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Scientific Development Based on Unity of Sciences (Waḥdat Al-'Ulum) Paradigm

Mirza Mahbub Wijaya
Fakultas Ilmu Tarbiyah dan Keguruan, Universitas Islam Negeri Walisongo Semarang, Indonesia
Email: dewalast79@yahoo.com
Mahfud Junaedi
Fakultas Ilmu Tarbiyah dan Keguruan, Universitas Islam Negeri Walisongo Semarang, Indonesia
Email: mahfudjunaedi@walisongo.ac.id
Sholihan
Fakultas Dakwah dan Komunikasi, Universitas Islam Negeri Walisongo Semarang, Indonesia
Email: sholihan_ham@yahoo.com

Abstract

This study aims to determine the systematic and fundamental philosophical foundation of Walisongo State Islamic University (UIN). This research uses a philosophical and historical approach and content analysis method to obtain information in depth. Begins with data collection through literature studies, documents are related to it. The scientific integration of the Unity of Sciences paradigm in the scientific cluster being developed contains three strategies that try to answer. The first is the science of religion that is not down to earth or lacks benefits for the wider community. Then the second is when modern sciences are tasteless and value-free. The last is the local culture which began to fade with the development of modernization. These problems will be answered with the humanization of Islamic sciences, the spiritualization of modern sciences, and the revitalization of local wisdom. Scientific development in the clumps of Islamic sciences produces religious knowledge following the times, not rigid and friendly to local wisdom. Meanwhile, the natural sciences and social humanities are planted with spiritual values. Thus, this research can be used as a stepping stone or a model for scientific integration at the State Islamic Institute (IAIN) to shift to the State Islamic University (UIN).

Keywords: Paradigm, Scientific Paradigm, Scientific Development, Unity of Sciences

Abstrak

Penelitian ini bertujuan untuk mengetahui landasan filosofis sistematis dan fundamental Universitas Islam Negeri (UIN) Walisongo. Penelitian ini menggunakan pendekatan filosofis dan metode analisis konten untuk memperoleh informasi secara mendalam. Diawali dengan pengumpulan data melalui studi pustaka, dokumen terkait dengannya. Integrasi keilmuan berbasis paradigma Unity of Sciences, dalam rumpun ilmu yang dikembangkan, memuat tiga strategi yang mencoba menjawab tiga masalah tersebut. Pertama, ilmu agama yang tidak membumi atau kurang bermanfaat bagi masyarakat luas. Kemudian yang kedua adalah ketika ilmu pengetahuan modern tidak memiliki selera dan tidak memiliki nilai. Hal ini tentunya akan merusak alam dan kemanusiaan. Terakhir adalah budaya lokal yang mulai pudar seiring perkembangan modernisasi. Masalah-masalah tersebut akan terjawab dengan humanisasi ilmu-ilmu keislaman, spiritualisasi ilmu-ilmu modern, dan revitalisasi kearifan lokal. Perkembangan keilmuan dalam rumpun ilmu keislaman menghasilkan ilmu agama mengikuti perkembangan zaman, tidak kaku dan bersahabat dengan kearifan lokal. Sedangkan rumpun ilmu alam dan sosial humaniora ditanam dengan nilai-nilai spiritual. Dengan demikian, penelitian ini dapat dijadikan sebagai batu loncatan ataupun model integrasi keilmuan di Institut Agama Islam Negeri (IAIN) untuk beralih ke Universitas Islam Negeri (UIN).

Kata Kunci: Paradigma, Paradigma Keilmuan, Pengembangan Keilmuan, Unity of Sciences

Introduction

The alienation of religious values from modern science has made many Muslim scholars feel responsible for bridging the two to reunite. Although in the end, it leaves a debate over some Muslim scientists, both Indonesian Muslim intellectuals and Muslim intellectuals from other parts of the world. They tried to form a kind of "epistemological bridge" to re-dialogue science and religion. One of them is Muhammad Amin Abdullah, who offers a scientific integration-interconnection paradigm (Abdullah 2007). Apart from trying to get rid of the dichotomy, according to (Hornby 1995, 320) regarding science and religion (especially the Islamic-science dichotomy), the scientific project he initiated seeks to revive various disciplines so that dialogue, reprimand, interconnection, and their respectively needs to take place, among others. This is motivated by science that does not touch on religious values that will affect future lives (Nasr 1989, 1-3).

The scientific dichotomy has been alluded to by several scientists, such as Amin Abdullah, Mahdi Ghulsyani, Seyyed Hossein Nasr, and

others. One of the factors that causes science to be dichotomous is the difference in the ontological. This paradigm has an impact on the formation of the worldview of mankind. Therefore, the process of drought that automatic and natural drainage of water sources of Islamic scientific dynamics is the heart and prerequisite for Islamic scientists. There have been emerging thinkers, Muslim intellectuals who offer a new paradigm in the development of Islamic sciences today, although, in reality, they have to fight the mainstream of anti-change religious thought , epistemological, and axiological levels of the two fields of science. As is the case between modern Western science and Islamic science, where the study of religion or Islamic science must rely on the science that is derived, and modern Western science rests on a philosophical view that tends to be atheistic, materialistic, secularistic, empirical, rationalistic, even hedonistic (Rifai et al. 2014, 13).

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According to Syed Muhammad Naquib Al-Attas, positivist views that have an impact on the dichotomy of science are incompatible with Islamic scientific epistemology. Today's modern science, brought by Westerners, has brought confusion and skepticism. Methodologically, Western epistemology tends to be oriented towards the ability of reason as a measure. Western civilization has made skepticism a tool to pursue truth. Not only that, but modern Western knowledge has also caused confusion and chaos in the three kingdoms of nature, namely animals, vegetables, and minerals (Al-Attas 2010). Similar to Seyyed Hossein Nasr, he argues that modern humans today have lost their sense of wonder. This situation is a result of the loss of the sacred feeling (desacralization). The sense of holiness loss in various scientific disciplines and the separation of science and ethics has resulted in a crisis in the modern world (Widiyanto 2017, 250).

One of the efforts to respond to the West crisis and hegemony was the 1977 Mecca Conference. The conference was a significant event for

the rise of education in Muslim communities (Muslih MZ 2008, 52). Around 350 Muslim scholars representing various fields of education and academic activities of various countries meet to diagnose problems faced by education. The important objective of this conference was to bring back Muslim education based on the epistemological concept of Islam which was compiled historically as understood and articulated by Muslim scientists such as al-Farabi, al-Ghazali, and Ibn Khaldun (Saqeb 2000, 2). In 1980, a mutual agreement was reached between the two ministers. And a joint decree was issued between the minister of religion and the minister of education and culture. It states that religious science was included in the curriculum that must be taught to all students (Hanifah 2018, 278). In addition, there is an international conference on Science and Civilization: Prospect And Challenge For Humanity Proceeding of The 1st Joint International Seminar 2015, which was attended by Amin Abdullah and several UIN Walisongo academics who presented their papers about scientific integration. The conference was a notable event for the rise of education in Muslim communities. [...]

Research that examines the paradigm of the UIN Walisongo Science Union systematically and comprehensively already exists, although it is still limited. However, it is necessary to pay attention to several studies related to this concept to clarify the originality and authenticity of this study, including;

Zainal Abidin's research in the form of a dissertation from Syarif Hidayatullah University Jakarta (2008) with the title Ismail Raji al-Faruqi's Thought on the Islamization of Science and Its Effect on the Development of the Philosophical Basics of Islamic Education (Pemikiran Ismail Raji al-Faruqi tentang Islamisasi Sains dan Pengaruhnya terhadap Pengembangan Dasar-dasar Filosofis Pendidikan Islam) (Abidin 2008). This dissertation strengthens the opinion that the idea of Islamization of Ismail Raji al-Faruqi's science and critical ideas about the concept of Islamic education. The dissertation uses a philosophical study in examining al-Faruqi's original structure and ideas in comparison with other Muslim thinkers about the Islamization of science and its influence on educational elements. The fulcrum of the author's research is the idea of the Islamization of science which is the basis of the Unity of Sciences.

Furthermore, Achmad Maimun from the UIN Sunan Kalijaga Postgraduate Program Yogyakarta wrote a dissertation with the title "Islamic Science Thought: Syed Muhammad Naquib al-Attas and

Golshani" (Integrasi Multidimensi Agama dan Sains: Analisis Sains Islam Naquib al-Attas dan Mehdi Goshani) (Maimun 2012). Thus, this dissertation is different from the one studied in this research, because although they both analyze science from an Islamic perspective through Naquib al-Attas and Goshani, in this study the author does not focus on the comparison of the figures' thoughts. However, it is more inclined to development studies as an implementation of the Unity of Sciences paradigm.

Next is the research raised by Sholihan that published in the Science, And Civilization: Prospect And Challenge For Humanity Proceeding of The 1st Joint International Seminar 2015, with the title "Epistemology of Science Development Based on The Paradigm of The Unity of Science in The State Islamic University of Walisongo Semarang: Islamic Guidance and Counseling as a Model" (Sholihan 2015a). He explained the implementation of the paradigm in the development of operational science at Walisongo State Islamic University, especially in the Islamic Guidance and Counseling field, which is part of the da'wah science. Nevertheless, it must be admitted that the existence of Islamic Guidance and Counseling, both in terms of Da'wah Science and within the framework of Guidance and Counseling science, is arguably still relatively new. Meanwhile, the novelty initiated in this author's article is about development in the five branches of science taught at UIN Walisongo.

This type of research is library research or, in other words, by conducting library studies. This study uses a philosophical approach and content analysis methods. The research was conducted on the blueprint for the development of the Walisongo State Islamic University (UIN) paradigm and books related to the subject matter. Descriptive-analytic discussion regarding the paradigm concept of the Walisongo State Islamic University (UIN) of the Science Association through philosophical studies. A philosophical approach is used to study the structure or basic assumptions of a theory or paradigm.

Results and Discussion

Paradigm and Scientific Paradigm

The term of science in popular scientific dictionaries is a "collective word to show a variety of systematic and objective knowledge and can be examined for its truth" (Partanto and Barry 2001, 687). If translated

into other languages, science is wissenschaft (Deutch), wetenschap (Netherland). In Latin derivation, science comes from the word scion or scire (Razali and Awang 2014, 199).

In the Big Dictionary of Indonesian Language, science is "knowledge of a field arranged systematically according to a particular method, which can be used to explain certain symptoms in the field of knowledge" (Kebudayaan 1995, 370). According to Hornby in Oxford Advanced Learner's Dictionary, science is: "organized knowledge, especially when obtained by observation and testing of facts, about physical world, natural laws, and society, study leading to such knowledge" or "The study of the structure and behavior of the physical and natural world and society, esp. observation and experiment" (Hornby 1995, 651).

It can be said that science is organized knowledge, particularly if it is obtained through observation and examination of facts about the physical world, natural laws, and society, studies that lead to such knowledge (Suriasumantri 1983: 3). On the other place, Jujun also explained that science is knowledge obtained through certain processes called scientific methods. This method distinguishes science from other thought". (Suriasumantri 1983: 3).

Whereas in English, Paradigm is interpreted as a pattern model, for example. In the popular scientific dictionary, the term paradigm is interpreted as, tasrif, exemplary, guideline (Partanto and Barry 2001, 566), or it can be referred to as a foundation of thought which is the basis of science (Sholihan 2015b, 21). It can also be said to be a methodological and conceptual universe in which scientists can operate (Corinna Guerra, Mario Capitelli, and Savino Longo 2014, 30).

Unfortunately, Kuhn does not provide a strict and clear understanding of the term paradigm. Kuhn uses the notion of a paradigm with twenty-one different meanings (Yusuf 2016, 107). According to Ahimsa-Putra's view, this seems to be the result of Kuhn's way of thinking, which is oriented towards the natural sciences. Kuhn did not mention socio-cultural science. It could be because he felt that he did not need to distinguish between the two

types of knowledge. There may also be a reason why he considers that socio-cultural science has not become a science because, from a certain point of view, the status of science has not been achieved (Ahimsa-Putra 2011, 14).

Paradigm, according to Ahimsa-Putra can be defined as a set of concepts that relate to one another logically to form a framework that functions to understand, interpret and explain the reality and / or problems at hand (Ahimsa-Putra 2011, 15). In addition, Ritzer also defines the paradigm as follows:

"A paradigm is a fundamental image of the subject matter within a science. It serves to define what should be studied, what questions should be asked, how they should be asked, and what rules should be followed in interpreting the answer obtained. The paradigm is the broadest unit of consensus within science and serves to differentiate one scientific community (or subcommunity) from another" (Ritzer 1996, 5).

In other words, as explained by Rosenberg, science runs in a revolutionary non-accumulative manner. The change in the old paradigm to the new paradigm or from the old normal science to the new normal science took place radically and killed each other. This then happens continuously (Rosenberg 2003, 145). It can be concluded that the established scientific tradition refers to the chosen paradigm. In the Western tradition, the purpose of science is only for science.

Unity of Sciences (Waḥdat al-'Ulum)

If we read about the unity of science, most people will definitely point to the Vienna Circle. Nonetheless, the unity of sciences developed by UIN Walisongo was very different, because it was designed in order to break the dichotomy between religion and modern science, the Unity of Sciences paradigm not like Unity of Science as campaigned by Neurath, Carnap, and other Vienna Circle figures.

Unity that developed by UIN Walisongo is a union between all branches of science by providing a basis for revelation as a setting or

binding to unification. To clarify the description of the Unity of Sciences paradigm, see the following diagram:

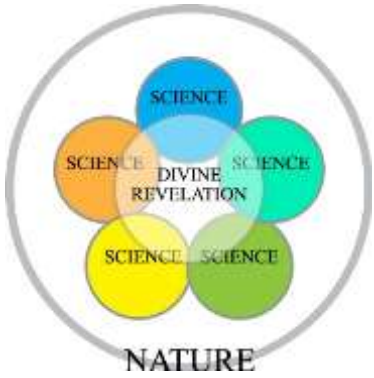

Figure 1. Scientific Integration Metaphor

If we look again, the Islamic scientific paradigm is the antithesis of the scientific dichotomy. The embryo of the Unity of Sciences paradigm in the modern era emerged through thinkers who tried to develop a non-dichotomous scientific paradigm. Figures who are concerned about this include, Seyyed Hossein Nasr, (Nasr 1989b, 2001) Fazlur Rahman, (Rahman 1980) Syed Muhammad Naquib al-Attas, (Al-Attas 1979, 2010) Ismail Raji al-Faruqi, (Al-Faruqi 1992) dan Amin Abdullah (Abdullah 2007). Several differences are technical in their thinking but substantively their thinking has fundamental similarities. Regarding the formulation of scientific paradigms, they use their distinctive thinking methods but still in the same substance, namely trying to get closer to the Creator.

One of the implementations of the scientific paradigm is like Islamization of Knowledge of several universities in Malaysia such as UTM (Universiti Teknologi Malaysia), IIUM (International Islamic University Malaysia), and ISTAC (International Institute of Islamic Thought and Civilization) to concretize the idea of Islamic paradigm of Islamization. of Knowledge. In Indonesia, the development of Islamic higher education is mostly carried out in the strategy of transforming IAIN into UIN (Supena 2014, 6).

In the picture above the middle circle is a revelation, while the outer circle is nature. While the other 5 roundabouts are religion and humanities, social sciences, natural sciences, mathematics and computing science, and professions and applied sciences. The picture above requires that the unity of science in the sense of all science must be derived from revelation both directly and indirectly and surely also in the realm of nature, all of which comes from God (Fanani 2015b, 52). This is in line with what was said by Wan Mohd Nor Wan Daud, "The existence of one God who is the source of all knowledge directly entails the unity and integrality of all epistemological sources and ends" (Daud 1989, 66). This has also been agreed upon by the Sufis. They agree that there is no higher knowledge than the knowledge of God. Every object reflects one or more divine attributions, however man, as a microcosm, reflects all of them (Shahpesandy 2020, 76).

At present, UIN Walisongo has built the integration of science developed with the foundation of a paradigm called Unity of Sciences (Waḥdat al-'Ulum). The paradigm was intended to deliver the lecturers getting to know and get closer to Allah as al-'lim (the omniscient). The following will be explained specifically about the Unity of Sciences paradigm (Waḥdat al-'Ulum). Repositioning as an Islamic tertiary institution as a forum for the integration of knowledge has become a systematic, well-structured construction by becoming a scientific paradigm. It is because basically, the vision of Walisongo State Islamic University (UIN) has been in line with Islamic teachings.

The paradigm that becomes the scientific foundation of Walisongo State Islamic University (UIN), the Unity of Sciences (Waḥdat al-'Ulum) can be defined as, "all knowledge is a unified and interconnected one that originates and empties to Allah with local adaptation". The Unity of Sciences paradigm as a project scientific integration also has an epistemological scope. The term Unity of Sciences (Waḥdat al-'Ulum) has a special meaning. This term has been agreed to become the paradigm adopted by this institution. This paradigm affirms that all sciences dialogue with each other and lead to

one goal which is to bring the teacher to get to know and get closer to Allah, the al-Haqq.

The integration of the paradigm (Unity of Sciences) of Walisongo State Islamic University (UIN) can be illustrated by the brilliant Diamond Science (Intan Berlian Ilmu) glittering with beautiful, sharp, and bright rays with five interrelated sides.

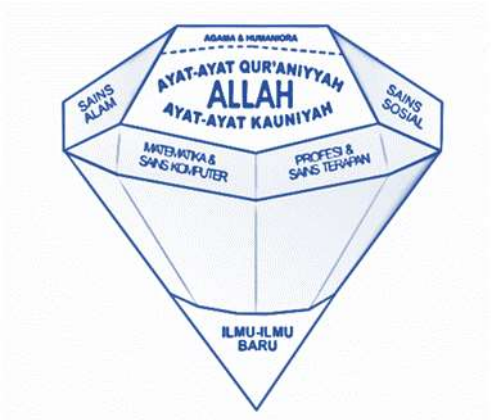

Figure 2. Unity of Sciences Metaphor

In illustrating the integration paradigm of "Unity of Science" UIN Walisongo with symbol "diamond", which have high values and have emission, have axes and sides that are interconnected with each other. The most central axis describes God as a source of value, doctrine and science. Scientific classification, symbolized by diamond gems, according to Ilyas, it is not based on philosophical analysis, but refers to legislation, namely, Law number 12 of 2012 concerning Higher Education. Ilyas Supena said that the scientific classification model contained in the diamond symbol of the UIN Walisongo had a weakness. Because the law is basically a legal draft that can change at any time because there are legal, political, and other interests (Supena 2014, 135).

Based on this, UIN Walisongo in developing its science has produced five clusters of science, which are described as follows: a) Religion and humanity sciences. They arise when humans learn about religion and themselves, such as Islamic sciences, art, history,

language, and philosophy; b) Social sciences. It arises when humans learn to interact with each other, such as sociology, economics, geography, politics, psychology; c) Natural sciences. It is when humans learn natural phenomena such as chemistry, physics, space, geology; d) Mathematics and computing sciences. They are the sciences that arise when humans quantify social and natural symptoms, such as computers, logic, mathematics, and statistics; e) Professions and applied sciences. These are the sciences that arise when humans use a combination of two or more of the above to solve various factual praxis problems in society (Blueprint 2013:133).

Table 1. The Strategy of Scientific Integration in State Islamic Universities (UIN) Walisongo Semarang

Name	Scientific Paradigm	Concept of Scientific Integration
State Islamic University (UIN) Walisongo Semarang	The unified paradigm of science (*Waḥdat al-'Ulum*) develops because of the old paradigm crisis that creates barriers between science and religion. Anthropocentrism, which has both religious and scientific principles, can ontologically trace the origin of the universe and also reveal the deepest secrets of the laws of science. The relationship between religion and nature, society and archipelago culture requires an integrated pattern of relationships and dialogue..	The concept of the unity of sciences (*Waḥdat al-'Ulum*) is trying to answer three problems. The first is the science of religion that is not down to earth or lacks benefits for the wider community. Then the second is when modern sciences are tasteless and value-free. This certainly will give damage nature and humanity. The last is the local culture which began to fade with the development of modernization. This was answered by strategy, humanization of Islamic sciences, the spiritualization of modern sciences, and revitalization of local wisdom.

Departing from this family of sciences, further developing new science, medical science, engineering, marine, mining from natural sciences. From social science developed into sociology, anthropology, sociology, and others. The humanities develop into law, education, administration, politics, and so on.

Scientific Development Based on Unity of Sciences Paradigm

Religion and Humanity Sciences

The object of religious science study is about everything that has been determined by God, or it can also be called naqliyah knowledge. The science of naqliyah consists of five types, namely al-Qur'an, hadith, fiqh, kalam, and tasawuf. This shows that the religious sciences, especially Islam, are knowledge based on the authority of the Qur'an and Hadith. Ontologically the clump of humanities has the object of study developed by humans when studying themselves, such as art, history, language, and philosophy (Fanani 2015a, 89).

In modern science in the current postmodern era, the term monodisciplinary is very preposterous. No science can stand alone from other sciences. Therefore, the term interdisciplinary or multidisciplinary will be more beneficial and relevant to the current and future scientific context. In fact, what is happening/what is happening is cooperation among disciplines, even though each stands alone (Junaedi 2010, 27).

The interdisciplinary approach not only makes a discipline exist and is relevant to the scientific context but also develops these disciplines, so that it can be felt in interdisciplinary studies carried out by Islamic sciences with other disciplines (Junaedi 2010, 27).

According to Qodri Azizy, the plot or process of thinking from what had been done by previous scholars (scientists), there must be historical continuity and process, as happened in the scientific tradition in general. In this phase, approaches can also be carried out in an interdisciplinary, multidisciplinary, even transdisciplinary manner. However, it still must refer to the main mission of Islam,

which is the benefit of the people and their attachment to Islam, in addition to the tutelage of the times (Azizy 2004, 24).

For the UIN era whose scientific philosophical foundation is Unity of Sciences, the five models should only be followed by one but must be studied in depth so that the objectives in the Faculty of Ushuluddin and Humanities as the major representation are achieved, among others, to produce contributory research for the community and to use various approaches to the humanities skills (Buku Panduan Program Sarjana (S.1) & Diploma 3 (D.3) Tahun Akademik 2017-2018 2017, 100–104).

Thus, the development of Unity of Sciences based on religious sciences and humanities is not always theocentric classical borrowing the term Sholihan, "its orientation is all upward and transcendental-speculative in nature which tends to be barren when faced with social reality" (Sholihan 2011, 94).

Therefore, humanities need to get closer to the science of religion so they can be grounded and able to answer complex and dynamic human problems. The ideas put forward by Qodri Azizy can be used as a reference in the development of Islamic science at UIN Walisongo. Islamization of Knowledge as well as Classical Islamic Studies is the right choice, especially with the expansion of the current academy UIN Walisongo that used the Unity of Sciences paradigm framework.

Thus, reading the holy text will produce more accurate knowledge if it is related to the disciplines that exist in the al-wāqi region. If this is not the case, then a religious understanding that is only oriented to the holy text will seem rigid, out of date, and invalid. Therefore, the discourse on closing the door to ijtihad is deemed inappropriate. The door to ijtihad must never be closed (Mahsun 2016, 1).

To support this goal, the necessary tools or curriculum are also needed. Practical scope in this regard is to add several supporting subjects such as Islam and Science, Nusantara Islamic Theology, Geneaology of Islamic Thought in Indonesia, Technology Philosophy, and Religious Anthropology in the Aqeedah Philosophy study

program. Whereas in the realm of Islamic sciences in the study program of the Qur'an and Interpretation Sciences also added the Subject Interpretation of Science courses, the hadiths of Science, the Study of Modern Interpretation of Books, the Social Sciences Approach in the Qur'an, and so on (Buku Panduan Program Sarjana (S.1) & Diploma 3 (D.3) Tahun Akademik 2017-2018 2017, 214–15).

Humanization is needed because, in essence, Islam and naqih science are substantial for the human benefit, for human prosperity and happiness, without exception. From a humanitarian perspective, Islam has a special place. Not only because it is often mentioned in the Qur'an but also because the Qur'an is a qauliyah verse and is a normative source of Islam, and fitrah as a kauniyah verse is only given to mankind, not to others (Amin 2017, 17).

Social Sciences

The social sciences have the object of the scientific study, which discusses the realm of relations over humans. There it can be seen that social science is a plural science. Because social science runs in the discussion of relations between humans, and humans are complex, different from each other. Each person has a model; therefore, social science is also plural. Social science has fundamental differences when compared to natural sciences. It is dynamic, open to various interpretations, and full of values. On the one hand, social science cannot be predicted like natural science because the objects of social science differ in form, structure, and nature (Fanani 2019).

The strategy for implementing the Unity of Sciences paradigm in the social sciences field, especially social science and political science, is spiritualization. Material about political theory or sociology will be examined from the perspective of the Unity of Sciences, which is an attempt to integrate contemporary secular political conceptions and universal values contained in the Islamic religion (Fanani 2019:vii).

The same is true for social sciences that develop in the West. This effort is necessary to bridge the dichotomy (explicit and clear separation) between general (social-political) science and religious sciences. This dichotomy can be seen from the many views of

scientists who believe that political science is a secular, rationalist science and has a profane dimension. Meanwhile, the science of religion is the opposite, namely transcendental science, asceticism, and divine knowledge. Therefore, there is no need to be surprised if studying Western political theory will find it difficult to lead people to increase their faith in God Almighty (Rokhmad and Mahsun 2017, 65).

The dichotomy of religious sciences and acquired sciences has been going on for a long time. Often found several groups who only want to study general science and underestimate the science of religion. This dichotomy has critical implications, both paradigmatically, mindset, and strategies for developing knowledge. Not infrequently, this dichotomy triggers the instructors to be selfish: not meeting each other and greeting, even humbling each other. General science separates between science and moral teachings (ethics) or religion (spirituality). With the Unity of Sciences paradigm, the two scientific fields can relate to each other and acknowledge. With the more comprehensive truth-seeking process (Rokhmad and Mahsun 2017, 8).

In general, social sciences come from Western epistemology. Social science has a specific purpose. For example, in the economic sector, namely consumption, production, distribution, economic development, monetary policy, fiscal policy, and others more. Social science based on the Unity of Sciences is different from the social scientific model based on general secularism. Generally, the social sciences teach humans to master each other humans and become slaves to capitalism (Fanani 2019, xi). According to modern Western society, after creating nature and determining its laws, God did not take care of human affairs, including economic matters. All the questions are up to each individual. Therefore, people in this philosophical view play a very central role so that this flow is anthropocentrism-individualism. This is different from the philosophy and beliefs found in the teachings of Islam (Ghofur 2017, 39).

Meanwhile, Islamic doctrine in the field of economics intervenes in all the processes of forming his theory. In social sciences such as

Islamic economics based on the unity of sciences, it is a combination of two types of science, namely conventional economics and Islamic science. Like other sciences, there are two objects of study in this discipline, namely formal objects and material objects. The formal object in Islamic economics is the entire production and distribution system, predictions of profit and loss, and the law of transactions. While the material object is all the knowledge related to the science of Islamic Economics (Wijaya 2019, 220).

Practically, UIN Walisongo certainly also has a Unity of Sciences curriculum to add Islamic values to social sciences. In the new Faculty of Social and Political Sciences, several subjects were added such as Islamic Sociology, Interpretation of Social Verses, Social Hadis, and Religious Sociology in the Sociology program. While in the Political study program Science added the subject of Fiqh Siyasah, Verses from Political Hadith, Islamic and Western Political Thought (Buku Panduan Program Sarjana (S.1) & Diploma 3 (D.3) Tahun Akademik 2017-2018 2017, 214–15). Thus, the discipline of social sciences based on Unity of Sciences is not purely secular. It has been known that the disciplines of the social sciences without Islamic values will bring their studies such as Durkheim, Adam Smith, Comte, Karl Marx, and Freud who tend to be pragmatic, positivist and even against God. The hope will be to build a worldview study closer to the Lord.

Natural Sciences.

The paradigm of science (natural sciences) in Islam to its angels is different from the Western science philosophy paradigm. In the paradigm of Western science philosophy, most of their scientists still consider that the ontological object of science is an independent universe and has nothing to do with anything (anything more spiritual) outside the universe (Sholihan 2011, 83).

Usually, the reason why the objects of modern scientific knowledge are confined to the physical-empirical sphere is that they can be objectively examined, which truth can be examined and verified. Meanwhile, non-physical objects cannot be perceived objectively, so that it is difficult to verify or clarify because of their

subjectivity. Thus, these objects cannot be researched scientifically (Zaprulkhan 2015, 353).

According to Syed Muhammad Naquib al-Attas, modern science is indeed built from a secularistic and materialistic world view. A view that rests on material physical reality and denies immaterial reality (metaphysical reality) (Al-Attas 2010, 154). The physical reality works naturally, independently of any agent. Due to that, there is no place for God and his assistants consisting of angels who in traditional Islamic cosmology are believed to be prominent agents in the mechanism of work of nature. So, ontologically, the universe must be read symbolically to reveal the meaning stored behind it and to find the Creator of the universe. The monotheistic paradigm in Islamic science is that all object dimensions (ontologies) in the universe are a reflection of God Almighty. This interpretation must use the perspective of tawhid, which has indeed been integrated into classical Islamic science (Zaprulkhan 2015, 353).

When the Qur'an instructs humans to use their senses in scientific observations of the universe, it means that the senses are not only able to reveal a part of the meaning on the face of the universe but also have their significance. From the description above, it is clear that the human senses are capable of digging up various information from physical objects that he observed in a very unique and sophisticated way. In the modern world, due to sensory limitations, scientists create assistive devices, such as telescopes for distant objects or microscopes for objects that are too small. Thus, since observations can reach inwardly, which the human mind never imagined, for example, you can observe supernovae that occurred tens/dozens of billions of years ago (Zaprulkhan 2015, 357).

To avoid value free worldview towards science, it must present God in every niche of life. The concrete steps are ayatisasi in each learning. Fanani, Implementasi, ix-x) Ayatisasi means interpreting the Quran by using the findings of scientific research. In other words, ayatisasi is to give Quranic verses upon science, social, and other knowledge, which are in line with the al-Qur'an (Bahri 2018, 170). In

addition, it adds courses that are Islamic in nature, such as the integration of science and technology in Islam and the intensive religious studies in non-educational study programs. While in the education study program there are additional forms of Tafsir and Hadith Tarbawi and Islamic Education (Buku Panduan Program Sarjana (S.1) & Diploma 3 (D.3) Tahun Akademik 2017-2018 2017, 228–34).

Therefore, in the Unity of Sciences paradigm perspective the development of natural science uses natural human reasoning. In accordance with the ability of reason in opening scientific insight, then UIN Walisongo did not reject the epistemology developed by the West. It needs to be reaffirmed, that in the study of natural sciences, not all can be dialogue with verses in the Qur'an. This is because basically Science or the natural sciences are developing, especially if it is too rigid in seeking a proposition in every science development activity. In the end, the science at UIN Walisongo will be hampered and seem normative.

Mathematics and Computing Sciences

Mathematics and computing sciences are very vital sciences. Ontologically, this discipline consistently has the object of the study that is measured quantitatively, and related research has made rapid progress, both in terms of basic theory and in complex applications. The opening years of the twenty-first century have become extraordinary things for mathematics. As more and more fields of science, engineering, medicine, business, and national defense rely on complex computer simulations and extensive analysis of the amount of data, mathematics is inevitably playing a bigger role because it provides the basic language for computational simulation and data analysis. Mathematics is increasingly fundamental to social science and has become an integral part of many new industries (Applications 2013, 3–4).

In the area of mathematics and computing, the process of scientific research is unlike the social sciences. Mathematics is less influenced by ethnocentric, religious, or ideological values. However,

technology cannot be separated from value. During its development, technology is increasingly problematic because technology is increasingly full of values, especially biosciences and mathematics. The principle is that the problem in science is not the scientific process based on facts, evidence, and empirical studies. The problem is a philosophical worldview, such as the metaphysic of science or the philosophy of science. There are many problems because they conflict with tawheed. Materialism, naturalism, and structuralism are the most influential perspectives, and the most important is materialism. God is not a significant factor.

The study of mathematics and technology must be subject to scientific and empirical methodology. For example, in the scientific studies carried out by China that adhere to communism or in America, the process is the same. Ideology does not affect the scientific process. For that, we have received a good wish (Hasan 2015, 129).

At the level of axiology discussed is what the mathematical function is. Islamic mathematics still says that 2 + 2 = 4. But for what mathematical skills, the Unity of Sciences paradigm teaches humans to be devoted to God and His servants, the development of mathematics such as Islamic Accounting and Western Accounting is the same but for accounting that? Mathematics and technology also contain moral values, including the values of honesty, curiosity, and openness.

It was explained that in the field of mathematics and technology, or specifically at the Faculty of Science and Technology, UIN Walisongo, the application of spiritualization is compatible with the needs. It has been mentioned earlier that the modern science spiritualization process is only applied to axiological fields. Science has a close relationship with values. Islamic values must be inculcated as an implementation of scientific integration so that scientists (academics) who are reliable in their fields and have Islamic insight are created. This is because basic science must be developed to benefit humanity (Fanani 2019, xi). Moreover, science aims to improve the

degree of human beings with increasingly complex human problems that must be solved.

Professions and Applied Sciences

The development of the profession-based Unity of Sciences paradigm is a study of the combination of two or more sciences to solve human problems. Al-Ghazali has a view on profession like the teacher. According to him, any profession, especially as a teacher, must be carried out by someone who can balance knowledge and charity. Teachers are people who know, practice, and teach. Similarity with other professions, such as judges and accountants, knowledge with the charity should be in line and inaccurate if overlapping. According to Al-Ghazali, whoever is knowledgeable, practicing, and teaching then is a great man in the high nature of humor. The Islamic Hujjatul is a teacher with a sun that shines a light on the universe and shines on itself. Teachers also like fragrant musk oil and bring fragrance to the surrounding environment (Syukur and Junaedi 2017, 71).

Whereas someone who is knowledgeable but does not practice it, then he is like white paper, which is sewing clothes, while himself is naked. Along with this, the Unity of Sciences paradigm seeks to develop useful science, not just a theory that is less relevant to the current development. The person of the Prophet who is exemplary is useful for others, but he is empty, or like a candle that illuminates his surroundings, but he melts on fire, or also like a needle. In addition to these conditions, according to the author, it is very important to add one more condition, namely religious requirements. They are the primary and first requirements (Syukur and Junaedi 2017, 72).

In the epistemological area, the development of professional science cannot be separated from the role of science. According to Muhammad Naquib al-Attas, contemporary Islamic scientific epistemology can be analogous to that of a human being consisting of various faculties and faculties, both physically and spiritually. Besides that, humans also have soul, and mental potential (inner being), in the form of spirit, soul (nafs), heart (qalb), and reason. These potentials

are a unity that cannot stand alone. Naquib al-Attas, Islam and Secularism,...154

Table 2. Scientific Development Cluster

No	Scientific Discipline	Ontology Side	Epistemology Side	Axiology Side
1	Religion and Humanity Sciences	Dialogue among the religious sciences and the humanities by making the humanities an approach so that the religious sciences can be grounded	Dialogue between the epistemology of *bayani, burhani, irfani* and instill the treasure of the scientific archipelago (*nusantara*)	Make human who has personalities that are in line with the substance of Islamic values, critical, constructive, inclusive, and moderate
2	Social Sciences	Developing social sciences based on technology	Studies of social sciences based on Islamic values	Making social scientists who have moral character
3	Natural Sciences	Developing natural sciences based on technology	Studies of natural sciences based on Islamic values	Making natural scientist who has moral character
4	Mathematics and Computing Sciences	The scientific discipline that can proportionate with other sciences proportionally	Mathematics and computing sciences are designed according to the needs of the times	Making mathematics and computing scientists who are not value-free and have a social responsibility
5	Professions and Applied Sciences	Study of the combination of two or more sciences to solve human problems factually.	Human sensory dialogue with inner being and instilling Islamic values that are in line with al-Qur'an and hadith	Make human professionals who have *adab* and attitude following the Qur'an and hadith

Likewise, the structure of human knowledge consists of the sciences of fardlu kifayah and the sciences of fardlu 'ain. The science of fardlu kifayah is related to the problem of human ability and sensory

power. This knowledge in al-Ghazali's classification is called intellectual knowledge. The fardlu 'ain sciences are related to the matter of the spirit, nafs, qalb, and reason, which are called religious knowledge. Both of these are based on God's knowledge. Likewise with the scientific structure in Islamic universities, which encompasses the entire structure of human science, both the sciences of fardlu kifayah and the sciences of fardlu 'ain (Al-Attas 1979, 19).

So, as explained by Muhammad Naquib al-Attas, it is clear that the object of knowledge is not there because it is the basis of the epistemology of Western science. But there is meaning in it. That is, knowledge is obtained not only because of the acts of reason but also because of Allah's guidance. This knowledge is obtained through the heart (qalb). With the assumption that science can only be obtained through the external senses (empiricism), this view has constructed reality into a mere sense world. Thus, God and the spiritual realm were excluded from reality (Al-Attas 1979, 19).

Conclusion

In conclusion, it can be said that Walisongo State Islamic University (UIN) has a goal that is following the thinking of classical Muslim scientists who applied the unity of sciences. Non-dichotomic paradigms are like the Unity of Sciences. The scientific development of the Unity of Sciences paradigm, the developed scientific field contains three strategies that try to answer three problems. The first is the science of religion that is not down to earth or lacks benefits for the wider community. Then the second is when modern sciences are tasteless and value-free. This certainly will damage nature and humanity. The last is the local culture, which began to fade with the development of modernization. These problems will be answered with the humanization of Islamic sciences, the spiritualization of modern sciences, and the revitalization of local wisdom. Scientific development in the clumps of Islamic sciences produces religious knowledge following the times, not rigid and friendly to local wisdom. This is instilled in the development of five scientific groups, namely

religious and human sciences, social sciences, natural sciences, mathematics and computational science, and professions and applied sciences.

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