

Ideological Path of Science and Islam Integration in The Context of University Management

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Abstract. This study is essentially intended to reveal more about the pattern of the right management to manage the interaction of science and Islam at the Islamic university, especially in the process of learning and studying of the natural sciences such as physics, chemistry, biology, and mathematics. This management model is important to find because there are some practices of the existing management types that offering dogmatic approach, being exclusive in the use of references, being normative, attributive and many other forms. The methodology that we use is the qualitative method, with interviews as data collection techniques with the principle of snowballing which in practice follow the advice of a previous interviewee about who is the most competent for the next interview. To add to the completeness of the study, the researchers also conducted an analysis document, especially for books or papers wrote about the integration of science, especially to explain how this concept implemented either at the level of department and universities, both at the conceptual level as well as at the curriculum formulation by faculty and students. Temporary findings show that there are complexities ontologically, epistemologically, and axiologically in determining the relationship pattern of science and Islam in the context of managing it at the Islamic university particularly in relation to the formulation of curriculum, research, teaching, and other aspects that interact with both. Ontologically, this discourse seems unfinished. Epistemologically is much less. In Axiological, or rather pragmatically, the pattern is well set. Pragmatically, there is an obvious tendency that there should be an appreciative mechanism for Muslim scientists in the past and in the present by giving priority to cite their works more than the works of non-Muslim scientists. Also there is a need for Muslim scientists now to be proportionally normative in their scientific works. These models usually require Muslim researchers to cite more Quran verses in their scientific publications, or even in their research proposals. From the flash of the above results, it appears that the urgency of this research is how the Islamic university can manage the harmony between science with its scientific method, and Islam with its dogmatic and pragmatic principles. With one goal, that any scientific discovery produced by the university can remain valid scientifically.

Keywords: The integration of natural science and Islam, Normative Islam, the State Islamic University (UIN), Islamic studies, science and Islam, Islamic University Management

1. INTRODUCTION

These topics have been selected for discourse on integration or rather the relation between science and Islam [1][2][3] in Islamic university as it has not been completed yet in detail to explain how this concept should be applied from the university level to study programs, especially those related to the natural sciences. Epistemologically, this concept also interfere/affect the substance of the science itself, especially when scientific methodology [4], or what is claimed as the scientific method, used for studies of natural science at the Islamic

university in the areas grazed pragmatism and dogmatism, or Islamic when it should be scientific. In addition, another aspect is the tendency of reducing the scientific validity by being Islamically normative and attributive in scientific work also continued. In practice, this happens when researchers and students cite Quranic verses in scientific publications, or in their research proposals [5]. The kind of citations where spirits to make claims that scientific findings today has long been mentioned in the Quran [6][7]. But there is also the nature of the new interpretation of the verses of the Koran to justify specific findings [8]. In addition, the attributive elements of the scientific work also occur in the form of including attributes of Islam in the covers of Muslim scholar scientific books, or also in scientific journals. Based on the findings like that, this study aimed to explore the appropriate management model in managing the integration of the concepts of science and Islam including the implementation in the academic activities in a more practical way.

In this context, a balance between the status of being scientific and being pragmatic for humanity is worth researching. As well as the status of positivistic and pragmatic, modern and post-modern, is not less important. The benefit of this study is to formulate the integration of science and Islam at a philosophical level (ontological, epistemological, axiological), at the level of implementation (attributive, normative, substantive), also at the level of the more practical as it should appear in the vision, mission of university, being institutionalized in science consortium, being practical in university management system and formally present at RKL. Thus, the integration of science and Islam will automatically become part of the university management. So, the existence of this concept can be clearly identified within an institution, but also has a strong philosophical basis either in the ontological, epistemological, and axiological level. However, the scope of this study will not be too detailed to the formulation of practical curriculum, although a short summary may be provided. This is because of its connection with the discussion of specific natural sciences such as Physics, Chemistry, Biology, Mathematics and others. It would be too detailed to formulate the curriculum for the study programs of these disciplines.

Here's the research question that we have formulated: What kind of guidelines of policy (management system) that is suitable to manage the differences between the principles of science with Islamic values is an Islamic university? Is the concept of the integration of science and Islam the final model in the management of science and religion in UIN? What concepts have been developed besides this integration model?

2. THEORETICAL FRAMEWORK

Historically, sacred texts before Christ have fulfilled at least three types of wisdom, namely: wisdom about justice in society (social justice), wisdom about the secret of creation (divine), and wisdom about interaction with the natural environment from plants, animals, to heavenly bodies (science) [9]. For example, in Rigveda, one of the religious texts from 1700 BC, tells the story of the efficacy of Soma mushrooms [10][11] which its truth has until now been scientifically examined. Similarly, the astronomical system invites modern scientists to examine it scientifically [12]. But of course Rigveda not only tells knowledge, but also tells about the rights of human in community life [13].

There are many repetitions of the teachings that exist in the texts substantively in the Quran. Therefore, it is not surprising that then the Quran also unites all the wisdom in its entirety. The Quran not only contains divine dogmas, but also regulates the laws of society, and provides explanations about nature including the origin of heavenly bodies.

In this context, the integration of knowledge and religious teachings has occurred in various ancient scriptures, even in pre-Christian inscriptions including texts on pyramid walls and coffins of Egyptian kings [14]. In its progress, especially in the modern era, science seems to separate itself from other aspects, such as divinity and social justice. So that there is a kind of exclusivism of science, with its slogan “science for science”. Therefore, the most strategic hypothesis of this research is that the integration of science and religious values is not new in a value system. Its difference resides on the fact that in the days before Christ and in the holy books after that, this integration occurs in a sacred text as a whole, while what is carried out now is more on a concept that wants to be applied in an Islamic higher education specifically aspects, such as divinity and social justice.

3. RESEARCH METHODOLOGY

In contrast to quantitative research that is interested in numbers, qualitative methods of research focus more on the meaning of the respondent's experience, a process of naturalistic inquiry that seeks an in-depth understanding of social phenomena in its natural environment. Therefore, this method relies on direct human experience as agents of meaning in their daily lives. This is a contradiction with quantitative methods that are very strict with statistical procedures. Qualitative research is more on the search for objective meaning by using several systems of inquiry for the study of human phenomena including biography, case studies, historical analysis, discourse analysis, ethnography, grounded theory, phenomenology and others. Ontologically, science is one of many ways to know that depends on other elements in life [15], whether objects or living things. In this context, knowing is a social construction that depends on the scientist's beliefs and values, also depends on the measurement model resides in his/her mind. In other words, what is called scientific objectivity is essentially a subjective interpretation of the natural and human environment in which a researcher lives and interacts with them [16].

In this context, this research wants to gain a deeper, subjective understanding of the scientists involved or having intersect with the initial concept of the integration of science and Islam in its various models. First, philosophically, it wants to express the ontological, epistemological and axiological foundations. Second, within the milieu of implementation, it wants to see models of its application in academic life both attributively, normatively and substantively. Third, in the context of higher education management, this study also wants to see how the concept of integration of science and Islam goes down into statute, management system, and systemized in higher education governance system in general.

The respondents to be interviewed consisted of three categories. The first category is those intellectuals who try to share the concept of integration of science and Islam as an open scientific publication that is not directly related to higher education policy. Usually, respondents of this model are the main initiators and understand their ontological and epistemological flow. Included in the category of the first respondent was the initiators of the science integration model at UIN (state Islamic university) as well as the initiators of this concept in universities other than those under the auspices of PTKIN. In principle, from this respondent, the researchers want to explore the ontological and epistemological foundations of the concept of integration of Science and Islam.

Respondents of the second category is those scientists of natural science study programs such as chairmen and secretaries of department of biology, physics, chemistry and so on. From this type of respondents, researchers want to obtain information about real practice in

academic life, how the concepts of integration of science and Islam are carried out in their study programs. What are the advantages, disadvantages? What are the criticisms, and input?

The third category of respondents are those who are practitioners with academic position who implement the concept of integration of science and Islam into university policies such as statutes, strategic plan, and in the management system of Islamic higher education. Sometimes this third group of respondents concurrently with the first and second groups of respondents. However, we tried to sort out so that the respondents really mastered what we asked because it was indeed their daily work. After all the data collected, researchers will collect interviews and categorized the results into themes such as those described above, namely, those who provide the ontological explanation, epistemological and axiological. Then there is the theme of implementation relating to the implementation of the integration concept and its character, whether they are attributive, normative, or substantive. There are also themes of the implementation of this concept in the managerial level, such as how to make them an applicable concept in a consortium of science that have an organizational structure which is not only recognized in university management but also set out clearly in the statute so that they obtain an adequate financial reward.

4. RESULT AND DISCUSSION

Doing this research is an intellectual pleasure in itself because the researchers can meet with several other researchers and thinker who have high educational background, and with experience in their field that is more than adequate. High awareness as scientists on the one hand, and by the fact that they are working in a higher education institution Islam really is a combination that makes them different scientists, particularly from other scientists in universities that do not have religious attributes. Nevertheless, every Islamic university interacts uniquely with scientists that they have recruited from the academic environment in the vicinity. This gave rise to the concept of the integration of science and Islam with different shades that are very likely influenced by the culture of the society and the academic culture of the surrounding environment.

This condition is in some measure answers the first research question that indeed there are forms of integration among Islamic universities. For example, UIN (State Islamic University) Bandung [17] has very strong elements of West Java culture where Muslims are more intense than, say, in Jakarta. The concept of the Integration of science and Islam of UIN Bandung with the slogan "Revelation is Guiding Science" really reflects strong Islamic cultures of West Java. The shape is so clear from its philosophical landscape, academic implementation, up to its management in its education administration [18].

While on the other hand, Jakarta, is more open, and its integration of science and Islam adheres the principle of coexistence. It tends to be amorphous and not freezing in any document, clearly and in detail. It's just that the concept was stated clearly in his vision, which reads: "UIN Syarif Hidayatullah Jakarta is towards a world-class university by the integration of science, Islamic values, and Indonesian-ness". The clarity of Islam and science integration in its university vision apparently not accompanied by adequate supporting documents. The works on the integration of science and Islam at UIN Jakarta still scattered as works of the lecturers and professors, and no single work legally enshrined as an authentic reference for the integration of science and Islam of UIN Jakarta. Much further than just the model that is developed, no less important is how the concept of the integration of science and Islam was apparent not only in the various works and scientific publications such as books, journals, and

academic writings, but it also is written in the form of guidelines or policies in the management system of higher education.

From several interviews that have been conducted, established guidelines and policies like this is not easy as it relates to philosophical building and academic life. For that reason, every Islamic university is different in realizing it. UIN Jakarta as previously described does not have a clear guideline on this. The presence of the Rector Decree No. 864 Year 2017 on Guidelines for Integration Studies at Syarif Hidayatullah Jakarta actually looked simplistic and not lived up to the level of study programs. In other words, the presence of this Decree does not have much effect into its implementation.

Different from UIN Jakarta, UIN Bandung has better guidelines and policies on integration of science and Islam, much more detailed. However, as it is too detailed, to a certain degree observer can see that these policies and guidelines are in scramble into scientific authority. In their policy, it is written that works such as theses, theses, and dissertations should refer to the works of Muslim scholars from the percentage of 30% up to above 70% [19]. Of course with clear arguments, and supported by an adequate number of publications of books. However, is this model of policies and guidelines in UIN Bandung the right model for managerial and administrative implementation, for the integration of science and Islam. It is still to be waited for quiet sometime, given the existing policies and guidelines are still in the experimentation process that has only been running for a short period of time.

Yet the next question is, whether the concept of the integration of science and Islam a dead end in the governance of science and religion in Islamic higher education? From some respondents, it is revealed an awareness that in fact, even without this model of integration, the presence of elements of science and religion is not new and does not belong to Islamic universities authentically, universities of other faiths have also remained with the same issues. And there are several models in which in a large current is allowed to flow away naturally without any Intervention. UIN Jakarta is simplistic to meet these criteria. Because despite Rector decree is governing the integration of science and Islam, in practice no detailed guideline is provided, and therefore the practice of this concept goes naturally. This reality perpetuates the birth to many models. There is a normative model of Islamization of science, for example. There were accommodating the works of Muslim scientists. And there is also a model that is mired in an effort to blindly match Quran verses with scientific findings. However, the study revealed that the integration model and Islamic Studies will not end soon and become crystallized in one model. Various forms are rolling, like Tsumul integration concept initiated by UIN Riau [20], or tree Science of UIN Malang [21], Substantively not less interesting is how the concept of the integration of science and Islam can answer the challenges of science, especially related to major scientific discoveries. This is problematic because on the one hand, scientific discoveries are the result of academic work that is created through a process of scientific method.

However, on the other hand those discoveries are in contrary to the principles and values of Islam, especially when they relate to the divine territory such as fate, death, and the origins of living things.

Preliminary findings are that according to our respondents, applied sciences of biology is the science that is associated with the values of destiny and divinity, particularly biotechnology. Biotechnology, with the findings in the form of genetically modified products for example, raises questions among its researchers. On the one hand, Muslim scientists in this field really practice their knowledge purely based on scientific principles in their labs, but on the other hand they have a moral dilemma because they thought that they had intervened in the

destiny of divinity on living creatures. While other science, in the same field but different branches such as ecology, does not experience this moral dilemma.

5. CONCLUSION AND SUGGESTION

Ontologically, the integration of science with religious values and social justice has been a fact since the era of Ancient Roman. And is also written in other sacred books such as Torah, and the Gospel. In principle, in these texts, we found three elements of science, divinity and social justice that is incorporated in the form of laws within their society in general. Therefore, when a university adopts the value of a particular holy book like the Quran, it is not surprising that the demands to package these three values in an integrative concept continue to emerge.

Epistemologically, the integration of science and Islam should be able to harmonize the positivistic demands on the one hand, and the pragmatic demands on the other. In other words, the science, that is created in Islamic Universities, need not only to be scientifically true, but also need to be pragmatic in favor of the prosperity and well-being of humanity. The scientific discoveries should be put in the contexts of how they can have benefits for humanity when they are applied in real life.

In axiological level, the implementation of the integration of science and Islam should not be too concentrated on attributive and normative gains, but also must be able to compete substantively with the scientific works produced by non-Muslim scientists. As without substantive quality, scientific works of Muslim scholars will only be an accumulation of pseudoscience publication which would only exacerbate the image of the university and Muslim scientists.

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