

**AN IN-DEPTH ANALYSIS OF AL FARUQI'S
THEORY OF ISLAMIZATION OF KNOWLEDGE:
A PERSPECTIVE FROM THOMAS KUHN'S
PARADIGM SHIFT THEORY**

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Abstract

The discourse of Islamization of Knowledge proposed by Ismail Raji al Faruqi (d. 1986), which essentially seeks a paradigm shift from modern science to Islamic science, is increasingly interesting with more evidence being studied, either with an applied model, a comparison, or a critical one. In addition, the International Institute of Islamic Thought (IIIT), an institution founded by al Faruqi in 1981, which is responsible for realizing real Islamization, continues to grow to this day. These two things prove that al Faruqi's Islamization is one step ahead, when compared to other Islamization initiators such as Sayyed Hossein Nasr, Ziauddin Sardar, Najjar, or even Naquib al Attas. Al Faruqi's Islamization, which is based on a paradigm shift and the scientific community, seems to align with Thomas Kuhn's model of scientific revolution, which also requires a paradigm shift and the scientific community. Therefore, this article aims to examine the Islamization theory proposed by al Faruqi from Thomas Kuhn's paradigm shift perspective. This study is a literature review. The data would be analyzed using content analysis, where the researchers perform an interpretation of the data. The approach used is the philosophy of science approach, which serves to outline the structure of science

schemed by al Faruqi and Kuhn. This study concludes that the Islamization of knowledge proclaimed by al Faruqi and his scientific community is certainly a process of shifting the paradigm of Western science to the paradigm of Islamic science. Thus, al Faruqi's Islamization is a scientific revolution.

Keywords: *Philosophy of Science, Islamization of Knowledge, Ismail Raji al Faruqi, Paradigm Shift, Kuhn*

1. Introduction

Ismail Raji al Faruqi's idea of Islamization of Knowledge, inspired by his discussion with al Attas,¹ is increasingly unstoppable. The researchers assume that it is based on two interesting facts: *First*, the fact that the International Institute of Islamic Thought (IIIT), an institution founded by al Faruqi which accommodates the scientific community to realize the Islamization of knowledge,² still operates until now and even opens many branches in various countries such as Malaysia,³ Indonesia,⁴ and Nigeria.⁵ It means that al Faruqi's idea is continuously being discussed and developed by Muslim thinkers. The names of well-known Muslim thinkers who are active in various IIIT activities include: Abdul Hamid Ahmad Abu Sulayman, Hisham Al Talib, Abdelaziz Berghout, Taha Jabir al Alwani, Sidek Baba, Jamil Osman, Jamil Farooqui, Mohd. Yusuf Hussain, Ibrahim A. Ragab, Rosnani Hasyim, Mohammed Aris Othman and Abdul Rasyid Moten.⁶ It can be seen that there is a scientific community trying to realize al Faruqi's ideas. *Second*, studies on al Faruqi's idea of Islamization in scientific journals, books, or thesis and dissertations are continuously being published. Based on the Mendeley database, the authors found -in the last 5 years- there were more than 50 published scientific articles that directly discussed al Faruqi's thought of the Islamization of knowledge; and more than 200 scientific articles citing al Faruqi's thoughts.⁷ These facts show that al Faruqi's idea of Islamization is ongoing and widely discussed to this day.

The main idea of al Faruqi's Islamization of knowledge is actually aimed at fighting the hegemony of secular modern science. Al Faruqi sees that modern science is built based on a secular, anti-religious, atheistic Western perspective.⁸ It is the thing that is also seen by al Attas;⁹ and Sayyed Hossein Nasr.¹⁰ In addition, secular knowledge spread by Western culture has now dominated the scientific side of Muslims.¹¹ Because of the dominance and the perspective it brings, modern science should not be taken for granted by Muslims; especially Muslim scientists. It means that adaptation, assimilation and integration, and reinterpretation of knowledge are required,¹² even *tajdīd* and *ijtihād* if needed.¹³ Mulyadi Kartanegara refers to naturalization from Sabra's terms.¹⁴ To do this, al Faruqi

stated that the Islamization of knowledge is an effort to Islamize modern scientific disciplines in the Islamic vision.¹⁵ The word "Islamization" refers to the process of shifting perspective (paradigm) from the secular Western perspective to the Islamic perspective. It is the essence of Islamization itself.

An actual perspective (paradigm) shifting in scientific activities as a means of developing science has been theorized in detail by Thomas S Kuhn in *The Structure of Scientific Revolution*.¹⁶ Kuhn calls it paradigm-shifting. Therefore, concerning all the elements that have been described, the hypothesis that this paper wants to prove is that al Faruqi's idea of Islamization is a revolution or paradigm-shifting, from a secular perspective or paradigm to an Islamic paradigm. In other words, this study aims to examine al Faruqi's Islamization of knowledge within the framework of Thomas Kuhn's paradigm shift.

2. Literature Review

The researchers observe that the studies on al Faruqi's idea were examined from various approaches. *The first*, is that the studies are written using an interpretive approach to al Faruqi's texts. Among these studies are those written by Moh Kamilus Zaman,¹⁷ Nanda Septiana,¹⁸ Sawaluddin et.al,¹⁹ Inayah,²⁰ Anifah et.al,²¹ Asnawan,²² Eniya Wati,²³ and Nur Hayati and Mustamin.²⁴ These descriptively written studies attempt to explain the basis and framework of al Faruqi's Islamization. The results obtained in these studies are also identical, namely the principle of monotheism (*tawhīd*) as the basis for Islamization.

The second, is that the studies are associated with various scientific disciplines. For example, Rabbaniyah et.al. relate it to biological science.²⁵ It is different from Vialinda Siswati, who correlates al Faruqi's Islamization with political science.²⁶ Meanwhile, Mohammad Muchlis Solichin looked for its relevance to education science.²⁷ The same thing was done by Iswati,²⁸ Hermawati,²⁹ and Syamsul Rijal.³⁰ Meanwhile, its relation to economics was studied by YUSDANI.³¹

The third, al Faruqi's idea of Islamization is also widely displayed with a comparative model. The study of Islamization between al Faruqi and al Attas, for example, was written by Imron Rossidy,³² Abdul Basyir Aziz Khan,³³ Irma Suryani dan Lina Mayasari,³⁴ Sholeh,³⁵ Sholihah binti Haji Yahya Zikri³⁶ and Ruchhima.³⁷ On the other hand, Ismail and Muklis conducted a comparative study between al Faruqi's Islamization and the Islamic

scholar Kuntowijoyo.³⁸ Muhammad Taufik and Muhammad Yasir wrote its comparison with Ziauddin Sardar.³⁹

The various studies presented show that al Faruqi's idea of Islamization of knowledge is an interesting theme for Muslim scientists today, as well as showing that this discourse is important. But, none of the presented studies regarding al Faruqi's ideas—from various perspectives—highlights al Faruqi's Islamization as a shift in paradigm. Therefore, this study aims to examine al Faruqi's Islamization of knowledge within the framework of Thomas Kuhn's paradigm shift.

3. Research Method

This study is a literature review,⁴⁰ by using qualitative data.⁴¹ The researchers gained the data from various books and written sources as the primary and secondary sources. The primary sources are *The Structure of Scientific Revolution* (1970) by Thomas Kuhn,⁴² and *Islamization of Knowledge: General Principles and Workplan* (1988) by al Faruqi.⁴³ Thus, the researchers used a philosophical approach, namely the philosophy of science, which serves to outline the structure of science schemed by al Faruqi and Kuhn. The researchers specifically used the shifting of paradigm theory introduced by Thomas S Kuhn. The secondary data was obtained from various literary works about both figures. All data were analyzed using qualitative content analysis, a qualitative interpretation of the written data obtained.⁴⁴ In addition, the data obtained from these various sources were analyzed comparatively towards the arguments on the related themes.

4. Result and Discussion

To clarify the focus of the theme and support the points that will be discussed, it is necessary to elaborate on several key elements. Al Faruqi's Islamization of knowledge and the paradigm shift of Thomas Kuhn are reviewed as follows.

4.1 Al Faruqi's Islamization of Knowledge

Ismail Raji Al Faruqi was born in Jaffa, Palestine on January 1, 1921, and passed away on May 27, 1986 in Philadelphia.⁴⁵ He was a distinguished professor of Islamic Studies at Temple University in the United States since 1968 and a prominent pioneer of Islamization.⁴⁶ As stated in Al Attas' notes, the ideas of Islamization presented by Al Faruqi were inspired by Al Attas' works - although Al-Faruqi then denied it in their correspondence in 1976.⁴⁷ Al Faruqi later published a work entitled *"Islamization of Knowledge: General*

Principles and Work Plan" (1982) explaining the background and steps in realizing the Islamization of knowledge.⁴⁸

In the preface section, Al Faruqi states that the Islamization of knowledge is a solution to the malaise that afflicts this community that cause backwards in life, politics, economics, education, and culture.⁴⁹ He also states that the colonial and orientalist movement of Western nations over the Islamic community has opened the door for the hegemony of secularism in the Islamic community's way of thinking.⁵⁰ As the consequence, Islamic community (*ummah*) is gradually de- Islamized.

Meanwhile, the secularization trend also affects the education system, where a dichotomy arises between the secular system and the Islamic system.⁵¹ Many theories in the textbooks of the Islamic community are adopted from the Western secular view which then direct the students to become secular. To turn back this secularization trend in education, Al Faruqi's Islamization of knowledge tries to Islamize the disciplines of knowledge in the form of university textbooks developed based on Islamic perspective.⁵² The process of Islamization of each discipline of knowledge refers to the three axes of monotheism, namely: 1) the unity of knowledge (there is no dichotomy between rational and revealed knowledge); 2) the unity of life (all forms of knowledge serve one purpose of the creation); and 3) the unity of history (all disciplines of knowledge are humanistic and universal/*ummatic*).⁵³

It can be understood that there are 2 factors in the Islamization; the first is the problem to be solved; the second is the method of solving. *First*, the problem to be solved is the malaise of the Muslim community that consists of 1) the defeat of the community in all fronts of life; 2) the existence of Westernization and secularization as a legacy of Western colonialism; 3) the duality of the education system and the dichotomy of knowledge; 4) Secular Western science dominating educational institutions. *Second*, the method of solving is Islamization. The Islamization of knowledge that refers to the three pillars of *tawhīd*, namely the unity of knowledge, the unity of life, and the unity of history can be the solution to address those problems.

4.2. Thomas Kuhn's "Shifting of Paradigm"

Thomas S Kuhn (1922-1996) was a philosopher of science who began his scholarly career in the field of physics.⁵⁴ He obtained his Ph.D. in Physics from Harvard University in 1949.⁵⁵ However, instead of teaching physics, he taught philosophy and history of science as a lecturer at the University of California (1956) until he was awarded Professorships from Princeton University (1962) and

the Massachusetts Institute of Technology (1982).⁵⁶ He was an expert in philosophy and the history of science who tried to fight against the dominance of the positivism paradigm at that time.⁵⁷ His most significant scholarly contribution was his criticism of the Karl Popper falsification, which previously responded to the Vienna Circle.⁵⁸ Around that time, he presented the shifting of paradigm theory as an attempt to take the subject in the scientific method into account.

Before discussing the shifting of paradigm theory in detail, it is necessary to first explain the definition of paradigm according to Kuhn. Kuhn argues that a paradigm can be formulated as a whole belief system, techniques, and value shared by groups of the scientific community.⁵⁹ From the definition, two essential elements in the paradigm are the belief system and the scientific community. The first one is the belief system. Kuhn states that every scientific activity has been initiated by an established belief system, which is an accumulation of solid theories that serve as a theoretical framework of scientific activity. Kuhn addresses the belief system as "*disciplinary matrix*".⁶⁰ Aspects that become the "matrix" are similar to one proposed by Hamid Fahmy Zarkasyi. They include ontological aspects (something known), the epistemological aspect (how the subject knows how to relate to the known object), axiological aspects (related to values of what is known), rhetorical aspects (the language used), and the methodological aspect (the way a person acquires knowledge).⁶¹ All these matrices are arranged in such a way in the discipline of thinking of a scientist. Therefore, it is common that Kuhn calls the paradigm a worldview.⁶² The researchers view what Kuhn said about the "disciplinary matrix" makes sense because a study cannot be separated from the role of the researcher's worldview in it. It is something that was not taken into account by previous scientists who supported positivism.

The second is the scientific community. Kuhn states that a paradigm cannot be called a paradigm if it is only believed by a scientist. A paradigm must become a system of beliefs and values held by the scientific community for the development of science. The scientific community is a group of scientists who have chosen a common worldview. Even positivists do that too. It makes sense when groups of scientists who support positivism also choose rubrics of belief therefore, they are called Cartesian, Humian, Kantian, Comtean, and others.⁶³ Furthermore, Kuhn presented evidence that earlier scientists had chosen to become Ptolomeian, Aristotelian, Newtonian, or Copernican.⁶⁴ A scientific community sharing the same paradigm of the scientific world has a common language, values, assumptions, goals, norms, and beliefs even though they do not necessarily gather in the same place. This explanation

demonstrates that the scientific community is what guarantees the sustainability of a paradigm.

After knowing the concept of Kuhn's paradigm, the following discussion is a shifting of paradigm. Generally, a shifting of paradigm goes through six phases.⁶⁵ Those are initial paradigm, normal science or ordinary science, anomaly, crisis, revolution, and new paradigm.⁶⁶ *The first one* is the initial paradigm. Kuhn argues that a paradigm can be formulated as a whole belief system, techniques, and value shared by groups of the scientific community.⁶⁷ This phase begins with the absence of consensus on any theory.⁶⁸ It means, in this condition, there are several unsuitable and incomplete theories until finally one of these theories "wins".⁶⁹ This phase lasts for a certain period until a single paradigm is accepted by all. It is the initial paradigm towards the normal science phase. Therefore, this phase is referred to as "*the route to normal science*,"⁷⁰ until one school of thought or theory emerges that dominates other scientific theories. Eventually, other schools of thought become oriented to and recognize the superiority of this dominant school of thought.⁷¹ It is due to the promises towards a more accurate and holistic problem solving and the guarantee of a more advanced research future. This phase generates an agreed initial paradigm for building normal science.

The second is the normal science phase. After the emergence of an agreed paradigm, the scientific community conducts various kinds of observation activities and scientific experimental activities that generate a variety of science and scientific products.⁷² One example is the development of Kepler's law and Boyle's law based on the Newtonian paradigm.⁷³ In this phase, the paradigm gains status because: (a) successfully solving problems in practice; (b) expanding knowledge of the facts that the paradigm shows as mind-opening; (c) increasing the degree of concordance between the facts and the paradigm's assumptions; (d) further articulating the paradigm itself.⁷⁴ Therefore, it is assumed that the paradigm in this phase becomes the problem-solving of what Kuhn called as a puzzle.^{75,76} It is the period of success of scientific paradigms.⁷⁷ It means the paradigm will be challenged by the emergence of new questions from the emerging facts. In other words, the paradigm will experience challenges or anomalies.

The third is the anomalies. In the "*route of normal science*", research activities may lead to unexpected results or deviations, which Kuhn calls anomalies. The development of new facts that are directly proportional to the problem will be a challenge to normal science.⁷⁸ It means new facts and phenomena will test the toughness of science and its paradigm in Kuhn's terms called "counter-instances" (competitive resistance).⁷⁹ As long as normal science can

pass the test, the position of the paradigm will be stronger, but if it is the other way around, there will be a crisis.

The fourth is the crisis. In this condition, normal science experiences a variety of anomalies or vast disturbances to the point where the old paradigm experiences analytic paralysis and is no longer able to provide answers and explanations to the arising problems.⁸⁰ In this phase, the scientific community can no longer avoid conflict due to many deviations. This phase is called the crisis. Kuhn defines it as *symptoms of a transition from normal to extraordinary research*.⁸¹ In this phase, the validity of the paradigm begins to be questioned and requires a revolution.

The fifth is the revolution. After the crisis occurred violently, then ushered in the path to the revolution phase. This condition is similar to the initial condition, the pre-paradigm where there is not even one agreed paradigm. Each school proposes its theory as a replacement for the old paradigm. It is when dialogue occurs between one paradigm and another. Until the scientists accept a paradigm that was agreed upon by the scientific community. This revolution has ushered in a new paradigm, which Kuhn addresses as a change of worldview.⁸²

The sixth is the new paradigm. In this phase, a new emerging paradigm has an answer to problems that the old paradigm cannot solve. Kuhn exemplifies when geocentric changes to heliocentric, from phlogiston to oxygen, or from corpuscle to waves.⁸³ The following is the scheme of the flow of knowledge development:

P₁ – N_s – A – C – R – P₂ : Paradigm – Normal Science –
Anomali – Revolution – New Paradigm

Figure 1: Kuhn's Structure of Scientific Revolutions

The phases that Kuhn attempted are called a scientific revolution. This new paradigm seeks to improve the shortcomings of the old paradigm. In the process of scientific revolution, almost all vocabularies, terms, concepts, idioms, ways of the personal resolution, ways of thinking, ways of approaching problems change by themselves.⁸⁴ Owing to the fact that the old model of problem-solving cannot be used at all to solve problems that come later, therefore it automatically takes what is called a new disciplinary matrix (a new paradigm). Thus, the change of the old paradigm to the new one has consequences for the emergence of new normal science.

Furthermore, various scholars of Kuhn's revolution such as Damayanti and Ma'ruf,⁸⁵ Widia Putri, et.al,⁸⁶ Nurkhalis,⁸⁷ Inayatul Ulya,⁸⁸ Max Boli Sabon⁸⁹ consider Kuhn's scientific revolution to be a dialectical cycle that inevitably occurs continuously.

4.3. Al Faruqi's Islamization as a Scientific Revolution

After discussing Thomas Kuhn's theory, the discussion continues by analyzing al Faruqi's theory of Islamization. The analysis began by looking for relevant points from al Faruqi's thought which shows the process of six phases of Tomas Kuhn's paradigm shift. Here's the review:

4.3.1. Early paradigm: Secularization

Al Faruqi saw that the colonialization of Muslim countries had led to a current of de-Islamization or secularization. Research proves that colonialization revolutionized religion from a secular perspective.⁹⁰ It influences the perspective of the Muslims with the colonial perspective, including on the scientific side. Al Faruqi stated that:

“At the beginning of the eleventh century A.H./seventeenth century A.C., orientalist, colonialists, and missionaries laid the groundwork for this new intellectual offensive against Islam and the Ummah. They were aided and abetted, materially and morally, by numerous organizations and supporters, and succeeded eventually in ensnaring the hearts and minds of many Muslims, reshaping its thinking and clouding their Islamic vision. When European industrialism and material progress reached their peak, Europe achieved prominence and power. At this same time, the Ummah was vastly depleted by lassitude, and its enemies decided to launch an all-out assault to deal the Ummah the final blow.”⁹¹

From the quote, we know that the existence of orientalism, missionarism, and colonialism resulted in the clouding of their Islamic vision among the Muslims. The word Islamic vision means a worldview.⁹² What is conveyed by al Faruqi refers to a process of shifting perspective from Islamic to a Western perspective (Westernization). Eventually, the Muslims accepted the Western worldview and no longer had the vision of Islam. It is what al Faruqi quotes intellectual offensive against Islam. It means that if human intellectuals pivot on their worldview, then the attack is nothing but westernization of the Muslim worldview. This argument is supported by his statement, "They...succeeded eventually in ensnaring the hearts and minds of many Muslims". It is indeed a worldview that operates

on the human mind and heart. Thus, al Faruqi believed that the condition of the Muslims at that time was hegemonized by the Western worldview. In other words, the Muslims, although not apostates, no longer believe in Islamic paradigms, but rather in Western.

Furthermore, al Faruqi indicates that the foreign worldview (Western worldview) contained a secular perspective. It indicates that the Western scientific paradigm is dominated by secular systems, ideas, and methods.⁹³ In addition, science and its institutions and actors only pursue secular goals.⁹⁴ It represents what Kuhn addresses as the disciplinary matrix;⁹⁵ the Western secular worldview. Secular, which is defined by not relating the sacredness of religion in science and the education system, is criticized by al Faruqi.⁹⁶ The same conclusion was expressed by al Attas⁹⁷ and Sayyed Hossein Nasr.⁹⁸ It seems that al Faruqi concluded the paradigm dominating the Muslims today is in the form of a secular disciplinary matrix.

Historically, this secular paradigm has been well accepted by Western culture, especially after the renaissance. It is a root of resistance to the Church and the foundation for the construction of modern science. In Western philosophy of science books, various schools of thought are introduced; the first one is rationalism. It was pioneered by Rene Descartes, Spinoza, Leibniz, and Wolff.⁹⁹ The second school of thought is empiricism. Among the leading figures of this school are John Lock, George Berkeley, and David Hume.¹⁰⁰ This school emerged by refuting the idea of rationalism. The third is criticism. The leading figure of this school is Immanuel Kant. He tried to reconcile the two previous schools.¹⁰¹ Even though they look different, all of these schools are based on one agreement, the rejection of the Church's doctrine in science.¹⁰² It was this secularism that later became the paradigm for the construction of modern science which is also distributed to the Muslims.

4.3.2. Normal Science: Secular Modern Science

Al Faruqi is well aware that modern science existing today is built from a contrary paradigm to Islam. He states:

“Their efforts... based on the assumption that what the 'modern' lessons say are harmless, will even give strength to Muslims..... they do not realize that the literary sciences, the social sciences, the natural sciences, are integral aspects of the view, of reality, life and the world binding these disciplines, their views on truth and science.”¹⁰³

From the statement, it seems modern science which is currently developing rapidly in Western culture, is a normal or well-established science, emerging from the secular paradigm. As a normal science, the secular paradigm has succeeded in establishing various branches of scientific disciplines. Among those branches, Al Faruqi mentioned literary sciences, social sciences, and natural sciences.¹⁰⁴ In addition, other evidence that modern science is in a normal phase of science is its hegemony over other cultures. In his statement, Al Faruqi has indicated it when he criticizes some Muslim scientists who actively say that modern science coming from Western culture is not detrimental, but rather useful to advance Muslims.¹⁰⁵ Even in his *Islamization of Knowledge*, al Faruqi mentions Sayyid Ahmad Khan and Muhammad Abduh as scholars who are in that position.¹⁰⁶ If al Faruqi's statement is true, it can be implied that secular modern science has become a normal science given its strong hegemony in the minds of Muslim scientists.

Thus, Muslims face—to borrow al Attas' term—a dilemma;¹⁰⁷ while having to accept modern science from the West for progress on the one hand and still maintain the original knowledge of Islam as an identity.¹⁰⁸ Eventually, what is called the dualism of science emerges.¹⁰⁹ As a common example, that occurs in society, when modern secular science states that the universe occurred by chance, it is contrary to Islamic science which states that the universe was created by Allah Almighty. It is what later in Kuhn's rule is called an anomaly.

4.3.3. Anomaly: The Gap of Two Sciences

The previous explanation implies that some Muslims are unable to identify any anomalies in modern science. Therefore, they reluctantly accept modern science as an effort to reform the condition of the people. For this reason, Al Faruqi points out that in modern science there are anomalies or deviations from the Islamic perspective. He states:

“Unfortunately, however, the approach and mentality of such movements betrayed a Western outlook and an alien methodology and frame of reference that doomed them to failure. Indeed, it is axiomatic that what is intellectually or ideologically good for Europe and the West, in general, is not necessarily good or suitable for the Ummah, whose existence and destiny are rooted in and dependent upon the Qur'an and the Sunnah.”¹¹⁰

Based on his statement, al Faruqi believes that there is a fundamental problem in modern science. For him, Western science

cannot simply be accepted by Muslims. He declares, “*is not necessarily good or suitable*”. His statement is based on the fact that Modern Western science negates itself from the holy Qur’ān and Sunnah. It makes sense—as explained above—that the paradigm of Modern Western science is secularism, therefore it is natural if the science that was born is atheistic. Meanwhile, Muslims must adhere to the holy Qur’ān and the Sunnah of the Prophet as a consequence of their Islam. Thus, there are two contradictory sciences in the Muslims themselves. This contradiction is called the dualism of science. In short, the dualism of science is an anomaly of Modern Western science.

Such conditions, when viewed from Kuhn's rule normal science is experiencing an anomaly. It means that Modern Western Science spread into Muslim society is experiencing challenges and trials to answer various phenomena and facts that occur in Muslim society which are not at all the same as a Western society where Modern science was born. As in Kuhn's idea, at this time, partial solutions to the problems that disturb normal science are still being sought. If so, it is natural that some Muslim thinkers choose to reconcile the two with an instrumentalistic approach, as did Jamaluddin al-Afghani (d. 1897), Sayyid Ahmad Khan (d. 1898), Muhammad Abduh (d. 1905), and Rashid Ridha (d. 1935).¹¹¹ This effort still leaves problems because the instrumentalistic approach can only be used to solve the problem of dualism in particular science on some sides of natural science and technology. It does not strike social science, let alone paradigms or worldviews. Essentially, such a partial solution is not sufficient to resolve the existing anomaly. Dualism is increasingly showing its concrete consequences, the existence of a crisis called by al Faruqi as the malaise of the ummah.

4.3.4. Crisis: Malaise of Ummah

Al Faruqi states that the crisis faced by Muslims was a malaise, which was caused by a scientific error. Al Faruqi describes the malaise of the ummah in several sectors, such as politics, economy, religio-cultural, and the education or science system. According to al Faruqi, the latter is called a fundamental crisis that causes other crises. What al Faruqi said is reasonable because corrupted knowledge that enters the Islamic education system will produce foolish and uncivilized humans. Education which is supposed to build the people's morals has contributed to its moral decline. With this moral decline, all life systems, such as politics, economy, and culture, will eventually fall. It will also end up in a condition that al Faruqi calls the defeat of the Muslims. Al Faruqi explicitly describes the crisis of the people as follows:

“The Ummah of Islam stands at present at the lowest rung of the ladder of nations. In this century, no other nation has been subjected to comparable defeats or humiliation. Muslims were defeated, massacred, double-crossed, colonized, and exploited, proselytized, forced or bribed into conversion to other faiths. They were secularized, Westernized, and de-Islamized by internal and external agents of their enemies. This occurred in practically every country and corner of the vast Muslim world. Even though they were victims of injustice and aggression on every count, Muslims were vilified and denigrated in representations of them in all nations. They enjoy the worst possible 'image' in the contemporary world. In today's global mass media, the 'Muslim' is stereotyped as aggressive, destructive, lawless, terroristic, uncivilized, fanatic, 'fundamentalist; backward and anachronistic. Muslims are the objects of hatred and contempt on the part of non-Muslims, whether developed or underdeveloped, capitalist or Marxist, Eastern or Western, civilized or otherwise. The Muslim world itself is known only for its inner strife and division, its turbulence and self-contradictions, its wars and threats to world peace, its excessive wealth and excessive poverty, its famines and epidemics. In the minds of people everywhere, the Muslim world is the "sick man" of the world; and the whole world is led to think that, at the root of all these evils, stands the religion of Islam.”¹¹²

From his statement, it shows that the crisis is happening. According to Kuhn's notion, a crisis occurs when normal science gets a variety of anomalies or disturbances that are very large to the point where the old paradigm is analytic paralyzed and is no longer able to provide answers and explanations to the problems that arise.¹¹³ Modern science is no longer able to answer the question of human moral decline, which causes political, economic, and cultural chaos, as stated by al Faruqi explicitly in the quote above.

Western society itself is experiencing a similar crisis. The crisis is the loss of spirituality as a result of secularization. It is a situation in which Western society suffers from alienation, loss of ethics, and breaking the law (anomie).¹¹⁴ It also loses its moral value and is even dominated by materialism and arrogance. Therefore, there is imbalance and disorder such as the destruction of man and the universe.¹¹⁵ The modern human soul also "suffers" from chronic mental illness.¹¹⁶ Efforts to carry out a revolution have also been attempted. In the field of social sciences, for example, shifting the secular paradigm to theology as sought by Ian G Barbour or John F Haught.¹¹⁷ In the field of natural sciences, there is a shift from an

exploitative paradigm to sustainability, such as the anti-pesticide movement in agricultural science or organic farming. These examples reinforce the need for a revolution against the secular paradigm that exists in Modern science. Therefore, in the context of the Islamic ummah, al Faruqi and for his discussion with al Attas proposed a scientific revolution, namely the Islamization of Modern Science.

4.3.5. Revolution: Islamization of Knowledge

Al Faruqi firmly stated that the solution to the crisis that befell Muslims was the Islamization of modern science. He states:

“Now is the time for Muslim scholars to abandon these dangerous counterfeit methods of educational reform. For them educational reform is the Islamization of modern science itself... the literature science, the social sciences, and the natural sciences must be structured, rebuilt, and given a new basis and given new goals consistent with Islam....”¹¹⁸

The statement above refers to al Faruqi's proposal on Islamization starting from science. He suggested that the modern sciences be compiled and rebuilt. The most important thing here is his statement that Islamization must also carry out the replacement on a new basis and be given a goal following Islamic teaching. In the structure of the scientific revolution, Kuhn stated that the basic structure of science is a paradigm.¹¹⁹ This paradigm also provides consistent new goals and promises solutions to problems that are not able to be solved by the secular scientific paradigm. Moreover, al Faruqi's notion is even more advanced with the formulation of a technical agenda and an Islamization work plan. In short, the Islamization initiated by al-Faruqi is a rearrangement of the structure of knowledge based on the paradigm and goals of Islam. Therefore, in the Islamization of knowledge process, there was a shifting of paradigm, from the secular paradigm to the monotheistic Islamic paradigm (*tauhidic paradigm*).

4.3.6. New Paradigm: Tauhidic Paradigm

After discussing the paradigm shift in Islamization, now is the time to discuss the new paradigm proposed by al Faruqi as the basis for the construction of Islamic sciences. He states: “*Every discipline must be reprocessed so that it reveals the relevance of Islam along the 3 axes of Tauḥīd. The first axis is the monotheism of knowledge... the second axis is the monotheism of life... the third axis is the monotheism of history*”.¹²⁰ The three axes have the following meanings: The first is the monotheism (*tauḥīd*) of knowledge. Based on the monotheism of knowledge, there is no longer any statement

that some sciences are only *'aqli (rational)*, and others are *naqli (irrational)*. There will be no longer dichotomy that some sciences are scientific and absolute and others are dogmatic and relative.¹²¹ The second is the monotheism (*tawhīd*) of life. It means that all scientific disciplines must refer to the unity of the purpose of life, serving the purpose of creation. There is no longer any claim that some sciences are conditional on values and others are value-free.¹²² The third is the monotheism of history. The meaning is that the disciplinary unity will accept the ummah or social nature of all human activities and serve the goals of the ummah in history. There is no more social and individual science since all scientific disciplines are humanistic and ummah in nature.¹²³ It means that the new paradigm offered by al Faruqi to build Islamic science is the monotheistic paradigm. The monotheism paradigm will accommodate the physical and spiritual side, and also the visible and invisible world. Thus, it is a promising resolution of problems that the secular paradigm cannot answer. Zainuri defines the monotheistic paradigm as the unity of truth and knowledge.¹²⁴ Here is a table of shifting of a paradigm or scientific revolutions by al Faruqi:

No.	Thomas S Kuhn	Isma'il R Al Faruqi
1	Initial Paradigm	De-Islamization: Secular Paradigm
2	Normal Science	Western Secular Modern Science
3	Anomaly	Knowledge Gap (Dualism of Science)
4	Crisis	Ummah's Malaise
5	Revolution	Islamization of Knowledge
6	New Paradigm	Tauhidic Paradigm
7	Normal Science II	Islamic Science

Figure 2: Table of Comparison between Kuhn's Scientific Revolution and al Faruqi's Islamization

The table above shows that the notion of al Faruqi's Islamization is possible to be explained by using Thomas S Kuhn's theory of Shifting of Paradigm. If seen at the current developments, al Faruqi's notion has just reached a revolutionary position towards a new paradigm. The IIIT scientific community, founded by al Faruqi as a guarantor for the ongoing Islamization program and his colleagues, is still actively involved in bringing about a revolution towards Islamic science.

4.4 Scientific revolution in the Islamization of Knowledge Landscape

As proven in the prior discussions, the Islamization of knowledge is a scientific revolution that aims to present Islamic science as normal science. Adi Setia believes that the success of Islamization does not depend only on the historical study of Islamic science or philosophical study of science, but mainly in the research program.¹²⁵ In other words, the framework of Islamization requires actual research in every field of science, both humanities and natural sciences. Therefore, to make Islamic science a normal science, Muslim scientists from various disciplines need to establish collaboration.

The success of the scientific revolution or Islamization of knowledge is determined by the collaboration among scientists who share the same worldview (disciplinary matrix) regardless of their varying scientific disciplines such as; physics, biology, economics, sociology, governance, etc. The same worldview refers to the fundamental Islamic belief system held by all Muslim scientists across disciplines. Scientists may have specific technical method in developing their respective fields of science, but they need to believe in the same worldview. Doctors perform different scientific activities than automotive technicians, but they can both agree on the existence of Allah Almighty and they can believe that humans and the universe are the creation of Allah Almighty. They also need to understand that Allah Almighty is the source of the greatest knowledge, *Shari'ah* should be obeyed, and good deeds will be definitely rewarded. This worldview will prevent scientists from conducting scientific activities or research against the Islamic law. In other words, the success of Islamization depends on the scientific community and the Islamic worldview of the scientists.

4. Conclusion

From this study, it can be seen that al Faruqi's Islamization, when observed by Kuhn's Paradigm, is a process of changing paradigms or scientific revolutions. In summary, al Faruqi's scientific revolution includes (1) the secular paradigm acts as the initial paradigm, (2) secular science is positioned as normal science, (3) the gap (dualism of science) as an anomaly, (4) malaise of the ummah as a crisis, (5) Islamization of knowledge as a revolution, and (6) the monotheism paradigm is a new paradigm in building Islamic science. It means that this study has proven that al Faruqi's Islamization is a scientific revolution.

This study proposed several significance and relevance. First, theoretically, this study strengthened the philosophical basis for Islamization projects. This study also clarified the conceptual map of the Islamization of knowledge that navigated the position of the current Islamization. Second, Kuhn's explanation of the paradigm that required a worldview. Scholars needed to provide a clear frame for supporting Islamization. In other words, scientific work should be done collaboratively rather than separately to support the Islamization. By believing in the same paradigm, scientific works could be conducted cross-disciplinary or multi-disciplinary.

This study has several limitations. First, this study only discussed two figures: Al Faruqi on the Islamization side and Kuhn on the philosophy of science side. Future researchers need to explore other thoughts, such as the ones of Al Attas, Ziauddin Sardar, Kuntowijoyo etc. on the side of Islamization and Imre Lakatos or Karl Popper for example on the philosophy of science to strengthen the paradigm and scientific community in supporting the Islamization of science. Second, this study only elaborated the philosophical basis and structure of science from the historical perspective of science and it did not provide technical and practical guidance, especially related to the Islamization method in specific branches of knowledge. Therefore, future researchers can propose feasible method of Islamization in specific branches of knowledge.

This study mapped the journey of Islamization and proposes two recommendations. First, Muslim scholars need to measure the progress of Islamization in order to formulate strategic steps to accelerate the realization of Islamic science as a normal science. Second, a scientific revolution is possible when the community share scientific paradigm and there are Muslim scholars who support Islamization in various disciplines of science. Scholars should not proceed the knowledge separately because science and Islam actually share the same paradigm within the society.

5. Declaration

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¹⁰¹ F. K. Sitorus, “Kant: Dari Subjek Yang Kosong Hingga Tuhan Sebagai Postulat, (Kant: From the Empty Subject to God as Postulate)” in *Serambi Salihara*, 26 November 2016 (Jakarta: Salihara, 2016).

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¹⁰³ Al Faruqi, *Islamization of Knowledge*, x.

¹⁰⁴ *Ibid*,

¹⁰⁵ *Ibid*,

¹⁰⁶ *Ibid*,

¹⁰⁷ Al Attas, *Islam and Secularism*, 65.

¹⁰⁸ Al Faruqi, *Islamization of Knowledge*, xi.

¹⁰⁹ *Ibid*, 12.

¹¹⁰ *Ibid*, xi.

¹¹¹ Hamid Fahmy Zarkasyi, Syamsuddin Arif, and Budi Handrianto, *Islamic Sciences*, (Jakarta: INSIST, 2016), 72.

¹¹² Al Faruqi, *Islamization of Knowledge*, I.

¹¹³ Sabila. *Paradigma dan Revolusi Ilmiah Thomas S. Kuhn (Thomas S. Kuhn's Paradigms and Scientific Revolutions)*, 80–97.

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¹¹⁵ Al Attas, *Islam and Secularism*, 133.

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- ¹¹⁸ Al Faruqi, *Islamization of Knowledge*, xi.
- ¹¹⁹ Kuhn, *The Structure of Scientific Revolution*, viii
- ¹²⁰ Al Faruqi, *Islamization of Knowledge*, xii.
- ¹²¹ *Ibid*, x.
- ¹²² *Ibid*,
- ¹²³ *Ibid*,
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