

HARMONIOUS RELATIONSHIP BETWEEN ISLAM AND SCIENCE IN THE
PERSPECTIVE OF THE QUR'AN

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Abstract: This article discusses the views of the scholars of exegesis on a number of verses related to the relationship between Islam and science (science). This article departs from an article entitled "*Islam can give a proper orientation to science and technology development*". The article was written by Mehdi Golshani, a lecturer at Sharif University of Technology, Tehran, Iran. After reading Mehdi Golshani's article, the author is in the same position. The author agrees that religion and science run in harmony, there is no conflict between the two. In his presentation on the relationship between religion and science, Mehdi Golshani put forward a number of postulates in the Qur'an. However, the author argues that the postulates put forward by Golshani are not very strong, because they are not supported by the opinions of exegetes. Therefore, this article aims to corroborate Golshani's opinions with some views of scholars' interpretation, about the relationship between Islam and science. In general, a study of exegesis shows that most of the postulates put forward by Golshani are relevant and closely related to science. This article contributed to strengthening the concept of Islamic harmonisation and science.

Keywords: *Relation, Science, Religion, Islam, Qur'an*

INTRODUCTION

This article is a follow-up to an article written by Mehdi Golshani, a lecturer at Sharif University of Technology, Tehran, Iran. This article generally affirms the strong relationship between Islam and *science and technology* (S&T). In his article, Golshani concluded that science has a longitudinal relationship with religion, that is, scientific and Islamic activity that produces a comprehensive framework suitable for scientific work and its applications. From Golshani's study, he concluded that there are a number of roles of religion in scientific activity, namely: *first*, science as a trigger to explore the nature of God's work; *second*, religion lays the metaphysical foundation for science; *third*, religion supplies an epistemology corresponding to science; *Fourth*, religion answers questions raised in science. Religion provides the right direction for applied science and technology.

Golshani stands in the position that religion has a harmonious relationship with science. According to him, Islam and science are not contradictory. It's just that what Allah has revealed in the Qur'an has not been able to prove it. History records that there was once a conflict between scientists and religionists. Religious groups say that the earth is flat, while scientists Galileo say that the earth is round. Therefore, Islam is really present to confirm the harmony between Islam and science, so that Islam is not only believed to be a divine religion that accommodates matters of faith and worship, but a religion of humanity that accommodates science.



Abdullah (1997) stated that based on the conditions of Islamic development and the development of intellectual vision, Islamic thought must begin to change. The change referred to in this context is a change in focus on *divine* issues (theology) towards a more serious paradigm of thought in studying human problems (anthropology). In this context, both social and non-social science must be applied as an approach in Islamic studies. These approaches have the potential to produce more comprehensive, actual, and contextual studies. Therefore, according to the author, putting forward the postulates of the Qur'an to strengthen the relationship between Islam and science is approximately urgent to discuss.

In his study, Mehdi Golshani strengthened the harmonious relationship between Islam and science by presenting a number of verses of the Qur'an. However, the Qur'anic verses presented are not supported by other relevant data, such as the opinions of scholars' interpretation. Therefore, this article aims to investigate and corroborate the Qur'anic postulates on the harmony of Islam and science put forward by Mehdi Golshani.

METHOD

This study is a literature review that aims to present a comprehensive overview of the relevant subject. The literature sources used in this study were obtained through online and offline search methods. Online searches are conducted through Google Scholar, a widely recognized source of information in the academic world to find scientific articles, journals, and publications relevant to the research subject. Meanwhile, offline search involves collecting books that have relevance to this research topic. This approach provides an opportunity to access a diverse and comprehensive range of information sources to support analysis. Literature analysis in this study was carried out by applying a content analysis approach. This approach allows researchers to recognize patterns, trends, and key concepts that appear in the literature that has been collected. Content analysis is a method that has advantages in describing information contained in literature in a systematic way.

RESULT AND DISCUSSION

1. Relationship of Islam and Science

There are many questions about whether Islam and science can be compatible. In the first six hundred years of Islam, Muslims studied all areas of knowledge available to them with unprecedented zeal, so that they could make an enormous contribution to the knowledge behind the Renaissance in Europe. The invasion of the Tatars in the 13th century and the complete destruction of Baghdad, the capital of Muslim knowledge and science, followed by the crusades, led to distrust of all knowledge coming from the West.



This mistrust is also caused by the hostility between East and West, and Western colonialism with Muslim countries. Such mistrust closes the door to *ijtihad*, a dynamic method in Islamic jurisprudence of coping with change, new demands, and new knowledge acquired. Although the Quran challenges Muslims to think, ponder, understand, and examine everything around them, it seems that the door of *ijtihad* still remains closed. In fact, mankind is closer to God when they find methods to apply the laws of justice and equality for the benefit of all mankind (Al-Hayani, 2005).

In his studies, Golshani classified four relationships between religion and science; first, science and religion are two *independent* terms; second, they contradict each other; third, they have similarities; fourth, they complement each other (Golshani, 2016). The same classification was also carried out by John F. Haugh. Haugh divides the relationship between science and religion in four dimensions; first, *conflict i.e. the relationship between science and religion* cannot be reconciled; second, *contrast*, i.e. the relationship between science and religion easily responds to differences; third, *contact*, which is an approach through dialogue, interaction, and the possibility of compatibility between science and religion, especially how science shapes religious and theological understanding; fourth, *confirmation*, i.e. religion supports scientific efforts (Haught, 1995). The author will discuss these relationships in detail as follows:

a. Independent

The terms science and religion (including Islam) have had different meanings throughout history (Fergren, 2017). Science and religion are two fields that have no connection. Islam deals with God, while science deals with the study of nature. The study of nature involves experimentation and observation, while religion is based on revelation. Science is a medium of prediction and control, while religion is a medium for worship. Some scientists believe in God, but they regard science and religion as two independent domains (Golshani, 2016). Even Stenmark (2004) asserts about the independence of religion and science. Stenmark (2004) said, "*Science and religion ask different kinds of question, and to that extent they have different aims and subject matters*". Stenmark (2004) considers that science and religion are different because the problems, goals, and subjects are different. Furthermore, Stenmark reinforces this distinction by quoting Gould's opinion that not only are the questions, goals, and subjects different, but that science and religion have different methodologies and epistemologies.

b. Opposite

Science and religion fall into two conflicting domains. Conservatives who believe in the conflict between science and religion, stick to religious texts. Nor do they take scientific



findings seriously. Meanwhile, materialists assert that reason-based data is the only source of information. Nor do materialists believe in God or immaterial beings. Materialists only believe that only empirical science can explain everything. In relation to this materialist attitude, Jacques Monod, as quoted by Golshani (2016), expresses his argument: *"Anything can be reduced to simple obvious mechanical interactions. The cell is a machine, the animal is a machine, man is a machine"*. Apa pun dapat direduksi menjadi interaksi mekanis sederhana yang jelas. Sel adalah mesin, hewan adalah mesin, manusia adalah mesin (Monod, 1974).

c. Islam and Science have a relationship

There is a belief among some scholars that there is a connection between science and religion. This can be seen in one question in science, but science alone cannot provide an answer. For example, the question of the role and purpose of human creation. Jaki, as quoted by Golshani (2016) states his argument, that not all can be explained by science. The assumption that science can find technical solutions to all problems is the path to destruction (Jaki, 1992). Science is not always able to answer the problems faced by humans.

In the context of problem solving, faith is also necessary. It is undeniable that faith as part of religion has a role in science. For example, beliefs about the existence of the outside world or the feasibility of this nature. In this case, science takes it for granted, without providing justification. Planck (1932) as quoted by Golshani (2016) stated: *'Anybody who has been seriously engaged in scientific work of any kind realises that over the entrance of the gates of the temple of science are written the words: "Ye must have faith"*.

d. Islam and Science confirm each other

Some scientists argue that because science and religion are related to the same world, they should provide a consistent picture of the world. This means that scientists must provide a unifying worldview. Mehdi Golshani believed that religion could provide a comprehensive worldview that could justify scientific activity and provide meaning. Margeneau & Varghese (1992), a contemporary physicist-philosopher, emphasized that "Science needs religion to explain its origins and successes". Although Islam and science, which enjoy a harmonious relationship, are often discussed in learning and even in popular debates, Bigliardi asserts that the existence of harmony between Islam and science is very likely to be agreed upon by many Muslims, both lay and intellectual. The reasons that arise in support of the statement "There is harmony between Islam and science" are



interconnected. It can be maintained with different emphasis and addressed from different points of view (Bigliardi, 2014).

e. The Relationship of Religion and Science in the Qur'an

Because this article was inspired by an article written by Mehdi Golshani, who agreed that religion can be a justification for scientific activity in science, the author traced Qur'anic verses related to science through Golshani's article. In an Article entitled *Islam can give a proper orientation to science and technology development*, Golshani put forward many postulates from the Qur'an to strengthen his belief that religion is in line with science. In this regard, the author agrees with Golshani's approach to strengthening the harmonious relationship between Islam and science. However, the author views that Golshani's opinion lacks supporting data, to explain the meaning of verses that claim to be related to science.

Golshani in his article points out the Qur'anic postulates regarding the harmony between Islam and science. In the sub-theme he titled *Study of God'd Handiwork*, he put forward two postulates, namely Qs. Āli 'Imrān (3): 190-191 and Qs. al-Dhāziyat (51): 20-21. In the sub-theme entitled *Ways Knowing Nature*, Golshani proposed two postulates, namely Qs. al-Naḥl (16): 78 and Qs. al-Ḥajj (22): 46. In the sub-theme entitled *The Role of Religion in Constructive Application of Science*, Golshani put forward five postulates, namely; Qs. al-Baqarah (2): 30, Qs. al-A'rāf (7): 10 and 56, Qs. al-Hijr (15) 92-93, and Qs. Āli 'Imrān (3): 114.

2. Scholars' Views on Science Verses: A Reinforcement

a. Qs. Āli 'Imran (3): 190-191

إِنَّ فِي خَلْقِ السَّمُوتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لَآيَاتٍ لِّأُولِي الْأَلْبَابِ ۚ ۱۹۰ الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَمًا وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ السَّمُوتِ وَالْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَذَا بَطْلًا سُبْحَانَكَ قِنَا عَذَابَ النَّارِ ۱۹۱

"Verily in the creation of heaven and earth, and the alternation of night and day there are signs unto the intelligent; 191. (that is) those who remember Allah while standing or sitting or lying down and they think about the creation of heaven and earth (saying): "O our Lord, did You create this in vain, O Holy Thou, so preserve us from the torments of hell."

Natural phenomena such as the alternation of day and night are some of the signs of God's greatness. These natural phenomena can only be investigated through scientific processes (science), one of which is the thinking process (يتفكرون). The thinking referred to in science is scientific thinking described by Allah in terms *ulī l-Albāb* (those who have reason). It can be said that scientific thinking occurs not suddenly, but a continued process of seeing, hearing, and feeling directly, either through observation, interviews,



documentation, experiments, and others. Therefore *ulī l-albāb* way of thinking is a scientific way of thinking, which can be accounted for.

Ibn Kathir (1419) states:

(لآيات لأولي الألباب) أي العقول التامة الذكية التي تدرك الأشياء بحقائقها على جلياتها.

Those Ulil Albab are those who have perfect intellect, who are brilliant, that is, the intellect that can reach everything to its roots. Ibn Kathir (1419) further stated that *ulil albab* as a person inherent in him the habit of thinking, so he did not just think but until he understood the greatness, power, knowledge, wisdom, will, and affection of Allah behind these natural phenomena. In tafsir al-Jalālayn it is said that *yatafakkarūn* (يتفكرون) means to look for evidence (ليستدلوا) (Al-Mahalliy & Al-Suyutiy, n.d.). While looking for evidence is a scientific process, namely looking for valid data. Therefore, Islam strongly supports science as a medium of revealing the essence, which is passed through the process of seeing (observation, experiment), then the process of thinking (analyzing), and finding the answer through correct understanding (essence).

b. Qs. al-Dhaziyat (51): 20-21

وَفِي الْأَرْضِ آيَاتٌ لِلْمُوقِنِينَ ۚ ۲۰ وَفِي أَنْفُسِكُمْ أَفَلَا تُبْصِرُونَ ۚ ۲۱

20. And on that earth there are signs (of God's power) for those who are convinced; 21. and (also) to yourself. Then haven't you noticed

The earth (including the sky) and all that it contains is a sign of God's power to the believer. One way of gaining confidence is through the scientific process (science). The earth and all its contents are the realm of scientific studies. This can be seen in Ibn Kathir's (1419) statement as follows:

(وفي الأرض آيات للموقنين) أي فيها من الآيات الدالة على عظمة خالقه وقدرته الباهرة مما ذرأ فيها من صنوف النبات والحيوانات والمهاد والجبال والقفار والأنهار والبحار واختلاف ألْسنة الناس وألوانه وما جبلوا عليه من الإرادات والقوى وما بينهم من التفاوت والعقول والفهوم والحركات والسعادة والشقاوة وما في تركيبهم من الحكم في وضع كل عضو من أعضائهم في المحل الذي هو محتاج إليه فيه ولهذا قال عز وجل (وفي أنفسكم أفلا تبصرون) وقال قتادة: من تفكر في خلق نفسه عرف أنه إنما خلق ولينت مفاصله للعبادة.

Ibn Kathir's statement above can be classified into two groups of sciences: Natural Sciences (IPA) and social sciences (IPS). Natural Sciences include; *First*, biology is the study of plants (النبات) and animals (الحيوانات); *Second*, geology is the science that studies the earth (المهاد), mountains (الجبال), deserts (القفار), and third, *oceanography, which is the science that studies maritime*. The Social Sciences can be classified into cultural and social sciences that study language, race, and ethnicity, as well as human nature and

behavior. Therefore, the author asserts that belief (the realm of religion) can be obtained through knowledge, so that religion cannot be separated from the role of science.

c. Qs. al-Nahl (16): 78

وَاللَّهُ أَخْرَجَكُمْ مِنْ بُطُونِ أُمَّهَاتِكُمْ لَا تَعْلَمُونَ شَيْئًا وَجَعَلَ لَكُمُ السَّمْعَ وَالْأَبْصَارَ وَالْأَفْئِدَةَ لَعَلَّكُمْ تَشْكُرُونَ ٧٨

78. "And God brought you out of your mother's belly knowing nothing, and He gave you hearing, sight, and heart, that you might be grateful."

Science with its scientific characteristics, is actually obtained through the process of hearing, observing, and thinking. In this regard, Al-Rāzī (1981) in his book *Mafātīḥ al-Ghayb* states:

"(وجعل لكم السمع والأبصار والأفئدة) والمعنى أن النفس الإنسانية لما كانت في أول الخلقة خالية عن المعارف والعلوم بالله. فالله أعطاه هذا الحواس ليستفيد بها من المعارف والعلوم وتامم الكلام"

According to Al-Rāzī (1981), man basically has no knowledge and does not know Allah. Therefore, God gives hearing, vision, and feelings so that they can be used in order to gain experience, knowledge, and be able to express knowledge properly and correctly. This opinion is in line with Ibn Kathir's opinion that basically man does not have the slightest knowledge, but Allah gives man hearing so that man hears voices, and gives sight so that man can make observations, and gives reason that is centered in the heart (al-Qalb).

d. Qs. al-Hajj (22): 46

أَفَلَمْ يَسِيرُوا فِي الْأَرْضِ فَتَكُونَ لَهُمْ قُلُوبٌ يَعْقِلُونَ بِهَا أَوْ آذَانٌ يَسْمَعُونَ بِهَا

46. "So do they not walk in the land, so they have a heart with which they may understand or have ears with which they can hear?"

The process of acquiring knowledge (science) in Qs. al-Hajj (22): 46 is expressed by two words *ya'qilūn* (thinking) and *yasma'ūn* (hearing). Al-Zuhaylī (2001) dalam karya *al-Tafsīr al-Wasīf* menyatakan sebagai berikut:

"... وحثهم على النظر والتفكير فهلا سافروا وتنقلوا في البلاد فيتأملوا بما حدث من مصارع القوم ويفكروا بعقولهم في الأسباب والنتائج ويسمعوا الأخبار بأذانهم ليطلعوا على الحقائق ويدركوا الأسرار..."

The interpretation of Wahbah al-Zuhayli leads to the acquisition of Social Knowledge. Allah commands people to travel and move from one place to another, so that people can observe (*yata'ammalūn*) the problems faced by a people, and then analyze (*yufakkirun*) the cause and effect. In addition, the acquisition of knowledge is carried out through the process of hearing (*yasma'ūn*) information directly to be analyzed and obtained results.

e. Qs. al-Baqarah (2): 30

وَإِذْ قَالَ رَبُّكَ لِلْمَلٰٓئِكَةِ اِنِّیْ جَاعِلٌ فِی الْاَرْضِ خَلِیْفَةً ۚ ۝۳۰

30. "Remember when your Lord said to the Angels, "Behold, I will make a caliph on earth".

In Qs. al-Baqarah (2): 30, the author underlines the word *khalifah*. Caliph according to the language means successor. According to Ibn Kathir, caliph means people who alternate (lead) from time to time. (Ibnu Kathir, *Tafsir al'Qur'an al-'Azim*, Juz 1: 124) Some mufassirin state that the caliph referred to in the verse is the Prophet Adam. Among them is Al-Zuhaylī (2001). However, the duties and functions of the caliph were not limited to Adam, but also to his descendants. Ibn Kathir (1419) quotes al-Qurtubi from Zaid ibn 'Ali:

"ولیس المراد ههنا بالخليفة آدم عليه السلام فقط كما يقول طائفة من المفسرين وعزاه القرطبي إلى ابن عباس وابن مسعود وجميع أهل التأويل وفي ذلك نظر بل الخلاف في ذلك كثير"

According to Al-Zuhaylī (2001) in *al-Tafsir al-Wasit*, the task of the caliph was to inhabit and manage the earth and its contents, and to carry out the laws of Allah (al-Zuhayli, *al-Tafsir al-Wasit*, Juz 1:22). Then how can a caliph manage the earth without science? Therefore, in the teachings of Islam, man as a caliph plays the role of managing the earth and its contents with its knowledge, which is obtained through seeing, hearing, and thinking.

f. Qs. al-A'raf (7): 10

وَلَقَدْ مَكَّنَّكُمْ فِی الْاَرْضِ وَجَعَلْنَا لَكُمْ فِیْهَا مَعِیْشًا ۚ قَلِیْلًا مَّا تَشْكُرُوْنَ ۝۱۰

10. "Behold, We have placed you all on the face of the earth, and We have held for you on the earth (source) of livelihood. Very little are you grateful"

Al-Zuhaylī (2001) interprets the verse as follows:

"فأقسم سبحانه بأنه مكن في الأرض للنوع الإنساني وخلق للبشر جميع المعاييس والخيرات وجعل لهم أمكنة يستقرون بها في الدنيا وجعل لهم في المعاييس التي تقوم عليها حياتهم من خلق النبات والزرع والفاكهة والثمر والماء والشجر والسمك والجواهر والحيوان المسخر المذل لهم ليسهل أمر المعيشة"

God placed man and created for him various sources of life and goodness. God created for man dwelling places. He also created natural resources for man to survive. Among the natural resources that God has prepared are plants, plants, fruits, water, trees, fish, pearls, and animals. Everything was created to facilitate humans in their lives. However, the question always boils down to, how can man manage God-given natural resources without science? Therefore, it cannot be denied that the emergence of science and technology was heavily influenced by religion through sacred texts.

In this regard, Fatima Agha Al-Hayani once studied "Islam and science: contradiction or concordance", saying: "Islam is the religion of *yusr* (ease) and not *'usr* (hardship). The creation of the world was for human benefit and use. Innovation for such beneficial use and application is a must." Hayani emphasized that Islam is a religion of convenience. All that God created was to accommodate human needs. Therefore, innovation for useful use and application is a necessity.

In this case, it is important to pay attention to Bagir's (2012) recommendations. He suggests expanding the discourse on how science meets religion (as well as other local knowledge systems) in practice, in particular, events such as natural disasters when they are invoked as sources of meaning-making. The meeting takes place not only on a cognitive level but can take the form of competition, collaboration, or negotiation over authority to provide explanations.

CONCLUSION

From the study conducted, the author can conclude that most of the verses put forward by Golshani in the article entitled "Islam can give a proper orientation to science and technology development" are relevant in the context of the relationship between science and Islam. From the books of tafsir used as supporting data, namely Tafsīr al-Qur'ān al-'Aẓīm by Ibn Kathīr, Mafātīh al-Ghayb by Al-Razi, Tafsīr al-Jalālayn by Jalāl al-Dīn As-Suyūṭī, and Jalāl al-Dīn al-Maḥallī, al-Tafsīr al-Wasīṭ by Wahbah al-Zhayli, it is found that there is a harmonious relationship between Islam and science. Therefore, the author suggests; first to conduct a broader study of the relationship between Islam and science, both from the perspective of the Qur'an and hadith; second, applied studies on how science can be applied in Islamic education.

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