

## The Implementation of Integration of Religion and Science at State Islamic Higher Education

Imam Subchi

UIN Syarif Hidayatullah Jakarta

*Imam.subchi@uinjkt.ac.id*

### **Abstract:**

*This research investigated the integration of religion and science in the state of Islamic higher education. Methods of the investigation were library research of published and unpublished documents on the process and implementation of integration of science and religion at three state Islamic universities: the State Islamic University Syarif Hidayatullah Jakarta, the State Islamic University Sunan Kalijaga Yogyakarta, and the State Islamic University of Maulana Malik Ibrahim Malang. Data obtained using the following databases: Google Scholar, Sinta- Science and Technology Index, Ebsco-host, Study gate, Sage Journal, Free Scientific Electronic Library (SciELO), and others. The findings showed that there is poor integration of religion and science within the three universities. This conclusion can be seen from the analysis of the students' final report, theses and dissertations from these three universities. This study suggests a further assessment of all State Islamic Universities by the Ministry of Religious Affairs in promoting the integration of religion and science in State Islamic Higher Education.*

**Key Words:** *Integration, Scientific Integration, Integration-Interconnection*

### **INTRODUCTION**

Muslim scholars have long advocated the integration of both Religion and Science. (Azra, 2000, 2002, 2003, 2005, Suprayogo, 2004, 2005, 2013, Kartanegara, 2005, Rosyada, 2016, Abdullah, 2003, 2006, 2007). Even before the State Islamic Institutes' (IAIN) transformation into State Islamic University (UIN). The discourse has arisen mainly among academics at Islamic higher education, including those at State Islamic University of Syarif Hidayatullah Jakarta (UIN Jakarta), State Islamic University of Sunan Kalijaga Yogyakarta (UIN Yogyakarta), and State Islamic University of Maulana Malik Ibrahim Malang (UIN Malang). Three academics thoroughly discussed this debate from the three universities; Prof. Dr. Azyumardi Azra (Jakarta), Prof. Dr. Amin Abdullah (Yogyakarta), and Prof. Dr. Imam Suprayogo (Malang). This transformation came into effect on May 20, 2002, precisely after the Presidential Decree No. 31/2002 was issued. The decree declared the shifting institutional status of Syarif Hidayatullah Jakarta's State Islamic Institute (IAIN Jakarta) as a "with a wider mandate" State Islamic University (UIN Jakarta). This decree subsequently highlighted the stepping stone of other Islamic State Institutes' shifting institutional status to Islamic State Universities. Four other State Islamic Institutes or State Islamic Institutes of Higher Education followed the changing institutional status of UIN Jakarta; UIN Yogyakarta, UIN Malang, UIN Makassar, UIN Bandung. Recent data shows

that Indonesia has 58 state Islamic higher education institutions of different status, namely 17 State Islamic Universities, 34 State Islamic Institutes, and 7 State Islamic Higher Education Colleges (<http://diktis.kemenag.go.id/rankingptai/>).

In general, there are five possible forms of relationship between science and religion, Islam in particular. The first is a conflicting relationship in which science and religion are in a state of conflict as in Copernican times. Second, it is an independent relationship in which science and religion have never interacted with each other, each goes on its way. The third is an Islamization relationship in which science is Islamized in all its stages. Fourth, it is a dialogical relationship in which science and religion interact with each other without having to support each other. At last, an integral relationship in which science and religion go hand in hand, inspire and support each other as religious values are integrated into scientific development. Some say the last form of relationship is new idea development, but others mention what is needed is re-integration of science and religion, instead of a mere integration as it once occurred in the past, particularly during the Golden Age of Islamic History. The question is how such an integral relationship has happened. Such a question indeed addresses the integration of values to science. Western science has so far been based on positivism in which knowledge is considered science only when it can be observed, measured, and verified. In contrast, this research aims at discussing the vulnerability of science to values in which religious values can be part of the disturbing values. What is necessary to discuss, for now on, is how the newly transformed Islamic universities are dealing with such issues. (Abd. Rahman, 2020, Kusumawati, 2020, Bellini, 2019, Abdullah, et.al. 1997, Kusdewanti, 2019, Mudzar, 1998, Sulaiman, 2017).

Azyumardi Azra mentions three typologies of response reacted by some Muslim intellectuals concerning the issue of the relationship between religious and general sciences. The first typology is Restorationists who say the useful and necessary knowledge is religious practices (*ibadah*). The Muslim intellectual who owns such an opinion is Ibrahim Musa (d. 1398 AD) from Andalusia. Ibn Taymiyyah states the only knowledge is coming from the prophet. Similarly, Abu Al-A'la Maududi as the leader of the Jamaat-e-Islami, an Islamic political party based in Pakistan, says the western sciences, geography, physics, chemistry, biology, zoology, geology and economics are sources of error as they do not refer to Allah, the only Mighty God, and His Prophet Muhammad. Second, it is the Reconstructionists who see religion as a way to improve the relationship between modern civilization and Islam. They claim Islam during the time of Prophet Muhammad and his companions were very revolutionary, progressive, and rational. Sayyid Ahmad Khan (d. 1898 AD) mentions God's words and scientific truth are both true. Jamal al-Din al-Afghani even says Islam owns a scientific spirit. The third is Reintegration, a reconstruction to the sciences originally coming from *al-Ayah al-Qur'aniyah* and *al-Ayah al-Kawaniyah*, which means returning to the transcendental unity of all sciences. (Azra, 2005: 206- 211). For this reason, Azra chooses the concept of dialogical and opens the integration of religion and science.

According to Abdullah, the renewal ideas come from the Muslim modernists around the world. He adds the modernist thinkers such as Abduh, Iqbal, Harun Nasution, and Sutan Takdir who claim the Muslim backwardness and propose "rationalization" and "westernization" as a solution to emulate the Western World do not entirely benefit the Muslims. Besides not being able to solve the issues, their idea leads to the superiority and power of the Western communities and the inferiority of the Eastern communities, especially Muslims. Also, it has shaped an attitude to regret their world and religion. Consequently, the aspiration to compete with the West has eventually strengthened them

instead. (Abdullah, 2006: 5-6). Abdullah offers the idea of an integration-interconnection paradigm as an attempt to solve the deadlock of contemporary issues. To this end, various scientific disciplines do not refer only to a single entity (scientific arrogance: claiming the only true one), isolated entities (where inter-disciplinary does not happen), but also to the interconnected entities (recognizing the limitations of each scientific discipline and resulting in cooperation and willingness to use methods even though they come from another discipline). (Abdullah, 2006: 404-405, 2007: 37-38).

The scientific paradigm applied at Maulana Malik Ibrahim State Islamic University places al-Qur'an and al-Hadith as the sources of all sciences. This means it is not limited to education which is similar to *tarbiyah*, law to *Sharia*, and philosophy to *ushuluddin*, and linguistics and literature to *dakwah* respectively. However, sciences such as physics, biology, chemistry, psychology, agriculture, and all other branches of science are rationalized although they are not mentioned specifically in the al-Qur'an. Also, the Islamic teachings are generally associated with and limited to the procedures of *ibadah*, newborn care, marriage issues, death, *zakat* (charity), and hajj. Al-Qur'an mentions the concept of God, creation, human problems and behavior, nature, and everything in it and instructions about human and natural safety. If, for instance, the sciences also include them all, this means they are mentioned and implied in al-Qur'an and al-Hadis. (Suprayogo, 2013: 13-38). The University builds and designs its scientific foundation based on the universality of Islamic teachings. The structure is simplified and likened to a tree as a metaphor. In this metaphor, the tree is assumed to be healthy and sturdy, have shady branches, be leafy, and bear fruit as it is supported by strong roots. Here, the strong roots do not only support the tree but also absorb the soil contents for its growth and development. The roots, for example, represent the University's scientific foundation. The mastery of this scientific foundation becomes the basic capital for students to understand all aspects of Islamic sciences, illustrated as the tree to show their identity. The branches represent the fields of science at the University which are constantly growing and developing. In the meantime, the flowers and fruits portray the outputs and benefits of the educational efforts; faith, piety, and knowledge. Every tree must have strong roots and trunks, which means each student is required to master the scientific foundation and fields of science. Described as the branches, the mastery of both academic and professional fields of study is their own choice. (Suprayogo, 2005, 2008: 48-49, 2004: 50-51).

The arising issue is how to implement the integration of religion and science at State Islamic Higher Education. In terms of time, the struggle to the integration of religion and science discourse has been going on for so long and empirically started from 2002 to 2020 with the establishment of Syarif Hidayatullah State Islamic University. The aspects to explore and examine here are final report, theses and dissertations written by student postgraduate, curriculum, and lecturer capacity in teaching the integration of religion and science, Islam and science, Islamic intellectual history, and others.

The method of this research was using library research. The data were collected by analyzing and/or exploring some journals, books, both printed and electronic documents, and other sources and/or information that relate to the research. The data analysis technique used in this research was content analysis. To maintain the conservation of the assessment process and checked between literature and re-read the literature had been considering the advisor's comment. Online data sources are done with a web search using the following databases: Google Scholar, Ebsco-host, Research gate, Sage Journal, Scientific Electronic Library Online (SciELO), and others.

According to Snyder (2019), the sources of literature research based on direct description by researcher who has actually observed these events. Or the data sources taken from field research from books, journals, and others which has been done by other researcher before. (Simanjuntak, 2014, Spradley, 1997, Pratama, 2017, Ida, 2018: 130-145). Howard dan Sharp (1993) said, the primary sources of library research are journal articles, research report, official government sources, and catalog. The research was conducted for two months, in June and July 2020.

## **DISCUSSION**

### **The Implementation of Scientific Integration at Syarif Hidayatullah State Islamic University Jakarta**

Saifudin has researched the practice of scientific integration in the Faculty of Science and Technology at Syarif Hidayatullah State Islamic University. He has examined and analyzed the integration of religion and science in 45 student Final Projects in Biology, Physics, and Chemistry Study Programs in the Faculty. He sees the policy and implementation of the integration of religion and science in terms of processes, study and research results, and student attitudes. For this reason, he uses several indicators as follows: 1) the Final Project title or theme in the title is marked with 1; 2) the use of verses and *hadith* in the content is marked with 2 and 3) the Islamic value is marked with 3. Meanwhile, 0 is used as a code for any scientific works that do not have the three marks. The Final Project is one of the important, objective, actual and original indicators as it is a scientific work resulting from the teaching and learning process between lecturers and students. It is considered as an intellectual outcome for a scholar.

He adds the absence of the integration between religion and science at the University is due to several factors: 1) narration; 2) regulation; and 3) implementation. Although these three factors are inseparable, one factor often becomes the other. He further says the source and passion regarding the revival of the integration of religion and science becomes a scientific integration discourse. Such discourse has experienced ups and downs as it has not met the criteria expected by the University founders. In the five years after the University establishment, the integration of religion and science discourse produced several intellectual or academic products. However, the issues on the integration of religion and science have lately seemed to decline, decreasing the productivity of scientific works. This condition encourages the birth of the status quo in the dichotomy between religion and sciences or secular sciences, both academically, economically, and sociologically.

In terms of the regulatory factor, the University has not made policies or norms concerning the integration of religion and science for almost two decades. Legally, the formulation of the integration policy was set as a university decision in 2017 by the Rector's Decree No. 864/2017. This means the University has not taken any strategic and tactical steps to create norms or regulations and standards since its transformation to a university and its initiative on the integration in the 2000s. This has happened because the idea of integration is not considered as the main issue by the academic community. Another thing triggering the delay on the regulations is the state in which the University has focused more on fixing and dealing with managerial problems concerning campus facilities and other sensational and political issues.

In terms of the implementation factor, the University has not made any technical and operational efforts applicable to scientific integration. On the one hand, this is seen

from the absence of operational and technical guidelines at the university, faculty level, and study program levels. On the other hand, the University also has not succeeded in conducting the dissemination and socialization of the scientific integration, both in terms of scientific integration thinking as the main object in the curriculum and producing scientific works by lecturers. The head of the Faculty of Science and Technology has admitted it. According to the Vice Dean for Academic Affairs, Nashrul Hakim, the faculty has not formulated any specific guidelines on the integration. This is in line with the research result showing the faculty does not own the guidelines on the Final Year Project writing and other scientific works based on the integration of religion and science. (Saifudin, 2020: 78-90).

Subchi said, based on the interviews with some lecturers in the Faculty of Science and technology, the integration structure does not seem to be well organized and implemented at the formal level, which can eventually influence the learning plan used by the lecturers as teaching guidelines. Each lecturer has its respective way of teaching depending on their educational background. They have different perceptions of scientific integration. The faculty also has a compulsory course that promotes integration, Islam, and Knowledge. This course is one of the faculty's efforts to instill Islamic values in the student education process. Unfortunately, it does not apply to the lecturers who have different educational backgrounds. An understanding of the integration is very significant for all academic communities within the University. (Subchi, 2019).

The absence of a harmonious understanding of the integration of Islam with science and technology has also encouraged various interpretations of the Islamization of science and the integration of science. Some assume that as long as teaching goodness, bringing positive benefits, and being taught in a good way, science is considered integrated knowledge. In the meantime, some others claim the integration of Islam with science and knowledge means to develop sciences coming from the religious texts; al-Qur'an and *al-Hadis*. The gap between the two groups has not yet caused a fundamental problem with the learning process and results in the faculty. However, if it is not properly communicated, a bigger gap will be formed and may cause confusion over the educational process applied, ranging from the relation to curriculum formulation, graduate profile to study mapping developed in the faculty. (Subchi, 2019).

In contrast, Roup has found different results. He examines the implementation of scientific integration at the Graduate School of Syarif Hidayatulla State Islamic University through the student dissertations. The result shows the majority of the dissertations of non-religious studies have used the methodology promoted by the concept of scientific integration. According to him, such achievement is not a coincidence. The dissertation supervisors, especially the promoters, have succeeded in assisting the dissertation writing. (Roup, 2019: 237-251).

Roup presents three examples of dissertations. The first dissertation was written by Teguh Slamet Wahyudi as a student taking Islamic Studies with a concentration in Science at the Graduate School in 2017. According to the interview result, he is a mathematics teacher at SMAN (State High School) Depok. He finished his undergraduate degree at a Higher Education Institution in Semarang and a master's degree at PMIAI ICAS-Paramadina Jakarta with a concentration in Philosophy and Islamic Studies. To complete his dissertation and finish his doctoral degree, he participated in many philosophical studies at various institutions including STFI Sadra, Jakarta. The title of his dissertation is *Dimensi Kemanusiaan dan Ketuhanan Dalam Matematika Al-Khawarizmi dan Matematika Modern*

(Humanity and Divinity Dimensions in Al-Khawarizmi and Modern Mathematics). He used a comparative study as the research method to find the similarities and differences between the human and divinity dimensions according to al-Khawârizmî and modern mathematics. He also used the hermeneutic method to interpret data and find research conclusions. (Roup, 2019: 237-251, Rohman, 2017).

The dissertation entitled *Reintegrasi Agama dan Sains Bidang Kesehatan Reproduksi (Studi Kasus Kebamilan Tidak Diinginkan di Padangsidempuan, Tangerang Selatan, dan DKI Jakarta)* /The Reintegration of Religion and Science in the Reproductive Health Sector (Case Study of Unwanted Pregnancy in Padangsidempuan, South Tangerang, and Jakarta) and written by FSH emphasizes the existence of scientific integration. It is even promoted by Azyumardi Azra as one of the initiators of the scientific integration concept at Syarif Hidayatullah State Islamic University. According to the interviews and documentation, the writer is a private midwife in Bogor. She finished her undergraduate degree in Midwifery at a Higher Education Institution in Jakarta and her Master's degree at the Graduate School, Syarif Hidayatullah State Islamic University. This means she has already got a skill in Islamic Studies since her Master's degree before continuing her doctoral degree.

The other example is a dissertation designed by Hannas, a student of Islamic Studies with a concentration in Da'wah and Communication at Syarif Hidayatullah State Islamic University. It is entitled *Islam Rahmatan Li Al-Alamin (Studi tentang Pemikiran dan Kiprah Dakwah Muhammad Shamsi Ali di New York)* /Islam Rahmatan Li Al-Alamin (Study on Muhammad Shamsi Ali's Thought and Da'wah in New York). This is rounded research using religious, historical, leadership, and communication approaches. With the multi-approach, it is clear that he has attempted to integrate science in his dissertation under Atho Mudzhar's supervision who is quite concerned with scientific integration. Based on the interview, the writer is a doctor of Christian theology. This means before gaining his doctoral degree at Syarif Hidayatullah State Islamic University, he has already become a doctor. He is a priest in his religious community.

### **The Implementation of Scientific Integration at Sunan Kalijaga State Islamic University Yogyakarta**

According to Sari (2020), the models in the implementation of scientific integration at State Islamic Religious Higher Education include: first, appreciation of various disciplines. This integration model is in terms of appreciating religious sciences and other sciences as something that objectively, naturally, and scientifically develops and has its comfort zone. The second is coexistence, which seeks to place the religious and other sciences to run by their respective philosophies and scientific disciplines without any suspicion and interference, except in areas where it is objectively possible. Third, dialogical interaction. This integration model places the religious and other sciences in open and constructive dialogical interactions. The fourth is utilizing theories/concepts/findings from religious disciplines to be used in framing or interpreting studies in other scientific traditions or vice versa. This model seeks to take advantage of theories taken from certain scientific traditions to produce other sciences or vice versa. The fifth is refining one's scientific tradition by using another scientific tradition. It means improving a scientific tradition using another scientific tradition. Sixth, replacement of theory. This means replacing a theory from a tradition of religious sciences with another theory from another scientific tradition or vice versa. The seventh is mastering both religious and secular sciences. This model seeks to emphasize the mastery of one or more religious sciences and

other sciences or integration is made by a scientist who masters several sciences from religious and other scientific traditions. Eighth, convergence. This model seeks to carry out and combine a set of different ideas. In the end, the differences in the set are no longer visible and are transformed into one unit or uniformity.

She adds the implementation of integration of religion and science found in the student theses and dissertations at Sunan Kalijaga State Islamic University applies the convergence model. This is seen from the Interdisciplinary Islamic Studies program, in which the concentration focuses on combining several ideas from different disciplines and in turn, transforms into one unit or uniformity. (Sari, 2020: 245-252, Raya, 2017: 65-82, Fitri, 2020, Lukman, 2017: 1-11, Izudin, 2017: 110-140). Sari mentions the integrative curriculum at the Graduate School has influenced the results of student final assignments. This is seen from the title of the student theses and dissertations. Hartono's dissertation (2019), for example, entitled *Strategi Pengembangan Perpustakaan Digital Dalam Membangun Aksesibilitas Informasi Berbasis Nilai Islam Multikultural: Studi Kasus pada Perpustakaan Perguruan Tinggi Negeri di Malang Jawa Timur* (Digital Library Development Strategy in Building the Accessibility of Information Based on Multicultural Islamic Values: Case Study at the State University Library in Malang, East Java) shows the integration of multicultural Islamic values that underlie information democracy through open access, humanism based-modernity of information technology, awareness of law and justice in legal information, resource sharing, and tolerance in building mutual respect awareness in digital library services. Hartono is a student of the Islamic Studies study program with a concentration in Islamic Library and Information Science. His dissertation promotes a multidisciplinary integration, between library science and Islamic values. With such integration, the library studies, which have often focused on techniques, have become more humane and useful for the progress of civilization, particularly in modern times when digital libraries are booming.

Also, a dissertation is written by an advocate and legal consultant, Jaka Sarwanta, and entitled *Persaudaraan Cinta Tanah Air yang Dijivai Manunggalnya Keimanan dan Kemanusiaan 2010-2017: Studi Kasus Gerakan Sosial Pondok Pesantren Majmaal Bahrain Hubbul Wathon Minal Iman Shiddiqiyah Jombang* was examined in the doctoral promotion exam in 2019. It describes the method used by the Majmaal Bahrain Hubbul Wathon Minal Iman Shiddiqiyah Islamic Boarding School, Jombang, in instilling nationalism (love of the homeland) in its students and public in general (interfaith, cross-ethnic and cross-cultural communities). This Islamic Boarding School originally came from *Tboriqob Shiddiqiyah*. The method applied in the school is the *Shiddiqiyah* method, requiring its students to study, understand, and practice the values mentioned in Pancasila and the 1945 Constitution in their daily life and refer them to the hadith. Meanwhile, promoting nationalism to the public is carried out through the *Persaudaraan Cinta Tanah Air (PCTA) Indonesia* organization. One of the methods is holding a national seminar, workshop, and commemorations, depending on the current occasions. In promoting nationalism to its students and the public in general, supporting and inhibiting factors take place. In Jaka Sarwanta's dissertation, a multidisciplinary integration, between law and hadith has happened. The studies on constitutional law and hadith have often been studied separately so far.

Another example of a thesis on interdisciplinary integration is the one written by Baiq Uyun Rahmawati (2018), a student of Interdisciplinary Islamic Study for master program, with a concentration in Islam Nusantara. Her thesis is titled *Makna Mitos Dalam*

*Arus Perubahan pada Muslim Masyarakat Suku Sasak di Kabupaten Lombok Barat.* The result shows the Sasak people, at first, considered myths as sacred things, so they did not attempt to break them. After the Islamization process brought by Sunan Prapen and Tuan Guru, the myth has been maintained. The existence of myths, apart from involving an imperfect understanding of Islam, happens due to the socio-cultural connection made by Tuan Guru in studying Islam. In addition to the Islamization, Tuan Guru has also modernized the Sasak community through religious and educational approaches. The existence has persisted for a long time as it is supported by religious leaders, traditional leaders, and local government. However, as time goes by and the modernization occurs among the Sasak people, a re-meaning of myth occurs due to the changes in beliefs and social patterns as modernity strikes. In short, the thesis offers an interdisciplinary scientific integration, Islamic religious knowledge, and religious anthropology.

### **The Implementation of Scientific Integration at Maulana Malik Ibrahim State Islamic University Malang**

Shodiq (2020: 133-149) examines the implementation of scientific integration at Maulana Malik Ibrahim State Islamic University by utilizing *ma'had* (student boarding) as a means of integration. The University has integrated science and religion through some reforms in the Islamic education tradition. The trick is to combine the traditional, mystical, charismatic *pesantren* traditions with modern-religious traditions to create a dialogue between verse contemplation and creative contemplation. In turn, both are combined through the scientific tradition of *Ūlul al-bāb* (*Dhikir, Fikir, and Amal*). The first strategy to formulate the integration between science and religion is to integrate the pesantren education system with modern education, which means including the Islamic values in learning materials, activities (processes), and evaluation/assessment. In the learning process, integration is also carried out by maintaining the campus resident behavior; leaders, lecturers, employees, and students, among others. In conclusion, the strategy in integrating science and religion is carried out in two formulations by the University, learning system, and behavior development. In the learning system, for example, the integration is made by integrating Islamic values in the materials, process, and evaluation/assessment. In the meantime, behavior development is mandatory for all academic communities, including leaders, lecturers, staff, and students.

According to Vice-Rector I, the strategy implemented by the University in integrating science and religion through Islamic values into the learning materials takes place in four ways. First, adding exercises that reflect Islamic values into the learning topics. In this position, the lecturers' breadth of insight plays a very important role. As a result, students are expected to be able to know the Islamic values contained in each topic. The second is creating Islamic names regarding the learning topics, in terms of people, places, or events. Here, the students are expected to not only know Western figures, places, or events but also be familiar with Islamic figures, places, or events. The third way is mentioning verses from al-Qur'an and *Hadis* that are in line with the learning topics. The Dean of the Faculty of Science and Technology also clarifies this is important for all lecturers to undertake. As a result, the students have a strong foundation and broader knowledge and are not only guided by established western theories but are also able to reinforce the theories based on the Islamic perspective. The last is combining Islamic expressions with western ones that are following the learning topics. In this way, they are

expected to be able to master Islamic expressions and be proud of using them daily. (Ali et al, 2018, Miftahuddin, 2020, Siregar, 2019: 26-45).

Referring to the above illustration, the integration of Islamic values in the learning material is carried out in several ways, including 1) Adding exercises that reflect Islamic values into the learning topics; 2) Creating Islamic names for people, places or events into the added practices; 3) Attaching quotations from al-Qur'an and/or *Hadis* that are relevant to the learning topics; 4) Combining Islamic expressions with English expressions according to the learning materials. Besides the implementation in learning materials, the integration of science and religion also takes place in learning activities in almost the same ways; 1) Linking the learning topics with the suitable Islamic teachings by quoting the relevant al-Qur'an verses and *Hadis*; 2) Using Islamic names for people, places or events in making examples in terms of sentences, texts, and conversations; 3) Code-switching or language alternation between English and Islamic expressions based on the context of the learning situations; and 4) Giving assignments to students to write or search for certain types of text related to Islamic values according to the learning topics. After the learning process is integrated, the next step is to integrate Islamic values in the learning assessment/evaluation. The assessment process is conducted through formal and non-formal assessments. The formal assessment, for example, is carried out by giving daily tests to students, Mid Exam, and the Final Exam. In the meantime, the non-formal assessment may include giving oral questions, observing lecturers when the learning is taking place, giving individual and in-group assignments, and reading tasks for materials included in the integrated Islamic values, reading al-Qur'an verses and *Hadis*, among others. (Shodiq, 2020: 133-149, Fahim, 2019).

Based on this integration model, Ali (2018) considers Maulana Malik Ibrahim State Islamic University as the only State Islamic Higher Education in East Java that owns the pillars of Higher Education (*arkan al-jami'ah*) which includes; (1) reliable human resources, (2) mosques, (3) student *ma'had (pesantren)* (4) libraries, (5) laboratories, (6) study/lecture rooms, (7) offices as service centers, (8) arts and sports development center, and (9) strong funding sources. These nine components constitute a complete unity held as a characteristic of Islamic Higher Education and expected to lead students to have four types of power at once; spiritual depth, moral greatness, mastery of knowledge, and professional maturity. As the implication of the University characteristics, all students in the first year from both general and religious study programs are required to stay in the *ma'had* and attend an Arabic language course at 14.00-20.00 every day. The curriculum applied in the *ma'had* is an integrative curriculum, which enables the *Ma'had* alumni to think critically and positively develop characters. Generally, the University graduates have strong religious capacity, honesty, and professional working etiquettes after moving out of the *ma'had*. They are more trusted by the agencies and institutions where they work. (Ali et al. 2018, Arbi et al., 2018).

In term of the scientific integration work at the University, Afwadzi (2016, 2018) mentions the integration of *hadis* and science is reflected on the integration of religion and science in the Spider Web and *Syjarah al-'Ilm*, the integration of *hadis* and science in both conceptions, and the implementation of the lecturers' writings; and the second is the differences in the integration of *hadis* and science in the Spider Web and *Syjarah al-'Ilm*. The University sees the scientific integration concept takes place by combining *kanmiyah* verses in terms of observations, experimentation, and logical reasoning with *qawliyah* verses (Al-Qur'an and *Hadis*). Here comes the term *Syjarah al-ilm*. The scientific symbol of

Maulana Malik Ibrahim State Islamic University is illustrated as a tree that has strong roots, solid trunks, sturdy branches, shady leaves, and healthy and fresh fruit. Each part represents a type of discipline. (Afwadzi, 2018, 2016).

## CONCLUSION

In conclusion, the implementation of integration of religion and science at State Islamic Higher Education has experienced several weaknesses and shortcomings. Some have implemented it and some others have not done anything with it. Referring to the above descriptions and findings, the research shows the integration of religion and science in the three universities is only taking place at the discourse level. The discourse on the integration of religion and science has been going up and down depending on the thought of the leaders and has not become a central issue and an important narrative among the academic communities although the three universities are the representatives and barometer for all State Islamic Higher Education in Indonesia.

Some of the steps that must be taken by universities include; First, revising the regulations and operational or technical guidelines on the scientific integration according to global developments, where students are directed towards higher quality which refers to the motto, *Islam, Indonesian, and modernity*. Second, due to the absence of policies, norms, operational or technical guidelines, and operational approaches, the integration of religion and science in the final projects, theses, and dissertations is limited. In other words, the integration of religion and science has not been implemented in general. To that end, the transformation of the State Islamic Institute into State Islamic University with the mandate to integrate religion and science does not seem to go systematically and be well implemented.

Based on the findings, the researcher offers several suggestions to the Ministry of Religious Affairs; to carry out further research in terms of mapping out the policy of the integration of religion and science at all universities within the State Islamic Higher Education environment; to find the data about the strengths and weaknesses of each university, in terms of manpower, management, funding, and alike. The results are, in turn, implemented and formulated in policies due to the fact the each State Islamic University institution has different needs. At last, an evaluation is conducted every five years to see the level of success and failure of each institution.

## REFERENCES

- Abd Rahman, N., Mohd Zabidi, F. N. M., & Halim, L. (2020). Integration of Tauhidic Elements for Environmental Education from the Teachers' Perspectives. *Religions*, 11(8), 394.
- Afwadzi, B. (2016). Membangun Integrasi Ilmu-Ilmu Sosial dan Hadis Nabi. *Jurnal Living Hadis*, 1(1), 101-128.
- Ali, N et. al. (2018). *Implementasi Kurikulum Integratif pada Ma'had Mahasiswa UIN Maulana Malik Ibrahim Malang*. Malang: Lembaga Penelitian dan Pengabdian Kepada Masyarakat UIN Maulana Malik Ibrahim Malang.
- Amin. A. M. (1997). *Islamic Studies dalam Paradigma Integrasi-Interkoneksi (Sebuah Antologi)*. Yogyakarta: Suka Press.
- Amin. A. M. (2007). "Desain Pengembangan Akademik IAIN Menuju UIN Sunan Kalijaga: Dari Pendekatan Dikotomis-Atomistis Kearah Integratif-Interkoneksi?"

- dalam Fahrudin Faiz, (ed.), *Islamic Studies dalam Paradigma Integrasi-Interkoneksi*. Yogyakarta: SUKA Press, 37-38.
- Amin. A. M. (2006). *Islamic Studies di Perguruan Tinggi: Pendekatan Integratif-Interkonektif*. Yogyakarta: Pustaka Pelajar, 5-6.
- Amin. A. M. (2006). *Islamic Studies di Perguruan Tinggi: Pendekatan Integratif-Interkonektif*. Dalam Adib Abdushomad (ed.). Yogyakarta: Pustaka Pelajar, 404-405.
- Amin. A. M. (2003). "Etika Tauhid sebagai Dasar Kesatuan Epistemologi Keilmuan Umum dan Agama (dari Paradigma Positivistik-Sekularistik Ke Arah Teoantroposentrik-Integralistik)", dalam M. Amin Abdullah, dkk., *Menyatukan Kembali Ilmu-Ilmu Agama dan Umum: Upaya Mempersatukan Epistemologi Islam dan Umum*. Yogyakarta: Sunan Kalijaga Press.
- Arbi, et. al. (2018). Model Pengembangan Paradigma Integrasi Ilmu di Universitas Islam Negeri Maulana Malik Ibrahim Malang. *MALANGPROFETIKA, Jurnal Studi Islam*, 20 (1), 1-15.
- Azra, A. (2005). "Reintegrasi Ilmu-ilmu dalam Islam". Dalam Zainal Abidin Bagir (ed) *Integrasi Ilmu dan Agama, Interpretasi dan Aksi*. Bandung: Mizan, 206- 211.
- Azra, A. (2003). "Kata Pengantar Rektor UIN Syarif Hidayatullah Jakarta" dalam Abuddin Nata, dkk, *Integrasi Ilmu Agama dan Ilmu Umum*. Jakarta: Rajawali Press.
- Azra, A. (2002). "Membangun Integrasi Ilmu, Iman, Amal dan Akhlak", Sambutan Pidato Peresmian IAIN Syarif Hidayatullah menjadi UIN Syarif Hidayatullah, Jakarta, 8 Juni 2002) dalam Kusmana dan Yudhi Munadi, (Ed), *Proses Perubahan LAIN Menjadi UIN Syarif Hidayatullah Jakarta*. Jakarta: UIN Jakarta Press.
- Azra, A. (2000). "IAIN di Tengah Paradigma Baru Perguruan Tinggi", dalam Komaruddin Hidayat dan Hendri Prasetyo (Ed), *Problem dan Prospek LAIN: Antologi Pendidikan Tinggi Islam*. Jakarta: Direktorat Pembinaan PTAI Dirjen Bimbaga Islam.
- Bellini, C. G. P. (2019). False dichotomies (Part I): The Axiomatic Systems of Science and Religion, and Implications for Scholarly Publications. *BAR-Brazilian Administration Review* 16 (1).
- Fahim, T. M. (2019). Kajian Pemikiran Integrasi Keilmuan Universitas Islam Negeri (UIN) Maulana Malik Ibrahim Malang melalui Ulul Albab. *Proceeding International Conference on Islamic Education (ICIED)* 4 (1).
- Fitri, A. Z. (2020). *Integrasi Pengembangan Keilmuan di Perguruan Tinggi Keagamaan Islam*. Tulungagung, IAIN Tulungagung Press.
- Howard, K. & Sharp, J, A. (1993). *The Management of a Student Research Project*. Great Britain: Gower.
- Ida, R. (2018). Etnografi Virtual Sebagai Teknik Pengumpulan Data Dan Metode Penelitian. *The Journal of Society and Media* 2 (2), 130-145.
- Izudin, A. (2017). Penggunaan Paradigma Integrasi-Interkoneksi dalam Proses Pembelajaran di Program Pascasarjana UIN Sunan Kalijaga Yogyakarta. *Afkaruna: Indonesian Interdisciplinary Journal of Islamic Studies* 13 (1), 110-140.
- Ja'far as-Shodiq, M. (2020). Manajemen Strategis Perguruan Tinggi Islam Dalam Mengintegrasikan Sains Dan Agama (Studi Kasus di UIN Maulana Malik Ibrahim Malang). *Al-Hikmah: Jurnal Kependidikan Dan Syariah*, 8(1), 133-149.
- Kartanegara, M. (2005). *Integrasi Ilmu: Sebuah Rekonstruksi Holistik*. Jakarta: Arasy.
- Kusumawati, A, et al. (2020). The Role of Religiosity on Fashion Store Patronage Intention of Muslim Consumers in Indonesia. *SAGE Open* 10.2: 2158244020927035.

- Kusdewanti, A. I. (2019). Islamic Cosmology of Accounting: An Introduction. *International Journal of Religious and Cultural Studies* 1 (1), 10-16.
- Lukman, F. (2016). Integrasi-Interkoneksi dalam Studi Hadis Disertasi Di Uin Sunan Kalijaga Yogyakarta. *RELIGIA* 19 (2), 1-11.
- Miftahuddin. (2020). *Model-Model Integrasi Ilmu Perguruan Tinggi Keagamaan Islam (Studi Multi Situs pada UIN Jakarta, UIN Yogyakarta, dan UIN Malang)*. Yogyakarta: Diandra Kreatif (Kelompok Penerbit Diandra).
- Mudzhar, M. A. (1998). *Pendekatan Studi Islam dalam Teori dan Praktik*. Yogyakarta: Pustaka Pelajar, Cet. II.
- Muflihin, A. (2016). *Paradigma Keilmuan Integrasi-Interkoneksi: Studi Terhadap Desain dan Implementasi Kurikulum Program Magister Prodi Pendidikan Islam Fakultas Ilmu Tarbiyah dan Keguruan UIN Sunan Kalijaga Yogyakarta*. Diss. Thesis Post-Graduate, UIN Sunan Kalijaga.
- Mahasnah, Muhammad Husain. (2017). *Pengantar Studi Sejarah Peradaban Islam*. Jakarta: Pustaka Al-Kautsar.
- Pratama, B. I. (2017). *Etnografi Dunia Maya Internet*. Malang: Universitas Brawijaya Press.
- Raya, M. K. F. (2017). Model Pengembangan Keilmuan UIN Malang dan UIN Yogyakarta. *FALASIFA: Jurnal Studi Keislaman* 8 (1), 65-82.
- Rohman, M. M. (2017). *Peta Kajian Ekonomi Syariah di PTAI (Analisa terhadap Perkembangan Disertasi di UIN Jakarta, UIN Yogyakarta, dan UIN Surabaya Periode Tahun 2010-2015)*. Ciputat: Puslitpen LP2M UIN Jakarta.
- Rosyada, D. (2016). *Islam dan Sains: Upaya Pengintegrasian Islam dan Ilmu Pengetahuan di Indonesia*. Jakarta: RM. Books.
- Roup, M. et. al. (2019). Criticism of Knowledge of Integration in Non Islamic Studies Student's Dissertation at State Islamic University. *Dialog* 42 (2), 237-251.
- Sari, R. M., & Amin, M. (2020). Implementasi Integrasi Ilmu Interdisipliner dan Multidisipliner: Studi Kasus di Pascasarjana UIN Sunan Kalijaga Yogyakarta. *Prosiding Konferensi Integrasi Interkoneksi Islam dan Sains*, 2, 245-252.
- Simanjuntak, B. A., & Soedjito S. (2014). *Metode Penelitian Sosial*. Jakarta: Yayasan Pustaka Obor.
- Siregar, I. S. (2019). Itegrasi Kampus dan Pesantren di UIN Maulana Malik Ibrahim Malang. *Studi Multidisipliner: Jurnal Kajian Keislaman*, 6(1), 26-45.
- Spradley, J. P. (1997). *Metode Etnografi*. Yogyakarta: Tiara Wacana.
- Subchi, I. (2019). *Islam, Sains dan Teknologi*. Ciputat: Laporan Penelitian Puslitpen LP2M UIN Syarif Hidayatullah Jakarta.
- Sugiyono. (2019). *Metode penelitian Pendidikan Kuantitatif, Kualitatif, dan R & D*. Bandung: Alfabeta.
- Sulaiman, K. U. (2017). *Knowledge and Civilization in Islam*. Malaysia, International Islamic University Malaysia (IIUM).
- Suprayogo, I. (2005). *Paradigma Pengembangan Keilmuan pada Perguruan Tinggi: Konsep Pendidikan Tinggi yang Dikembangkan UIN Malang*. Malang: UIN Malang Press: 2005. Judul artikel ini juga diterbitkan dalam Nanat Fatah Natsir (ed.). (2008). *Pengembangan Pendidikan Tinggi dalam Perspektif Wahyu Memandu Ilmu*. Bandung: Gunung Djati Press, 48-57.
- Suprayogo, I. (2013). "Pradigma Keilmuan dan Falsafah Pendidikan", dalam *UIN Maliki Membangun Perguruan Tinggi Islam Bereputasi Internasional*. Malang: UIN Maliki, 13-38.

- Suprayogo, I. (2004). *Pendidikan Berparadigma Al Qur'an: Pergulatan Membangun Tradisi dan Aksi Pendidikan Islam*. Malang: UIN Malang Press, 50-51.
- Suprayogo, I & Rasmianto. (2008). *Perubahan Pendidikan Tinggi Islam: Releksi Perubahan LAIN/STAIN Menjadi UIN*. Malang: UIN-Malang Press.
- Susanto, N. N. (1986). *Mengerti Sejarah*. Jakarta: UI Press.

