

ZIAUDDIN SARDAR'S CRITISM OF MODERN SCIENCE

Syamsuddin Arief

University of Darussalam Gontor, Indonesia

Email: syamsuddin.arif@unida.gontor.ac.id

Shanaz Nurzaini Bey

University of Darussalam Gontor, Indonesia

Email: shanaznurzainibey98@student.afi.unida.gontor.ac.id

Corresponding Author: Shanaz Nurzaini Bey

Abstract: The difference between modern Western science and Islamic science has differency from various aspects to produce several problems in the ontological field, axiological field, and epistemological field. A Pakistani-born scholar in the field of science, Ziauddin Sardar came up with an idea and movement to present Islamic science. This paper is written using the analytical-descriptive method, which analyzes and describes the weaknesses and shortcomings of modern western science against the needs of society, especially Muslims. The purpose of this paper is to reveal the problems of modern science and how Ziauddin Sardar's arguments and opinions on modern science. So that this paper produces a breakthrough in the integration of science by Ziauddin Sardar who tries to balance Western science with Islamic science that suits the needs of Muslims, and Islamic science whose scope is broad to all humanity and its civilization.

Keywords: Modern Science; Ziauddin Sardar; Islamization

Introduction

The need for science that is different from Western science is very important for Muslims, because they sociologically live in

different geographical and cultural areas.¹ Furthermore, Muslims need a scientific system to fulfill their needs both materially and spiritually. Modern science that emerges today is not only different for the needs of Muslims, but also has several problems, problems from an ontological perspective that arise because modern science is materialist, mechanistic, and atomistic (reductionist). Secondly, problems in terms of epistemology that arise because modern science has a rationalist and positivist model in observing reality. Third, problems from an axiomatic point of view that arise because modern science adheres to value-free humanism and individualism.² From this statement and its problems, science is needed from Islam which is not only in accordance with the needs of Muslims but also can answer and be a solution to these problems.

In response to this, a scholar in the field of science born in Pakistan, Ziauddin Sardar brought up an idea and movement to present Islamic science. This movement and idea described as a movement that aims to explore science and Islam which are considered biased in scientific matters. One of the goals of this movement is to restore Islamic intellectual culture written by Muslim scholars during classical Islam.³ This movement is called the Islamization of Science, which was also developed by Muhammad Sayeed Naquib Al Attas, Ismail Raji al Faruqi, and Nidhal Geussoum.

So, this paper tries to reveal the problems, opinions, and criticisms of Ziauddin Sardar on this modern Western science. With the aim of this paper to compare modern science with the state of society, especially Muslim society. So, this paper will produce Ziauddin Sardar's solution to the problems of modern science, namely the integration of Western science with Islamic science.

¹ Sirajudin, "Integrasi Agama dan Sains; Islamisasi Sains di Tengah Arus Modernitas", *Jurnal Qolamuna*, vol. 2, no. 1 (2016), pp. 77–98.

² Mohammad Dahlan, "Relasi Sains Modern dan Sains Islam", *UIN Sunan Kalijaga*, vol. 12, no. 2 (2009), pp. 65–83.

³ Farkhan Fuady and Raha Bistara, "Pengilmuan Islam Ziauddin Sardar dan Relevansinya bagi PTKIN", *Academic Journal of Islamic Principles and Philosophy*, vol. 3, no. 1 (2022), pp. 40–64.

ZIAUDDIN SARDAR'S BIOGRAPHY

Ziauddin Sardar was born on October 31, 1951 in Punjab, Pakistan.⁴ Ziauddin Sardar is a well-known writer, broadcaster, cultural critic, and commentator on contemporary issues. He is also graduate in science, and is also very fond of philosophy.⁵ For Sardar as a Muslim who studies philosophy is to contextualize the values of Islamic teachings. If a Muslim studies philosophy with the aim of contextualizing the values of Islamic teachings, it is certain that Muslims become more critical of existing phenomena and events. In addition, a Muslim who studies philosophy will also be wiser in responding to everything.⁶

Ziauddin Sardar and some of his colleagues namely Parvez Manzoor, Gulzar Haider, and Munawar Ahmad Anees raised a phenomenon in Islamic intellectualism by designing a movement. In this movement that combines the intellectual movements of previous Islamic scientists, namely Sayeed Hossein Nasr and Ismail Raji Al Faruqi.⁷ Ziauddin Sardar in this movement focused on making contemporary science that all systems are based on Islamic values.⁸ Therefore, Ziauddin Sardar's movement wants to make Muslims aware of the sluggish development of science so that it has not been able to balance the development of Western science.⁹

DEFINITION OF SCIENCE

In English, science means as knowledge that discusses the structure and pattern of the natural and physical world, which is based

⁴ *Ibid.*

⁵ Khusmiati Rofiah, "Pergeseran Hukum Islam dari Reduksionis ke Sintesis: Telaah Pemikiran Ziauddin Sardar", *Jurnal Justicia*, vol. 12, no. 2 (2011), pp. 49–68.

⁶ Fuady and Bistara, "Pengilmuan Islam Ziauddin Sardar dan Relevansinya bagi PTKIN".

⁷ Rofiah, "Pergeseran Hukum Islam dari Reduksionis ke Sintesis: Telaah Pemikiran Ziauddin Sardar".

⁸ Kurnia Sari Wiwaha, "Epistimologi Paradigma Islam: Studi Pemikiran Ziauddin Sardar", *Religious: Jurnal Studi Agama-Agama dan Lintas Budaya*, vol. 3, no. 1 (2018), pp. 70–9.

⁹ Fuady and Bistara, "Pengilmuan Islam Ziauddin Sardar dan Relevansinya bagi PTKIN".

on facts in an experiment.¹⁰ While science in the Indonesian sense is knowledge about the world and the whole universe.¹¹ If the general meaning of science is everything that discusses the world, the universe and its contents, then science is only knowledge about the development of the world that must be re-expanded in meaning.

There are several definitions of science from various scientists. For Baiquni, science is a collection of human knowledge of nature, which is obtained from rational conclusions on the results of critical analysis of measurement data by observation of natural phenomena.¹² Another opinion on science is expressed by Nidhal Geussom, that science is a human way to compile an objective explanation of the world and its surroundings and the universe.¹³ Therefore, science is a tool on objective, systematic, quantitative and falsifiable methods.

Gausch said that the language of science is neutral because it is based on scientific methods that are supported by real evidence. He also thinks that science is a question about nature and can draw conclusions from answers to questions about nature. For him, science is limited to what is seen in physical reality.¹⁴ Therefore, the discussion and definition of science is comprehensive in the discussion of the world and the universe.

In the discussion of science, there are several characteristics and properties so that it can be said to be science. Science has a nature whose knowledge is simple and clear; it also contains definite facts that can be easily distinguished from theories.¹⁵ While from the positivism school that science, scientific objects, and scientific claims must meet the following requirements: Observable, reproducible, measurable, testable, and usable. Such a model becomes a guideline in

¹⁰ Muhammad Taqiyuddin and Khoirul Umam, *Hubungan Islam dengan Sains* (Ponorogo, 2016).

¹¹ Tim Penyusun Kamus Pusat Bahasa, *Kamus Besar Bahasa Indonesia*, (Jakarta; Pusat Bahasa), 2008.

¹² Achmad Baiquni, *Al Qur'an dan Ilmu Pengetahuan Kealaman*, (Yogyakarta, Dana Bhakti Primayasa), 1997.

¹³ Nidhal Geussom, *Islams Quantum Question Reconciling Muslim Tradition and Modern Science*, (London: I.B. Tauris), 2011.

¹⁴ Taqiyuddin and Umam, *Hubungan Islam dengan Sains*.

¹⁵ Ilyas Daud, "Islam dan Sains Modern", *Jurnal Al Muta'aliyah*, vol. 4, no. I (2019), pp. 74–89.

finding the truth of reality, so that from these conditions, science will be quantitative and operational.¹⁶

ZIAUDDIN SARDAR'S OPINION IN MODERN SCIENCE

Modern science according to Ziauddin Sardar as a means of solving problems, because without science a civilization will not be able to maintain its political and social structure or meet the basic human needs and culture. In addition, the influence of science is so great that it can shape the physical, intellectual, and cultural environment and drive a civilization's preferred method of economic production.¹⁷ It can be concluded that science according to Sardar is a means to create civilization.

Some other definitions of science in general Western circles, science is an objective method for establishing provable facts. In addition, science also has political knowledge that becomes broader and coherent through the application of the cumulative method. So, for Ziauddin Sardar, science is a combination of all these general definitions.¹⁸ Thus, some aspects of science must be value-oriented and all science must be a cultural activity, an activity shaped by the worldview of its practitioners.

In addition, in an essay written by Ziauddin Sardar, he argues that modern science or better known as Western science is science or ideas that are able to influence people's lives on social and political.¹⁹ So that the productivity of science in the West has an advanced and sophisticated infrastructure. It also considers science as a design of human activities.²⁰ Therefore, Islamic science tends to look weak and left behind compared to the West. Then Sardar said, Muslims have at least developed the basics and spirit of modern science, emphasizing the call repeatedly mentioned in the Qur'an by observing and

¹⁶ Taqiyuddin and Umam, *Hubungan Islam dengan Sains*.

¹⁷ Masthuriyah Sa'dan, "Islamic Science, Nature and Human Beings (A Discussion on Ziauddin Sardar's Thoughts)", *Walisono*, vol. 23, no. 2 (2015), pp. 233–50.

¹⁸ *Ibid*.

¹⁹ Ziauddin Sardar, "The State of Arab Science", *Nature*, vol. 288, no. 34 (1980), pp. 30–1.

²⁰ Sa'dan, "Islamic Science, Nature and Human Beings (A Discussion on Ziauddin Sardar's Thoughts)".

contemplating natural phenomena as a means of knowing God or His commands.²¹

In Ziauddin Sardar's view and opinion of modern Western science, Sardar criticizes modern science in many ways. For Sardar, science today is a big science that focuses exclusively on phenomena and involves many researchers, especially in the industrial and military sectors. With the huge financial support of these researchers, they claim to have made amazing discoveries. However, in the absence of religious aspects, these discoveries have brought damage to human ethics and ecology.²² It can be concluded that today's science develops without regard to the truth and does not even consider the consequences arising from its use.²³

Sardar further explained that modern science has 15 characteristics as a measure of comparison with Islamic science. First, Western science believes more in rationality. Second, science is only science by itself. Third, science is the only method to know facts rationally. Fourth, emotional neutrality in developing science as a condition in achieving rationality. Fifth, a scientist must be concerned only with the latest knowledge products and the causes of their use. Sixth, the validity of science is only in the evidence of its application not in the scientists who develop. Seventh, scientific statements are only based on concrete evidence. Eighth, reductionism. Ninth, fragmentation, which divides science into several disciplines and sub-disciplines. Tenth, although science seems universal, it can only be understood by those who can afford it, so it loses its universality and is biased. Eleventh, science must stay away from social, political, and ideological issues. Twelfth, science is neutral. Thirteenth, there is group loyalty in science today. Fourteenth, science is absolutely free. Fifteenth, modern science aims to justify means.²⁴

²¹ Zulpa Makiah, "Rekonsiliasi Islam dan Sains dalam Perspektif Nidhal Guessom", *Kbazanah: Jurnal Studi Islam dan Humaniora*, vol. 19, no. 1 (2021), pp. 61–82.

²² Ziauddin Sardar, *Dimensi Ilmiah Al 'Ilm Merombak Pola Pikir Intelektual Muslim*, (Yogyakarta; Pustaka Pelajar Offset), 2000, pg. 21

²³ Mohammad Muslih, Martin Perdana Putra, *Ziauddin Sardar dan Sains Islam Kontemporer*, (Yogyakarta; Laksbang Akademika), 2023.

²⁴ Ziauddin Sardar, *Arguments for Islamic Science* (Aligharh: Centre for Studies on Science, 1985).

Sardar's other opinion about modern science is that it was from Islam that Europe learned logical reasoning, experimental methods, medical ideas, and rediscovered Greek philosophy. Then, for Sardar modern science only became a tool to control and manipulate non-Western cultures, excluding minority groups and women.²⁵ Therefore, scientific activity is deliberately closed to non-Westerners with the fact that the ratio of journals that can be indexed in the West is more than journals around the world.

To confirm the shortcomings of modern science, Ziauddin Sardar argues that today's science is basically destructive and cannot meet the needs of Muslim societies²⁶ so that Sardar also raises 4 important arguments in modern science to produce science of Islamic value.²⁷ The first argument is that different civilizations have produced different science.²⁸ In this first argument, Sardar realizes that Muslims must force themselves to present Islam as a total civilization. Civilization itself is a form of total spiritual, material, and cultural expression. Every civilization always has its view of reality regarding its view of the world, including humans, their creations, and their attitude towards nature.²⁹ Then, science as a human activity, science manifests itself as a process that occurs in space and time and involves human behavior. These human behaviors do not only live-in science, but in broader cultures, societies, and civilizations. And each civilization marks the unique features of its worldview on the nature, style, and content of that civilization's science.³⁰

The second argument is that Islamic science has historically had its own identity, expressed in its unique nature and distinctive style.³¹ In this second argument, Sardar states that science operating within the framework of Islamic values certainly has a different proposition from science as it is practiced today. Modern science is not interested in the search for objective truth or pure ideas but only in the idea of

²⁵ Makiah, "Rekonsiliasi Islam dan Sains dalam Perspektif Nidhal Guessom".

²⁶ Sardar, *Arguments for Islamic Science*.

²⁷ Fuady and Bistara, "Pengilmuan Islam Ziauddin Sardar dan Relevansinya bagi PTKIN".

²⁸ Sardar, *Arguments for Islamic Science*.

²⁹ Muslih and Perdana, *Ziauddin Sardar dan Sains Islam Kontemporer*.

³⁰ Sardar, *Arguments for Islamic Science*.

³¹ *Ibid*.

model problem-solving systems. Islam must therefore engage the contemporary world as a worldview whose conceptual matrix serves as a method of problem solving and offers promising future options for the Muslim community.³² Thus, the brief historical analysis that has been conducted shows that Islamic science has a different entity from science as it is practiced today. The nature and style of classical Islamic science can be summarized into various sets of norms.³³

The third argument is that Western science is inherently destructive and a threat to the well-being of humanity. It is a common belief, aggressively perpetuated by historians of Western science and forgiving Muslim scholars, that today's scientists lean and depend on their predecessors, particularly Greek scientists on Muslim scientists. For example, Newton developed the work of Al Haytham, Harvey plagiarized Ibn Nafis, Kepler scooped up all the knowledge of Al Battani, Al Baruni, and other Muslim astronomers.³⁴ In fact, today Western science and technology are the prime movers for world and human progress. With this statement, Sardar expresses a question "*Isn't the dominance of certain Western classification schemes a sophisticated form of imperialism?*", with Western science as the main driver that classifies various kinds of worldly things, tends to attack the essence of humanity itself. Moreover, for Sardar Western science does not produce truth and goodness.³⁵ Therefore, Western science is problematic in that it does not treat scientists like human beings who have weak sides. Furthermore, the Western scientific system has its own internal dynamics that can change every society it touches.³⁶

The fourth argument is that Western science cannot fulfill the physical, cultural and spiritual needs and requirements of Muslims. Nevertheless, Western science is successful in many and varied ways because it works in a particular way designed to meet the needs and requirements of societies and cultures with particular worldviews. Western science is designed to shape the image of Western civilization wherever it can work.³⁷ With these problems, Sardar wants Muslims to build an intellectual space that is an expression of the

³² Muslih and Perdana, *Ziauddin Sardar dan Sains Islam Kontemporer*.

³³ Sardar, *Arguments for Islamic Science*.

³⁴ *Ibid.*

³⁵ Muslih and Perdana, *Ziauddin Sardar dan Sains Islam Kontemporer*.

³⁶ Sardar, *Arguments for Islamic Science*.

³⁷ *Ibid.*

Islamic worldview and culture. Without this intellectual space, programs and ideas will be difficult to realize. Therefore, this intellectual space must be based on Islamic values, where the Islamic system is a total system where everything is interrelated and not treated differently or compartmentalized.³⁸

After formulating these 4 arguments, it can be said that Western science is individualized for its personal interests and tends to be destructive which is not in accordance with the needs of Muslims. In his idea of contemporary Islamic science, Sardar suggests the need for two frameworks of thinking in the process of transferring knowledge. First, the scientific framework needs to take into account various Islamic principles and values when studying it. Second, a behavioral framework to determine ethics in scientific research.³⁹ Sardar added, if science is aimed at the benefit and survival of society then science should be appreciated. Therefore, there is no such thing as “science for science”, only “science for the people”. If science is beneficial to individuals, society, and the environment, then halal science will lead to social justice, and if science is harmful to individuals, society, and the environment, causing alienation and dehumanization, it is haram science.⁴⁰ The concept of Islamization is supported by a Western scientist, Merryl Wyn Davies, who said that Islamization is a search for the restoration of the Islamic paradigm as a basis for changing the reality of Muslim existence in the modern era, thereby creating a clear and distinct future for Muslim civilization.⁴¹

To achieve Islamic science, Sardar identifies three different positions regarding Islamic science; first, an apologetic stance that seeks to show that the sacred and eternal truths of religion do not conflict with the discoveries of science. Second, the tendency to embrace science in the name of religion, and the attempt to find a style of science that is uniquely Islamic. Third or finally, attempts to base the policies, methodologies and practices of science on the basic

³⁸ Muslih and Perdana, *Ziauddin Sardar dan Sains Islam Kontemporer*.

³⁹ Fuady and Bistara, “Pengilmuan Islam Ziauddin Sardar dan Relevansinya bagi PTKIN”.

⁴⁰ Sa’dan, “Islamic Science, Nature and Human Beings (A Discussion on Ziauddin Sardar’s Thoughts)”.

⁴¹ Ziauddin Sardar, “Islam and The Future”, *Futures* (1991), pp. 223–30.

concepts of Islamic ethics and values.⁴² So Ziauddin Sardar developed Islamic science with the *Ijmali* model approach, which is based on two things: modern science is flawed and leads to damage to the concept of metaphysics or its technological applications, and on the basis that Islam is very concerned about the development of science but still maintains ethics, moral values, and harmony in social life. For Sardar, this *ijmali* model must have characteristics that are not reductive, not anachronistic, not dominated by a particular method, and not objective or based on the Western worldview.⁴³ Therefore, Sardar wants science in general from the West or Islam to be able to influence the sustainability of nature and human welfare, namely humanizing humans and naturalizing nature.⁴⁴

It can be concluded that, although Western science is problematic and not in accordance with the needs of Muslim society, it does not mean discarding and eliminating Western science, but trying to balance Western science with Islamic science that suits the needs of Muslims, and Islamic science which has a broad scope for all humanity and its civilization. With this Islamic science that integrates all disciplines as a whole.

Conclusion

Ziauddin Sardar, a Pakistani scholar of science, observed how modern Western science affects people's lives. For Sardar, modern science has many problems that make it unable to serve as a reference for Muslims in particular. In this regard, Sardar puts some of his opinions and criticisms of modern science into four arguments. The first argument is that different civilizations have produced different sciences. The second argument is that Islamic science in history has its own identity, expressed in its unique nature and distinctive style. The third argument is that Western science is inherently destructive and a threat to the well-being of humanity. The fourth argument is that Western science cannot fulfill the physical, cultural and spiritual needs and requirements of Muslims.

⁴² *Ibid.*

⁴³ Makiah, "Rekonsiliasi Islam dan Sains dalam Perspektif Nidhal Guessom".

⁴⁴ Fuady and Bistara, "Pengilmuan Islam Ziauddin Sardar dan Relevansinya bagi PTKIN".

In addition to these four arguments, Ziauddin Sardar classifies the characteristics of modern science compared to the science needed by Islam, into 15 characteristics. Therefore, Ziauddin Sardar feels that the idea of contemporary Islamic science is needed in accordance with all the social, cultural and civilizational needs of Muslims, namely the Islamization of science. Islamization is done by integrating scientific disciplines so that no discipline is left behind and the knowledge and needs of all Muslims are fulfilled. Then Muslims will no longer be a people who are isolated and left behind. Although Western science is problematic and not in accordance with the needs of Muslim society, it does not mean discarding and eliminating Western science, but trying to balance Western science with Islamic science that suits the needs of Muslims, and Islamic science which has a broad scope for all humanity and its civilization. With this Islamic science that integrates all disciplines as a whole.

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