
IMPORTANCE OF SCIENCES AND TECHNOLOGY IN MUSLIM WORLD

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ABSTRACT

No one can deny the importance of science and technology in the development of any country. The Muslim world also understands this relation as it is a direct relation, more a country is investing in the research and development the further it is improving in the technological advancement that in return boost its economic growth and progress and prosperity. So there is a direct link between all these factors and in this way the Muslim world also considered Science and Technology as an important determinant of their national and international growth. It is a qualitative analysis of past researchers and published material. The research finds that science and technology is an integral part of the Muslim World development. In order to compete with the West, the development in the domain of science and technology is the only way to achieve this goal.

KEYWORDS

Science and Technology, Importance of Science and Technology, Muslim World

INTRODUCTION

There are currently more than one billion Muslims worldwide. Some of them are the richest world destinations in the world, some are the poorest, and some are slowly growing in Western terms. Today, there are more than one billion Muslims worldwide - one-fifth of the world's population - spread across 57 member countries of the Islamic Conference (OIC), of which Islam is the authoritative religion. The economies of many nations, including the Gulf States, Iran, Turkey, Egypt, Morocco, Malaysia and Pakistan, have been growing steadily over the years, but the Islamic international community has lost sight of the West. The work of religions in influencing race extends to war and human violence. Furthermore, the economies of Muslim international destinations are growing rapidly, especially due to the entry of digital offerings in the form of apps. (Robinson, F. 2002)

It is quite fascinating that Muslims were world leaders in science and technology an era ago and if we compare it with today's performance so now the gap is increasing (Al-Roubaie, A., 2012). As per the information about the Muslim world that is being collected, it clearly shows that an excessively small proportion of scientific output is produced which comparatively is of low quality (Segal, A., 1996). Muslims are lacking in science and technology as compared to the old days. It is something that stands them out from the people of Latin America or sub-Saharan Africa. The finest students of Muslim world are so attracted to science and engineering programs that they receive the most resources (Shabana, A., 2017). Science and engineering programs are in so much demand that hundreds of thousands of students are now graduating annually in the Muslim world.

The knowledge related to science and technology is very important for the Muslim world as it is the base to progress in this technological advance world. Similarly with the West, Muslims should also try to achieve these scientific and technological advancement in order to be at the same place we are there centuries ago. (Afridi, 2013) How, has race and the 21st century influenced the way Islam thinks and behaves? With the adoption of the big race every day, Islam is on the rise! (Anwar, M. 1997). The purpose of the dry and arid climate of the Arabian Peninsula was to regulate this period only for water and agriculture. Islamic engineering preserves water reservoirs, water wheels and giant gadgets for irrigation. New knowledge of plants and animals also played an important role in agriculture. The important thing to know is to really solve the problem. Understanding the good in the true Islamic way of life, otherwise the life is total chaos. Anything used for unpleasant purposes can be as poisonous as a snake bite. (Anwer, 1997)

LITERATURE REVIEW**Muslim World and Scientific Inventions**

(Koenig, R., 2009) discussed the contribution of women in the contemporary time frame, lawful alteration has been one of the fundamental organizations used to improve the situation with ladies in the Muslim world. The lawmaking uncover the scope of changes declared in the legitimate codes overseeing and directing separation, marriage and other blood related issues was assembled by means of reviews of individual status. These upgrades have essentially spoke to lawful authority by executing such techniques as confining the purview of courts, heterogeneous convenience of lawful schools, and reevaluation of prior suppositions and approaches.

Shabana, A., (2017) explained in the context of law that, aside from this, there are sure ladies' privileges among law and science that assume an indispensable part in the cutting edge world. Assessing the impact that legitimate changes have made on upgrading ladies' privileges would require subjective examinations that show the distinction that such changes have made in ladies' lives. As the outcome, these investigations would likewise quantify and work out the job that law can play as an agent of positive social change or as a method for the strengthening of ladies (Rius-Piniés, M., 2020). The importance of strengthening again and again alludes to the routes through which oppressed gatherings get political and social power. Though, assuming authority is taken in a distributive way connected with assets, abilities, or potential open doors, then, at that point, strengthening would allude to the way of giving reasonable affirmation and passage to customarily impeded gatherings (Abaza, M., 1993).

Rius-Piniés, M., (2020) highlighted the role of Muslims in medicine, that with the advancement of contemporary biomedical innovation and its few applications in the beyond couple of times, another kind of force has been presented, one that draws in to current science and its ability to give a precise, evenhanded and unprejudiced clarification of the real world. Proper consolidation of current biomedical innovation, be that as it may, stays dependent on the advancement of sociocultural mindfulness and comprehension, without which viability of such innovation will be restricted Humanist of science Toby Huff distributed "The Rise of Early Modern Science", in 1993: the West, China, and Islam; the second version came in 2003. Albeit this book's inspiration was to examine the reason why contemporary science happened in West Europe and not in China or in the Muslim world. It uncovered the amazing measure of auxiliary information and data with respect to writing that the writer clarified. In the blink of an eye, the Huff secured that both China and Islamic states had required the institutional bodies to be created in early present day Europe that would have might

permitted the event of what Huff called "unbiased zones" of logical examination (Rosman, A. S., 2015).

Muslim Researchers and Technological Advancement

Moufakkir, O., (2015) put some light on the technological advancements by Muslims by saying that, many may not be aware of the bond that green technology has in accordance with Islamic perspectives. Islam does not encourage the impacts that cause negative affect on humans or the environment. However, researchers have come up with solutions for human activities that have a negative impact on the natural environment in the Muslim world, which might occur depending on how green technology is implemented.

Further, the comparison of waste dumping system management, the making of electricity energy by renewables resources and wastewater management system are made between the Non-Islamic and Islamic countries. Islam strictly urges people to be kind to nature and not to misuse the nature and trust that had been placed on human shoulders. This outcome includes both the resources of the Holy Quran and Hadith, which clearly highlights the responsibility and answerability of people towards protecting and maintaining balanced creation (Sarwar, G., 1981).

Yusof, (2013) explained that peaceful nuclear manufacturing is usually divided into five fundamental regions: extraction and making of atomic unfinished materials, the creation of unconventional uranium, generation of atomic fuel mechanisms, development and task of atomic reactors; and recycling of energizes. Nevertheless, consuming atomic energy to produce power from control devices, it is similarly utilized in the farming industry, medicine, manufacturing, science, and hydrology. Power is apparently produced by the iota in created countries. Unlike nations are, moreover, attempting activities to create power from dangerous nuclear power plants, which apply little amounts of dangerous materials to deliver power on a large scale (Khanum, M., 2020).

Pollution from nuclear reactors is at times used to favor diseases; for example, tumors. These rays are equally used to remove microorganisms and unhelpful disturbing crawlies from farmland and nourishment things. In the nuclear separation, organizations or links can work in numerous shares of the Muslim world. Pakistan is in front of trouble to keep atomic plants powered due to scarcity of nuclear-powered electricity, and other trials are alarming concerning its safety and defense from natural tragedies due to climate change, which would triple energy consumption of nuclear-powered plants (Reisinger, Y, 2015).

Even though producing electricity from nuclear-powered energy is cost effective as linked to producing electricity from those from oil and gas or coal, nuclear-powered energy can be used to identify, treat serious diseases like cancer. Most essentially, it can be recycled in neuropsychiatry to produce brain imaging by means of gamma cameras and single photon release calculated tomography to identify depression, anxiety and stress. Pakistan has the potential to simplify its state and can avail advantage by looking for nuclear-powered technology for mass expansion programs (Ramzan, M., 2004).

Nuclear investigators can progress toward becoming individuals from these social orders to collaborate on the peaceful consumption of nuclear energy. The scholars should create the best consumption of nuclear energy for energy purposes to aid all in Pakistan which is start to emphasized the areas in this study and decided Pakistan facing trouble to have nuclear-powered plant due to scarcity of nuclear-powered electricity and other challenges are concerns are concerning its safety and defense from natural ruins due to climate change which would triple the energy consumption of nuclear plant (Ergin, M., 1990).

The use of information technology (IT) has been developed as an indicator of a nation's wealth level. Nations, which are unsuccessful in preparing for information technology and do not practice it properly, are likely to be unable to find their global attractiveness. Muslim states have paid little consideration to aid accessible by IT use in their libraries and data centers (Stearns, J., 2011). The research was conducted to know the position of information technology uses in libraries and data centers of Muslim states. Secondly, with the help of this research and the past data, it tells the level of hardware, software, and IT-based resources that are being accessible in libraries and information centers in Pakistan. Thirdly, the problems delaying the broader use of information technology (IT) in libraries and information centers with in Pakistan. No doubt, Pakistan is working hard on technology as being a part of Muslim state, it must highlight and promote social science and technology. As this technology and innovation to some extent, is harmful to the natural environment, which is against Islamic law. One must perform things that do not harm or disturb the surroundings (Stearns, J., 2011).

The modern medical understanding has brought comfort and happiness to the common man as well as his lifestyle and this way of life has created dangerous guns, nuclear weapons. Substances for organic and chemical collisions that, if left unchecked, must be wiped out by the human race within a few hours. The machine of values given by Islam is undoubtedly a common exploitation, aggression and destruction, which we

see today in the developing world being brought to the fore by the power of scientific knowledge. (Guessoum, N. 2015)

Cultural revival is desperately needed for a fully professional society if the Muslim world accepts it and does not encircle the bricks and mortar of existing study laboratories with dynamic particle accelerators and electron microscopes in which they live. However, apart the passion that compels mankind to try to recognize nature, whether it is miles away to marvel at God's creation, or simply to recognize how and why things exist. The Muslim world has contributed a lot to science. They nurtured the flame of civilization, illuminated it and brought it to Europe in its extraordinary state. Europe, in turn, extended it to us, and it will continue to do so for some time to come. (Kasule, 2001)

Islamic mathematicians advanced and developed extensively the paintings of ancient Greek, Indian, Persian and Chinese mathematicians. Geometry turned into another important subject of mathematics which was transformed into study with the help of Islamic mathematicians. The sacred science of geometry, which has a look at tensions, shapes and spaces, has been transferred from ancient Greek assets to Islam. Muslim scientists have made great strides in both geometry and trigonometry that have been instrumental in taking a look at architecture and technology such as astronomy and practical arts, including the design of water wheels and farming tools. (Glick, 2014). Muslims invented astronomy and celestial maps. They studied the shape of the earth and warned that it would be round, calculated the dimensions (diameter and circumference) of the planets, and traced the orbits of different planets and stars, as well as the motion of the earth around the sun. Of course, this feeling has been important for Muslims in general because they pray towards Mecca. This truth led to the development of geography and navigation. For example, the compass turned into an invention. Another reason for progress in these regions is the visit to Mecca, which every Muslim has to do in his existence. This fact contributed to the development of roads, maps and navigation techniques. (Webersik, C. 2009).

Golden era of Muslim Scientists

In the Islamic Golden Age, technical knowledge and race progressed for a number of reasons. Initially, both the Islamic faith and Islamic authorities advocated the acquisition of knowledge. Scholars were popular and used to patronize the authorities. At the same time, the paper age was introduced from China, which allowed the production of books. Extensive libraries were built in all the cities of the Muslim Empire to help different students exchange technology and information. (Al-Khalili, J. 2010). Things that improve the first rate of existence, along with technical

knowledge and race, were endorsed and welcomed. These covered practical gadgets include maritime aid for vacationers, geographic maps, medical information, dimension and calculation methods, and agricultural equipment. The use of paper and books was very important in early Islam for the distribution and promotion of skills. Muslims learned how to make paper from Chinese paper makers, and it became a paper mill in Baghdad. During the 10th century, a large library was established in Cairo, containing hundreds of books on historical sciences.(Majoka, M. I. 2012).

The inspiration that Islam has given for the acquisition, dissemination and improvement of information, the sense of right and wrong and ethics are not the most famous but are now recognized globally (Sardar, Z. 2016).

The record bears witness to the fact that the Muslim philosophical concept and the scientific knowledge of its golden age have become fundamentally a moral and spiritual basis. Complete scientific work devoted to the mastery of herbal phenomena, the opening of new frontiers of knowledge, the invention of hidden resources, and the development of state-of-the-art processes for the betterment of humanity at large (Sardar, Z. 2016).

In a nutshell, Muslim knowledge and know-how contains a golden age in the 10th through 13th centuries, a following downfall, and an uncertain rebirth in the 19th century, and old time's frustration in the 20th century (Al-Roubaie, A., 2012) If the data is put into percentage than around 41% of mainly Muslim countries with that of 20% of the total population around the global produce less than 5% of its science, which is way low as compared to others. (Segal, A., 1996). The study clearly makes visible the huge difference between the two and this gap has to be eliminated as soon as possible.

With the advanced race and science, the darkness of Europe was unfolding at a time when the Muslim world was going through its golden age and was showing great achievements in the great fields of human interest. (Glick, 2014)

Muslims in Medicine Field

It turned into moral peace and prosperity, though not technology, but the war and destruction we see today. Every man or woman has a constant passion for knowledge and acquisition of knowledge. There is a keen interest in the role of the field, the discovery of facts and the introduction of sequencing, the theoretical impetus of medical knowledge and medical effort. When this curiosity is combined with vision, scientists begin to look further and learn more about the reality around them.

(Choudhury, M. A. 1996).

Islamic medicine relies heavily on knowledge of pharmacy, anatomy, and surgical treatment. The medical concept was combined with knowledge of a wide range of herbal ingredients used in traditional herbs, chemistry and medicine. Discrimination was prohibited under Islamic law, so Islamic knowledge of anatomy was often acquired from historical Greece and other assets. (Hua, A. K. (2016). The surgical procedure usually became a closed hotel, but Islamic healers developed a few procedures along with wound healing. Eventually Muslims gave the field many inventions for healing. Furthermore, the mechanism of infectious diseases and the distribution of tuberculosis have been described primarily through water and soil, which is the essence of the branch of medicine called epidemiology.(Rafe'Zou'bi, M. 2015).

Muslims knew how to perform surgery on teeth, eyes, ears and other elements of the frame. Muslim medical and pharmacological books describe more than two hundred surgical units and 143 types of medicines, which were used or more familiar in European society in the Middle Ages. For a long time after the end of the center, the use of Muslims introduced a large part of the purification and development of Western civilization. (Glick, 2014)

The achievements and technical knowledge of the Muslim race played an important role in the development of Western society and helped Europe to emerge from the darkness for a while. The skills acquired from the Islamic society during the Golden Age helped Europe to move from darkness to renaissance for a long time. (Robinson, F. 2002). This information covers medical records, textbooks, food, hygiene, aesthetics, languages, medical discoveries, technological inventions, and many other aspects. Europe adopted the Muslim tastes with many tendencies, which dramatically changed the Western international as the darkness did not change for almost 1000 years after the fall of the Roman Empire. (Osama, A. 2015).

RESEARCH METHODOLOGY

The research is basically a qualitative document analysis, based on the secondary sources, mostly on previously researched/published material. The main objective of the research is to see the link between science and technological advancement in the development of any country, also to evaluate the importance of science and technology in the Muslim world.

FINDING AND CONCLUSION

The world has witnessed that Muslims are about one fifth of the total world population

and spread over 57 different states of the world. Similarly the leaders of these States are very much aware of the importance of Science and Technology for their economic growth, social progress, military power, national security, environmental safety and for that they rely heavily on advancement in the field of science and technology. For this they try to spend much amount on science and also on the research on different science subjects especially in the field of Robotics, medicines, in the field of space in Physics, Biology, environment, chemistry, and another domains of scientific research. So is there a bright future for technology in Islamic International? Of course, medical researchers want the right financial resources, but they need more than just tools to compete globally. Research environments require knowledge from laboratory technicians who know how to use and maintain systems, to the use of real height freedom by scientists, and experimental results. This cultural exchange will no longer take place overnight, and requires not only political will, but also a state-of-the-art understanding, which means today's intellectual freedom and self-medical perspective. The power of the generation and especially the mobile age is known with great arrogance by the Muslim masses who use it to overcome regular difficulties and to deal with the elements of extremism in the faith. As a result, the betterment of the race is an honor for Islam because we see more and more Muslims adopting technology every day. The reason for this is that it facilitates everyone in the verses of the religion, as mentioned above by working side provides an opportunity to get statistics. Children can also explore faith in an unconventional way through Islamic games and other interactive software, which encourages them to learn better.

The thing that must be considered, is the quality of those scientific research. Because the material or the literature produced in this field are not much like that has produced by the West or the other developed countries. The Muslim countries are now left behind in the quality of scientific research, mostly because of their lack of facilities. In most of the Muslim countries the absence of policy initiatives towards the field of science and technology are among the major cause of this lacking behind. Talking about the academics, the Muslims are far apart as compared to the West in the domain of academy. The West spend billions of dollars on research and development while the Muslim countries are unable to do so, as they don't have such amount to investment it in the field of science and technology.

RECOMMENDATIONS

1. The past understandings of science and technology should be revived in the Muslim world, as they were among the best in previous centuries.
2. Better understanding of scientific issues in the Muslim World should be promoted related to religion.

3. Scientific knowledge should be used in enhancing the well-being of humanity at large.
4. Urgent ethical issues should be addressed related to human biological Sciences and its impact on the living environment.
5. A more holistic fate-inclusive methodology of teaching related to science and technology should be introduced in Islamic educational institutions.
6. Tremendous research opportunities should be provided in the field of science and technology in Muslim world.
7. Social, economic and political aspects of Muslim and Islamic culture should be dealt scientifically with the modern knowledge.
8. The Islamic perceptive of science and technology should be promoted in the field of academia.

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