Characteristics of The Integration of Islam, Science and Archipelago Culture Study

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ABSTRACT

Integration between Islam, science and Indonesian culture is an effort to unite and create a relationship between religious values, science and technology, and Indonesian culture. This aims to form an intellectual generation capable of upholding the values of the Qur’an and Sunnah of the Prophet Muhammad SAW. in everyday life which cannot be separated from science and technology as well as the culture that exists in society. This research uses a case study method. To obtain data, researchers collected various kinds of scientific papers or data related to the characteristics of the integration of Islam, science and Indonesian culture. This research shows that Islam, science and Indonesian culture are related and can complement each other to cover each other’s shortcomings. This means that in these three realms of knowledge there is a kind of common ground, especially in its tentative nature (uncertain or still subject to change). Even if taken further, namely from a religious perspective, all ontological object statuses, be it science, religion or culture, are one.

Keywords: Integration of Islam and Science; Characteristics of Islamic integration; Indonesian culture

INTRODUCTION

The development of science is a sign of the times. The development of science has created concerns among Muslim philosophers regarding the dichotomy of science. The existence of a dichotomy in science is caused by several factors, including differences at the ontological, epistemological and axiological levels in the two fields of science: namely science and religion. This causes the two of them to not greet each other and seem to be standing alone. The impact is the loss of the spiritual dimension in science and a further consequence is that science cannot provide comprehensive solutions to human problems. The persistent efforts of Muslim philosophers in the fields of science and education gave birth to a number of patterns of integration of science and Islam. However, Islam is a universal religion, that is, it covers all aspects of human life. In this theocentric scientific paradigm, revelation and reason are the sources for seeking knowledge. Humans have the freedom to develop knowledge as long as the knowledge does not conflict with revelation. Knowledge that comes from revelation is eternal, while knowledge that comes from human reason has relative truth.

The very rapid development of science and technology shows that this progress is not the result of the Islamic education system. This is because the Islamic
education system only focuses on theoretical aspects of religion, leaving out technological education. Imam Suprayogo explained that if only limited areas of "religious" knowledge are developed, this will invite the perception that Islamic teachings which are said to be universal are actually that narrow, and therefore the idealism of universal Islam will never become a reality.¹ In global competition and in the acceleration of the development of science and technology which is manifested in various sophisticated objects such as aircraft, tools or human facilities, serious efforts are required in providing education. From here, quality Indonesian people will be born as a solution for our nation in facing competition between nations. Quality Human Resources (HR) must still be based on strong faith in Allah SWT, so as not to be swept away by the impact of fulfilling the world's endless needs. The realization of a human being requires pressure on the spiritual side because they always include Allah SWT as the strength of its performance, and protection from bad activities that cause damage to the face of the earth.

Islam is present among communities where the community is familiar with complex traditions and culture. Various forms of culture and religious practices have blended into the color of a nation. Therefore, it will be difficult or even impossible to eliminate a tradition that already exists in society. Islam, with its religious formation, cannot possibly reject the culture that exists in the archipelago. Placing a binary position between Islam and Indonesian culture means forcing one's will to be pushed aside by the large current of groups who believe in creating acculturation to Indonesian Islamic culture.² The saints played an important role in the development of Islam at the beginning of its development, so that Islam could be easily accepted by the local community. In the early days of its development, Islam was in symbiosis with local culture by prioritizing the same principles. Furthermore, this is packaged in the form of da'wah without positioning the local community as the wrong party. However, they were made aware of the knowledge they already had.

Integration between Islam, science and Indonesian culture is an effort to unite and create a relationship between religious values, science and technology, and Indonesian culture. This aims to form an intellectual generation capable of upholding the values of the Qur’an and Sunnah of the Prophet Muhammad SAW. in everyday life which cannot be separated from science and technology as well as the culture that exists in society.

RESULTS AND DISCUSSION

1. Understanding the integration of Islam, science and culture

Integration comes from the word integrate (verb) which means to mix with and join society or a group of people, often changing to suit their way of life,

habits and costumes (associating, together and joining society or a group of people, which often changes according to their way of life, whether in the form of customs and clothing), and changed to integration (noun) which means racial or cultural integration.³ Linguistically, integration, which means unification, is opposed in meaning to separation; an attitude that places each area of life in different boxes, but the inherent nature of religion and science is a necessity, even taking place on a massive scale and tends to be antagonistic.⁴ Integration means mixing, blending and combining. Integration is usually carried out in two or more things, each of which can complement each other.⁵ The word integration means unification to become a complete or unified whole. If this is the case, then the existing educational concept integrates Islamic religious education with science and Indonesian culture.

Integration is a concept that emphasizes that the scientific integration being targeted is not a melting pot integration model, where integration is only understood from a spatial perspective without substance. The integration in question is a model of unification in which each other has a strong connection so that it appears as a unified whole. This is necessary because the development of science pioneered by the West over the last five hundred years, with the spirit of modernism and secularism, has led to the compartmentalization of science and reduced science to certain parts only.⁶

A further impact is the process of dehumanization and shallowing of human faith. To unify science, it must start from a correct understanding of the causes of the dichotomy of science in the West and the paradigm given by Islam regarding science. This integration is usually carried out simply by providing religious and general knowledge together without being linked to each other, let alone being carried out on an established philosophical basis. So that providing knowledge and religion does not provide students with a complete and comprehensive understanding. Faruqi views that knowledge, apart from originating from reason and the five senses, also originates from revelation and inspiration. He also stated, like Al Attas, that the concept of knowledge built on Islamic views would further strengthen faith in Allah the Khaliq. This is different if science is built on a secular Western view of life. So, knowledge instead of


strengthening faith, on the contrary, actually damages and causes the faith to go astray.⁷

Islam is a religion that is "rahmatan lil alamin" or mercy for all of nature, both humans and others. Islamic teachings are contained in the holy book Al-Qur’an which was revealed by Allah SWT. through His messenger, the Prophet Muhammad Saw., apart from the Al-Qur’an, it is also found in the Sunnah of the Prophet. It contains commands, prohibitions and also instructions for the good of humans, both for life in this world and in the afterlife. Therefore, the truth of Islam is absolute, because it comes from God. Islam comes from the words aslama, yuslimu, islam, which means:

- a. Free yourself from all physical and mental illnesses
- b. Surrender, submit yourself, or be loyal, and
- c. Enter into greeting, namely good luck, peace, harmonious relationships, or a state without blemishes and blemishes.

So, the essence of Islam is surrender to Allah SWT. for the sake of achieving a personality that is clean from defects and blemishes, harmonious and peaceful relationships among humans, or safe and prosperous life in this world and the hereafter. Hidayat stated the function of religion for humans, namely as an instrument to free themselves from ignorance, conflict between humans which causes misery, and oppression of arbitrary human behavior.⁸

Etymologically, science comes from the Latin word "Scientia" which can be interpreted as "knowledge" or "knowing". After that, the word Science was born, which is known to come from English. Meanwhile, the terminological definition of science is science that studies natural phenomena and reveals the phenomena contained therein which are explained through scientific methods.⁹ If Islam has absolute truth because it comes from God, then science is a scientific discovery whose truth is relative, because it is the result of human findings from research activities with the power of reason which can be re-verified at any time.¹⁰ So it can be said that science is the use of human reason to think and the use of findings for the common good.

But at the end of the nineteenth century and the beginning of the twentieth century, science experienced changes, in accordance with changes in the philosophical realm, namely drama, where science then, under the influence of positivism, only focused on empirical objects (sensory and physical), so that the

meaning of science then it turns into "a systematic knowledge of the physical world", with the consequence of excluding all kinds of knowledge that are not empirical, such as theology, metaphysics and even mathematics. All fields that are non-empirical are categorized as unscientific. According to Hossein Nasr, true science is science that can combine worldly and spiritual relationships. Science includes technological, experimental, and prioritized spirituality for reunification with Allah Almighty. Science should not only reveal material things, but must have an impact on immaterial things that are in its heart. Scientific methodology should be based on the epistemology of the revelation of the Koran. Faith in Allah and the revelation of the Qur’an will reveal all the possibilities that exist in the human mind.¹¹

Culture comes from the Sanskrit language, namely buddhayah, which is the plural form of buddhi (mind or reason) and power (creative works) which are defined as things related to human mind and reason. Or we can also interpret culture as the result of creative works produced by humans. In English, culture is called culture, which comes from the Latin colere, which means to process or do. Culture is everything that is reflected in the reality that exists in society. In a broad sense, culture is relative meanings, values, customs, ideas and symbols. In a narrow sense, culture is one that has high spiritual and intellectual content. Culture is a way of life that is developed and shared by a group of people and passed down from generation to generation. Culture is formed from many complex elements, including religious and political systems, customs, language, tools, clothing, buildings, and works of art. Culture is a broad phenomenon (all-inclusive phenomenon), down to the narrowest (for example, the way of human life). One of the inclusive definitions is the classic definition put forward by Sir Edward Burnett Tylor which defines culture as a complex whole which includes knowledge, beliefs, art, morals, law, customs and other abilities and habits acquired by humans as members of society.¹²

Then, what is meant by the study of the integration of religion, science and Indonesian culture here is a discussion between religion, science and culture which is understood in its entirety or is often called a comprehensive understanding. So, in this integration study there is no division between religion, science and culture, all of them are understood comprehensively into one unified whole. Thoriq Aziz Jayani also explained that there are four models of integration between religion and science, namely 1) conflict, considering that religion and science are two contradictory things, so someone has to choose between the two, 2) independence, an effort to avoid conflict by giving territory to each domain which is then used as a strategic step to respond to a conflict, 3) dialogue, an effort

¹² R. Kusherdayana, “Pengertian Budaya, Lintas Budaya, dan Teori yang Melandasi Lintas Budaya”, Modul, 2020, hlm. 15
to be constructive between science and religion by raising considerations or exploring parallels or harmony, and 4) integration, a more extensive and systematic effort in finding relationships which is harmonious that religion and science contribute to each other. Ian Barbour defines integration as combining elements of religion and science. It could be that elements of science enter religion, elements of religion enter science, or both complement each other to build knowledge.

2. **Characteristics of the integration of Islam, science and culture**

Characteristics are special characteristics or traits that differentiate or identify something from another. These are certain attributes or aspects that are used to describe or define something, be it an object, individual, concept, or phenomenon. Characteristics are often used to understand or categorize something, as well as to assist in analysis, comparison, or decision making. So, talking about the characteristics of the integration of Islam, science and Indonesian culture means talking about the unique characteristics of the integration of Islam, science and Indonesian culture that differentiate it from other studies.

The characteristics of studies on the integration of Islam, science and Indonesian culture can vary according to the approaches and views of experts who contribute to this field. The following are several characteristics of the integration of Islam, science and Indonesian culture:

a. Based on or sourced from the Al-Qur'an and Hadith

All religions, including Islam, view knowledge positively, including science, because knowledge has a very fundamental role in human existence on this earth. Science is a determining factor in the progress of a nation and society. Developed nations are usually characterized by a good level of knowledge in all aspects of life. The value of knowledge in human civilization is so high, Allah confirms in the Qur'an that He will raise the status of those who have knowledge and faith as in the QS. Al-Mujadilah (58): 11, Allah SWT. said:

> "أُنَزِّلَتْ لَكُمْ مِنْ آخَرِيِّنِ، مَنْ يُّقَدِّسُ هَذَا الْقُرْآنَ فَلَتَسْلَمْنَ بِهِ، وَإِذَا قَبْلَ آخَرِيِّنِ، فَلاَ تَضَرِّعُواْ، إِنَّ اللَّهَ يُرِيدُ لِكُلِّ نَفْسٍ رَحْمَةً "

Allah also says: "A belief of yours was before others, so keep quiet about it, and when it was before others, take no offense, for Allah desires for each soul a remission."

Meaning: O you who believe, if it is said to you: "Majlis be spacious", then be spacious and Allah will make room for you. And when it is said: "Stand up", then stand up, surely Allah will raise those who believe among you and

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14 Yiyin Isgandi, “Model Integrasi Nilai..., hlm. 33.
those who have been given knowledge by several degrees. And Allah is All-Knowing of what you do.

Progress and new discoveries in science must be balanced by strengthening studies of scientific culture based on the Koran to serve as an epistemological basis for constructing the integration of religion and science. From here it is hoped that science can support the true values of the Islamic religion. Likewise, in culture, humans must not be separated from the Al-Qur’an and Hadith, because basically Islam came to regulate and guide society towards a good and balanced life. In this way, Islam does not come to destroy the culture that has been adopted by a society, but at the same time Islam wants humanity to be far away and free from things that are not useful and bring evil into their lives, so Islam needs to straighten out and guide culture that develops in society towards a culture that is civilized and progressive and increases the level of humanity.

So the integration of Islam, science and Indonesian culture must definitely be based on or sourced from the Al-Qur’an and As-Sunnah (Hadith) in every discussion, because basically the Al-Qur’an and Hadith are the main source of knowledge for Muslims which covers all aspects life, which includes discussions about religion, science, human actions, can be understood between Islam, science and culture in the discussion cannot be separated from the verses of Allah SWT.

b. There is no dichotomy of knowledge

In the history of human civilization, the dichotomy of general science and religion began during the Renaissance in the West. Initially, the dichotomy between general science and religion occurred because of the specifications of the field of science that were in accordance with current developments. It turns out that the specifics of this field of science are considered very far away and deviate from its essence, that there is an impression as if religious science only teaches spiritual formation without touching on social interactions. This kind of assumption is part of intellectual secularism which is the trigger for the decline of Islamic civilization. Ismail Raji Al-Faruqi said this setback was a result of Western colonization of the Islamic world, including colonialism in aspects of thought so that it was far from its teachings.

The dichotomy of science is the separation of two different, even contradictory, sciences. In this case the knowledge in question is science and

16 Didi Haryono D., Buhari Fakkah, dan Ovan, “Integrasi Keilmuan atara Sains & Teknologi dengan Agama (Suatu Konsepsi dalam Upaya Mengikis Dikotomi Ilmu)”, (Makasar: Liyan Pustaka Ide, 2021), hlm. 1.
religion. Until now, the majority of Muslim communities still categorize knowledge into two dichotomous knowledge, namely knowledge of the world (science) and knowledge of the afterlife (religion). This division indirectly makes many Muslims think that studying science, such as medicine, biology, economics, mathematics or others, is categorized as fardhu kifayah. As a result of this attitude, it is not mandatory for all Muslims to study these sciences. On the other hand, studying religious sciences, such as Sufism, fiqh, aqidah, tajwid, Arabic or others can fall into the category of fardhu 'ain. In other words, all Muslims are obliged to learn it. If he does not study, he is one of the servants who violates Allah's commands.

The dichotomy of science is the separation between religious scientific disciplines and general scientific disciplines, which in turn gives rise to a new term called educational dualism, namely religious education and general education. The dichotomous view that separates religious sciences from general sciences is contrary to the concept of Islamic teachings which have intergalactic teachings. Islam teaches that world affairs are not separate from affairs of the afterlife. The implication is that when referring to Islamic teachings, general sciences should be understood as an inseparable part of religious sciences. Therefore, the existence of studies on the integration of Islam, science and Indonesian culture is to balance our thinking attitudes, especially as educators and students as the nation's next generation, especially so that we are able to think in an integrated and comprehensive way, so that we do not become divided individuals and there is no gap between general science and religious knowledge, as well as community culture.

c. Synergize with each other

The next characteristic is the existence of a synergistic relationship between Islam, science and culture. Which means there is unification into one complete unity between Islam, science and Indonesian culture. Ian G. Barbour, in the opinion of most intellectuals, is the founder of the contemporary discussion of science and religion. But the presence of Ian G. Barbour is enough to give its own color to the concept of religion and science. Barbour divides the relationship between religion and science according to a Christian perspective into four forms; conflict, independence, dialogue, and integration. According to Barbour, this type of dialogue and integration is a

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18 Yiyin Isgandi, “Model Integrasi Nilai..., hlm. 33.
promising way to bring scientific insight and religious insight into an integrated manner rather than conflict or independence.19

This model does not place religion and science diagonally, but is placed parallel to carry out cooperation and contact between the two. The goal is to seek and discover the similarities and differences between science and religion. In contrast to the independent form which emphasizes differences, this dialogue model actually tries to find points of similarity between science and religion. The final alternative that Barbour assesses as the ideal relationship between science and religion is integration. Definitively, Barbour does not provide a very clear explanation of this model. This model is actually the next step from the dialogue model. The points of difference between science and religion are sought to be integrated. This is proven by the existence of natural theology which states that evidence of design in the universe is an indicator for the existence of God.

It has been explained at length that both science, religion and culture have similarities, especially in the paradigm changes that occur in these sciences. This means that in these three realms of knowledge there is a kind of common ground, especially in its tentative nature (uncertain or still subject to change). Even if taken further, namely from a religious perspective, all ontological object statuses, be it science, religion or culture, are one. In the Islamic scientific view, natural phenomena (which are the object of science) do not exist without relationship and relevance to Divine power, because as Muhammad Iqbal said, they are God’s creative field so that studying nature means studying and getting to know closely how God works in the universe. In this way, research about the universe can encourage a religious person to know God and increase their belief in Him, not the other way around, as happens in the West, when scientists tend to reject God after studying nature carefully.20

Sayyed Hossein Nasr said that when Muslim scientists studied such rich natural phenomena, they did so not just to satisfy mere curiosity, but to observe closely the traces of the Divine. So natural phenomena are not independent realities, but rather signs of Allah’s verses, through which a person is given guidance about the existence of God, His love, wisdom and intelligence.

Meanwhile, on the other hand, religious sciences which base themselves on holy books should not be treated as lower than modern sciences. Because just as natural phenomena are verses or divine signs, so too are the holy books the same and one verse. It’s just that natural phenomena

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are verses that are kauniyyah, while the holy book is God's verses that are qauliyyah, but both are united in their status as verses of God. Therefore, between science and religious knowledge there should be no excessive claims, because both occupy a noble position as objects of knowledge. This fact in turn will make everyone aware of the equal scientific degree and status between science and religion. And it would be strange if there was a dichotomy between science and religion, because both are in an integrative and holistic unity.

Likewise, objects of cultural knowledge that are born from human creativity, taste and passion must not stand alone. Even though it is unique, because it explicitly gives the impression that it is not part of God's verses such as natural phenomena and holy books, humans themselves who give birth to culture are part of God's verses. culture becomes God's creative sub-field through human hands which are analogously able to "create" as God creates things. Then, religion and culture are two things that are not easily separated. Religion as a doctrine is a personal belief between an individual and his God. Meanwhile, culture is formed based on community agreement with certain behavior. When religion is juxtaposed with culture, there is a broader understanding. That religion is an individual matter, while a collection of people of the same religion becomes a culture. From groups of people of the same religion, it is necessary to continue with the principle of religious harmony. Therein lies the balance between religion and culture. If religion and culture were linear, then the world would be peaceful and safe.

In conclusion, culture is also an integrative part of God's verses, even if you understand them by communicating with the humans who created them or by looking at the regularity of the habits that are generally accepted by the humans who created the culture. Therefore, from the encounter between science and religion, or also with culture, as classified by Barbour into four patterns, namely conflict, independence, dialogue and integration, the best choices are the last two, dialogue or integration. Even if it does not reach established integration, the spiral movement between dialogue and integration is already a very extraordinary thing.

CONCLUSION

If you look at the three domains of knowledge, science, religion and culture, sometimes if someone specializes in one particular field of knowledge (for example science), he may be weak in other fields. And based on these weaknesses, it is sometimes difficult to communicate with each other. However, at the very least, by understanding that there is a unified scientific base for these three fields, it is possible for a complementary process to occur. When science is unable to provide answers to natural phenomena, it is possible for religion to cover them up. And when religion is unable to interpret the verses of the holy book with a scientific perspective, then
science helps it. Or when cultural science does not move in understanding the phenomenon of human creation, then science and religion have the possibility to help provide answers to this weakness.

The final thing that is interesting to quote from Barbour is that, according to him, scientists should not fall into the trap of being arrogant. It is a good idea to explore the following requirements: (1) fidelity to evidence (adhering to the importance of evidence); (2) open mindedness (openness of thinking); (3) modesty in one’s claims (humility in other people’s claims); (4) readiness to learn from other interpreters (trying to learn from other interpreters). Hopefully with this attitude dialogue or integration can be realized.

REFERENCE


