

UICL 2302

THINKING OF SCIENCE AND TECHNOLOGY



CHAPTER 4

RELIGION, SCIENCE AND TECHNOLOGY



OBJEKTIVE OF CHAPTER 4

1. Identify concepts of science and civilization.
2. Explain the role of religion in science.
3. Explain the Islamization of science and the integration of science.

INTRODUCTION

- ▶ This chapter discusses the relationship of religion to science and technology thinking including the concepts of science and civilization, the role of religion in science, and the Islamization of science that support science integration.
- ▶ The relationship between religion and science and technology thinking is very close

RELIGION AND KNOWLEDGE

- ▶ Religion emphasizes in the culture of knowledge and calls on people to avoid ignorance.
- ▶ One of the main ways of promoting the culture of knowledge and keeping people out of the valley of ignorance is through education. Therefore, education is strongly encouraged in religion.

- ▶ There is a misunderstanding in the society about the study of science that is labelled as secular or worldly knowledge.
- ▶ Such misunderstandings are the result of the view that divides science into religious and worldly knowledge. In fact, the division is wrong and needs to be changed because it has some negative effects.

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KNOWLEDGE

FARDU AIN

FARDU
KIFAYAH

- ▶ The more appropriate division is to divide knowledge into two, namely the science of fardu ain and fardu kifayah.
- ▶ Through these divisions the positive attitude of the people towards the study of science can be enhanced because it involves the responsibility of fulfilling one's individual duties (fardu ain) or fulfilling community responsibility (fardu kifayah).
- ▶ The division allows a branch of science that was originally fardu kifayah to turn into fardu ain, which is when the need for it becomes desperate and can be harmful if not studied.

CONCEPT OF KNOWLEDGE AND CIVILIZATION

Humans are intelligent beings created by God and are made up of two elements, physical and spiritual or physical and spiritual at one time According to the Quran (al-Baqarah, 2:30), Adam's creation as the first man was provided with knowledge to help him perform duty as caliph on earth by being taught by God to know the names of all things.

Imam al-Ghazali explains that human reasoning works to distinguish between humans and other beings. It is from this mind that man is able to build and develop his whole potential and nature according to his plan.

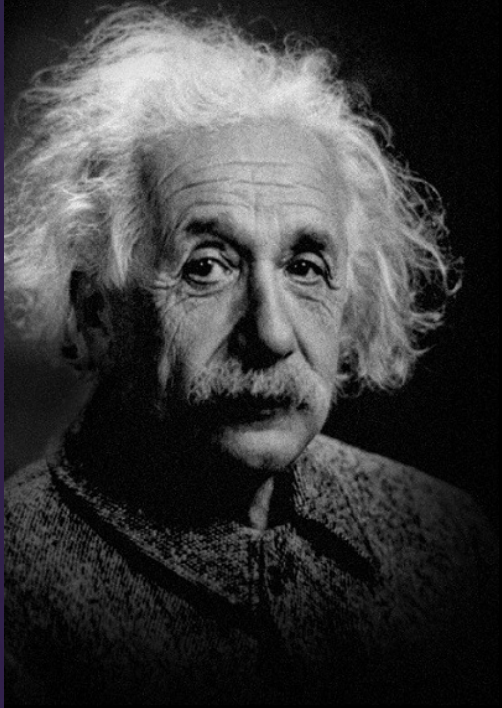
DEFINITION OF KNOWLEDGE

- ▶ Questions regarding the definition of science have gained widespread attention among scientists. One of the important questions about science is what does science mean? Is there something that is not science? Is knowledge the same as information?
- ▶ According to Wan Mohd Nor Wan David, these questions need to be asked and answered correctly because misunderstandings of knowledge will result in futile, harmful, and destructive efforts. Knowledge is difficult to define, but its meaning is not difficult to understand.

- ▶ In general terms, the Dictionary of the English referred to as 'ILMU' and 'SAINS', translated into English as know, knowledge, and skill.
- ▶ Etymologically, the word science comes from the Arabic word "*alima, ya'amu, ilman*". Thus, knowledge is the abstract noun of the verb "*alima*" which puts it between "alim" (knowing) and *ma'lum* (known).

- ▶ S. M. Naquib Al-Attas (1975) defines knowledge as the discovery of a meaning resulting from true information into one's being. The truth of a science is that it refers to God as the source of all knowledge.
- ▶ The definition indicates that knowledge authority is under the control of God as the true source of knowledge. Allah S.W.T as the Creator of the universe is the essence of His knowledge. He is the All-Knowing of all knowledge and the meaning of something bestowed upon whom He pleases. This explanation shows that the concept of science emphasizes the meaning of truth rather than falsehood in one's soul.

- ▶ Philosophically, science is a body of knowledge that has certain characteristics that distinguish it from others.
- ▶ According to Suriasumantri Jujun, these scholarly features are based on three answers to three basic questions, namely: what do we want to know? how do we gain knowledge? and what is the value of that knowledge to us? The first question refers to the theory of ontology (theory of existence), while the second question refers to epistemology (the theory of knowledge), and the third question refers to axiology (value theory).



“Science without Religion Is Lame,
Religion without Science Is Blind”

Albert Einstein

- ▶ Some Westerners who have escaped the bond of religious teaching see that knowledge is only a matter of common sense.
- ▶ This is because of the thinking activity that is the birth of knowledge. It is the human mind that stores all the information and experiences of the human being, then processes it and then analyzes it.

- ▶ Islam demands that human knowledge and thinking be integrated with the purpose of enabling knowledge - scholars, thinkers, scientists, scholars and scholars to develop themselves, society and the environment in an effort to devote themselves to God and perfect the trust of the caliphate. The application of such knowledge should also be in accordance with the will of Allah as set forth in His verse [al-Baqarah: 269] which means:
- ▶ “He gives wisdom to [wholesome] knowledge to whomever He wills (according to His rules). And to whom wisdom is given, surely He has been given many good things. And no one can take lessons (and warnings) except those who use their senses. ”

- ▶ Islam places the highest value on science is knowing God with a true identity that leads to confidence and is able to put people at a high level in terms of value and position.
- ▶ Thus, the definition of knowledge is to seek the pleasure of God because there is no true salvation and happiness except in the pleasure of God alone.

- ▶ **In conclusion, knowledge is a system that produces truth and is one of the human endeavors to civilize itself (advancing the level of human life from physical and spiritual aspects).**
- ▶ **Science also encompasses the knowledge and means developed by humans to achieve that purpose.**

CONCEPT OF CIVILIZATION

In Arabic, some of the most commonly used terms are *tamaddun*, *umran*, *hadharah* and *madaniyah*. In English, it is known as civilization. While in Malay termed *peradaban*.

All of these terms literally mean progress or development.

Civilization can be inferred as;

- 1) A level of human progress or achievement from nomadic life to city or city life.
- 2) A process to achieve success or good in life
- 3) A combination of the development of the mental, spiritual and material or material aspects.
- 4) The state of human progress based on moral and ethical heights or values in society.
- 5) Strictly speaking, civilization is a state or social achievement that encompasses all aspects of spritual and material life centered on a city or city.

The Role of Religion in Science

Among the roles of religion in science are;

- ▶ Expands the universe
- ▶ The integration of faith, sharia, and morals
- ▶ Balance spirituality, rationality, and emotion

What is the first university in the world?



In the Name of God for Mankind

ISLAMIZATION OF KNOWLEDGE: INTEGRATION OF KNOWLEDGE

- ▶ Most religious obligations cannot be fulfilled except by knowing or using science and technology (intellect).

Let's Discuss

- ▶ The firmness of Islam in the search for knowledge is evidenced by the fact that the first revelation passed to the Prophet Muhammad emphasized reading as an important vehicle for scientific endeavors.
- ▶ The basis of reading encouragement is stated in verse 1 of surah al-Alaq which means:
- ▶ Translation: Read (O Muhammad) in the name of your Lord who created (all beings).

- ▶ Seeking for knowledge is a duty on every Muslim, whether male or female. This claim is based on the meaning of a hadith of Ibn Majah's history that seeking for knowledge is an obligation on every Muslim.
- ▶ According to Imam al-Ghazāli, the obligation to seek knowledge in this hadith is divided into two, obligatory fardu ain and obligatory fardu kifayah. This division is based on the kind of knowledge that is demanded. Learning knowledge-based knowledge such as monotheism, hadiths, interpretations, and devotions is obligatory fardu kifayah. Learn basic knowledge such as medicine and mathematics including compulsory fardu kifayah.

- ▶ By seeking knowledge, one will be able to release himself from the shackles of ignorance, and even Islam will give him glory and prominence. Moreover, Islam distinguishes between the knowledgeable and the ignorant. Among the verses of the Quran that explain the difference is the word of Allah S.W.T (az-Zumar 39: 9) which means:
 - ▶ Translation: Say: Are those who know the same as those who do not know? Indeed, those who behave are capable of receiving lessons.

- ▶ Allah SWT also explains that knowledgeable people are ranked higher than those who are not knowledgeable. The meaning of the word of Allah S.W.T (al-Mujaadalah 58: 11) explains this:
- ▶ Translation: Allah will raise up those who believe and those who are given some degree of knowledge.

- ▶ In addition, the content of the Quran covers various types of knowledge. According to Sardar, the Quran is a "guiding light" to be used in showing a straight path to knowledge and salvation.
- ▶ Although the main theme of the Quran is about God's creation, some scientific themes such as biology, astronomy, meteorology, botany, zoology, and cosmology are also touched upon.

- ▶ In addition to providing guidance on the legal and legal aspects of an activity, the ethics of the humanities in the fields of economics, business, socio-culture, warfare and international relations, the Quran also contains information or signals on matters that have been the focus of scientific research. , such as fingerprints as addresses of human identity, the creation of the earth and sky, the shape of the earth round and round its axis and circulating in its orbit around the sun, and about the creation of paired beings.

- ▶ **The Quran sees science in the framework of the human experience as a whole, which is intellectually demanding and holds a very high place in the Muslim community, but it is subject to the values and ethics of the Quran.**
- ▶ **In this framework, reason and revelation go hand in hand and there is no conflict between Islam and science. However, a conflict can arise when science and its methodology are integrated so that they are at the expense of other values in Islam.**

- ▶ According to Sulaiman Noordin, in the civilization of Islam, nature which is the focus of the study of science is considered an open book of Allah or a second book containing signs (secrets) of the greatness and wisdom of God.
- ▶ This means that all scientific discoveries are fundamentally scientific, but when combined with the spirit of Islamic knowledge, they can open up the human mind to contemplating the greatness and wisdom of God, the Creator of the whole universe.

Islamization of Science

- ▶ An interesting contemporary issue of science in the late 20th century about Islamic science is the question of Islamization of science.
- ▶ Key figures in the debate include Ismail Faruqi, Syed Hosein Nasr, Syed Naguib al-Attas, "Ziauddin Sardar, Osman Bakar and his allies.
- ▶ In addition there is a tendency for Western scientists to study the Quran in the science perspective. Some of the Western scholars who are most interested in Quranic science include Maurice Bucaille, Keith Moore, and Garry Miller.

- ▶ Maurice Bucaille surprised European scientists when he wrote his book in French, *La Bible, le Coran et la Science*, which he and Alastair Pannell translated into English under the title *The Bible, The Quran and Science*. He compared the scientific facts found in the Quran and the Bible.
- ▶ He researched the most accurate and accurate scientific facts in the Quran related to cosmology, astronomy, zoology, botany, geology, and embryology. Some of these scientific facts were found only in the 19th and 20th centuries of scientific research while the Quran was passed down to the last prophet in the chain of prophets in the early 7th century.

- ▶ The Islamization movement of science presented by S. H. Nasr and his group aims to see science as a deeply rooted discipline in Islamic civilization, with a history, philosophy, and thinking background.
- ▶ There have been criticisms of the Islamization of science by writers such as Sardar, Abdus Salam, and Hoodbouy who consider science to be neutral as it is influenced by the notion of western positivism. However, this group has no place in the mainstream.

- ▶ **What is the rationalization of science Islamization?**
The history of the development of science makes it clear that science is influenced by the paradigm. The emerging science of Islamic civilization is based on the monotheistic paradigm. The goal is to give birth to scientists.
- ▶ **Islamic science differs from Greek science** because the Greeks built science based on their metaphysical philosophy. Quranic verses and hadiths are the driving force in the scientific study of Islamic civilization.

- ▶ The study was done in the name of god. Science activity is worship. Optical birth is related to the Quranic verse of light. Algebra has been based on faraid verse. Trigonometry was born because of its connection with pilgrimage, fasting and prayer. Geology and archeology are studied because they are related to the study of the history of Pharaoh, Zulqarnain and Ashab al-Kahfi. Atlas cartography located above the globe is used in navigation and directional calculations. All of this knowledge is rooted in Islamic civilization that is closely linked to the Quran.

- ▶ The idea of the science of science began in the 20th century and was promoted worldwide by a network of academics. They intend to refine the philosophies that are embodied in the academic tradition that contradict the purity of Islam. The idea is to do the same thing as the role played by European Scholasticism in the early 13th century which refined Islamic knowledge brought into Europe.

- ▶ In Malaysia, science policy is building its own paradigm for integrated development.
- ▶ The idea of the unity of knowledge was first recognized by the government when the National Philosophy of Education was formulated in 1988 with a clear emphasis on spiritual aspects, as well as intellectual excellence, in the framework of the philosophy.

NATIONAL EDUCATION PHILOSOPHY

Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are responsible and capable of achieving high level of personal well-being as well as being able to contribute to the harmony and betterment of the family, the society and the nation at large.

CONCLUSION

- ▶ Islam is a complete and comprehensive religion because it takes into account all aspects of human life whether spiritual or physical. This is in line with Islamic teachings which are a way of life and do not involve mere worship or ritual.
- ▶ The Islamic perspective on life is very broad and meaningful. Islam sees the whole life of a Muslim as a trust and worship, including studying the sciences as long as he obeys the requirements of Shari'a and does not lead to evil ways.
- ▶ Muslims should not miss the pursuit of science as it is part of the demands of Islamic teaching.