Spider Web, Integration-Interconnection in the Perspective of Amin Abdullah

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Abstract

The troublesome contradiction between science and religion, which originated during the Renaissance and was introduced to Indonesia during the colonial era, marked the beginning of the formation of scientific integration. The answer proposed by several colleges is the merger of science and religion in the realm of education. It is envisioned that scientific viewpoints would no longer be independent and open as a result of scientific integration. The purpose of this research is to learn about the idea and execution of Islam and science integration at UIN Sunan Kalijaga Yogyakarta. This study employs a descriptive qualitative methodology in conjunction with a library research strategy. According to the findings of the study, the notion of Islam and science integration at UIN Sunan Kalijaga Yogyakarta is an interconnected integration strategy espoused by Amin Abdullah in the concept of scientific integration Spider's Web. The implementation has reached the level of systematic integrative scientific development, beginning with the philosophical level and progressing to the operational level of curriculum preparation and learning processes, or the strategic level.

Keywords: Spider's Web; Integration; Interconnection; UIN Sunan Kalijaga

Abstrak

Kontradiksi antara ilmu pengetahuan dan agama yang telah lama menjadi permasalahan, terutama sejak masa Renaisans dan masuk ke Indonesia pada masa penjajahan, hal ini telah mendorong terbentuknya integrasi ilmu pengetahuan. Beberapa perguruan tinggi menjawab tantangan ini dengan menggabungkan ilmu pengetahuan dan agama dalam pendidikan. Namun, akibat dari integrasi ini, sudut pandang ilmiah dianggap tidak lagi bebas dan terbuka. Tujuan penelitian ini adalah untuk memahami gagasan dan pelaksanaan integrasi Islam dan ilmu pengetahuan di UIN Sunan Kalijaga

Yogyakarta. Penelitian ini menggunakan metode deskriptif kualitatif dan menggunakan strategi penelitian kepustakaan. Berdasarkan temuan penelitian, diketahui bahwa gagasan integrasi Islam dan ilmu pengetahuan di UIN Sunan Kalijaga Yogyakarta mengadopsi strategi integrasi yang saling terkait yang dikembangkan oleh Amin Abdullah dalam konsep *"Spider's Web"* (Jaring Laba-laba). Penerapannya telah mencapai tingkat pengembangan yang sistematis, dimulai dari tingkat filosofis hingga implementasi dalam kurikulum dan proses pembelajaran di tingkat strategis.

Kata Kunci: Spider's Web; Integrasi; Interkoneksi; UIN Sunan Kalijaga

A. Introduction

There was a separation of science and religion in European society starting with the discovery of Copernicus (1473-1543), which was then reinforced by Galileo Galilei (1564-1642) regarding the heliocentric structure of the universe (the sun as the center of the solar system). compared to the churches found in the Bible.[1] The duality of knowledge can also be seen in educational institutions between general education and religious education, which has existed since this country adopted a modern education system. The Islamic scientific dichotomy has broad implications for education within the Muslim community, including how people view science and education, educational institutions, educational curricula, and the psychology of people in general. This is how the concept of scientific integration of science and religion began, driven by the existence of dualism or scientific conflict between science and religion.

Ismail Raji Al-Faruqi, Sayed Muhammad Naquib Al-Atlas, Fazlur Rahman, and Ziauddin created the philosophy of science known as the integration of Islamic knowledge. The integration of Islamic knowledge comprises not only the study of sciences and religions but also the interpretation of Islamic teachings based on the Quran, which is regarded as a paradigm. The concept of integrating Islam and science also emerged among Muslim academics. Various theories have been developed as answers to Indonesia's scientific dilemma. PTKIN is present as the originator of the concept of science-Islam integration in various regions of Indonesia. Many Islamic universities, especially in Indonesia, have implemented the concept of scientific integration, which includes many Islamic study programs which are claimed to be part of the scientific integration process.

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[1]M Iqbal Lubis, Ilyas Husti, and Bisri Mustofa, "Implementasi Konsep Integrasi Islam Dan Sains UIN Sunan Kalijaga Yogyakarta," *At-Tarbiyah Al-Mustamirrah: Jurnal Pendidikan Islam* 4, no. 1 (2023): 16, https://doi.org/10.31958/atjpi.v4i1.8605.

Several Islamic Universities that were formerly known as Colleges and Institutes have been renamed UIN. UIN Syarif Hidayatullah Jakarta, UIN Sunan Kalijaga Yogyakarta, UIN Maulana Malik Ibrahim Malang, UIN Ar-Raniry Banda Aceh, UIN Sunan Gunung Djati Bandung, and UIN Sunan Ampel Surabaya are just a few examples. The goal of this transition is to create more integrated science. To bridge the gap between the two categories, many hypotheses have been proposed. Amin Abdullah's spider web idea at Uin Sunan Kalijaga Yogyakarta is interesting to explore. This research aims to take a closer look at Amin Abdullah's views on spider webs which can be used as a reference and then integrated into the education curriculum in Indonesia. This research not only investigates how the epistemological basis of spider web theory but also the integration paradigm can be applied concretely at various levels and its implementation at UIN Sunan Kalijaga Yogyakarta.

The Integration-Interconnection Plan of Abdullah Spider webs provides a unique viewpoint on the merger of science and religion. The spider web theory of profit seeks to provide not just a framework for fundamental Islamic sciences that are normative, but also to combine them with secular sciences that are empirical-rational. This is the appeal of Amin Abdullah's thinking, in which he was able to build a scientific epistemology capable of combining diverse types of knowledge, allowing it to be evident what the essence of each scientific subject is and how and strategies to grow it. It challenges the notion that science and religion are essentially hostile to one another, demonstrating instead that both may coexist and complement one another in the search for knowledge and understanding.

B. Research Method

The research methodology uses a qualitative approach, a type of literature research. Literature research is a type of research that uses library sources to obtain data from various sources related to the subject under study. The main data sources in this research are the concepts of Integration of Islam and Science at UIN Sunan Kalijaga Yogyakarta with the interconnection integration approach developed by Amin Abdullah, as well as writings from other figures contained in books, scientific works, and references from other parties who support this research. This research analysis uses

descriptive analysis to understand the meaning and uniqueness of the spider web theory, Amin Abdullah's integration-interconnection perspective.[2]

C. Result and Discussion

M. Amin Abdullah was born in Margomulyo, Tayu, Pati, Central Java on 28 July 1953. On 13 May 2000, he was appointed Professor of Islamic Philosophy at UIN Sunan Kalijaga, and from 2001 to 2010 he served as Chancellor of UIN Sunan Kalijaga. Amin Abdullah is an Indonesian Muslim scholar who is known to have written quite a lot about Islam. He chose very diverse themes, ranging from Philosophy, 'Kalam Science, Ushul Fiqh, Al-Quran Interpretation Methods, and Pluralism, to Educational issues. Bachelor's degree from the Department of Comparative Religion, Ushuluddin Faculty, IAIN Sunan Kalijaga Yogyakarta in 1982 and doctor of philosophy from the Department of Philosophy, Faculty of Art and Sciences, Middle East Technical University (METU), Ankara, Turkey (1990).[3]

Amin Abdullah's spider web theory of the Islamic scientific perspective strives not only to provide a framework for basic Islamic sciences that are normative but also to combine them with secular sciences that are empirical-rational.[4] This is the appeal of Amin Abdullah's thinking, in which he was able to build a scientific epistemology capable of combining diverse types of knowledge, allowing it to be evident what the essence of each scientific subject is and how and strategies to grow it.

The transformation of UIN Sunan Kalijaga has scientific, academic and institutional implications simultaneously. Scientifically, UIN Sunan Kalijaga has received a wider mandate to find solutions to the dichotomy of general science and religion that continues to occur. Academically, UIN Sunan Kalijaga received permission to organize 10 new study programs. Institutionally, UIN Sunan Kalijaga is developing new faculties under the Ministry of National Education. Similar to the Decree of the Minister of Religion of the Republic of Indonesia Number: 390 of 2004 dated 3 September 2004 concerning the Organization and Work Procedures of UIN

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[2]Sugiyono Sugiyono, *Metode Penelitian Pendidikan (Kuantitatif, Kualitatif, Kombinasi, R&D, Dan Penelitian Pendidikan)* (Bandung: Alfabeta, 2021), 470.

[3]Dewi Masyitoh et al., "Amin Abdullah Dan Paradidma Integrasi Interkoneksi," *JSSH (Jurnal Sains Sosial Dan Humaniora)* 4, no. 1 (2020): 85, https://doi.org/10.30595/jssh.v4i1.5973.

[4]Parluhutan Siregar, "Integrasi Ilmu-Ilmu Keislaman Dalam Perspektif M. Amin Abdullah," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 38, no. 2 (2014): 337, https://doi.org/10.30821/miqot.v38i2.66.

Sunan Kalijaga Yogyakarta, UIN Sunan Kalijaga has 7 faculties at the undergraduate level, namely:

• Faculty of Adab (now Faculty of Adab and Cultural Sciences),

• Faculty of Da'wah (now Faculty of Da'wah and Communication),

• Faculty of Sharia (now Faculty of Sharia and Law),

• Faculty of Tarbiyah (now Faculty of Tarbiyah and Teacher Training),

• Faculty of Ushuluddin (now Faculty of Ushuluddin and Islamic Thought),

• Faculty of Science and Technology,

• Faculty of Social Sciences and Humanities.

In 2012, UIN Sunan Kalijaga opened the Faculty of Islamic Economics and Business (FEBI) with 2 study programs, namely 1) Sharia Economics, and 2) Sharia Banking.

1. Foundations of Epistemology

It is certain that each branch of science has its own or distinctive style based on its respective science and methodology. Likewise, M Amin Abdullah also uses a methodology that has developed a lot and influenced the style of thinking in this century, namely the aljabiri style which offers three methodologies of thinking, namely Burhani, Bayani, and Irfani.[5]

In line with this, Muqowim further explained that there are three elements that must be developed in the epistemology of science and Islam: bayani (text), burhani (reality), and irfani (intuition). The philosophy and practice of Islamic education (tarbiyah), which begins with texts (the Qur'an and Sunnah), is an illustration of this idea. Apart from that, it must take into account social conditions and cultural norms which are still dynamic and real. Ultimately, this theory not only generates ideas, but also develops personality and usefulness.

"Courses at UIN Sunan Kalijaga must reflect an integrated, mutually supporting science between the three existing science entities." Hadlarah An-nas means the willingness to consider the content of religious texts as a form of religious/Islamic commitment. Hadlarah al-'ilm means the willingness to be professional, objective,

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[5] Hamzah Siti Choiriyah and Hamdan Maghrib, "Integrasi Pendidikan Islam Dan Sains Perspektif M Amin Abdullah Dan Imam Suprayogo," *JURNAL PENDIDIKAN ISLAM* 14, no. 1 (2023): 45.

innovative in the scientific field one is involved in. Hadlarah al-falsafah means the willingness to link scientific content with moral and ethical responsibilities in real life practice in the UIN community.

A scientific approach that combines (integrative-interconnective) God's revelation (hadlarah an-nas) with the findings of the human mind (hadlarah al-ilm, and hadlarah al-falsafah), will not result in minimizing the role of God (secularization) or isolating humans so that they are alienated from themselves themselves, society and their environment. In fact, it is hoped that the concept of reintegrating scientific epistemology can resolve the conflict between extreme secularism and negative fundamentalism from rigid and radical ideologies.[6]

Amin Abdullah created Spider Theory/Thariqah al-'Ankabut (Spider Web Theory) in the development of Islamic Studies academic thought in higher education.[7] The image below was designed by Amin Abdullah to illustrate the relationship between an integralistic scientific spider web.

Figure 1. Theoatropocentric-integralistic Scientific Spider Web in UIN Yogyakarta

Spider webs consist of 4 layers:

1) The main source of Islamic knowledge
2) Ushuluddin's sciences
3) Theoretical knowledge
4) Applicable knowledge

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[6]Atika Yulanda, "Epistimologi Keilmuan Integratif Interkonektif M. Amin Abdullah Dan Implementasinya Dalam Keilmuan Islam," *Tajdid* 18, no. 1 (2019): 95; Choiriyah and Hamdan Maghrib, "Integrasi Pendidikan Islam Dan Sains Perspektif M Amin Abdullah Dan Imam Suprayogo," 46.

[7]Kamaruzzaman Kamaruzzaman, "Paradigma Islamisasi Ilmu Di Indonesia Perspektif Amin Abdullah," *Jurnal Al-Aqidah* 10, no. 1 (2018): 52–53, https://doi.org/10.15548/ja.v10i1.1384.

The 1st layer (innermost) is the Koran and Sunnah which serve as the main sources of Islamic knowledge. Layer 2 circle forms a path and contains 8 disciplines of Ushuluddin's sciences, namely Kalam, Falsafah, Sufism, Hadith, Tarikh, Fiqh, Tafsir, and Lughah. layer 3 is the theoretical knowledge path which consists of; Sociology, Hermeneutics, Philology, Semiotics, Ethics, Phenomenology, Psychology, Philosophy, History, Anthropology, and Archeology The 4th layer (outermost) is the path of applied knowledge, which consists of; Issues of Religious Pluralism, Science and Technology, Economics, Human Rights, Politics/Civil Society, Cultural Studies, Gender Issues, Environmental Issues, and International Law.

The relationship between general science and Islam is where the Islamization of science varies from the integration-interconnection technique. When using an Islamization of scientific approach, there is separation, fusion, and fusion between general science and religious knowledge. Because general science has a well-established epistemological, ontological, and axiological base, general science and religion can collaborate without competing.[8] However, the integration-interconnection technique is more receptive to today's general science.

2. The integration paradigm can be concretely implemented at various levels:

Philosophy Level

Integration and connectivity at the philosophical level in teaching courses entails assigning essential existential values to each course in respect to other scientific fields and humanistic ideals.[9] Teaching fiqh, for example, must instill in students that the existence of fiqh is not alone or self-sufficient, but rather develops alongside an accommodating attitude toward other scientific disciplines such as philosophy, sociology, psychology, and so on, aside from its fundamental meaning as a philosophy of building relationships between humans, nature, and God in Islamic teachings.

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[8]Toto Suharto, "Pemetaan Ayat-Ayat Al-Qur'an Tentang Rumpun Ilmu Agama Dalam Perspektif Paradigma Integrasi-Interkoneksi," *Intizar* 24, no. 1 (2018): 11, https://doi.org/10.19109/intizar.v24i1.2188; Istiningsih Istiningsih, Amin Abdullah, and Sutrisno Sutrisno, "Deskripsi HAKI Integrasi-Interkoneksi Ilmu Dan Agama," 2015, i–xv.

[9]Waston Waston, "Pemikiran Epistemologi Amin Abdullah Dan Relevansinya Bagi Pendidikan Tinggi Di Indonesia," *Profetika: Jurnal Studi Islam* 17, no. 01 (2016): 87, https://doi.org/10.23917/profetika.v17i01.2102.

Material Level

Three approaches for achieving scientific interconnectivity amongst scientific disciplines can be used to implement integration and interconnection at the material level.[10] First, consider the integration paradigm for course instruction. Second, a subject investment model that depicts the link between general science and Islam. Every course must incorporate Islamic terms such as Islamic economics, Islamic politics, Islamic sociology, and others under this methodology. The third model is the integration model into course instruction. As a sort of connectivity between the two, this approach necessitates that every Islamic and religious subject be infused with associated general scientific notions.[11] On the other hand, Islamic and religious theoretical discourses must be included in all general scientific course instruction.

Level of Methodology

When scientific disciplines are linked or interconnected with other scientific disciplines, such as psychology with Islamic principles, the interconnected science must adopt scientifically safe procedures and methods.[12] For example, the phenomenological method, which gives a sympathetic comprehension of individuals having experiences, is seen to be safer than other anti-religious techniques, such as psychoanalysis. It is not an issue in terms of research methodologies since if research is conducted objectively, the outcomes will be objective truth. Such truths will really reinforce the reality of religion.

Strategy of Degree

The implementation/practical level of the integrative-interconnected scientific learning process is referred to here as the strategy level.[13] In this setting, the scientific quality and teaching abilities of lecturers are the cornerstones to the success of interconnectedness-based courses. Aside from these attributes, lecturers must be properly supported in terms of providing a variety of reading sources and teaching materials in the classroom. Similarly, learning through the active learning paradigm with varied tactics and methodologies is required.

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[10] Waston, 88.

[11] Waston, 88.

[12] Waston, 88.

[13] Waston, 88.

3. Implementation at UIN Sunan Kalijaga

Philosophy Level

Where the courses cover three dimensions of knowledge development, namely hadlarah an-nas (sciences related to religious texts), hadlarah al-ilm (natural and social sciences), and hadlarah al-falsafah (philosophical ethical sciences) carried out using two models, namely:

(1) integration of interconnections in the internal area of Islamic sciences,

(2) integration of the interconnection of Islamic sciences with general sciences.

Material Level

And every course includes the word Islam, such as Islamic economics, Islamic sociology and every faculty has courses on Islam and science as well as Islam and social sciences and humanities which have become the university's signature courses since 2020.

Methodology Level

UIN Yogyakarata is experiencing a development trend with a lot of research being carried out by dioceses and students in the form of research fields and scientific work products of the academic community. Konferensi Integrasi Interkoneksi Islam Dan Sains (KIIIS UIN SUKA) https://kiiis.uin-suka.ac.id/

Strategy of Level

Efforts are made to improve the quality of science based on interconnection integration by providing training to lecturers regarding the implementation of curriculum integration in syllabus and SAP, aligning the integrated curriculum, establishing a Curriculum Development Directorate, coaching new lecturers to develop interconnective integrative competencies and creating development templates. integrative interconnective syllabus and SAP.[14]

D. Conclusion

The notion of spider webs developed by Amin Abdullah aspires to build a normative Islamic scientific framework and link it with empirically reasonable secular

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[14] Mohamad Yamin, Nanat Fatah Natsir, and Erni Haryanti, "Jaring Laba-Laba , Interaksi-Interkoneksi Universitas Islam Negeri Sunan Kalijaga Yogyakarta," *JIIP-Jurnal Ilmiah Ilmu Pendidikan* 5, no. 1 (2022): 307.

science. His scientific epistemology integrates many forms of knowledge to comprehend the core of each scientific subject and devise methods for its advancement. From philosophical levels to strategic implementation in learning, UIN Sunan Kalijaga Yogyakarta has adopted the interconnectivity integration strategy in the spider web idea. This strategy comprises curriculum creation, learning processes, and culture, and it prepares academics at the bachelor's and higher levels to produce interconnected integrative science.

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