Muhibuddin (Yogyakarta: IRCiSiD, 2025), h. 33.

Islamic epistemology, knowledge was not understood merely as the accumulation of empirical data but as a process that ultimately points toward a deeper metaphysical order grounded in divine unity (tawhid)<sup>26</sup>.

This perspective does not negate empirical inquiry but situates it within a broader epistemological horizon. Nature, within the classical Islamic worldview, is frequently described as a system of ayat kauniyyah—cosmic signs that invite intellectual reflection and spiritual contemplation<sup>27</sup>. Scientific investigation of the natural world can therefore be interpreted not only as a technical activity but also as an intellectual engagement with patterns that reflect a deeper ontological coherence.

However, the purpose of revisiting these perspectives is not to construct a simplistic dichotomy between “Islamic science” and “modern science.” Such dichotomies risk oversimplifying the historical complexity of scientific development and the plurality of intellectual traditions<sup>28</sup>. Instead, the point of engagement lies in recognizing that modern debates concerning the limits of reductionism are shared across multiple intellectual traditions, including Western philosophy of science and Islamic philosophical thought<sup>29</sup>.

In the landscape of Islamic epistemology, the pursuit of scientific truth operates on three interrelated dimensions: empirical (tabi‘i), rational (aqli), and spiritual (ruhani). Science that relies solely on the empirical and rational dimensions without a spiritual foundation is highly vulnerable to losing ethical direction and meaning. Conversely, spirituality without rational and empirical work can potentially become trapped in dogmatism that is difficult to verify objectively. Reconstructing the relationship between science and spirituality assumes a balance of all three, where integration is not merely a sum, but an epistemological harmonization<sup>30, 31</sup>. In this configuration, scientific methodology is still conducted rigorously and objectively, yet the knowledge obtained is placed within a larger moral and spiritual framework — that is, an awareness of human responsibility as stewards and servants of God<sup>32</sup>.

Seen in this light, the contemporary search for meaning within scientific discourse reflects a broader civilizational concern rather than a narrowly theological agenda. The challenge is not to replace empirical science with metaphysical speculation, but to explore whether scientific knowledge can be interpreted within a broader framework that acknowledges ethical responsibility, existential reflection, and metaphysical orientation. Addressing this challenge requires a conceptual reconstruction that reconsiders how

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<sup>26</sup>. Khairudin Aljunied, “Osman Bakar and Epistemological Renewal in the Muslim World,” *Al-Shajarah: ISTAC Journal Of Islamic Thought and Civilization* 27, no. 1 (2022), <https://doi.org/10.31436/shajarah.v27i1.1388>.

<sup>27</sup>. Rosa, *Islam dan Sains dalam Kajian Epistemologi Tafsir Al-Qur’an: Al-Tafsir Al ilmi Al Kauni*, h. 31.

<sup>28</sup>. Yusuf dan Haddade, “Islamic Epistemology: Solution To The Crisis Of Modern Science, Technology And The Impact Of Globalization.”

<sup>29</sup>. Jarman Arroisi, Hamid Fahmy Zarkasyi, dan Winda Roini, “The Relevance of Contemporary Epistemology on Existing Knowledge: A Critical Analysis of Western Scientific Worldview according to al-Attas Perspective,” *Afkar: Jurnal Aqidan dan Pemikiran Islam* 25, no. 2 (2023), <https://doi.org/10.22452/afkar.vol25no2.7>.

<sup>30</sup> Prof. Dr. Sukron Kamil, *Islam Dan Sains Modern* (Jakarta : Kencana, 2022),h. 25.

<sup>31</sup> Moh Dahlan, “Relasi sains modern dan sains islam,” *Jurnal Salam* 12, no. 2 (2009): 65–83, <https://ejournal.umm.ac.id/index.php/salam/article/view/444>.

<sup>32</sup> Humairoh dan Mustafidin, “Integrasi Ilmu Agama Dan Sains Dalam Pendidikan Islam Kontemporer.”

knowledge, meaning, and human responsibility can coexist within the practice of scientific inquiry.

This relational model has essentially been a characteristic of classical Islamic scientific civilization, when scholars such as Ibn Al-Haytham, Ibn Sina, Al-Biruni, and Al-Farabi conducted rigorous scientific research while viewing nature as a means to understand divine reality. For them, scientific knowledge was not an ultimate goal, but rather a bridge to comprehend God's wisdom and to cultivate a form of intellectual worship<sup>33,34</sup>. This tradition needs to be revived through the reconstruction of a modern paradigm, so that science not only promotes material well-being but also develops human spiritual and moral qualities. Thus, the integration of science and spirituality from an Islamic perspective is not merely the unification of two disciplines, but a comprehensive reinterpretation of the purpose of knowledge and human existence in the universe.

The foregoing discussion indicates that the problem of meaning in modern science is not merely a theological concern but reflects a deeper epistemological limitation. This limitation lies in the tendency to equate empirical adequacy with ontological completeness. In other words, while scientific methods are highly effective in explaining how phenomena occur, they do not necessarily address why reality is intelligible or how such intelligibility relates to broader questions of meaning. This distinction is crucial, as it reveals that the crisis of meaning is not caused by science itself, but by the philosophical interpretation that restricts reality to empirically verifiable dimensions. This analytical distinction serves as the basis for re-examining existing integration models in the following section.

### 3.2. Critical Review of Existing Integration Models

Discussions concerning the relationship between science and religion have produced a variety of theoretical models that attempt to explain how these two domains of knowledge interact<sup>35</sup>. One of the most widely cited typologies was proposed by Ian G. Barbour, who categorized the relationship between science and religion into four patterns: conflict, independence, dialogue, and integration<sup>36</sup>. The conflict model portrays science and religion as mutually incompatible, while the independence model maintains a strict separation between empirical inquiry and theological reflection. The dialogue and integration models, on the other hand, seek to establish a more constructive interaction between the two fields<sup>37</sup>. Although Barbour's framework has been influential in shaping contemporary discourse, it primarily functions as a descriptive typology rather than a comprehensive epistemological framework for integrating meaning into scientific practice.

Within Islamic intellectual discourse, one of the most prominent responses to the perceived fragmentation of modern knowledge emerged through the movement known as the Islamization of knowledge. Among the Muslim scholars, Syed Muhammad Naquib al-Attas argued that modern scientific knowledge had become detached from its ethical

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<sup>33</sup> Humairoh dan Mustafidin.

<sup>34</sup> Syahrini, Afisyah, dan Nuraeni, "Melampai Sekularisme : Harmoni Integrasi Islam dan Sains dalam Mengatasi Kerapuhan Sains Modern."

<sup>35</sup> Waluyo, Ts. Engku Shahrulerizal Bin Engku Ab Rahman, dan M. Nurkhafiq, "Reconstruction of the Integration of Religion and Modern Sanis," *Al-Hayat: Journal of Islamic Education* 9, no. 4 (2025), <https://doi.org/10.35723/ajie.v9i4.62>.

<sup>36</sup> Ian G. Barbour, *Juru Bicara Tuhan Antara Sains dan Agama*, Terj. E.R. Muhammad (Bandung: Mizan, 2002), h. 47-94.

<sup>37</sup> Barbour, h. 47-94.

and metaphysical foundations due to the secularization of epistemology<sup>38</sup>. Their proposed solution involved reorienting modern disciplines through Islamic metaphysical principles, particularly the concept of tawhid as the ultimate source of unity in knowledge<sup>39</sup>. This approach played a significant role in stimulating debates about the philosophical foundations of science in Muslim societies.

Despite its intellectual influence, the Islamization project has also faced several criticisms. Some scholars argue that the approach often operates at a highly normative level without sufficiently addressing the methodological structures of contemporary scientific practice<sup>40</sup>. Critics note that while the project emphasizes the need for Islamic ethical and metaphysical guidance, it does not always provide detailed mechanisms for how such principles can be systematically incorporated into the epistemological procedures of scientific inquiry<sup>41</sup>. Consequently, the gap between philosophical ideals and practical scientific methodology remains an unresolved issue within this framework.

Another influential perspective is represented by the perennialist tradition associated with scholars such as Seyyed Hossein Nasr. Perennialist thinkers emphasize the metaphysical unity underlying different religious traditions and argue that modern science has lost its sacred dimension due to the dominance of a mechanistic worldview<sup>42</sup>. Nasr, in particular, advocates for the recovery of a sacred cosmology in which nature is understood as a manifestation of divine order rather than merely a collection of material processes<sup>43</sup>. From this perspective, scientific knowledge should be situated within a metaphysical framework that recognizes the spiritual significance of the natural world.

While perennialist critiques provide a powerful philosophical diagnosis of the spiritual crisis of modernity, their proposals have also been questioned for their limited engagement with the institutional and methodological realities of contemporary science<sup>44</sup>. Critics argue that calls for the restoration of sacred cosmology, although intellectually compelling, often remain abstract when confronted with the operational structures of modern scientific research, which are shaped by global collaboration, technological specialization, and institutionalized standards of empirical verification<sup>45</sup>.

Beyond Islamic intellectual traditions, similar concerns regarding the limits of reductionist science have been raised within broader philosophical and interdisciplinary discussions<sup>46</sup>. Scholars working in science-and-religion studies, environmental ethics,

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<sup>38</sup>. Syed Muhammad Naquib Al-Attas, *Islam dan Filsafat Sains*, Terj. Saiful Muzani (Bandung: Mizan, 1995), h. 34.

<sup>39</sup>. Lailah Alfi, "Konsep Ilmu Menurut Syed Muhammad Naquib Al-Attas (Analisis buku *Islam dan Filsafat Sains*)," *TASFIYAH: Jurnal Pemikiran Islam* 2, no. 2 (2018), <https://doi.org/http://dx.doi.org/10.21111/tasfiyah.v2i2.2580>.

<sup>40</sup>. Waluyo, Rahman, dan Nurkhafiq, "Reconstruction of the Integration of Religion and Modern Sanis."

<sup>41</sup>. Nunung Masruroh dan Amril M Amril M, "Philosophical and Sociological Background of the Integration of Religion and Science," *Belantika Pendidikan* 8, no. 1 (2025), <https://doi.org/10.47213/bp.v8i1.428>.

<sup>42</sup>. Achmad Khudori Soleh, "Quantum Integration Model for Religion and Science," *Afkar: Jurnal Aqidan dan Pemikiran Islam* 25, no. 2 (2023), <https://doi.org/10.22452/afkar.vol25no2.8>.

<sup>43</sup>. Nasr, *Problematika Krisis Spiritual Manusia Kontemporer ter. M. Muhibbuddin*, h. 11-14.

<sup>44</sup>. Soleh, "Quantum Integration Model for Religion and Science."

<sup>45</sup>. Waluyo, Rahman, dan Nurkhafiq, "Reconstruction of the Integration of Religion and Modern Sanis."

<sup>46</sup>. Sefhia Qurrotu Ainina, "Integrating Science and Religion through Ontological and Historical Approaches in Islamic Education," *Averroes: Journal for Science and Religious Studies* 1, no. 3 (2024), <https://doi.org/10.62446/averroes.010302>.

and philosophy of science increasingly explore the possibility of integrating ethical reflection and metaphysical awareness into scientific discourse<sup>47</sup>. These discussions highlight that the search for meaning in scientific inquiry is not confined to a particular religious tradition but reflects a wider intellectual effort to address the ethical and existential implications of scientific advancement.

Nevertheless, much of the existing literature tends to focus either on philosophical critique or on theological reflection without systematically examining how the notion of meaning itself can function as an epistemological orientation within scientific inquiry<sup>48</sup>. Discussions frequently emphasize ethical guidance, metaphysical worldview, or dialogue between disciplines, yet relatively few studies explicitly explore how scientific knowledge might be interpreted within a framework that connects empirical investigation with deeper questions of existential and metaphysical significance<sup>49</sup>.

This comparison reveals a shared structural limitation across existing integration models. While they successfully reintroduce ethical and metaphysical considerations into discussions of science, they tend to position these elements as external frameworks rather than as internal components of scientific reasoning. As a result, the question of how meaning operates within the epistemic structure of science itself remains insufficiently addressed. This gap does not indicate the failure of previous models but rather highlights an unresolved conceptual problem that requires further analytical clarification. It is within this specific gap that the present study situates its contribution.

### 3.3. Conceptual Reconstruction of Divine Meaning in Scientific Understanding

The discussion on the search for meaning in science often encounters a fundamental conceptual challenge: the ambiguity surrounding what is meant by “meaning” itself. Within many contemporary scientific frameworks, meaning is frequently treated as a subjective interpretation rather than an intrinsic dimension of reality<sup>50</sup>. Consequently, scientific inquiry tends to focus primarily on causal explanation while leaving questions of purpose, value, and metaphysical orientation outside its analytical scope. In order to address this limitation, the concept of divine meaning must be clarified not as a purely theological claim but as an epistemological orientation that frames how reality is understood<sup>51</sup>.

In this study, divine meaning is conceptualized as an interpretive horizon through which scientific knowledge is situated within a broader metaphysical and ethical framework. Rather than functioning as an external moral supplement added after scientific discovery, divine meaning operates as a background orientation that shapes how natural phenomena are perceived, interpreted, and valued<sup>52</sup>. This perspective does not alter empirical methods such as observation, experimentation, or mathematical modeling,

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<sup>47</sup>. Muhamad Jaeni dan Putri Rahadian Dyah Kusumawati, “Integration of science and religion in general courses: Insights from Islamic teacher education,” *Asatiza: Jurnal Pendidikan* 6, no. 1 (2025), <https://doi.org/10.46963/asatiza.v6i1.2557>.

<sup>48</sup>. Ainina, “Integrating Science and Religion through Ontological and Historical Approaches in Islamic Education.”

<sup>49</sup>. Masruroh dan M, “Philosophical and Sociological Background of the Integration of Religion and Science.”

<sup>50</sup>. Luco J. van den Brom, “Categorial differences between religious and scientific language: The agency of God,” *HTS Theological Studies* 79, no. 2 (2023), <https://doi.org/10.4102/hts.v79i2.9012>.

<sup>51</sup>. Allen, Paul, dan Flavia Maracci, “Divined Explanations: The Theological and Philosophical Context for the Development of the Sciences (1600–2000),” *The American Scientific Affiliation* 77, no. 4 (2025), <https://doi.org/10.56315/PSCF12-25Allen>.

<sup>52</sup>. Nandor Ludvig, “A Cosmological Neuroscientific Definition of God,” *Scientific Research Publishing* 13, no. 2 (2023), <https://doi.org/10.4236/ojpp.2023.132028>.

but it influences the ontological assumptions and interpretive frameworks through which scientific data acquire significance<sup>53</sup>.

From an Islamic epistemological perspective, this orientation emerges from the principle of tawhid, which affirms the fundamental unity of existence. Within this worldview, reality is not perceived as a collection of isolated material processes but as an interconnected order reflecting a deeper metaphysical coherence<sup>54</sup>. Therefore, Nature is understood as a meaningful reality rather than a purely mechanical system. Scientific investigation, in this context, becomes a process of uncovering patterns that point toward a broader ontological order rather than merely identifying functional relationships between variables.

To clarify the analytical structure of this concept, divine meaning in scientific understanding can be examined through three interconnected epistemological dimensions: ontological orientation, epistemological integration, and axiological implication<sup>55</sup>. These dimensions do not represent separate domains of knowledge but rather complementary aspects that together shape how scientific inquiry relates to broader questions of meaning and responsibility.

The first dimension, ontological orientation, concerns how reality itself is interpreted. Within a reductionist framework, nature is typically viewed as a neutral collection of physical entities governed by mechanistic laws<sup>56</sup>. In contrast, a meaning-oriented perspective approaches nature as an intelligible and ordered reality whose patterns invite reflection beyond purely instrumental explanations<sup>57</sup>. This does not negate empirical investigation; rather, it situates empirical findings within a broader understanding of reality as structured and intelligible.

The second dimension, epistemological integration, relates to the sources through which knowledge is acquired and interpreted. Classical Islamic epistemology historically recognized multiple channels of knowing, including empirical observation (tajribah), rational reflection ('aql), and spiritual insight (qalb)<sup>58</sup>. Within this integrative perspective, empirical inquiry remains essential, yet it operates alongside other modes of intellectual engagement that contribute to the interpretation of knowledge. The result is not the replacement of scientific methodology but an expansion of the epistemic horizon within which scientific findings are understood<sup>59</sup>.

The third dimension, axiological implication, addresses the ethical and civilizational orientation of scientific knowledge. Scientific discoveries inevitably influence technological development, environmental policy, and social organization<sup>60</sup>.

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<sup>53</sup>. Mukhopadhyay AK, "The Science of Divinity," *Archives in Neurology & Neuroscience* 9, no. 3 (2020), <https://doi.org/10.33552/ann.2020.09.000712>.

<sup>54</sup>. Fahmi Ulum Al Mubarak et al., "Divine Science: Ar-Razy's Trailblazing Perspective on Al-Fatihah's Scientific Secrets," *Syntax Literate: Jurnal Ilmiah Indonesia* 9, no. 7 (2024), <https://doi.org/http://dx.doi.org/10.36418/syntax-literate.v9i7>.

<sup>55</sup>. Jonathan Jong, "A Scientist's Perspective on Science-Engaged Theology," *Modern Theology* 37, no. 2 (2021), <https://doi.org/10.1111/moth.12694>.

<sup>56</sup>. Brom, "Categorial differences between religious and scientific language: The agency of God."

<sup>57</sup>. Ludvig, "A Cosmological Neuroscientific Definition of God."

<sup>58</sup>. Mubarak et al., "Divine Science: Ar-Razy's Trailblazing Perspective on Al-Fatihah's Scientific Secrets."

<sup>59</sup>. Jong, "A Scientist's Perspective on Science-Engaged Theology."

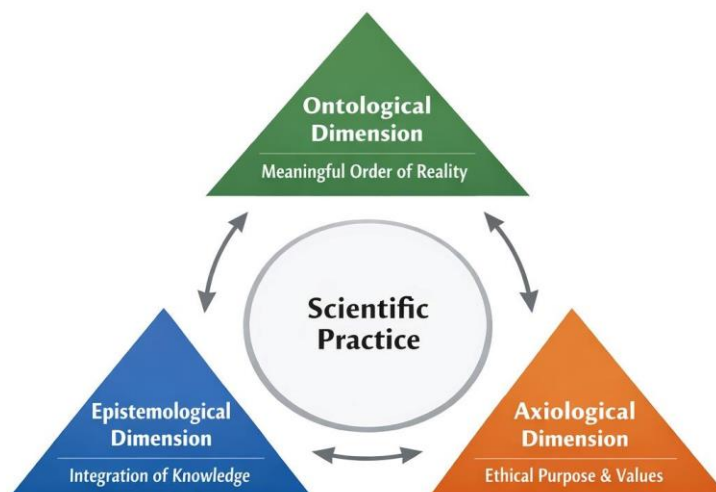
<sup>60</sup>. Dilip Kumar Darjee dan DrNeeru Sewa, "Divine Phenomena in India: A Study of Faith and Science Interpretations," *International Journal for Research in Applied Science and Engineering Technology* 13, no. 8 (2025), <https://doi.org/10.22214/ijraset.2025.72513>.

When knowledge is interpreted within a framework that acknowledges deeper dimensions of meaning, the evaluation of scientific outcomes is no longer limited to technical efficiency or economic benefit<sup>61</sup>. Instead, considerations such as ecological sustainability, social justice, and moral responsibility become integral to the broader purpose of scientific activity.

Based on the conceptual reconstruction above, this study proposes an analytical model of divine meaning in scientific understanding. The model consists of three interrelated dimensions:

1. **Ontological Dimension**  
Reality is interpreted as an ordered and intelligible whole, rather than as a collection of isolated material entities.
2. **Epistemological Dimension**  
Knowledge is formed through the interaction of empirical observation, rational analysis, and reflective interpretation.
3. **Axiological Dimension**  
Scientific knowledge is evaluated in relation to ethical responsibility, social impact, and long-term civilizational consequences.

These three dimensions are not hierarchical but mutually constitutive. Together, they form an interpretive framework that situates scientific inquiry within a broader



horizon of meaning. For clarity, this framework can be visualized as a triadic model in which scientific practice is located at the intersection of ontological understanding, epistemological process, and axiological orientation:

Figure 1. A Triadic Model of Ontological, Epistemological, and Axiological Integration in Scientific Meaning-Making

### 3.4. Operational Dimensions of Divine Meaning in Scientific Practice

The following operational dimensions are derived directly from the three-layered conceptual model outlined in the previous section. Rather than introducing new normative

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<sup>61</sup>. Allen, Paul, dan Maracci, “Divined Explanations: The Theological and Philosophical Context for the Development of the Sciences (1600–2000).”

claims, this section translates the ontological, epistemological, and axiological dimensions into observable orientations within scientific practice. While the conceptual reconstruction of divine meaning provides a philosophical framework for interpreting scientific knowledge, an important question remains regarding how such a perspective can be translated into the actual practice of scientific inquiry. One of the common critiques directed toward discussions of spirituality and science is that they often remain at an abstract philosophical level without offering clear pathways for application<sup>62</sup>. In order to address this concern, it is necessary to articulate several operational dimensions through which the orientation toward divine meaning may inform the ethos and interpretive framework of scientific practice.

The first operational dimension concerns the intentional orientation of scientific inquiry. Scientific research is never entirely detached from human motivations, institutional priorities, or cultural values<sup>63</sup>. Within a meaning-oriented perspective, the pursuit of knowledge is guided not solely by technological ambition or economic interest but also by a broader commitment to intellectual responsibility and the common good<sup>64</sup>. This orientation does not alter the empirical procedures of research but situates scientific investigation within a reflective awareness of its ethical and civilizational implications.

The second dimension relates to the ontological assumptions that underlie scientific interpretation. Modern scientific inquiry frequently adopts methodological naturalism as a working assumption, which treats natural phenomena as self-contained systems governed by causal laws<sup>65</sup>. While this approach is methodologically effective, a meaning-oriented framework encourages scientists to recognize that empirical description does not exhaust the possible interpretations of reality<sup>66</sup>. The intelligibility and coherence observed in natural patterns may also invite philosophical reflection concerning the deeper order that structures the universe.

A third operational dimension involves methodological ethics in scientific practice. Scientific research inevitably raises ethical questions regarding experimentation, technological development, and the application of knowledge<sup>67</sup>. When scientific inquiry is approached within a framework that acknowledges broader dimensions of meaning, ethical reflection becomes an intrinsic component of the research process rather than an external regulatory mechanism<sup>68</sup>. Decisions regarding the design of experiments, the treatment of living organisms, or the deployment of technological innovations are thus evaluated not only in terms of feasibility but also in terms of responsibility.

The fourth dimension concerns epistemic humility in the interpretation of scientific findings. Scientific progress often generates an impression of expanding control over natural processes, yet philosophical reflections on science consistently remind us of

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<sup>62</sup>. Marina Aline De Brito Sena et al., "Defining Spirituality in Healthcare: A Systematic Review and Conceptual Framework," *Frontiers in Psychology* 12 (2021), <https://doi.org/10.3389/fpsyg.2021.756080>.

<sup>63</sup>. Oliver C. Robinson, "A Dialectical approach to understanding the relationship between science and spirituality: The MODI model," *Journal for the Study of Spirituality* 10, no. 1 (2020), <https://doi.org/10.1080/20440243.2020.1726045>.

<sup>64</sup>. Robinson.

<sup>65</sup>. A. Petersen, "Quantum Theology And "We" And "They,"" *Zygon: Journal of Religion and Science* 58, no. 1 (2023), <https://doi.org/10.1111/zygo.12878>.

<sup>66</sup>. Brom, "Categorial differences between religious and scientific language: The agency of God."

<sup>67</sup>. AK, "The Science of Divinity."

<sup>68</sup>. Sena et al., "Defining Spirituality in Healthcare: A Systematic Review and Conceptual Framework."

the provisional nature of knowledge claims<sup>69</sup>. Within a framework that recognizes deeper dimensions of meaning, scientific conclusions are approached with intellectual modesty, acknowledging both the achievements and the limitations of empirical inquiry. Such humility does not weaken scientific rigor; rather, it encourages openness to continuous revision and interdisciplinary dialogue<sup>70</sup>.

The fifth operational dimension involves the interpretation of scientific knowledge within broader civilizational contexts. Scientific discoveries rarely remain confined to laboratories; they influence technological infrastructures, economic systems, and environmental policies<sup>71</sup>. When knowledge is interpreted through a meaning-oriented perspective, the evaluation of scientific outcomes extends beyond technical efficiency to include questions about ecological sustainability, social justice, and long-term human flourishing. In this sense, scientific activity becomes embedded within a wider ethical horizon.

It is important to emphasize that these operational dimensions do not propose an alternative scientific method distinct from existing empirical procedures. Observation, experimentation, hypothesis testing, and mathematical analysis remain the core methodological foundations of scientific research. What changes is not the method itself but the interpretive context in which scientific activity is understood. A meaning-oriented perspective situates scientific practice within a broader philosophical and ethical framework without interfering with methodological rigor.

This distinction between methodological practice and interpretive orientation is essential in order to avoid the misconception that integrating spiritual perspectives into science requires replacing empirical standards with theological authority<sup>72</sup>. Rather than redefining scientific methodology, the concept of divine meaning functions as a reflective horizon that influences how knowledge is pursued, interpreted, and applied. In this way, the integration of meaning operates primarily at the level of epistemological orientation rather than experimental procedure.

Furthermore, articulating these operational dimensions helps clarify that the search for divine meaning in science should not be understood as a purely individual spiritual experience of scientists. Instead, it represents a broader intellectual orientation that shapes the ethical culture of scientific institutions and the societal expectations surrounding scientific progress. When embedded within academic discourse and public policy, such perspectives can contribute to a more reflective understanding of the role of science in shaping human civilization.

Through these operational dimensions, the concept of divine meaning becomes more than a philosophical abstraction. It functions as an interpretive framework that encourages scientists, institutions, and societies to consider how empirical knowledge relates to broader questions of responsibility, meaning, and the future of human civilization. These operational dimensions demonstrate that the notion of divine meaning does not function at the level of abstract metaphysical speculation alone. Instead, it can be analytically translated into orientations that shape how scientific inquiry is conducted,

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<sup>69</sup>. Sean Luke, "A Deepest Dearest Freshness: Special Divine Action and the Eschatological Transformation of the Cosmos," *Theology and Science* 23, no. 1 (2024), <https://doi.org/10.1080/14746700.2024.2436787>.

<sup>70</sup>. Brom, "Categorial differences between religious and scientific language: The agency of God."

<sup>71</sup>. Robinson, "A Dialectical approach to understanding the relationship between science and spirituality: The MODI model."

<sup>72</sup>. Robinson.

interpreted, and applied. This clarification addresses a key limitation identified in previous integration models, where meaning remained conceptually present but methodologically underdeveloped.

### 3.5. Applicability to Multidimensional Crisis Domains

The conceptual and operational framework outlined in the previous sections does not claim to provide a direct technical solution to the complex crises confronting contemporary societies. Rather, its contribution lies in offering an interpretive orientation that may inform how scientific knowledge is situated within broader ethical and civilizational contexts. Multidimensional crises—such as ecological degradation, technological disruption, moral disorientation, and existential uncertainty—are not merely technical problems; they are also manifestations of deeper tensions concerning how knowledge, power, and responsibility are understood within modern civilization<sup>73</sup>.

One of the most widely discussed domains of crisis concerns environmental degradation and ecological imbalance. Scientific research has played a crucial role in identifying environmental problems, including climate change, biodiversity loss, and pollution<sup>74</sup>. However, the persistence of these crises suggests that scientific knowledge alone does not automatically translate into responsible action. Within a meaning-oriented perspective, ecological issues are interpreted not solely as technical challenges but also as reflections of the relationship between humanity and the natural world<sup>75</sup>. Such a perspective encourages a view of nature not merely as a resource but as a system whose balance carries intrinsic significance.

A similar pattern can be observed in the domain of technological development. Advances in biotechnology, artificial intelligence, and digital infrastructures have expanded the capacity of human societies to transform natural and social environments<sup>76</sup>. Yet these developments have also raised complex ethical questions concerning privacy, autonomy, inequality, and the boundaries of technological intervention. A framework that situates scientific progress within a broader horizon of meaning may contribute to more reflective discussions about the purposes and limits of technological innovation.

Another dimension of contemporary crisis involves the growing sense of existential uncertainty experienced within many modern societies. Rapid social change, technological acceleration, and the fragmentation of shared moral narratives have contributed to widespread concerns about meaning and human purpose<sup>77</sup>. While scientific knowledge excels at explaining mechanisms of the natural world, it does not necessarily address the existential questions that arise from living within technologically advanced yet culturally fragmented societies<sup>78</sup>. The search for meaning in science, therefore,

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<sup>73</sup>. Bruno Amable dan Stefano Palombarini, "Multidimensional social conflict and institutional change," *New Political Economy* 28, no. 6 (2023), <https://doi.org/10.1080/13563467.2023.2215701>.

<sup>74</sup>. Weichao Yang et al., "An integrated risk assessment framework for multiple natural disasters based on multi-dimensional correlation analysis," *Springer Nature* 119 (2023), <https://doi.org/10.1007/s11069-023-06159-8>.

<sup>75</sup>. Annika Bergman et al., "The case for Interdisciplinary Crisis Studies," *Global Discourse: An interdisciplinary journal of current affairs* 12, no. 3–4 (2020), <https://doi.org/10.1332/204378920X15802967811683>.

<sup>76</sup> Alexander Andreyev, "Practices For Planning and Operating Multisite Network Environments Under Crisis Conditions," *The American Journal of Engineering and Technology* 7, no. 9 (2025), <https://doi.org/10.37547/tajet/Volume07Issue09-03>.

<sup>77</sup>. Bergman et al., "The case for Interdisciplinary Crisis Studies."

<sup>78</sup>. Qing Miao, Junaid Ahmad, dan Anders Ryom Villadsen, "Shaping the Crisis Management-Public Administration Nexus: A Systematic Review and Future Research Agenda," *Review of Policy Research* 43, no. 2 (2026), <https://doi.org/10.1111/ropr.70039>.

intersects with broader philosophical inquiries about the place of human beings within the universe.

In this context, the notion of divine meaning may function as a conceptual bridge between empirical knowledge and existential reflection<sup>79</sup>. By recognizing that scientific investigation unfolds within a broader horizon of meaning, it becomes possible to interpret scientific discoveries not merely as technical achievements but also as elements of a wider intellectual engagement with reality<sup>80</sup>. Such an interpretive framework may contribute to reconnecting scientific inquiry with questions that concern human responsibility and long-term civilizational orientation.

It is important to emphasize that this approach does not suggest that religious or metaphysical perspectives should dictate scientific conclusions. Scientific findings remain grounded in empirical evidence and methodological rigor. The relevance of a meaning-oriented framework lies instead in shaping how knowledge is interpreted and applied within social and ethical contexts. In this sense, the integration of meaning functions as a reflective complement rather than a replacement for scientific methodology.

From a policy perspective, this broader orientation may encourage greater attention to the ethical and long-term implications of scientific and technological development. Scientific institutions increasingly recognize the importance of interdisciplinary dialogue involving philosophy, ethics, and social sciences when addressing global challenges<sup>81</sup>. A framework that highlights the relationship between knowledge, meaning, and responsibility may therefore contribute to ongoing efforts to situate scientific advancement within more comprehensive models of sustainable development<sup>82</sup>.

Ultimately, the applicability of the concept of divine meaning lies not in providing immediate technical prescriptions but in expanding the interpretive horizon within which scientific knowledge operates. By situating empirical inquiry within a broader philosophical and ethical framework, the search for meaning in science can participate in wider intellectual discussions about how knowledge should guide human action in the face of increasingly complex global challenges. It is important to note that the applicability of this framework remains theoretical and interpretive rather than empirically validated. The purpose of this study is not to demonstrate causal effectiveness in solving multidimensional crises, but to provide a conceptual orientation that may inform future interdisciplinary research. Further studies are therefore needed to explore how this framework can be applied within specific scientific fields and institutional contexts

#### 4. CONCLUSION

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<sup>79</sup>. Bergman et al., "The case for Interdisciplinary Crisis Studies."

<sup>80</sup>. Yan Jin et al., "'READINESS': A keystone concept beyond organizational crisis preparedness and resilience," *Journal of Contingencies and Crisis Management* 32, no. 1 (2024), <https://doi.org/10.1111/1468-5973.12546>.

<sup>81</sup>. Miao, Ahmad, dan Villadsen, "Shaping the Crisis Management-Public Administration Nexus: A Systematic Review and Future Research Agenda."

<sup>82</sup>. Kristina Buhagiar dan Amitabh Anand, "Synergistic triad of crisis management: leadership, knowledge management and organizational learning," *International Journal of Organizational Analysis* 31, no. 2 (2023), <https://doi.org/10.1108/IJOA-03-2021-2672>.

This study has examined the relationship between scientific knowledge and the search for meaning through a holistic epistemological perspective grounded in Islamic intellectual tradition. The analysis began by addressing the broader philosophical concern regarding epistemic reductionism in modern science, which tends to confine knowledge within empirically measurable dimensions while leaving questions of meaning, value, and existential orientation outside the scope of scientific discourse. By engaging both Western philosophy of science and Islamic intellectual perspectives, the discussion demonstrates that critiques of reductionism are not confined to religious discourse alone but represent a broader epistemological concern within contemporary reflections on the nature of knowledge.

The study further evaluated several existing models of science–religion integration, including dialogical approaches, Islamization of knowledge initiatives, and perennialist critiques of modern science. While these perspectives offer important insights into the ethical and metaphysical dimensions of knowledge, the analysis indicates that many of them remain primarily normative or philosophical in orientation. As a result, the connection between metaphysical meaning and the internal epistemic structure of scientific reasoning often remains insufficiently articulated. This observation highlights the need for a more structured conceptual framework that clarifies how questions of meaning may relate to scientific inquiry without undermining empirical methodology.

In response to this gap, the study proposed a conceptual reconstruction of “divine meaning” as an interpretive orientation that situates scientific knowledge within a broader metaphysical and ethical horizon. The framework was articulated through three analytical dimensions: ontological orientation, epistemological integration, and axiological implication. Rather than presenting divine meaning as a theological assertion external to scientific practice, this reconstruction interprets it as a philosophical orientation that shapes how reality is understood, how knowledge sources are integrated, and how scientific outcomes are evaluated in relation to broader human concerns.

The study also identified several operational dimensions through which this orientation may inform scientific practice, including intentional orientation in research, recognition of broader ontological assumptions, methodological ethics, epistemic humility, and civilizational responsibility in the application of knowledge. These dimensions do not replace empirical methods but instead function as interpretive and ethical frameworks that situate scientific inquiry within a wider context of human responsibility. In this sense, the proposed framework does not claim to resolve complex global crises directly, but it contributes to ongoing discussions about how scientific knowledge can be interpreted and applied within broader ethical and philosophical contexts.

Finally, the relevance of this conceptual framework was explored in relation to contemporary multidimensional crises, including ecological challenges, technological transformation, and existential concerns within modern societies. By situating scientific knowledge within a broader horizon of meaning, the study suggests that discussions on science and religion can move beyond simple debates about compatibility toward more reflective inquiries concerning the role of knowledge in shaping human civilization. Future research may further develop this framework by exploring its implications in specific scientific disciplines or by examining how meaning-oriented perspectives interact with institutional structures of modern scientific practice.

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