



The Role of Science in Islamic Religious Education in the Modern Era

Anip Dwi Saputro, Sudarmadi, Adib Khusnul Rois, Syamsul Arifin^(✉), Ja'far Arifin, and Maylina Wulandari

Muhammadiyah University of Ponorogo, Ponorogo, Indonesia
syamsularifin8890@gmail.com

Abstract. Science continues to develop along with the times, and science and technology undergo many changes very quickly, but on the other hand, Religion moves very slowly, with these differences becoming disharmony towards religion and science and technology caused by the dichotomy of Religion and Science. In this matter, Islamic Religious Education has a very important and strategic role in integrating religion and science. Islamic Religious Education has a very important goal, namely to develop transcendental knowledge or enter into the truth of revelation. The role of the teacher is very important in carrying out knowledge transformation activities and the transformation of Islamic values and technology that leads to the benefit of mankind. Islam is a religion of *rahmatan lil alamin* which teaches the principles and regulations brought by the Prophet Muhammad to be conveyed to mankind so that they can be carried out in life. One characteristic of Islam is its emphasis on knowledge (science). Al-Qur'an and Al-Sunnah invite Muslims to seek and gain knowledge of wisdom and place knowledgeable people to a high degree. If we pay attention to the verses of the Al-Qur'an regarding the command to seek knowledge, we will find that the order in general, including the sciences, called Religion, is what has emphasized in the Qur'an whether knowledge is beneficial or not. The criterion of useful knowledge is knowledge aimed at getting closer to the Khaliq as a form of dedication to Him.

Keywords: Islamic Religious, Islamic Science, Modern Era

1 Introduction

Knowledge could form something method thinking a manner objective (objective thinking), the with goal foto described give meaning to the actual world (Salam, 2003). This is obtained through observation, experimentation, and classification. The analysis is Tha ing which objective with put aside usher personal, put forward thinking logic, and neutral (non-influenced by self or subjective). Comprehensive science is painting and description which is complete and consistent about things which he studied in room and time so far arrange logic and could ob observe give sense man. Kindly term integration is making something whole and reuniting elements certainly Science can be a method of thinking objectively (objective thinking), the purpose of which is to describe

© The Author(s) 2024

Z. B. Pambuko et al. (eds.), *Proceedings of the 4th Borobudur International Symposium on Humanities and Social Science 2022 (BIS-HSS 2022)*, Advances in Social Science, Education and Humanities Research 778, https://doi.org/10.2991/978-2-38476-118-0_129

and give meaning to the factual world. This is obtained through observation, experimentation, and classification. The analysis is objective by setting aside personal factors, prioritizing logical thinking, neutral (not influenced by self or subjective). Comprehensive science which is a complete and consistent description and description of things studied in space and time as far as the reach of logic and can be observed by the five human senses. Meanwhile, integration is a form of combining several aspects so that it becomes a unified whole (Watohi, 2018). Integration comes from the English "integration" which means perfection or whole. In terms of integration is to make a whole and unite certain elements. The integration of knowledge does not only combine religious knowledge and general science, but the integration of knowledge is an attempt to unite religious knowledge originating from revelation and general science as a result of human thought.

The religion of Islam is the rules regarding God's commands and prohibitions, which were brought by our master the Prophet Muhammad SAW to all mankind (Abidin, 2001). Islamic religious education is education that is based on Islamic teachings or Islamic religious guidance to foster and form Muslim individuals who are devoted to Allah SWT. Islamic religious education does not only concern the normative aspects of Islamic teachings, but also its application in a variety of materials, institutions, culture, values, and their impact on empowering the people (Minarti, 2013).

Allah SWT sent down the Al-Qur'an to the Prophet Muhammad SAW as a book of reading (*Kitab Maqru*) to be conveyed to mankind and created the universe as a book of observations (*Kitab Manzur*) which expresses in a real way the things contained in the Al-Quran. The two books are sources of religious truth and scientific truth at the same time. Both come from the same source, namely Allah SWT. Therefore, it is not worth seeking the truth except in these two books. An intelligent person cannot imagine the contradiction between true religion orange science (Pasha, 2006).

Humans are given the advantage of reason. These advantages can also be used by humans to realize the power of Allah SWT so that they voluntarily submit and prostrate to Him. Studies on the Al-Quran from various perspectives have been carried out and prove that the book is relevant to human life at all times. Several scientific predictions for which empirical evidence has not been found at this time can also be explored through the contents of the Al-Quran.

One of the causes of the decline in the civilization of the *Ummah*, especially the Muslim *Ummah*, is the separation (dichotomy) between religious knowledge and general science, even though if studied historically from the history of Islamic civilization, ancient Muslim scientists besides being experts in the field of general science, were also experts in the history of Islamic civilization. religious knowledge. Names such as Ibn Hayyan, Al-Khawarizmi, Al-Kindi, Al-Farabi, Ibn Sina, Ibn Khaitam, Al-Biruni, Al-Ghazali, and others are scientists who have been printed by the golden age of Islam (Abidin et al., 2022; Mahyudin, 1989).

Even though the Al-Qur'an and Hadith have stated and explained about sc various technological sciences and scientific developments today are mostly carried out by the western world, which in fact believers. How come? This is of course because there is great wisdom that Allah SWT wants to convey. Thus determining such a reality. If the discoveries of science and technology were always discovered by Muslims, there would

be nothing special about the truth of the Qur'an and hadith. Because there will be an assumption that the researcher is a Muslim. Of course, the results of the research justify the contents of the Al-Quran and Hadith. However, when the inventors are non-Muslims. Then the results of his research justify the contents of the Qur'an and Hadith. So of course this incident will further strengthen the truth of the Koran and the Hadith of the Prophet Muhammad SAW (Al-Azizi, 2018).

Based on the identification of the problems that have been described, the authors focus on the problems in this study only on the integration of science and religion from the Islamic religious education perspective (Arifin et al., 2022). Many thinkers firmly believe that religion can never be reconciled with science. According to them, if you are a scientist, it is difficult to imagine how you can honestly be "pious in faith", at least in the sense of believing in God. Their main reason is that religion clearly "cannot prove" the truth of its teachings unequivocally, whereas whether science can do that, that is, can prove the truth of its findings (Haught, 2004).

The progress of a nation or a country lies in the mastery of knowledge by the people of that country. Prosperous countries are generally led by smart countries and have smart citizens too. A strong country should be led by people who have better knowledge than the people they lead. Therefore, knowledgeable people should be more respected and given trust in managing the affairs of society and the state in the field they handle. The verse states that people who know are more important than rich people.

2 Theoretical Study

2.1 Role Science Explaining Inmeat Hee Ning of the Verses You Are

Science is an empirical science that studies various phenomena in nature and within humans to arrive at laws that interpret the behavior of these phenomena and determine their occurrence and uncover facts and truths that are reflected in true faith in Allah SWT (Susanto, 2015). The relationship between the signs of truth in the Qur'an and the universe is combined through the miracles of the Qur'an (which precedes scientific purposes) with the miracles of the universe which depict the power of God. Each acknowledged and justified the other's miracles so that both of them would be a lesson for anyone who has a sound mind and a clean heart or someone willing to listen. Several strong arguments have proven that the Qur'an could not have come except Allah. The proof is, there is no conflict with the verses, even the neat and precise system that exists in this universe is also impossible, except by the will of Allah SWT, who created everything very carefully (Rosa, 2021).

2.2 Development of Knowledge and Technology

In discussing the development of knowledge or science from an Islamic point of view, it is appropriate if we re-examine what the source of the teachings says according to an Islamic perspective. Islamic views are the principles laid down by Allah SWT and His Messenger in the holy book Al-Qur'an and Al-Hadith which have been developed by mujtahids from time to time. Because "development" is a series of activities that have

a specific purpose, we must reveal in advance what the goal of the totality of human activity is, namely the purpose of his life in this world according to Islamic teachings (Baiquni, 1995; Asrori, 2016).

For an Islamic religious education teacher to devote himself not only to prayer, but to exploring all knowledge, be it science or religion, and combine the two in teaching the community. At least as befits a servant or servant to behave towards its owner. In worldly life, the priority is happiness hereafter, because worldly happiness is temporary. But we are not allowed to forget our share of the happiness of the world. The Importance of Natural Sciences (Science) in Islamic Religious Education.

2.3 The Role of Science in Knowing God

In the Al-Quran, there are more than 750 verses that show natural phenomena, and humans are asked to think about them to know God through his signs. The verses are divided into the following categories (Arifin, 2018).

1. The verses that describe the main elements of the object or tell people to reveal it. For example, we read in the Koran;
2. Verses that cover the problems of how to create material objects, as well as those that instruct humans to reveal their origins. Below are examples of these categories;
3. Verses that instruct humans to reveal how this physical world came to be. Below are examples of these categories;
4. Verses that instruct humans to study natural phenomena;
5. Below are examples of these categories;
6. Verses that show Allah swearing on various natural objects. Below are examples of these categories;
7. Verses that refer to several natural phenomena, there is a possibility of resurrection;
8. Verses that emphasize the continuity and regularity of nature's creation;
9. Verses that explain the harmony of human existence with the physical world, and submission to what is in the heavens and the earthly realm to humans.

In these verses, the almighty advises his servants to see and think about natural phenomena, and by looking at the order and coordination within the system of creation for a clear concept of the problems referred to in the verses and to find answers to problems in them, one must be familiar with the natural sciences, for a superficial knowledge of natural phenomena will not reveal to man the majesty of creation. It is for this reason, after describing several natural phenomena, Allah SWT says: 'In fact, the Quran is clear verses in the breast of those who are given knowledge and no one denies Our verses except the wrongdoers' (QS Al-Ankabut: 49) (RI, 2015). However one must not forget that the Qur'an is not an experimental science textbook. And if it explains some natural phenomena, it is due to the following reasons:

1. Studying natural phenomena and the wonders of creation will strengthen the faith humans in God;
2. With familiarity with opportunities that have in bestow Lord to man, he could know God, and by getting benefits from him he can be grateful to God.

In fact, because of the encouragement of the Al-Qur'an to study scientific natural phenomena, Muslim scientists have become very involved in this matter. The development of Islamic civilization was also greatly influenced by the perspective of the Koran. Early Muslim scientists recognized the influence of the Al-Quran on them. And even some western scholars admit it. At the time of the splendor of Islamic civilization, Muslim scientists Islamized the cosmological knowledge of that time with their knowledge. Because, in their definition, these sciences also try to show the unity of nature and investigate the *prima causa* of things. Thus, it can be the perspective of Islamic education. In this process however, they first draw out the foreign elements, then incorporate the rest with Islamic concepts. more than that, Muslim scientists use both experimental and theoretical methods of investigation at the same time.

2.4 Islamic view of science and technology

The implementation of Islamic religious education has two main missions, namely intellectual development and moral development. Islamic education has a strong theoretical foundation on Islamic values (Makbuloh, 2016). Islamic education firmly rejects the secularization of knowledge. Secularization will cause humans to live only for the world. Secularism will eventually trap humans in materialism. The synergistic integration between religion and science will consistently produce reliable resources in applying knowledge that is strengthened by a strong spirituality in dealing with life. Islam is no longer considered an old-fashioned religion, backward in terms of science and technology development. The integration of science and Islam has an important value in eliminating the notion that religion and science are two things that cannot be combined.

Islam has full concern and attention to its *ummah* so that it continues to process to explore the potentials of nature and the environment to become the center of a glorious civilization. In this context, there is no conflict between science and Islam, where both of them work in balance and in harmony to create better scientific treasures and human civilization than before.

The Islamic view of science and technology is that Islam has never restrained its people from progressing and being modern. Precisely Islam supports its people to conduct research and experiment in any way, including science and technology. For Islam, science and technology are among the verses of Allah that need to be explored and sought for. The verses of Allah that are scattered in the universe are a gift for humans as *khalifatullah* on earth to be processed and utilized as well as possible. The principles of Islamic views on science and technology can be known from the analysis of the first revelation received by the Prophet Muhammad, which means: "Read by (mentioning) the name of your Lord who creates. He has created man from a clot of blood. Read, and your Lord is the Most Gracious, who teaches (humans) by means of the word. He taught man what he did not know." (QS. Al-Isra: 1-5).

Another verse that supports the development of science is the word of Allah SWT. which reads that:

Meaning: "Verily, in the creation of the heavens and the earth, and the alternation of night and day, there are signs for people of understanding, (namely) those who remember Allah while standing or sitting or lying down and they think about the creation of

the heavens and the earth (saying): ‘O our Lord, you did not create this in vain. Glory to You, So protect us from the torment of hell.’ QS. Ali-Imran: 190-191).

The verses above are a support that Allah gives to His servant to continue to dig and pay attention to what is in this universe. A suggestion that we should not ignore to carry out more progressive scientific excavations together so that we reach the scientific peak that God wills. It is not surprising that a Western scientist, Maurice Bucaile, after conducting research on the Koran and the Bible from the point of view of modern science, stated that there is no doubt that the Koran is in harmony with modern scientific views (Watohi, 2018).

Furthermore, Osman Bakar revealed that in Islam, religious awareness of monotheism is the source of scientific enthusiasm in all areas of knowledge. Therefore, the Islamic intellectual tradition does not accept the idea that only natural sciences are scientific or more scientific than other sciences. Likewise, according to him, the idea of objectivity in scientific activities cannot be separated from religious and spiritual awareness (Abdullah, 2012).

Nevertheless, the Koran is not a book of science and moreover the Bucaillism approach is inherent in great danger. Namely putting science into the sacred field and making Divine revelation the object of proof of Western science. If a certain theory that the Koran "justifies" and is widely accepted today, then at another time this theory is invalidated, does that mean that the Koran is valid today and not valid? What is right for Muslim scientists to do is to position the Koran as a guide and motivation to discover and develop science and technology in a scientific, correct and good manner.

3 Method

The approach in this article uses a qualitative approach. Data was collected through the library research method. In a library, data is obtained by examining related literature in the form of articles, books, documents, as well as examining online literature. Furthermore, the data were analyzed and discussed according to the theme discussed. The study in this article is focused on discussing the theme "the role of science in Islamic religious education in the modern era". The data in this study were obtained through national and international journal articles, state laws, and other internet sources.

Data collection techniques in this study were carried out by identifying discourses from the main articles of national and international journals, state laws, and the web (internet). At least the steps that the author carried out were: 1) Tracking and collecting data related to the study theme through books, documents, internet (web) magazines. 2) Analyzing these data so that researchers can conclude about the main problems (Moleong, 2002).

4 Result and Discussion

4.1 Instructions for Understanding Science in the Perspective of Islamic Religious Education

The basics in understanding scientific instructions from the perspective of Islamic Religious Education are two aspects, firstly Faith in the Principle of Divine Unity, the Qur'an provides an overview of natural phenomena which have been written in the Qur'an in more than 750 verses indicating natural phenomena as well as man (Bakhtiar, 2014), so that the duty of a servant is to think about knowing Allah through His signs. These verses are divided into categories including verses that show Allah swearing on various kinds of natural objects, verses that refer to several natural phenomena, the possibility of resurrection, verses that explain the harmony of human existence with the physical world and submission to what is in heaven and on earth. The verse instructs humans to study natural phenomena.

The second aspect is believing in the principle of the law of causality. Causality is a law of necessity for the universe and it is human nature to understand that every effect or event is the result of a cause. The law of causality is part of the *sunnatullah* which can be rationalized by the mind. God's will cannot be reached by the human mind, the law of causality is created for humans by taking the lessons from previous events to be used as learning (Muthahari, 1995). Good deeds are redone while reprehensible deeds should be left behind for the common good. The verses of the Qur'an provide the legal concept of causality that Allah wills who is guided and led astray, some verses explain the servant who is given instructions by being pious to Him, carrying out religious orders and avoiding predetermined prohibitions, otherwise a servant is misled when he leaves religious aspects (Qardlawi, 1995).

4.2 Barriers to Acquiring Knowledge

The obstacle in science is the lack of enthusiasm in knowing and acting out the verses of Allah SWT. It was explained that humans are looking for provisions, especially knowledge, so that with knowledge they can develop properly in the future. It has been proven that with the development of the times, modern sciences such as biology, chemistry, physics, astronomy and geology continue to be studied (Junaidi, 2013).

Obstacles in gaining knowledge are important to reflect on, there are several points of obstacles that can become obstacles in obtaining knowledge including: a) lack of faith, in the Qur'an there are several verses which show disbelief as a major obstacle in obtaining knowledge as surah al-Munafiqun verse 3, "That is because they have believed, then became disbelievers (again) then their hearts were sealed shut; therefore they cannot understand."

Several verses in the Qur'an indicate that relying solely on knowledge, without faith, will not lead to a proper understanding of nature. As mentioned before, the principal role of faith in understanding nature is to rebuild the human faculty of reason to its original state. b) following one's desires, basically following one's desires is a disgraceful act and deviates from the concept of religion. Many influences result from following

lust, namely making damage to the human person, causing humiliation and humiliation in the world and the hereafter, damaging thoughts and opinions and other aspects related to lust (Al-Badar, 2017), c) pride, the danger of pride is not want to accept the truth, feel he is most righteous of all. The subject of arrogance is divided into two, firstly related to religious matters such as charity and honesty, secondly worldly matters related to power and wealth (Purwanto, 2020).

4.3 The Role of Science in Islamic Religious Education in the Modern Era

By studying and mastering science and technology, human functions as leaders can be carried out in the best possible way, for example: by mastering mathematical formulas people create compasses, computers, and sophisticated equipment related to religion, for example in determining the beginning of the month of *Qamariah*, the beginning of *Ramadhan*, *Syawal*, calculating *zakat* on property, inheritance and so on. Another example, by understanding knowledge of simple chemistry people can turn glutinous rice or *singkong* yam into a type that contains elements of water, sugar, and alcohol.

This means that by mastering biotechnology one can plant trees that in a short time produce large and sweet-tasting fruit. This shows that world and spiritual life balance can only be achieved with knowledge. We know exactly that playing but being stupid will not be of many benefits to others and the environment.

5 Conclusion

From some of the explanations that have been displayed, the writer can make some conclusions as follows:

1. Science is science/knowledge that can explain a symptom/natural phenomenon, o that is useful for human life. The science that is relevant to Islamic teachings must be able to become a medium for remembering Allah and advancing civilization in the future.
2. Lots of scientific studies refer to the Qur'an. Many verses of the Qur'an explain natural phenomena and the virtues of science. Therefore, many scientists who study science look for references from the Qur'an.

Acknowledgement. This research was supported by Muhammadiyah University of Ponorogo.

References

1. Abdul Syukur Al-Azizi. (2018). *Hadits-hadits Sains*. Laksana.
2. Abdullah, M. A. (2012). *Islamic Studies di Perguruan Tinggi Pendekatan Integratif-Interkonektif*. Pustaka Pelajar.

3. Abidin, Z., Destari, D., Syafruddin, S., Arifin, S., & Agustiani, M. (2022). Implementation of Islamic Religious Education Learning and Character in the New Normal Era. *Al-Hayat: Journal of Islamic Education*, 6(1), Article 1.
4. Achmad Baiquni. (1995). *Al-Qur'an Ilmu Pengetahuan Dan Tekhnologi*. PT Dana Bakti Wakaf.
5. Al-Badar, B. B. N. (2017). *Kisah Kaum Salaf Bersama Al-Qur'an* (M. Yasir, Ed.). Pustaka Alkautsar.
6. Amsal Bakhtiar. (2014). *Filsafat Agama*. Rajawali Press.
7. Andi Rosa. (2021). *Islam dan Sains dalam Kajian Epistimologi Al-Qur'an*. A-Empat.
8. Arifin, S., Amirullah, A., Yahman, S. A., & Saputro, A. D. (2022). Reconstruction of Islamic Religious Education Seyyed Hossein Nasr's Perspective. *Istawa: Jurnal Pendidikan Islam*, 7(1), Article 1.
9. Asrori, H. A. (2016). Islamic Education Philosophy Development (Study Analysis on Ta'lim Al-Kitab Al-Zarnuji Muta'allim Works). *Journal of Education and Practice*, 7(5), Article 5.
10. J. Mahyudin. (1989). *Sains dan Peradaban Dalam Islam*. Pustaka.
11. John F. Haight. (2004). *Perjumpaan Sains Dan Agama, Dari Konflik Ke Dialog* (2nd ed.). Mizan.
12. Junaidi, D. (2013). *5 Langkah Menuju Dunia dan Akhirat*. PT ELEX Media Komputindo.
13. Lalu Muhammad Nurul Watohi. (2018). *Integrasi Pendidikan Islam dan Sains*. CV Uwais Inspirasi.
14. Lexy J. Moleong. (2002). *Metodologi Penelitian Kualitatif*. Remaja Rosda Karya.
15. Makbuloh, D. (2016). Pendidikan Islam dan Sistem Penjaminan Mutu. *Jakarta: Rajawali Pers*.
16. Murtadla Muthahari. (1995). *Manusia dan Agama*. Mizan.
17. Muzayyin Arifin. (2018). *Filsafat Pendidikan Islam*. PT Bumi Aksara.
18. Pasha, A. F. (2006). *Dimensi Sains Al-Qur'an / Menggali Ilmu Pengetahuan Al-Qur'an*. PT Tiga Serangkai.
19. Purwanto. (2020). *Ihya' Ulumuddin*. Marja.
20. Qardlawi, Y. (1995). *Fiqh Peradaban*. Dunia Ilmu.
21. RI, K. A. (2015). *Al-Qir'an dan Terjemah*. Fajar Mulya.
22. Salam, B. (2003). *Logika Materill (Filsafat Ilmu Pengtahuan)*. Rineka Cipta.
23. Siti Minarti. (2013). *Ilmu Pendidikan Islam*. Amzah.
24. Susanto, A. (2015). *Ayat-ayat Semesta*. PT Mizan Pustaka.
25. Zainal Abidin. (2001). *Kunci Ibadah*. PT Karya Toha Semarang.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

