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Science-Driven Entrepreneurship in the Islamic World

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Abstract

The paper under review delineates the scenario, perspective and the future trends of science –Driven Entrepreneurship in the Islamic world. It digs out the factors causing the sluggishness and suggests the plan of action for the renaissance of indigenous science –driven entrepreneurship with grafting of the modern scientific high tech marketing techniques on it. The paper highlights that entrepreneurship is both the cause and consequence of economic growth, technological advancement and conceptual innovations and they are interknitted, interconnected and interwoven with one-another. The economic, political, social and religious components of the society influence the science driven entrepreneurship in the Islamic World. It depicts the present situation and flashes back on the glaring Islamic era when Islamic Civilization was a beacon light and an icon scientific innovation, technological advancement and an improved entrepreneurship of that time, for the rest of the world. It was the time when almost the important seats of scientific centers were filled with Muslim Scientists and the world was hovered over with the lucrative Muslim trading networks. The paper diagnoses the pitfalls that caused the Islamic World lagging behind and provides food for the thoughts of scientists and experts pertaining to the Entrepreneurship Research and Policy Networks, the world over. It points out that all leading Muslim Scientists should have been more conscious and committed to commercializing their scientific and technological productions. It is high time for the Muslim Think Tank to synergize the efforts for the promotion and development of scientific knowledge, technological advancement and an improved entrepreneurship. The paper concludes by suggesting a tetra-pod model for the social reengineering process to improve the science driven entrepreneurship in the World of Islam.

Keywords: Science, Entrepreneurship, Islam, History, Technology, Muslim.

Introduction

Contextual Background

Our holy prophet Muhammad displayed remarkable social, political, economic, and military ingenuity in securing the earliest conversions, moving with his co-religionists from Mecca to Medina to establish a basic state, and then defeating his pagan opposition. Over the next few centuries the development of Islamic norms, standards,

rules, laws, practices, organizations, belief systems, and reward mechanisms entailed, likewise, a highly creative synthesis based on the appropriation, and also the refinement and modification, of pre-Islamic laws and trends.

One of the most important economic promotion factors in every society is consistency between its economic and ideological system. Not surprisingly, at the time Islam was still spreading to far corners of the world, through the establishment of mercantile midpoints operating under Islamic law. Merchants was one of the several groups carried Islam to many parts of East Africa, India, China, and, later, Indonesia. Their trading posts attracted diverse professionals. In addition to privileged access to their services, the persons converted to Islam had the benefit of acceptance into lucrative Muslim trading networks, preferential treatment in Islamic courts, eligibility for high administrative positions, and sometimes also lower taxation.[1]

The emergence and spread of Islam in the early seventh century CE, involved entrepreneurial acts of immense ingenuity.

The real Islam, which emerged through the pioneering works of Muhammad Baqir al-Sadr (1931-80), encourages vigorous entrepreneurship. At a time when one could graduate from a top-ranked American economics department without exposure to the concept of entrepreneurship, contributors to Islamic economics, a doctrine based on the fundamental sources of Islam, was highlighting Islamic institutions designed to stimulate entrepreneurship.[2]

I think that the leading Muslim scientists and maybe policy makers should have been more conscious and committed to commercializing their scientific and technological productions. If they have performed this critical job, it could have had two critically important results:

First, they, and also world of Islam, could have a source of indisputable income; and second, maybe as a result, they would not be dependent on other great sovereignties.

The causes of flourishing

Fourteen centuries have passed since the emergency of the last message of God, the messenger who was the last of those who were entrusted with and carried out the mission of guiding to humanity. The God, Almighty completed what he wanted to convey to the mankind through his last messenger.

There happened a magnificent miracle in a land which atoned the whole world the land whose inhabitants were living in ignorance, the land in which blood shedding was a normal habit and tradition, the land in which the people were ashamed of having a female child. Indubitably, in such juncture of time and place the great incidence and the glorious miracle was the emergence of the best human being, the most respected and

complete messenger of all ages, the Holy prophet, Mohammad (peace be upon Him).

In such a unique situation in which some great civilization including Iran, Rome and Greece were showing off their cultures, traditions and civilizations, then the tremendous responsibility of the world of creation was entrusted to the most cherished and the most complete obedient man of the Almighty God.

It was an undeniably unique opportunity for the whole world, availability of revelation from God and the secret world. An outstanding event in the world of creation, unknown and undeniable to the tribes in Arabian Peninsula and the then existing civilizations, there began the holy mission of the great prophet of Islam, the Prophet whose 63 year lifetime turned to be the time span of all centuries and times. The new ideology and faith increasingly began to spread over the globe to Russia, India, china, Spain and Africa. This great school of thought deeply penetrated to the hearts and minds of people and groups of people increasingly converted to the new religion[3].

Wil Dorant in his renowned book "History of Civilization" states that the emergence and fall of the Islamic civilization is among the great events of human history[4]. That man could reach a magnificent source of knowledge from physics to metaphysics, from nature to what considered being beyond natural science.

The Islamic world trained some distinguished scholars among the great peculiarities of them were free and profound way of thinking that absorbed the attention of the world's nations.

The Islamic world physicians were among the top pioneers of medicine for 500 years. The Islamic scholars and philosophers wrote some numerous valuable books that greatly contributed to the development of medical science. Establishment of hospitals and health care centers at different cities, taking care of patients, prescribing free of charge drugs and performing surgeries on different diseases were among the outstanding contributions. The Islamic societies' progress to the demonstrating world's nations[5].

This very primitive people upon being Islamized went on to build a great civilization, produced brilliant scholars who studied Greek and other languages so as to gain access to the science, mathematics, medicine, etc. to research and develop new knowledge and subjects, excelling in astronomy, algebra and algorithm.

These originally nomadic abandoned people became sedentary and built great cities complete with libraries and universities. They built roads, irrigated land and developed international trade along the Silk Road and sea-lanes to India, South East Asia, china and Japan. They were great navigators[6].

A noteworthy issue in this period of time was the entrance of the Muslim people to other countries who were welcomed by the majority of their people citizens. The background for such an entrance was the development and expansion of trade and

business. According to the Islamic doctrine, trade is based on pure honesty, reliance on God and paving the ground for entrepreneurship through the Islamic approaches, in other words, to develop and make progress in profession, vocation and trade.

The decline era

After the prosperous era of the Islamic societies during the 7th to 12th A.D. we come close to the 14th century by passing the crusades and a variety incidents that influenced the Islamic world and tarn education, science and technology, a summary of which are listed as follows:

1. During the crusades the Christians made tremendous efforts to learn from the experience of Islam in the realm of science and technology. The Christians were for centuries witness to the Muslim's takeover of the Christians territories ruling over their people. The outcome of this series of wars was indeed for the benefit of the west. Despite of the Christians' military defeat, they won the cultural front by gaining the Muslim, peoples' achievements and inherited their science and industry. The Islamic world, the creator and inventor of various sciences was soon invaded by the Mongols, inflicted by some civil wars/ conflicts, the fall of civilizations and the darkness of ignorance and poverty. The defeated west gained experience, made instant efforts, forgot the defeat and learnt the interest for progress from the enemy and proudly stepped down to the Renaissance Period[7].

2. Simultaneously, a great number of the Islamic countries' infra-structures began to collapse due to the direct influence of the subject wars and conflicts.

"At the beginning of the 7th century after hegira, there occurred a series of dramatic and sudden events which crippled the progress of science and education in the Islamic world, and severely affected the course of Islamic civilization. The most dramatic of all those events were the destruction of the city of Baghdad by the Tatars, the weakening of Islamic presence in Andalusia, and launching of the crusades by Christian powers to win the Holy land from Muslims. As a result of those events, the educational system became sterile, confined to old topics and methods, incapable of progress and self-regeneration"[8].

3. We may boldly state here that one of the considerable factors affecting the afore-said failure was the lack of unity and political consolidation among the Islamic states in those centuries. "The existing governments of the time were not practically supporters of Islam and the conveyors of its message and culture. The ruling powers of the states have drifted the religion of Islam from its initial revolutionary and reforming course and its major unity, justice, culture and science seeking objectives, established during the time of the Holly prophet"[9].

4. A number of scholars in the Islamic world were of the conviction that religious

scholars should stay away of sciences of other religious ones. Such a conception and interpretation for centuries hindered the progress and advancement of science and technologies in the Islamic world; while the holy Quran stresses that, God will not change the destiny of a nation unless they try to do it themselves.

One of the reasons behind the retardation of the Islamic communities after the 14th century A.D. was the misinterpretation of Islam and the holy Quran.

The limited and fanatic interpellation of Islam and endeavor to comply the dynamic norms and values of society with the past traditions and refrain from updating them has turned to be among the major back-warding factors in the Islamic world[10].

By the Muslims people's surrender to study, and research on science, mathematics, medicine, etc, the Islamic civilization began to recess and the European began to gain the Muslim's knowledge, skills and experience during the 8th to 14th centuries Hegira. This as earlier mentioned was the era for freedom of the European from the darkness and their access to the renaissance.

The Current Problems of the Islamic World

Nowadays, knowledge is known as an essential driving force for economic development. On the one hand, the efficiency, productive employment and the access of the citizens to further information, a prerequisite to the economic development is done through the development of knowledge. On the other hand, the outcome of the modern knowledge paves the ground for innovation, booming, and new technological advancement to enhance capacities for the mankind's welfare. Unfortunately, currently we can not name any Islamic country as an advanced nation in the realm of science and technology. Knowledge-based economy or knowledge-based society has not so far been truly established in our Islamic societies in terms of science and technology. Some of the Islamic countries even do not feel the need to enter the industrialization and application of state-of- the-art technologies. These Islamic countries are the sole consumers of the non-Islamic industrial countries. Even, some of the Islamic countries' imitation from the western science and technology paradigms has resulted in their backwardness rather than progress.

Fortunately today, some of the Islamic states are feeling the need for developing their science and technology; they are to gain new research findings in terms of science and technology in order to achieve cultural, economic, political and social independence. However, the developed countries, especially the western ones oppose the Islamic countries' access to the new peaceful technology by putting obstacles on their course of progress.

Among the other handing factors against the Islamic countries entrepreneurship development process in the present time is the decline of their trade share in developing

countries, the major course being their trade interaction with industrialized, non-Islamic countries rather than with developing ones.

"Worse still, the OIC has recorded a declining share of trade within the developing countries. From a trade share of 45% recorded in 1980, the percentage has fallen drastically to only 22.1% in 2001. One major reason for this significant decline is that member countries often place a heavier emphasis on trade with industrialized, non-OIC countries.

Of course, this has led to the poor performance of intra-OIC trade. Even the major contributors to intra-OIC trade such as Malaysia, Saudi Arabia, the UAE, turkey, Iran and Indonesia have industrialized non-OIC countries as their top three leading trade partners"[11] (Badawi, 2005).

Even in a number of wealthy and oil-rich countries of the Middle East in which the oil industry itself could be a fundamental basis for science technology, production and entrepreneurship few major measures have been taken for human resource development, a pre-condition for technology and entrepreneurship development.

The subject sources in the Islamic countries have provided an environment for entrepreneurship development for non-Muslim countries instead. However, over the recent decades a number of the Islamic countries with poor underground resources and economy have taken steps towards development of their local technologies and entrepreneurship substituting the western technologies.

Fortunately, this trend is increasingly in progress among another hiding factor facing development of the Islamic states is the false image of Islamic fabricated among the non-Muslim nations. This has led the non-Muslim authors to securitize those dimensions of Islam which are far from the true nature of Islam.

Unfortunately we Muslims do not pay sufficient attention to raise awareness among the non-Muslims by concluding articles and essays or by devising encyclopedias to present the true image of the genuine Islam. Fortunately, some organizations such as ISESCO have far taken some corrective measures in this context.

"For many years now, the Islamic organization has given attention to the refutation of the false allegation and ideas contained in this Encyclopedia with regard to Holly Quran and Muslim religion. To respond to these falsehoods, the Islamic organization has relied on sound scientific method and scholarly methodology which deploy the instruments of unbiased historical research and the means of honest, objective refutation. Thus, it has published two books in three languages: Arabic, French and English"[12] (El-Moktar, 1998).

Another obstacle for the development of the Islamic countries might be the low investment from the GNP for the development of education and research. They have not so far been able to access a sound educational-research infrastructure in primary, lower

secondary, high school, higher education and particularly in R&D. In case some of the countries have already invested in these areas, they have failed to achieve the level gained by the universities of the developed countries, in terms of science, technology and entrepreneurship.

Road to Reform

1. The Islamic countries should primarily transform their society into a learning society and attach a top priority to human resource development as well as to investment in structural issues. If some of the Islamic countries lack the sufficient means of investment, then other Islamic nation should help them to do so.

2. The university lecturers and students to benefit the joy and open-mindedness and capabilities of experiencing other nations either Islamic or non Islamic ones. They should customize the findings in compliance with their respected countries sets of norm, standards, values and the relevant cultural and local benchmarks and frameworks. The universities students and lecturers both may be influential in production of human knowledge. They should be able to present and address the issue of Islamic knowledge in their institutions. Thus, it is incumbent upon the Islamic countries to take measure in political development in conformity with their own economic, scientific and technological development. It is noteworthy that the students should avoid self-alienation and strive to the fact that they enjoy a strong civilization and rich Islamic culture. Close attention to the structural issue will definitely pave the way for the development of the entrepreneurship.

3. The Islamic world should lay more emphasis on the teaching of the Holy Quran; the Islamic Ummah should base its movement towards the development in the rudiments of the Holy Quran since the Holy book includes some highly-valued guidelines on job, labor and entrepreneurship. The recommendation of the divine book should be taken as benchmarks for productive employment, creativity, innovation and new way of thinking, the Islamic instructions to set values in our societies towards entrepreneurship.

4. The Islamic countries may devise a common philosophy or a "general framework" for the development of science, technology and entrepreneurship. They should set their priorities in compliance with the subject "general framework". The Islamic world enjoys a variety of resources both human and malarial. The relevant framework maybe considered a new model or paradigm. While elucidating the priorities in the area of science technology and entrepreneurship, the subject paradigm may define some partnership areas for joint investment of the Islamic countries of even between the Islamic and non-Islamic countries. Establishment of mega projects may also be recommended in which every Islamic country may have a share, depending on its

available potential.

5. Development of modern technologies may be another area of concern, these may include Information technology, Energy technology, Space technology, Biotechnology, and etc. the educational system in Islamic countries may pave the way for the development of such sciences and technologies through making a reform in their curriculum both at general and university levels.

Since the Islamic countries' educational systems lack such as infrastructure, they should initially start with the development of their generic skills which are known as the foundation for entrepreneurship and independence in our today's world. These skills may be addressed or include: Critical Thinking, Cross-Cultural, Understanding, Creative and Invention Career and Life-Long Learning.

Conclusion

It is time to develop a scientific mentality among the people. It is about applying reason and rationality to various aspects of living. By doing so, one would be locating rationality within the frames and standards of an Islamic worldview. The reconstruction of science and knowledge in the Muslim world would depend, to a certain degree, on Muslims countries working together to guarantee globally scientific development. More specifically, they should consider scientific issues in their national agendas, raise the consciousness of their populations about the significance of science and strengthen a rational, scientific outlook within the masses as a whole; or they will continue to drift without direction.

Notes

1. Timur Kuran, (2007) " The Scale of Entrepreneurship in Middle Eastern History: Inhibitive Roles of Islamic Institutions".
2. Ibid.
3. Verse 2 of Nasr surrah, the Holy Quran
4. "Civilization of Islam and Islamic societies (1700-1200 A.D) was in the zenith of its glory and progress in terms of all science and techniques. Experimental science including medicine, physics, chemistry, geology, biology and herbal science were in their highest ever development process. Some great Islamic scientists, scholars and inventors were busy devising, authoring, researching and teaching in these realms of science. The left some valuable works for the world civilizations and tried to spread these basic knowledge to their neighbor and all those seeking science in every land, country or territories." History of civilization (Elmi- Farhangi, Publication co. 4th edition, 1994, Tehran).

5. Kalimi, Renan, the Cambridge History of Science, Translated by Hassan Afshar (Nashere now, publications, 2nd Edition, 1992, Tehran, page 300,) Zabihollah Safa, the History Literature in Iran (Amirkabir publicants, 13th Edition, 1994, Tehran, page 303-343-347).

6. World Islamic Economic Forum, an article by Tun Dr. Mahathir Mohammad, entitled: 'Islamic Renaissance: Triumph over the odds Synergy in Action, MPH publications, 2005.

7. Wil dorant, History of civilization (Elmi-Farhangi publication, 4th Edition,1993, Tehran page 435)

8. Mohammed El-Mokhtar Ould Bah. Islamic Education between Tradition and Modernity.

9. Kazem Alamdari. Why Iran lagged behind and the west did made progress? (Nashre Towsee publication, 7th Education, 2002, Tehran).

10. Kazem Alamdari. Why Iran lagged behind and the west did made progress? (Nashre Towsee publication, 7th Education, 2002, Tehran)

11. Abdullah Ahmad Badawi. World Islamic Economic Forum, MPH Group printing (m), page231

12. The life of the prophet Dr. Abdulaziz Othman Altwaijri, page: 7.

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