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Epistemological Discourse: Islamization and Integration Paradigms of Islamic Science

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Abstract

This study discusses the paradigm of islamization and integration of science in discourse of epistemology as a tradition of islamic thought, to initiate a conceptual islamization of science. The method used was literature study with a historical approach to observe heuristic aspects, source criticism, and hypotheses. The Islamization of science can be seen from the methods used in a pluralistic, valid, and comprehensive manner, it is considered to exist if it is connected hierarchically as a multidimensional reality. The linkages of knowledge in Islam is an important aspect in Islamic epistemology, where the seeking for knowledge itself is not only an obligation, it is even a form of worship and is related to the values of al-Quran. The integration of Islamic science is a accommodation and absorption of islamic values in general science, as a reintroduction of scientific disciplines into the framework of Islam and the dissemination of Islamic science.

Keywords*: Interrelation; islamization; multidimensional; science integration.*

A. INTRODUCTION

History records that Islamic scientific discourse has reached a high level so that it can later contribute to the development of science in the future. This is due to several things, including the internal motivation of Islam itself to learn indefinitely (this motivation can challenge actors to understand science universally). What cannot even be avoided is the existence of external factors, namely the occurrence of contact between Muslims and non-Muslims, or more precisely with other cultures that are much more advanced than the culture of the Muslims themselves, such as in Byzantium, Persia, and India. The social, economic, and political stability after the Muslims were able to expand their power to the surrounding areas also contributed to the activeness of this scientific condition[1]. Unless that has been stated, the open attitude and tolerance of Muslims to study and accept conquered cultures and other areas also enliven science in the Islamic environment. From the integration of these several efforts, of course there is an opportunity for Islam to achieve glorious achievements recorded in its history.

In Islamic scientific discourse, two terms emerge; Is it Hellenization or Islamization? These two terms can be understood as categories of what knowledge exists in Islam. Hellenization is an attempt to create or make something Hellenistic, in terms of language, ideas and forms[2]. In this case, of course, active parties are more appropriate to hold this title. In other words, if the more active and dominant culture was Hellenistic or Hellenized. However, if what is active and dominant is not Hellenistic culture, then it cannot be said that it is Hellenization, for taking or borrowing the old culture has been commonplace throughout history. Islamization

[1] Ira M. Lapidus, *A History of Islamic Societies* (Cambridge: Cambridge University Press, 2002), 6; Seyyed Hossein Nasr, *Science and Civilization in Islam* (Islamic Texts Society, 2003), 190; Harun Nasution, *Islam Ditinjau Dari Berbagai Aspeknya* (Jakarta: UI Press, 1985), 68.

[2] Victoria Neufeld, *Websters New World Dictionary* (New York: Websters New World, 1988), 27.

means incorporating something into Islam or making it Islamic[3].

Regarding the Islamization of science, at least it can be seen from three aspects, namely the ontology of science, epistemology, and axiology. When viewed from the point of view of its ontology, the science that exists in Islam includes three classifications (to borrow contemporary terms), natural sciences, humanities and social sciences[4]. in line with this classification Ibn Bultan, 11th century H, as quoted from Bassam Tibi of Maqdisi who stated that science is divided into three, namely natural science, philosophy, and intellectual or literary science[5].

Al-Faruqi, and also supported by al-Attas explained, that modern science in the world of education which is based on empirical facts is proven to have weaknesses from various sides, even in the language of Muhammad Iqbal as something evil, because it ignores mental and moral aspects, and the spiritual development of the younger generation. As a result, said Iqbal, there was a moral and character crisis in the younger generation[6]. Therefore, this moral aspect, in this case Islamic norms, needs to be accommodated in the entire scientific system being developed. The essence of Islamic knowledge and culture is Islam itself. Meanwhile, the essence of Islam is monotheism. Tawhid is the main principle in determining the style of culture and science[7].

In the epistemological discourse of science, the integration of science is closely related to the growth and development of science both in the Islamic world and in the West. Epistemology is generally known as the theory of knowledge, a branch of philosophy that studies the basics and limits of knowledge[8]. Or according to another definition, a branch of philosophy which deals with the source, structure, method, and validity of a knowledge. The term epistemology was first used by James Frederick Ferrier (1808-1864), an English philosopher, in 1854[9]. However, the framework in this direction can be traced in Plato's thought.

The main problems in epistemology according to Harold H. Titus are: 1). What is the source of knowledge? Where does true knowledge come from and how do you know it? 2). What is the specific or character of the knowledge? and, 3). Is that knowledge true? How to distinguish right from wrong?[10]. This section describes the basic forms, developments, and epistemological limitations of science, both from an Islamic perspective and from a Western perspective. Basically, modern science and religious science offer alternative interpretations. The fundamental difference lies in the search for truth or what is called epistemology[11]. The interpretation of modern science relies more on causality, whereas the interpretation of religious sciences relies more on meaning. Although they have fundamental differences in their logical format, they are rational and alike tend to develop themselves over the centuries. In their experience, both employ a theoretical paradigm.

B. METHOD

This research is a library research with analytic criticism method. The approach used in this research is a historical approach to see the growth and development of Islamization and the integration of science. The steps taken at this stage are the heuristic stage for data collection, both primary and secondary sources.

The data obtained in this study are sourced from books that specifically discuss the

[3] Neufeld, 715.
[4] Abd. al-Rahman bin Muhammad Ibnu Khaldun, *Muqaddimah Ibnu Khaldun* (Beirut: Muassasah al-A'lami li al-Mathba'ah, t.t.), 435–36.
[5] Bassam Tibi, *Islam and the Cultural Accommodation of Social Change* (Francis: Taylor & Francis Group, 2020), 104.
[6] Abu al-Hasan Ali Al-Nadwi, *Percikan Kegeniusan Dr. Muhammad Iqbal* (Jakarta: Integrita Press, 1985), 51.
[7] Ismail Raji al-Faruqi, *Al-Tawhid: Its Implications on Thought and Life* (IIIT, 1992), 16–17.
[8] Tim Dosen, *Filsafat Ilmu* (Yogyakarta: Liberty, 1996), 17; Anton Bakker and Achmad Charris Zubair, *Metodologi Penelitian Filsafat* (Yogyakarta: Kanisius, 1994), 25.
[9] "Ferrier, James Frederick | Internet Encyclopedia of Philosophy," accessed September 5, 2020, https://iep.utm.edu/ferrier/.
[10] Harold H. Titus, "Persoalan-Persoalan Filsafat / Harold H. Titus, Marilyn S. Smith, Richard T. Nolan; Alih Bahasa Ole H.M. Rasjidi," Universitas Indonesia Library (Bulan Bintang, 1984), 188, http://lib.ui.ac.id.
[11] Holmes Rolston, *Science and Religion: A Critical Survey* (New York: Random House, 1987), 1.

Islamization and integration of science in Islamic epistemology. In addition, data sources also come from various books, journals, and research results that examine issues related to the discussion of this research. Therefore, the data analysis carried out at this stage is to describe the main ideas in this study, provide an interpretation of the main ideas, criticize and analyze the main ideas that have been formed, then produce a conclusion. Source criticism is carried out through external criticism and internal criticism, so that it can be formulated into supporting facts. Furthermore, the synthesis is carried out based on the consideration of the sequence of time, place, and theme, then from one source to another it is compiled to find a relationship between one fact and another.

C. RESULTS AND DISCUSSION

Science in Islamic Perspective

Apart from bringing the message of tauhid uluhiyah to all mankind, Islam also carries a clear message about science. The editorial of "iqra" from the beginning of the revelation that was first revealed to the Prophet Muhammad SAW is an important indication of the great interest of Islam in this matter. As illustrated in a number of verses in the al-Quran and the Hadith of the Prophet Muhammad, in the form of instructions to translate Allah's creation, descriptions of the creation of the heavens and the earth, humans and living things, as well as orders to study for Muslims, so it is clear that knowledge is the essence of Islam. Activities like this will clearly give birth to concepts, laws or which are later categorized as science. To achieve this direction, broadly speaking there are 3 (three) scientific epistemological traditions in Islam, or scientific theories in Islam to achieve truth, namely:

1. Bayâni epistemology, namely a way of thinking in which texts (nash al-Quran and Hadith) become an authoritative source as a finished science. This model emphasizes the validity of text transmission from generation to generation. Whether or not the delivery of the text really determines the right or wrong of the legal provisions taken, as seen in the science of hadith, especially regarding sanad, rawi, and matan. Text, consisting of lafaz and meaning. To obtain knowledge from lafaz and its meaning, the bayâni method takes two ways: first, adhering to the text edition (lafaz), using Arabic rules such as nahwu and sharaf. Second, adhere to the meaning of the text by using logic and reasoning as analysis tools.
2. Irfani's epistemology, a way of thinking based on kasyf, the disclosure of the secrets of reality by God, which is oriented towards revealing the meaning or inner dimension. In this case, the irfani method takes two ways to get it, namely: first, through i'tibar or qiyas irfani, namely the meaning of zahir in the text which is captured in the kasyf as an inner analogy. Second, with syatahât, namely the verbal expression of feelings (al-wijdân) because of the abundance of knowledge directly from the source and accompanied by recognition. Syatahât is irregular and out of consciousness. This model of knowledge is obtained by spiritual formation, purification of soul and heart, so that God is pleased to give knowledge to him directly. To obtain this knowledge, it is necessary to go through several stages or spiritual levels like suluk in the world of Sufism.
3. Burhani epistemology, namely a way of thinking that rests on the power of reason which is achieved through logical postulates. The source of burhani knowledge is the ratio, not the text, as is the case in the bayani method, or intuition, as in the irfani method. To gain knowledge using the burhani method, Aristotle's syllogism must be concluded, with several provisions, namely: 1). Knowing the background of the premise arrangement, 2). The existence of logical consistency between reasons and conclusions, and 3). The conclusions drawn must be certain and true, so that no other truth can emerge.

These are the three methods of thinking that have developed in the Islamic scientific tradition since early times, especially in interpreting texts, as seen in the classification of schools of thought in the fields of fiqh, tafsir, and kalam. These three epistemological categories also play a role in the development of science in the future.

Husaini tried to reinterpret the classical classification into al-'ulum al''aqliyyah and al-

'ulum al-syar'iyyah. According to him, as quoted by Kirmani, al-'ulum al-syar'iyyah is a scientific discipline or part of a scientific discipline whose main basis is taken from ideology, ethics and Islamic values, such as fiqh, economics (this is of course in the past), philosophy and natural sciences; while al-'ulum al-'aqliyyah is a scientific discipline or part of a discipline that is not directly within the scope of the revelation of the al-Quran and Islamic ethics, such as linguistics, positive economics or positive law, geography, engineering, medicine, and technology. If Husaini's interpretation is accepted, then philosophy includes al''ulum al-syar'iyyah whose main basis is Islamic ideology, ethics and values so that it can be categorized as Islamization.

In general, the classification of science in the Islamic tradition is divided into two branches, namely: first, syariyyah knowledge, which is a branch of knowledge that is more based on text or al-dalail al-syar'iyyah (naqliyah). Second, basyariyah science or commonly known as insaniyah science which relies on the power of reason ('aqliyah). In the early days of Islamic development, both of them were never completely separated from the scientific tradition in Islam. At that time, the al-Quran and Hadith were the only literal sources of knowledge. In the following description, these two scientific categories will be presented.

1. Knowledge of Syar'iyyah or Naqliyah

At the conceptual level, what is meant by syar'iyah or naqliyah knowledge here is in line with the epistemological paradigm of bayani, where texts (al-Quran and Hadith) are the most authoritative sources of application. Syar'iyah knowledge or knowledge of naqli is obtained or produced by thinking deeply (ijtihad) with certain methods and conditions, as explained later. The development of syar'iyah science was practically institutionalized during the classical period of Islam (650-1250) in kuttab-kuttab, madrasah, halaqah-halaqah to bayt al-hikmah. As an illustration of the tradition of Islamic teachings that was developed by the Prophet in his family, friends, especially in Arqam's house. The scientific aspects being studied at that time are now known as the religious sciences, among others; The al-Quran is the main source, followed by interpretation, Hadith, fiqh, and the science of tools in the form of Arabic grammar. as a tool for understanding text. The understanding of the text gave birth to rububiyah values which in turn gave birth to the knowledge of tauhid and tasawuf.

The science of 'aqliyah at the time of the Prophet and his companions did not exist, considering that the focus of Muslims at that time was still on the aspects of da'wah and jihad . In addition, the explanation of the interpretation and the withdrawal of the law from the text can still be confirmed directly to the Prophet and his friends who are considered capable and mastering the problems that occurred at that time. Therefore, the paradigm of bayani at that time relied on the explanation of the Prophet and his companions, and was not yet clearly structured. The first person to organize the epistemology of bayani was Shafi'i (767-820), one of the initiators of the jurisprudence school. In his day, bayani was interpreted as something that contained the main problem (ushul) and which developed into a branch (furu'). At this time the bayani paradigm is divided into several levels, namely:

1) Bayan who does not need further explanation, in connection with something law has been explained from the text (the al-Quran).
2) Bayan, which part of the explanation of the al-Quran is still global, so it needs to be explained by the Sunnah, (ta'yin al-mubham).
3) Bayan, whose entire explanation in the al-Quran is still global, so it needs to be explained by the Sunnah, (tabyin al-mujmal).
4) Bayan Sunnah, this happens when there is a problem that is not referred to in the al-Quranic text.
5) Bayan ijtihadiy, when an explanation of a problem cannot be found either in the al-Quran or in the Sunnah, then the formulation method is carried out through qiyas.

In the view of Shafi'i, the main thing (ushul) as a source of reference in Islamic law is the al-Quran, Sunnah and qiyas, plus ijma' . In general, the epistemology of bayani fiqh has inspired almost all Islamic sciences. Why is that? Because indeed in the context of Islamic scholarship, especially the aspects of naqliyah, fiqh and ushul fiqh, it is the pinnacle of scientific civilization, especially in the search

for epistemology . In addition, fiqh is a form of obedience to Allah SWT which contains all the commands and prohibitions regarding all aspects of human life, which are reflected in the scope of discussion such as worship, mu'amalat, ahwal syakhsiyah, ahkam sulthaniyah, 'uqubat, adab and morals, and laws about the rules of relations between Islamic countries and other countries.

When viewed from the bayani structure above, it appears that the al-Quran in the Islamic scientific tradition is used as a paradigm. The paradigm here is a scientific construction that allows Muslims to understand reality as the al-Quran understands it. With this construction, the Muslims then formulated the grand design of the entire Islamic system, as well as the scientific system it developed. The paradigm form of the al-Quran, said Kontowijoyo, does not stop at the axiological aspect, but can also function as an epistemological framework .

2. Knowledge of Basyariyah or 'Aqliyah

In terms of the method of thinking, knowledge of basyariyah or 'aqliyah is different from science of syar'iyah or naqliyah. Naqliyah knowledge is more in line with the burhani epistemology which rests on the power of reason and reason. As explained above, the achievement of this epistemological model is through logical propositions, therefore the source of knowledge is not seen from the text (nash), but from the ratio. In fact, in the view of positivism, basyariyah sciences such as philosophy, biology, science and technology are always considered to be contradicting the syar'iyah sciences, because they are considered to promote mystical thinking. Based on the facts in terms of how he thinks, this assumption is certainly not wrong. However, it needs to be underlined, if you look at the development of science in Islamic history, especially in the era of scientific development during the Abbasid dynasty in Baghdad and the Umayyah dynasty II in Spain, it is difficult to distinguish between the two.

Despite the fact that there was no known dichotomy of science at the time, the great Islamic scholars in Baghdad and in Spain never seriously built a distance from the main source of Islamic science, the al-Quran and the Sunnah. This fact can be read in the work of Islamic scientists in various fields of science. Philosophical works are adapted from the works of Greek philosophers who are entirely based on human reasoning, in the hands of Islamic scholars the translation makes more sense because the peak of its integrity rests on monotheistic values extracted from the paradigm of the al-Quran. Likewise, medical science, art, astronomy and so on, are always described in an integralistic paradigm that emphasizes the values of monotheism. For example, when discussing the problem of the anatomy of the body of a living being, Muslim scientists make all their creative efforts to know more about the greatness of Allah as the creator. All empirical processes and symptoms that are felt and observed become a means of increasing obedience and awe to Allah SWT.

The term science itself has undergone a semantic reduction from time to time. This term is taken from the Latin scio, scire, scientia which means "I know", "know" and 'knowledge". There is no limit to what knowledge is, by whom and by what means is it acquired. Because of its relative or impermanent nature, because it always changes with new findings as a result of a series of engineering tests, its meaning also changes. What is meant by science today refers to human (not divine) knowledge of the physical (not spiritual) and real (not unseen) realms empirically, inductively, and quantitatively. So what falls into the category of science also needs to be limited to physics, biology, chemistry, and their branches. Therefore, in the view of some scholars, the method of interpreting verses of the al-Quran with the help of science is still problematic, even haram, because it can be considered a slip and heresy . Knowledge is humane (kasbi), obtained through his efforts. This kind of knowledge never reaches the pinnacle of certainty, it only approaches.

Because of its speculative nature as described above, the Islamic scientific tradition puts forward divine reasoning in all aspects of the process of basyariyah or 'aqliyah knowledge which later became known as the Islamization of science. The methods of thinking don't change, and neither are the ways of drawing conclusions. However, with regard to paradigms, the structure of thought and the scientific benefits it generates underwent a very significant reformulation. Therefore, it is understandable why the Qur'an in many verses often reminds people that the knowledge they have in all fields and disciplines is very limited. Ratio and reason may err in carrying out their roles from the stage of observation, conducting tests, inferring and even functioning of knowledge. Thus, it is necessary to provide a

strong foundation so that human reason is not easily deceived in the whole process.

From the point of view of the experience of science that has developed in Islam, although the science of 'aqli is considered to put forward the aspect ratio from its epistemological side, in fact it always has dialectics with its main sources, namely the al-Quran and Sunnah.

Science in a Western Perspective

The difference between the conceptions of science in Islamic and Western perspectives lies in the underlying philosophy. In the history of the development of science, there are at least three types of philosophy that underlie Western thought, namely rationalism, empiricism, and criticism. These three types of philosophy then influenced the epistemology of science and the way in which it was arranged through different sources. The philosophy of rationalism builds an epistemology which states that science comes from the rational ability (reason) to interpret a phenomenon. The figure who initiated the philosophy of modern rationalism was Descartes, who argued that everything must be solved by reason (rationalism). Descartes' thought has a strong connection with the thoughts of classical philosophers who played a major role in developing rational philosophy, namely Plato .

Truth as described by Descartes can only be obtained through logical proof and analysis of facts. The truth cannot be obtained by humans through religious beliefs or teachings and dogma. According to Descartes, there are three dimensions of ratio that are the source of knowledge, namely the ratio (reason) that humans have brought from childhood, the ratio that comes from outside of the human being and the ratio that comes from the human mind itself . These three types of ratios have a major role in giving birth to truth and knowledge.

The philosophy of materialism builds the epistemology of science based on experiences and empirical phenomena that can be observed by the five senses. The source of knowledge according to the philosophy of materialism is experience and observation through the five senses. Aristotle pioneered the idea of materialism philosophy in the classical period, which was then continued in modern times by Francia Bacon, Hobbes, John Locke, David Hume and Jhon Stuart Mills . The long debate between the philosophy of rationalism and materialism in the history of the development of science in the Western world gave birth to a third, more accommodating philosophical view, namely the philosophy of criticism. As the name implies, this school of philosophy studies critically the philosophy of rationalism and empiricism. Through a phenomenal character, Immanuel Kant, the epistemology of science begins to be built and compiled through a rational approach and sensory observation .

Since the emergence of the renaissance to the modern era, the three philosophical schools that underlie the birth of the epistemology of science have greatly influenced the Western world . The philosophy of posivism popularized by Auguste Comte emerged in the 19th century and built the epistemology of science based on observation and reasoning. This view is the same as that of Immanuel Kant which emerged in the 17th century and had an important role in building the epistemology of science and civilization in the European world. Starting from the analysis of people's lifestyle, Auguste Comte began to map linearly that society actually experienced certain historical stages of thought development, namely theological, metaphysical, and positive .

When man reaches the stage of positivism thinking at the same time he will reject everything that is dogma and non-empirical. Positivism assumes that every phenomenon and empirical fact must be approached using scientific methods in the form of experiments, observations, and comparisons . The basic assumptions built by positivism are objectivity, the repetition and prominence of every natural event and its relationship to other natural events.

In line with Auguste Comte's thinking, science in the perspective of the Western world is only the science of positivism originating from empirical facts and approached through experimentation, observation and comparison. Religion for Western society is considered as an individual matter and limited personally. The state does not need to provide support for religious beliefs because their role is taken over by science and intelligence. This kind of view reflects that science in the Western world is secular (secularism) and religious values have no effect in coloring the axiological aspects of modern science . This perspective has been embedded in the historical course of the development of science and civilization in the Western world in modern times. Supporters grew and included John Stuart Mill (1806),

Hippolyte Taine Adolphe (1828), Émile Durkheim (1858) and others.

Secularism as a product of modern science was born from the philosophy of rationalism and empiricism that ruled the Western world in modern times. The two philosophies that serve as the epistemological frameworks of modern science assume the center of anthropocentric research and study and reject medieval theocentrics. Even though God's existence is still personally recognized, on the other hand, His duties and obligations have been taken over by humans. In the philosophy of rationalism and materialism, God no longer makes laws relating to natural phenomena and the empirical world. This task has been fully carried out by humans through the approach and method of observation and scientific reasoning. In the anthropocentric sense, it is assumed that humans are the center of truth and the creators of all needs . In line with Auguste Comte's previous thoughts, humans who have reached the stage of developing their thinking in positivism have begun to shift the crucial role of God. The role of God at that time no longer affected various sectors of human life, such as economy, politics, law and others.

The assumption of objective positivism also sharpens secularism in the development of modern science. Western scientists are increasingly skeptical of religious beliefs which are methodologically difficult to observe and verify. This opinion is in line with Mulyadhi's view which states that the Western world has made progress in the aspects of science and modern civilization because it limits the object of scientific study to only physical entities and the means of testing are sensory and rational thinking . Their reasoning is that only material things can be observed and rational arguments are made to justify various phenomena.

The epistemology that gave birth to secular sciences is far different from Islamic sciences which are more integralistic. Kontowijoyo responded politely to this difference, stating that secular science is the product of all human beings. Meanwhile, integralistic science is only the result of believers. Furthermore, Kuntowijoyo explained that Islam came not only as a science that offers epistemology and methodology, but also ethics . This is an important difference between secular and Islamic science.

Development of Science Integration

The integration of science in the Islamic world has undergone a long historical process and is triggered by the dichotomy of Western science which in many ways has substantial differences from science in an Islamic perspective. Various challenges and clashes began to occur when the Western world held hegemony and supremacy of world science and civilization. In line with the progress of the West, the Islamic world also experienced various rumors and anxieties of thought, so that the idea of science integration emerged. Before this concept really "boomed" in various parts of the Islamic world, a paradigm of the Islamization of science was born, put forward by the scholars. Therefore, it is difficult to put forward the integration of science before discussing the paradigm of Islamization.

The Islamization of science in the view of Muslim scholars is not a new way of looking at the development of Islamic studies, but has emerged in its spirit since the beginning of Islam. Prophet Muhammad SAW has Islamized the knowledge and civilization of Arab Jahiliyah. The Islamization at that time was carried out by the Prophet by adjusting the knowledge and norms of the life of Jahiliyah with Islamic law . For approximately 23 years, the Islamization carried out by the Prophet later became a guideline for the friends and leaders of the Islamic world in the future in developing Islamic studies.

During the reign of the Abbasid Daula, the caliphs who were in power and loved science carried out Islamization by translating books of classical Greek philosophy into Arabic. Philosophical studies are carefully selected and certain parts are discarded because they are not in line with Islamic teachings. The birth of great figures and thinkers in Islam in this classical century was the result of the Islamization of science by the caliphs. Therefore, Islamic figures and thinkers such as al-Farabi, al-Razi, Ibn Sina and others can be called products of the Islamization of science .

Islamization as a paradigm has been re-popularized in modern times, especially after the dichotomy and conflict between Islamic and secular sciences. The secular sciences that developed in the Western world that gave birth to rationalism, empiricism, and secularism are seen by some Muslim scientists as a separate challenge in the life of Islamic society in modern times. On the one hand, secular sciences originating from the Western world have brought benefits to people's lives, but on

the other hand they can obscure the nature of science and religious moral values. The echo of value-free and neutral knowledge that Western writers always exhale can destroy the foundations of religion and science in Islam.

The challenges that have emerged from Western secular science have received much attention from thinkers in parts of the Islamic world. Naquib al-Attas, for example, was an Islamic thinker who paid serious attention to the development of secular sciences and their impact on the lives of Muslims . Through the Islamization of science paradigm, al-Attas began to create a new epistemological framework in building Islamic science and civilization. The Islamization of science that al-Attas offered around the 1970s was based on the sharp differences between Islamic and secular sciences which can easily be found on the spectrum of scientific anthology and epistemology. Before Naguib al-Attas, there were actually many Muslim scholars who paid attention to the Islamization of science. For example, Muhammad Iqbal and Sayyed Husein Nasr, although the idea of Islamization of science was not in accordance with the concepts and systematics put forward by al-Attas . At least they had serious concerns about the problems of science and civilization facing Islam.

The idea of the Islamization of science was first put forward by al-Attas in 1977 at a world conference held in Makkah on the initiative of King Abdul Aziz University. The conference managed to collect as many as 150 papers from participants in 40 Islamic countries in the world. One of them is Naguib al-Attas' paper entitled "Preliminary Thoughts on the Nature of Knowledge and the Definition and the Aims of Education". In it al-Attas talked a lot about the Islamization of science to overcome the contradiction between modern value-free science and Islamic science. Ismail R. al-Faruqi also presented his paper entitled "Islamicizing Social Science" .

Islamization as mentioned by al-Attas is the liberation of humans from superstition, mythology and anism. Islamization is also the liberation of human minds that are shackled by secularism which is deliberately exhaled by the Western world. The Islamization of knowledge is not related to the evolutionary process, but returns to its nature. Therefore, the construction of Western science must be changed and adapted to the Islamic spirit in the development of science and civilization in Muslim societies. Apart from al-Attas, a scholar who paid serious attention to the Islamization of science was Ismail al-Faruqi around the 1980s . This Palestinian-born scholar said that the concepts, theories and methodologies of science that developed in the Western world were not in line with the ecology and social systems of the Islamic community.

In many cases, the use of Western concepts, theories and methodologies creates clashes and challenges in the life of Islamic societies. According to Ismail al-Faruqi, the way out of this problem is to synergize and integrate concepts, theories, and methodologies originating from the Western world with the spirit of Islamic ethics . Therefore, the Islamization of Isamil al-Faruqi's knowledge clearly defines and reconstructs modern science developed by the Western world and then provides the foundation and goals in accordance with Islamic teachings.

Two Muslim scholars, namely Naquib al-Attas and Islam al-Faruqi, have had influence in various parts of the Islamic world. In the Southeast Asian region, this influence is very pronounced in various Islamic universities that organize general science and Islamic studies courses. This influence, although not in a complete form, has at least the birth of a spirit to unite secular science with Islam. The respective Muslim-populated Southeast Asian countries responded to the Islamization offer of knowledge developed by al-Attas and al-Faruqi in various forms. In Malaysia, several universities that have secular study programs and Islamic sciences tend to use the terms Islamization and integration without providing clear boundaries on each concept. Perhaps the same is found in universities in Thailand and Brunei Darussalam.

The influence of the Islamization of knowledge promoted by Naquib al-Attas and Ismail al-Faruqi is also felt in Indonesia, which is shown by the emergence of figures who have a serious concern for solving the dichotomy of knowledge, such as Kontowijoyo, Amin Abdullah and so on. Even though the concept and paradigm are not the same, this influence has been increasingly felt since the conversion of the State Islamic Institute (IAIN) to the State Islamic University (UIN) since 2002. One of the factors driving the change of IAIN for UIN as mentioned by Abuddin Nata is completing the dichotomy of knowledge. religion and general science. The solution to this dichotomy

problem is a science integration program between religious science and general science. With the assumption that if IAIN only organized religious sciences, the dichotomy would still be preserved . Therefore, IAIN must become UIN in order to establish a public faculty.

In line with Abuddin Nat's opinion, the concept and paradigm offered by several State Islamic Universities (UIN) in Indonesia to resolve the dichotomy of religion and general knowledge is integration. This concept was developed in State Islamic Universities (UIN) throughout Indonesia which substantially refers to the same estuary, namely the elimination of the dichotomy between the truth of revelation and the truth of modern science and science. In other words, scientific integration actually wants to combine the truth of revelation with the truth of science that is implemented in the educational process. However, the concept of scientific integration in each UIN in Indonesia has a variety of editorials and elaborations that are very contextual to their respective environments .

UIN Syarif Hidayatullah carries a scientific paradigm which explains that Islam does not recognize a scientific dichotomy, because the source of all knowledge is Allah SWT. Therefore, the scientific paradigm being developed is an attempt to reconcile science with the truth of revelation. Regarding the concept of integration, UIN Syarif Hidayatullah interprets it with a combination of religious science internal science and general science intren, as well as integration between religious and general sciences. This combination includes several three aspects or levels, namely; ontological integration, integration of science classifications, and methodological integration.

UIN Sunan Gunung Djati Bandung builds a scientific paradigm which states that religion and science develop along with the dynamics of science and human thought. Likewise, the birth of knowledge is not only from deep reasoning of the objects of knowledge contained in the material created by God, but more importantly God himself as the source of all sources of knowledge itself. The combination of the kauniyyah verse with the quraniyyah will give birth to a scientific paradigm that is based on revelation and rationality. The concept of scientific integration developed is scientific integration following the philosophy of a wheel which has three components, namely the wheel axle, spokes and tires. The three components work simultaneously in accordance with their respective functions. Therefore, scientific integration is an integration between the quraniyyah verse and the kauniyyah verse which includes ontological, epistemological, and axiological aspects.

Then UIN Sunan Kalijaga put forward a scientific paradigm related to the existence of Islam to develop knowledge that is universal and does not recognize the dichotomy between qauliyyah/hadhârah al-nash (science related to religious texts with the science of kauniyyah ijtima'iyah/hadhârah al-'ilm (natural science), and social), as well as with hadhârah al-falsafah (ethical-philosophical science). The concept of integration that is put forward is integration-interconnection which is a universal scientific building that never separates the areas of religion and modern science. Therefore, scientific integration is the integration of hadhârahal-nash, hadhârah al-ilm, and hadharah al-falsafah which are carried out through 2 models, namely; (1) interconnections in the internal environment of Islamic sciences, and (2) integration of Islamic sciences with general sciences.

D. CONCLUSION

The existence of the revelation of the al-Quran, including the text, is final, and there is no interference of human thought and research. To understand the al-Quran, it is necessary to expand understanding through the Sunnah of the Prophet Muhammad, so that the free thinking of the scholars emerged. As a result, various types of Islamic knowledge or Islamic religious knowledge emerged. If Islamic thought like this is studied by placing it in the position of the ulama's thought and seen in an interdisciplinary manner, then studies like this will require other disciplines.

In history, thinkers or scholars spent a lot of time understanding the al-Quran and Sunnah, at the same time they also studied the history and conditions of the society around the text. On the one hand this is closely related to the text, and on the other hand they also find several cases that cannot be immediately understood and learned from understanding the text. Nash also taught the use of reason (kauniyah), as a process of producing arguments and a deductive and inductive process. So, the study of science (both general and religious) is basically a means for humans to achieve their main task.

Islam is cognitive, while Islamic science is psychomotor, so that there are people who have broad insight into Islamic science but do not practice it. For him, Islamic science is a science that needs to be learned, not something that must be practiced. Islam is not an object of study, but norms, doctrines, disciplines and values that must be practiced. Islam is studied and studied continuously. Thus Islam contains two synergistic dimensions: Knowledge and charity.

It is time, academic studies for Islamic sciences and other sciences are intended as critical studies characterized by "not believing" or questioning cases or ideas. It can also be used to reject or develop the theory that he has learned, or to make reinterpretations, so that in conducting studies, it is not just memorizing and then following the work of others. Doubts about the things being studied are the main basis for academic studies, doing a descriptive study in advance of what will be studied.

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