# Science Integration with Religion, Society And Language Within The Thought Of Mohd. Yusof Othman

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Abstract:-Science serves as an instrument to create technology for nation advancement and one of the cores to build the national identity through education. Since the existing science is accepted in accordance to the ideology moulded by the liberalism and secularism of western civilisation as well as the design and the dissemination, hence the responsibility to return it to where it belongs should be carried by the scholars. Thus, these efforts need to be referred to the personage who develop science in their own understandable language, Islamic compliance and fulfilling the positive needs of the society. The Malay scientist featured in this research has resigned long time ago. He has contributed in integrating the science with religion, society and the language used in conveying the knowledge. Mohd Yusof who preserves the usage of Malay language in education and popularizing the "The Science of Monotheism" is among the scholars who present the thought through writing, verbal presentation and various social activities. This research is to observe the strength of his idea and his contribution towards developing science according to his own benchmark. Whereas, the reference to his idea as an education figure is made as an intellectual evaluation under the context of science development and efforts to regained the true Islamic identity so that it do not continuously drowned in the western nurture and propaganda whom is too glorify towards their invention and dismissed the role of God.

Keywords: Science integration, religion, society, language, islamisation of science;

# I. INTRODUCTION

The history evolution in the western has brought various strange ideologies towards Islam such as secularism that held accountable for the segregation between science and religion. The separation between theology and basic philosophy in the Western European around 1800AD has given a deep impact on the philosophy of any intellectual knowledge (Abdul Latif, 1999). This has caused a deep concern among the Islamic scholars who are aware of this ruination until they have to come out with the needs to create a process that has the ability to turn them back to the true Islamic teachings. Actual science that in accordance to the rules set by Allah SWT in Al-Quran is ultimately able to compete the science that born via logical sense. Hence, this research discuss the efforts of an individual, a resigned Malay scientist who has developed his idea and influence towards integrating science with Islam, society and language over debate and education channel. He is none other than Mohd Yusof Othman, the significant figure in the world of science education in Malaysia.

He, who has gained the prestige in the Academy of Science was both a lecturer in the faculty of Science & Technology and the Director of Institute of Islam Hadhari, National University of Malaysia. He was active in defending the requirement to develop science in accordance to Islamic faith by disseminating it using the more understandable language as well as fulfilling the daily routine of the society positively. This research is reviewing several of his work that withhold his idea which among others are "Pengenalan Sains Tauhidik" (2014), "Sains Dalam Maqasid Al-Quran" (2013)," Sains, Masyarakat Dan Agam"a (2009a), "Wacana, Sejarah & Falsafah Sains" (2009b) etc. These tasks are among the compelling intellectual writing that become the source of reference and recitation in the field of Islamic Civilisation in the local universities such as Natinal University of Malaysia and Science University of Malaysia. In the efforts of establishing science fully complied with the prerequisite of Islam, Mohd Yusof has contribute his idea by returning and rescuing modern science by repositioning it in the Islamic structure. This concept has been conveyed through his researches, talks, lectures and writing resulting of his several intellectual books such as "Pengenalan Sains Tauhidik" (2014). Such figure is needed in defending the effort of filtering the western influence science which contradict the Islamic perspective and eventually recommending a science research that match the rules and ethics of Islam as stated in the Al-Quran and As-Sunnah.

# II. . HIGHLIGHTS OF WORK

The highlight of work that has been implementing to mould this research is executed over related books and writings of Mohd Yusof Othman in order to explore his thoughts about the integration between science, religion, society and language. Other academic figure who is also active in discussing this issue is Syed Muhammad Naquib Al-Attas. While the work of Sayyed Hossein Nasr and Ismail Al-Faruqi is more to the issue of islamisation of knowledge that involved the integration between knowledge and religion. The first highlight of work is focused the book written by Mohd Yusof Othman entitled "Sains, Masyarakat & Agama" (2009a). The discussion involves is the relation between science and human. Science and technology exists in consensus with the human existence which ultimately rejects the statement that science and technology is inherited from the western civilisation. The relation between science and religion is explained by the phrase 'SainsTanpa Agama Buta, Agama TanpaSainsTempang' which literally means science without religion is blind, religion without science is lame. This book also discusses the importance of language in generating science and technology. The use of simple language in disseminating the knowledge will promote scientific creativity that enable the understanding of the life of nature. While the impact of science and technology towards society is discussed in order to explain that science and technology affect the value system, faith and its capability to change lifestyle and society.

The book entitled "Pengenalan Sains Tauhidik" (2014) by Mohd Yusof discusses the relation between science and religion or precisely on the islamisation of Science that contribute the science of Tauhidik. It also deliberate that science of Tauhidik not only could explain the phenomenal of mother nature, but also could relate the phenomenal of the nature to its creator. The role of science in evolving the society as well as the role of language used to develop science is also being discussed in this book. He denied the statement made by some parties that science and technology could only be learnt through English. The truth is, Malay language is the perfect language to be used in explaining and leading science and technology towards the Malay society. His other book, "Sains Dalam Maqasid Al-Quran" (2013) discussed the position of science in correspondence to the perspective of Islam which consists in the Al-Quran. According to him (2013), the objective of the whole verses in the Al-Quran is categorised into four sections, which is; the relation between human and Allah SWT, the relation between human and human, the relation between the nature and The Creator and last but not least the relation between human and the surrounding nature while science as a knowledge of all time is the heritage of mankind and helps develop the human civilisation.

This research also reviewing the book written by Syed Muhammad Naquib Al-Attas (1972), "Islam Dalam Sejarah dan Kebudayaan Melayu" deliberated the integration between knowledge, religion and Malay language. He really accentuated the implementation of education in Malaysia using the Malay language because of the presence of values in the Malay language. Whilst the book Islamic Philosophy from Its Origin to The Present: Philosophy in The Land of Prophecy written by Seyyed Hossain Nasr (2006) among others discusses the journey of Islamic Philosophy will not be completed in the absence of the discipline of science of philosophy, art, law and etc. The book Tawhid; Its Implications For Thought & Life by Ismail Al-Faruqi (1992) comment the definition and implication of Tawhid from different angle especially on science that need to be refined with religious value and suits the nature of human who believed in God.

## III. RESEARCH METHODOLOGY

This research is the descriptive and qualitative-prescriptive type of research towards the idea of science advancement by Mohd Yusof. The discussion on this research is focusing on the involvement and the idea of Mohd Yusof by his effort in developing science and technology for the sake of the nation. The integration between science and society focused on the socialisation of science. This effort is significant in the advancement of science in order to ensure the knowledge of science reaches the various level of society. Eventually, they will be able understand the evolvement of science. Science socialisation is able to broaden knowledge, roles and the utilization of science in the community and hence prevented it from being wholly and exclusively hovering within certain community of interest. The next discussion is focused on the integration of science with language which circulates the role of language that needs to be glorified in Malaysian education particularly in science. The integration between science and religion is an effort towards dealing the separation between them which appears a lot in his speech and writing. This integration is a way of Islamising the science and he presents it in accordance of Islam as 'Tauhidik science'.

Among the methodology used in this research is; collection of data and data analysis. The data collection involves 2 methods which is documentation and interview session with respondent. For documentation, the data is accumulated through books, dictionary, encyclopaedias, intellectual dissertation, journal, monograph, articles, seminar papers and research findings for accurate facts and information in relation to science development. Meanwhile, the Respondent Interview Method, the interview session does not only occur with Mohd Yusof, but also involved other academician figure whom directly involved in science development to ensure the smoothness of the analysis process. Whilst, the qualitative data analysis is focusing

on the discussion towards the data collected. Data analysis process involved the process of subtracting the bigger issue into smaller part so that it is easier to identify and to be analysed. These analysis processes begin with information identification, evaluation and translating the data to gain conclusion from the discussion in relation to functions and fractions derived from the science development by Mohd Yusof. These methods are followed by three other methods which are inductive, deductive and comparison. The inductive method is a data translation method that focuses on the explanation on the general conclusion. This type of method is a data analysis method via patterns and idea with objectives of finding the proof as well as finding the related accumulated facts to form the notion of mind. Deductive method is however of analysing data which is general in terms of its explanation and interpretation to construct a specific conclusion. Whereas the comparison method is a method to study the development of science within the ideology of Mohd Yusof with reference made to other scholars like Syed Muhammad Naquib Al-Attas, Ismail Al-Faruqi and Seyyed Hossein Nasr due to their extensive engagement in the discourse of Islamisation of science.

# IV. THE INVOLVEMENT OF MOHD YUSOF IN SCIENCE OF PHYSICS

Mohd Yusof Othman is a professor in the Faculty of Physics, Science & Technology program, National University of Malaysia. He used to be the Head of Department of Physics (1990-94), Deputy of Dean, Faculty of Science & Technology (1994-2002), Director of Centre of Research & Innovation Management, National University of Malaysia (2002-2007) and the first director of Institute Of Islam Hadhari, (July 2007) at the same university. He possessed his Bachelor Degree (Physics) in 1976 from National University of Malaysia, Bachelor of Science (Solid State Physics) from University Of London in 1977 and PhD in Solar Energy from University of Aston, UK in 1984.

Knowledge is important for human being in constructing and directing to a better life. Science is a part of knowledge that encourages researchers to gain various latest creation and findings from different area such as agriculture, medicinal and communication to promote a better life for the human. The benefits derived through science encourage latest findings. According to Mohd Yusof (2014) science is a knowledge that is closely related to religion and through this knowledge, we are able to understand the grandeur of nature created by God. In fact, there are few verses in Al-Quran that explain the phenomenon of nature that can be understood through science. Mohd Yusof is among the scholar who always connects science with the creator so that it will firmly railed in accordance to Islam guided by the Al-Quran and As-Sunnah. He is the perfect figure that we need in order to produce a generation of Ulul Albab which character has been set in the Al-Quran. According to him (2008), Ulul Albab is referred to a certain people that possess wisdom of thoughts and understanding that has the ability to make an exact evaluation. Ultimately, they will found the reality that keeps them safe in this world and hereafter. This generation needs to be around as they are the perfect example to the society that can guide and helps create a perfect harmony in everyday life that in confirm to the requirement of faith.

Mohd Yusof chooses science of Physics as his major attention. His involvement in the development of science research can be seen in 1978 when the only electric utility company in Malaysia, Tenaga Nasional Berhad (TNB), has organised a conference which involved him as the specialist in Solid Science Physics which focused on Material Conductor. This conference, entitled "Energy 80" discussed the needs of energy after 1980 following the issue of petroleum reserve since it has been pumped since 1974. During that particular time, the policy for petroleum does not exist. Since this is a very disturbing issue, Malaysia is looking for alternatives for energy resources to accommodate the existing energy as well as securing the economic stabilisation. Without energy, all industrial activity will collapse if no initiative is being made by the responsible party (Anon, 2009). During this conference, a political rumour on using a nuclear energy has been heard but none of this is true. The discussion also leads to the decision on new energy (solar power, wind, bio, biogas, mini-hydro and biodiesel) (Mohd Yusof, 2009) that needs to be work on. After the end of "Energy 80", the representative from National University of Malaysia returned and had a meeting and decided to send one of them to continue study pursuing the expertise in solar power. Most of them have mastered the science of solid state including Mohd Yusof. None of them mastered the solar power.

He was then chosen to execute this on PhD level majoring in Solid Heat Pump that connects with thermodynamic. After completing his PhD in 1984, he returned with 'gigantic' mission and vision to secure the nation in terms of education and energy resources. He was constantly referred to as the "solar energy man". He came back and strengthened the existing management who produce solar energy. He found out that there are some of them has advance in the attempt of solar energy activities. Some of his friends from solid state physics was produce solar cell, water heating system and other invention on small scale while waiting for the expert to return and strengthened such activities. He continues as a lecturer by implementing various researches to promote deeper understanding for science students. A lot of allocation has been applied to the university to accommodate the research done. "Solar Dehydration in Malaysia" was the first research done by him together with his friends and students to all over Malaysia to complete the research form and observing with their own

two eyes on the dehydration process in Malaysia. This research is successful with cooperation of many parties. Consequently, Mohd Yusof has produce a book entitled "Teknologi Pengeringan di Malaysia", being the first book published by Dewan Bahasa dan Pustaka Publication.

From the previous research, Mohd Yusof finds that all system which has been observed can be replaced with solar power. So, he determined to prove it by building a prototype equipped with small system to commence a second research. He and his students build a dehydration house with a cost amounting to RM 6700. In 1985, New Energy & Industrial Development Organisation, an institution established in Japan show interest in sponsoring his project. This organisation has provided a fund of RM 250,000 to install a photovoltan pump and solar power electrical pump. From this, he became active involving in many activities related to solar energy on continuous basis. Consequently, this drives Mohd Yusof's participation in many parties like the World Bank, domestic and foreign organisation while at the same time trusted by electric utility company in Malaysia, TNB by his involvement in mind energy.

He has struggled for almost 6 years (1984-1989) as a lecturer educating science without holding any position in the administration. High quality education has been the major concern towards his students. Education and knowledge will always stay side by side as knowledge is fruited by education. Only through education they will feel comfortable using the accommodation surrounding that do not contradict to what they have learnt. According to Tribus (1992), high quality of education could empower individual the right of speak, revealing educational potential, forming self-perfection and broadening vies and thoughts to the borderless world. 19.9.1999 is a date where 2 faculties in UKM amalgamate and become the biggest faculty there. This faculty exist until today by the name of Faculty of Science & Technology. On this very date too, Mohd Yusof has been chosen to hold the post of The Deputy of Dean, Faculty of Science & Technology to manage everything that relates with academic. Since this is a newly found faculty, there are tonnes of work that need to be done to set the fundamental of academic in ensuring both sustenance and glorification can be achieved. Various programs need to be organised and attended to in order to gain the real insights and inspiration that can be adapt in the given task. Such dedication, efficiency, creativity, critics, sincerity and trustworthy has turned this faculty to be among the most prestigious faculty in the world.

Mohd Yusof involved in the research of anew energy about 30 years ago. His major contributionis given to the research of solar energy, system of thermal solar and photovoltan. His major research is creating a solar accumulator system for hot air and water and solar water pump system, photovoltan system connecting to grid and the latest is thermal photovoltan accumulator system. He is among the academician from National University of Malaysia who develop the team of Solar Power Research of National University of Malaysia and established an institution called Solar Energy Research Institute (SERI) as the National of Research Centre of Excellence (2005). He is also the secretary of the founder of Malaysia Energy Institute (1992 – 2005). He was chosen to be the one of the Member Council for World Renewable Energy Network (WREN) from 1992. He was also been appointed as the visiting professor for Department of Engineering, University of Reading, UK (1994) and also appointed as the International Observer for Uzbekistan's Presidential Election on March 2015. Now he is the chief editor for Hadhari Journal, co-editor of the International Journal of Renewable Energy (2005-2010), Board of Editor Review for International Scientific Journal since July 2007, reference to the International Journal of Sustainable & Renewable Energy Review, Editor Board ISESCO Journal of Science & Technology and International Advisory Board for Ulum Islamiyah Journal (Mohd Yusof 2012).

He received the "WREN Pioneer" Award from World Renewable Energy Network/Congress, 2004for his involvement in the field of anew energy. He was also invited to represents few panels on ministry level (Anon, 2014). Mohd Yusof received 8 awards from National University of Malaysia, 13 awards from Malaysian Ministry of Science, Technology & Innovation, 3 from Seoul Invention Fair and 3 from INPEX 2008 Invention & New Production Exposition, Pittsburgh, USA for his research since 1990. He is also the recipient of Henry Goh Award 2000 for Most Environment Friendly Invention 2000, Environmental Protection Prize from Swiss Society for the Protection of The Environment in 2001, Special Award from Taiwan Inventors Association in Seoul International Invention Fair 2004, The International Federation of Inventors' Association (IFIA) Geneva, Switzerland Gold Medal (2008), Special Prize from Korea Invention Promotion Association for commencing excellent effort to create invention exhibited at INPEX 2008 Invention and New Production Exposition, Pittsburgh, USA.

## V. . INTEGRATION OF SCIENCE AND SOCIETY

Socialising the science is among the efforts to increase the level of acceptance and using the science and technology in a positive way for social development. According to Mohd Yusof, socialisation means alteration made to suits the necessity of the community. The civil society always looks up to science. In Malaysia, the Malays has their own perspective which socialising the science with difficulties of understanding. To them, science is a very complicated matter. Among the reasons are the separation of science and other subjects like accounting and commerce from secondary level of school. Students who obtained distinction in exam will be located in science stream, whereas others will be divided in class according to their exam results. Even though this segregation seems to be needed due to their differences in level of acceptance and academic ability (evaluated from the National Examination System in secondary school), this has caused a misleading perception by the general public towards science. To them, science is only for those who are highly intellectual while other subjects are considered as a second class subject resulted to feeling of low self-esteemed among the students. Hence, to get rid of this situation, and to ensure that the dissemination of the knowledge reach and understood by every single level of civil society, science need to be socialised. In pursuant to (Norkumala, 2013), the revelation of science should be made with difference but interesting approach so it does not end up being just a useless scientific discover. Even though the society is constantly being told that science will make their life more convenient but that does not make any different if they do not have the knowledge on how to apply it.

According to Mohd Yusof, most people see science and technology as a product, creation and invention of tools that make their life more comfortable. But the misuse of science and technology will only ruined the society. It is very important to educate them before using the product. To solve this issue, he has come out with few steps:

- a) To establish a group of knowledgeable staff who knows how to use the new technology introduced by science and technology. The leader needs to increase their knowledge and the ability of their people in facing the changes in technology.
- b) Member of society needs to promote a strong relation among themselves.
- c) The education that based on religion and culture need to be nurtured within family, community and nation.
- d) To produce a community that really understand their creator, the nature creates by the creator, as well as generating scientist who respect the authority and abide the rules that bound the society.
- e) The government needs to draft a suitable policy which can afford to promote science and technology. On April 1986, the Malaysia government has declared the National Policy of Science & Technology as a strategy to prioritise the development of science and technology (Anon, 2008). This policy is draft to encourage the application of science and technology as a tool to develop the economy, strengthening the physical position as well as the prosperity of the nation. It is also act as a protection to our nation which is part of the development of the socio economy. This policy focus on the efforts to increase the scientists' self-reliance to help the economic activities by creating a good environment to encourage a scientific creation. It also improves the infrastructure in scientific area, education and other related field.

The guideline issued by Mohd Yusof in establishing Socialisation of Science to promote a mankind who will use science justifiably coincide with the Malaysia Vision of 2020 has been drawn to promote a develop nation according to its own concept. These guidelines accepted the challenges of Malaysia Strategic Vision of 2020 which among others is to establish a free spirited society, peaceful and advance with high level of confidence in them, proudly stood up in facing any obstacles. Malaysian should be known by their strong driven of success aware of their own capability, not easily succumb and respected by other people. Next, is to create a society full of moral and ethics as well as strong in faith. They should also be driven by the highest level of ethics, scientific, progressive, high momentum in changes and advance. Not only being part as the user of the technology but also contributes to the scientific civilization and the technology for the future as well as creating a caring society which prioritised their community. However, strategic vision of 2020 did not focus on the education from root to nation based on religion and culture that needs to be keenly developed as stated by Mohd Yusof.

A simpler and friendlier medium of science done by scientist equipped with a consistent reading by the society is indeed an effort that will transformed the agenda of socialising the science into reality. Hence, the acculturation of science reaches to its target. But then again, we still have an issue of a lack of interest in reading. This is due to the lack of 'digestible resources' of intellectual material provided. This is the main factor why Mohd Yusof focuses on using Malay language as a medium of conveying science so that it can be understood easily by the Malaysian. To him, language has an intimate relation with the mind system and act as a medium of comprehension and designing ones identity. The evolvement of science and technology in Malaysia, support by the unique culture of the Malay, requires the use of the Malay language as the medium of expression.

Scientific work is not only for those who are in this area, but also can be share to others through simple way so that they can accept it open heartedly. Most of his books not only written in Malay but in a more approachable manner to cater the population in needed. Among the books that draw interest of such community is "Menjejak Kualiti Menjana Kecemerlangan". The response can be seen through the quantity of books sold during the same year it was published. This situation recurred during the third time of reprinting. This is actually a concrete proof of a positive response shown by the community. Apart from writing, Mohd Yusof also expresses the inter-relation of science and religion through open public and mass media. A simpler approach enables them to accept the fact that science is closely related in their daily life. The efforts of socialising the

science are indeed a challenge in delivering the knowledge of Allah to the mankind by exploiting the only resource available but within the Islamic boundaries.

This task should also be carried by other scientist according to their own expertise. They must be alert towards their surroundings and should also apply a good ethical conduct in their way of life. Their inquisitive mind towards science should tolerate with the environment. This also includes the ability to absorb the pure nature, things that relate to social and society, culture, tradition and predominance, deontology of life and religion (Mohd Yusof, 2012). The creation and innovation made should be sensitive towards the changes in the society and surroundings. Remain are our concept of philosophy, tasawwuf and faith. Our understanding towards the physical nature depends on our theory towards its phenomenon. Hence, if our theory consists of error, our understanding would also be lapse (Abdul Latif, 2012). The development of human, society and nation could not be upheld by false statement thus ruin the efforts of socialising the science.

## VI. INTEGRATION BETWEEN SCIENCE AND RELIGION.

Mohd Yusof stated that human needs joint forces of 2 knowledge; knowledge that connect with the nature (science) and knowledge that connects the development of culture, self-identity and all ethical values towards living in a more directed and healthier life style. Science is a knowledge that enable human to understand the nature but not the reality of the nature.

In effort to explain the definition of science, it is very important to understand the meaning of "tabii". Some say the meaning of tabii is similar to nature. On the actual fact, these two words represent a different meaning. Nature means phenomenon is happening in its own free will without being control by the higher power. Whereas the tabii is a characteristics or phenomenon that obeys the rules set by its Ruler. To Mohd Yusof, the secular approach adapts in order to understand the nature of tabii scientifically is acceptable by the Muslim society. What is inaccurate is that the Muslim himself adopts secularism and makes it as a benchmark in their life. Faith should be made as the ultimate guidance in every single aspects of mankind while science is only a tool to understand the nature of tabii.

The integration of science or popularly known as the Islamization of Science according to Mohd Yusof does not fruited Islamic Science as stated by Ismail Al-Faruqi, Muhammad Naquib Al-Attas and Seyyed Hossein Nasr, but it is an answer and a process of approaching the Islamic Science. Science of Tauhidik is a science that based on the concept of Tawhid. The practising of this science is centric with the concept of God as The Creator, while all the activities involved should be conducted according to svariah compliance (Khalijah&Mohd Yusof, 2009). Islamic science and science of Tauhidik does not have any prominent They play an important role in strengthening the notion of Islamic knowledge. Islamic science is difference. introduced in philosophy approach and epistemology debate, which means researching the theory itself. Most people involved in this discussion are among the scholars in philosophy (Mohd Yusof, 2014). Science brought by Ismail Al-Faruqi (1992). According to Mohd Yusof, Tauhidik science not only capable of explaining what is beneath it, but elaborating what is there in the phenomenon of the nature and its relation with the creator and also reveal feeling of the individual that has been nurtured with Tauhidik science. This will create an ethical and responsible scientist towards his creator. The concept applied by Mohd Yusof in the Islamisation of science is elaborate through Tauhidik science constructed by him. The Tawhid concept is a major foundation in building and understanding the Tauhidik science. The Tauhid concept in the science of Tauhidik discussed the oneness of Allah Taala in arranging the cycle of nature. Even so, there are other concept that can be applied to understand the science of Tauhidik, which is; concept of God, caliphate, mankind, knowledge, nature, wisdom, justification and purity.

However, there is a slight difference between the concepts of Tauhidik science brought by Mohd Yusof and the one introduced by Ziauddin Sardar (1991). Ten major concept in Islamic science according to Sardar can be rendered into system value; concept of Tawhid, caliphate, observance, knowledge, halal and haram, justice, violence, istislah and diya. The value concept based on Islamic perspective helps the research that build the system that connect the logical science fact with value as well as including the scientist responsibility and positive response towards the application and acceptance by the society. The 'haram' concept is applied when the activities done is causing a negative impact on the society that derived a violent act by the scientists. 'Halal' concept is being used when research activity promote an equal distribution of resource towards the public. This system will directly promote unbiased thoughts that do not include any consideration of the future negative effects. Eventually, this system could afford to design the work of science and technology.

Tauhidik Science is the results of the Islamisation of knowledge based on research that relates the integration between science and religion which implemented by the researcher from faculty of Science and technology, UKM. This research is led by Khalijah Mohd Salleh, a Malay female scientist. Mohd Yusof is among the researcher that explains to the public about the concept of this science. He has struggled to turn Tauhidik science as a compulsory program under the Faculty of Science & Technology in UKM. This program reveals the integration between science and religion, more divine oriented, and humanisms, and the intellectual

of nature but firmly hold the Al-Quran and As-Sunnah as the major source of reference. This program acts a reserve for science students who most of them are Malays. Hence, it is fair enough for this program to be offered to them (Khalijah&Mohd Yusof, 2009). As a reference for Tauhidik science program, Mohd Yusof has written a book specially catered for this program entitled "Pengenalan Science Tauhidik", resulting from the lecture notes conveyed by him in National University of Malaysia.

Science structure developed according to western structure only involved the relation between human and nature. They only used their intellectual intelligence and logical thoughts to understand the systematic nature of tabii through certain practicality of scientific method that suits the condition of subject matter. Meanwhile the nature is being exploiting by them through their technology solely for human and certain parties in concerned. According to the theory made by Thomas Kuhn, scientific truth depends on the paradigm that creates it. However paradigm is not absolute medium as it is likely to change when a lot of falsification happened (Abdul Latif, 2000). As for Tauhidik science, the relation that build the structure is the creator, human and nature which obviously delivered into 3 major relations ie; relation between God and nature, relation between God and human and relation between human and nature. Tauhidik science is a type of science conflicted the western principal of science because its accentuate the roles of God as the creator and the concept of Tawhid as the ultimate control of the nature. While the concept of structure that construct the Tauhidik science consists of 5 major entities comprising of God, human, nature, Al-Quran and As-Sunnah. God act as The Creator, human and nature act as the creature while Al-Quran and As-Sunnah as a guideline, research boundaries or as a clue to the systematic world and hereafter.

Mohd Yusof has suggested a few steps on developing Tauhidik science. Among the steps are: Firstly, introducing the history of science, so that the society know that science does not start from the west. Science actually started with the arrival of human in this world and that Islamic civilisation possesses science way before the western. Secondly, introduce the philosophy of science so that people know that science is born due to human pretention to live. Science is also emerged based on human perception of life. Science is developed by tasawwuf. Thirdly, introduce ethics subject in science policy. This subject should include the concept of courtesy, manners and discipline and priority. Fourthly, teach science in Malay or Indonesian so that it can be easily digested. This 4<sup>th</sup> step has been focussed by AL-Attas (1972). According to him, the development of language and Malay literature is an important aspect in the process of Islamisation in the Malay-Indonesia Archipelago.

Mohd Yusof's active involvement in science and religion that has attracted parties from outside UKM is responsible to perform his duty as the panel of Islamic Consultation Council, Department of Prime Minister commencing from Jun 2014, Fellow of the Malaysian Science Academy since 2014, Honorary Fellow University Islam Malaysia (2014-2015), Honorary Fellow of National University of Malaysia (2005-2007), Honorary Fellow of Sultan Zainal Abidin University (2014). He is also a Secretary of Panel Dakwah Negara (2014-2016), Board of Director, Institute of Malaysia Wasatiyah (2013-2015) (Mohd Yusof, 2003). A lot of his contribution towards science Islamisation and branding of Tauhidik science is delivered through verbal and written intellectual materials. Among them are the book with the title "Isu Dalam Ilmu Dan Pemikiran" (1998), "Menjejak Kualiti Menjana Kecemerlangan" (2002), "Sains Dalam Maqasid Al-Quran" (2010b) and "Pandangan Masyarakat Terhadap Sains Kontemporari" (2010d), seminar paper entitled "Al-Quran &Sains (Nuklear)" (2010a) etc.

## VII. INTEGRATION OF SCIENCE AND LANGUAGE

Mohd Yusof is a language patriot. He loudly defended the usage of Malay language in the education system in Malaysia. Most of his books like "Pengenalan SainsTauhidik" (2014) and "Sains, Masyarakat& Agama" (2009a), there is a chapter focusing the importance of Malay language. While in 2006, he presented a paper entitled "Keunggulan Bahasa Melayu: Menyongsong Tatanan Baru Dunia" at the "Language Literature Seminars" in conjunction with Majlis Bahasa Brunei-Indonesia-Malaysia (MABBIM). This has resulted the highlight of the importance of using Malay language specially in science and technology education. His efforts is defending this notion is to ensure that Malay language is secure in the eyes of its people.

Mohd Yusof has been focusing on the issue of science and language and everything in between. Language issue is an issue that needs attention to ensure that the science subject is rightfully conveyed to the students in a simple and understandable language. Besides that, language issue needs to be well taken care off as this issue is included in the constitution, while science and technology needs to be fully empowered in order to ensure the agenda on developing the nation. There are a lot of books on science and technology written in English, a language that has been rectified as an international language. Mohd Yusof firmly denies the statement made by certain parties that science and technology could only be learnt through English. This overrated statement seems to underestimate the capability of Malay language in explaining and advancing science and technology.

Most scientist especially who were educated in western countries will always glorify the English language until they dismissed the capability of Malay language as a more appropriate medium to educate science to Malaysian. This is a total contradict to what Mohd Yusof has defended. The 'indigestion' among students about certain knowledge result a low self-esteem and prevents them from mastering the knowledge. This will not happen if Malay language is used and hence the quantity of students interested in science would rise. More experts will be born from this. The Malays should think positive towards its own language capability which could developit to be the language of knowledge. This could happen with a full support on the principle of upholding the Malay language as an official language as well as a prime medium in the education system. According to AL-Attas (1972), Malay language has their own vocabulary as well as Islamic term, logical language, scientific analytic language which has been used by the member of tasawwuf, scholars, knowledgeable, translator and educator which all of them brought the influence of Al-Quran in upholding the value of explanation and nature of dialectic verbal and writing.

Various issues have been brought in relation to the significant of Malay language as a medium of interaction in Malaysian education. Among others are: Can the proficiency of English language be enhanced through science and technology for Malaysian? Can science and technology develop by English language alone? Would allowed Malay language be taken over by English language? Is it true that Malay language could not afford to develop science and technology? Who is entitled to ensure Malay language become the language of knowledge including science and technology? What would happen to Malay language if science is being thought in English, but the fact that the scientific approach is spreading through none-science knowledge of origin? According to Mohd Yusof, based on his 36 years of experience in science lesson in all level of education.

Education derived from language and will always depend on language to implement it. This is caused by the fact that education involved presentation, translation, analysis, synthesis and practicality in idea. All these reflect that language is needed in every single aspect of education (Wan Mohd Noor, 2005). According to Wan Mohd Noor, if Malay language is being seized in the presentation of science and technology, precious value between the Malays and Islam will disappear. As a Malay scientist, he is fully convinced that science and technology should be delivered in Malay language. The application of English language is science and technology not only resulting to a weak understanding but obviously dimming the roles of Malay language. Hence, this will create a generation that overly glorified the "western science" where the discussion of the roles of God is nowhere to be found.

According to Mohd Yusof (2009a), language has an intimate relation with the system of mind and act as a medium of understanding as well as designing self-identity. In the efforts of disseminating science in Malaysia, a country that holds firmly it Malay culture, the presentation should be verse out in Malay. Language, culture and science and technology development should be done and set through the split of system of value. He was so proud to be part of National University of Malaysia since this university is the only university which seriously upholding the application of Malay language in all education field especially science and technology. Malaysian Education Department has rectified his contribution in upholding Malay language as a foundation in creating the Malay sel-identity. He has been honoured by the ministry as Malay Language Academician Idol in 2003. Even Dewan Bahasa Pustaka has trusted him to be one of the members of Publisher committee in 2012 until 2014.

The roles of Malay Language has been bleached by the colonialist (Dutch in Indonesia and English in Malaysia) by narrowing the language from being an international language into vernacular language suits only within the Malay community (Awang Sariyan , 2009). The issue of the importance of Malay language has been detect earlier by Syed Muhammad Naquib Al-Attas (1972) when he voiced out his concern towards the 'slowly disappearance' on the importance and functions of Malay language. He has created the notion of knowledge Islamisation since 1970 through language scientific academic planning, literature and Malay cultural in UKM. According to him, the implementation of application, language research and Malay literature is too little. These research should include the research on religion, history of philosophy, Malay culture etc. Malaysian Ministry of Education has honoured him the Malay Language Academician Idol in 2013. This inauguration is one of the initiatives that consist in the Execution Plan of upholding the Malay language as the language of knowledge in public university. This highest rectification is given to an academic figure who has contributed in defending the Malay language in the Ministry of Higher Education.

## VIII. CONCLUSION

The development of science according to the nature of human who love kindness, peace and advancement is a measure taken to solve the disposition of science which has been separated from system of value and moulded in the secular western civilisation. This idea of integration by MohdYusof is a discussion following the execution in the process of science's Islamisation to consolidate all the insights in order to

empower the idea of science Islamisation. If methodology and epistemology of science Islamisation by Mohd Yusof is fulfilled the methodology and epistemology by other well-known scholars like Syed Naquib Al-Attas, Ismail Al-Faruqi and Seyyed Hossein Nasr, there should be a simultaneous and solidarity between them. But if it is not, then the differences should be focussed and turned into an added value towards the science Islamisation's methodology and epistemology and should be consolidate with the existing to become the guideline in the discussing the notion of science Islamisation.

The Malay should be fully equipped with self-identity by fully practising Islamic thoughts in every single aspect of their routine. They should aware and eluded themselves in continuously trapped in the structure of mind designed by the western especially in education. They should also seek for the perfect system that suits their nature as a human that believed in God. This is a crucial part where reference should be made to the academic figure that developed science according to their own mould rooted by Islamic faith. This research is an effort to overcome the lack of research done by the Malay scientist in highlighting their idea in science development as well as documenting it.

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