

IBN KHALDUN ON THE ROLE OF KNOWLEDGE, SKILLS AND VALUES IN THE RISE AND FALL OF CIVILIZATIONS: IMPLICATIONS FOR MUSLIM EDUCATORS IN THE 21ST CENTURY*

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Abstract

This paper examines Ibn Khaldun's discussion, in his Muqaddimah, of the role played by knowledge, skills, systems and values in the rise and fall of civilizations to find out how contemporary Muslim societies can benefit from his thought as they grapple with the challenges of globalization and survival in a knowledge-based economy. An attempt is made to link this with his seminal idea of 'asabiyyah (group cohesion) and ethical living in urban dwellings. Ibn Khaldun emphasized, among others, the development of critical and creative thinking skills among Muslim students, the provision of enough job opportunities, justice and the respect of human rights by the rulers, and the proper matching of labor with the skills of workers for better productivity. He asserted that whereas values ultimately lead to the ascension of a society, vices inevitably destroy it. Of particular significance for contemporary Muslims is Ibn Khaldun's contention that science and technology education are crucial in the rise of a Muslim civilization. For these to be useful,

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however, science and technology must be coupled with a comprehensive religious education. A number of lessons and implications are drawn from the above ideas for contemporary Muslim educators. It is hoped that these could serve as the first steps for the Ummah's return to its rightful position as the center of human civilization.

Introduction

Although Muslims account for almost a quarter of the world's population, Muslim countries only command around 5% of global income. This weakness in Muslim economies corresponds to weaknesses in other areas, the most obvious being in the political and military arenas, where Muslims are humiliated from time to time. For a long time, Muslim scholars have pondered over the question of Muslim weakness. Many of them have suggested means through which Muslims can regain their position as the leading civilization of the world (e.g., Arsalan, 2004; al-Attas, 1993; al-Salih, 1983; al-Salih, 1990; Sardar, 1987; and Wan Mohd Nor, 1998). Of all such works, 'Abd ar-Rahman ibn Muhammad ibn Khaldun's *Muqaddimah* (Ibn Khaldun, 1986 and 1978) can be considered the most eminent.

This paper specifically deals with Ibn Khaldun's discussion of the role played by knowledge, skills and values in the rise and fall of civilizations. An attempt is made to link this with his seminal idea of '*asabiyyah*' (group cohesion) and ethical living in urban dwellings. From these, lessons are derived for the *Ummah* today as it grapples with the issues of globalization and survival in the knowledge-based economy. The pivotal questions here are: what knowledge, skills and values should education systems in the Muslim world be imparting to their young ones in order to prepare them for leadership in this highly competitive world? What methods, techniques, and systems should be used to achieve maximum educational impact? How can we minimize the chances of some Muslims being left behind in this scramble for knowledge? Obviously, this is a very ambitious undertaking. However, as the saying goes, a

journey of a thousand miles begins with a single step. I hope and pray that this is a step in the right direction. Still, one may wonder that if we want to find a way for the *Ummah* out of its current stagnation, why should we waste our time with thinkers who lived many centuries ago and whose circumstances were totally different from what the *Ummah* is experiencing today?

The Purpose of Studying History

Studying ibn Khaldun's contribution to educational thought is not only relevant but also necessary if Muslims are to find a way out of their current stagnation. His entire work is based on the premise that useful lessons can and should be drawn from what happened to past nations and generations. It is true that the circumstances and situations of nations and people change. Beneath these, however, are permanent laws of nature which cannot be altered by the vicissitudes of time. To Ibn Khaldun, "the past resembles the future more than one drop of water (resembles) another" (Ibn Khaldun, 1978, p. 12). Thus, we have to study what happened to past nations in order to understand what is happening to us in the present. Without an appropriate historical consciousness, we end up groping in the dark, thinking that whatever problems we are experiencing now are brand new and have never been dealt with before. As the title of the work to which the *Muqaddimah* is a preface, *Kitab al- 'Ibar*, indicates, however, we have much to learn from the past. Ibn Khaldun states the purpose of his work as follows: "Whoever so desires may thus achieve the useful result of being able to imitate historical examples in religious and worldly matters." (Ibn Khaldun, 1978, p. 11). This applies both to nations as well as to individuals. Thus, it is important for whoever is concerned about the well-being and survival of the *Ummah* today to know its past—how it achieved glory, how it gradually lost that glory, and how it finally became emasculated and humiliated.

That having been said, it is important to note the differences between the past and the present. Without doing this, we may spend all the time admiring our glorious past and fail to take care of our present

challenges or prepare for the future. Our task has to be clear: we are studying the past to draw lessons and examples for dealing with the present and preparing for the future. It is not an attempt to return to the past or to recreate it in the present. It is only with this perspective that we can benefit from Ibn Khaldun's wisdom as we face the challenges of the twenty-first century.

Human Capital and the Rise and Fall of Civilizations

That civilizations cannot exist in the absence of human beings is self-evident. Among the characteristics of human beings which distinguish them from all other beings are: 1) the ability to think, from which results the sciences and crafts; 2) the capacity for organization, reflected in political and military power; 3) the deliberate struggle to make a living; and 4) civilization, which is the culmination of the other three (Ibn Khaldun, 1978, p. 54-57). Human beings have to live together, get organized, and cooperate to make a living and to satisfy their human needs. To do all these, they have to think. Physiologically, human beings need food, shelter, and clothing to stay alive and to subsist. These are natural needs in which there is basically no difference between humans and other living beings. If there is any difference at all, it is man's physical frailty and inability to withstand harsh conditions. Ibn Khaldun aptly refers to the Qur'an where Allah reminds mankind that all these qualities and features were given for a purpose: "He gave everything its natural characteristics, and then guided it." (Qur'an, 20:50).

Man was given an edge over all other beings. He was given the capacity to think and was charged with the responsibility to be the vicegerent (*Khalifah*) of Allah to inhabit, take care of, and develop the earth. This naturally results into Man's acquisition of the technical skills (crafts) with which he can manipulate objects of the natural world, making them suitable for human use and consumption, and for increasing Man's comfort and well-being. On the other hand, it leads to Man's perfection of his thinking skills and his attempt to explore and understand the physical universe and what lies beyond (i.e., scientific knowledge). For all these

to be accomplished, there has to be some form of political organization or government which serves to protect the interests of group members from being violated. It helps to mobilize them to collectively work for their common good. Where all these conditions exist, a civilization arises. By civilization, Ibn Khaldun seems to imply people living together collectively in urban dwellings characterized by a sedentary culture with a clear political organization, material artifacts, and intellectual activities (Ibn Khaldun, 1978).

Thus, to Ibn Khaldun, Man's ability to think is the most important element in a civilization. A nation only becomes civilized when it acquires a certain degree of intellectual skills. This is because the more perfect Man's thought is, the more human he becomes (Ibn Khaldun, 1978). Civilization only becomes possible when people perfect their thinking skills and acquire the capacity to optimally utilize the resources available to them. Since Man is essentially ignorant, and only becomes learned through acquiring knowledge, it goes without saying that civilization and education are inseparable. The quality and quantity of the human resources available in a civilization are important indices of its strength and weakness. They can, indeed, be good indicators of a civilization's position in the cycle of civilizational rise, peak, stagnation and decay posited by Ibn Khaldun.

According to Ibn Khaldun, the political fabric of a nation is established upon two foundations: 1) political/military might and group feeling (*'asabiyya*), and 2) national wealth (Ibn Khaldun, 1978, p. 246). The former depends on a well-equipped, highly-skilled, and motivated army. For its well-being, the civilization depends on national wealth, which stands for the resources and sustenance available to all members of the civilization. Considering the contemporary world, I would venture to add that the above elements of a civilization largely depend on the quantity, but more especially on the quality, of the nation's human resources. Of particular importance is how well a nation's citizens master critical areas of science and technology and to what extent they are imbued with the lofty human values.

Politically, ascendant civilizations are governed by rulers who are kind to their subjects, exercise planned moderation in expenditure, and have a high respect for people's rights and property. The essential element here is justice. An atmosphere characterized by kindness and justice encourages people to work harder and to acquire new skills. Moreover, the reputation of being just attracts skilled professionals from other parts of the world, whose places of origin are either unjust or do not provide sufficient opportunities for them to practice their crafts. Increased production ultimately increases the nation's resources and expands the government's sources of tax income (Ibn Khaldun, 1978).

The second element is productivity. According to Ibn Khaldun, this refers to the abilities and opportunities available to citizens to earn a living (Ibn Khaldun, 1978). Productivity determines people's average income. The degree of prosperity and business activity in a civilization depends, in turn, on the size of the number of citizens and their average incomes. The key to increasing the productivity and average incomes of citizens is improving their education in general and helping them to acquire skills in areas for which there is unfulfilled demand.

With the increasing sophistication of a civilization, the demand for various skills increases. The increase in skills is important for a number of reasons. First, it creates more demand for the products and services produced by the skilled workers. Secondly, skilled workers command higher pay than unskilled workers. Lastly, the number of people with 'spend-able income' increases. These compete for the products and services produced by other skilled workers, and the process goes on and on (Ibn Khaldun, 1978). Ibn Khaldun observed that great civilizations had abundant wealth because of the great amount of available labor, which brought them wealth. He noted, for instance, that as a result of having abundant skilled labor, the civilizations of Egypt, Syria, India, and China "...increased, the property of the inhabitants increased, and the dynasties became great. Their towns and settlements became numerous, and their commerce and conditions improved" (Ibn Khaldun, 1978, p. 279). All these are attributed to "the large amount of labour, which is the

cause of profit” (Ibn Khaldun, 1978, p. 280).

A civilization declines when the number, quality or productivity of its citizens decrease. Of all causes of civilization decay, noted by Ibn Khaldun, political mismanagement is the most common. Political mismanagement results from moral decay. Second to political mismanagement is decreased labour productivity, which results from the natural death of skilled workers, their emigration (because of political mismanagement), and a general decline in the acquisition of knowledge and skills (Ibn Khaldun, 1978). Citing examples of various Muslim dynasties, Ibn Khaldun explains the vices, both on the personal and political levels, which led to the ruin of civilizations. Of all vices, injustice takes the central position. Since the rise and continued strength of a civilization depend on the efforts of its inhabitants to acquire knowledge and skills and to work hard to maximize their income potential, any arbitrary infringement on property rights by the rulers can be a serious disincentive. On this Ibn Khaldun (1987) comments:

Attacks on people’s property remove the incentive to acquire and gain property. People, then, become of the opinion that the purpose and ultimate destiny (of acquiring property) is to have it taken away from them. The extent to which property rights are infringed upon determines the extent and degree to which the efforts of the subjects to acquire property slacken (p. 238).

Injustice is not limited to confiscation of property. Ibn Khaldun considers injustice to include, “whoever takes someone’s property or uses him for forced labour, or presses an unjustified claim against him or imposes upon him a duty not required by the religious law” (Ibn Khaldun, 1978, p. 240).

Civilization is ruined when people no longer have the motivation to learn and to work. Skilled workers gradually emigrate, leading to the decline of the crafts, professions, and sciences (Ibn Khaldun, 1978). This is because, normally, people work hard to maximize their interest and profit. On this, Ibn Khaldun (1978) notes that:

When people no longer do business in order to make a living, and when they cease all gainful activity, the business of civilization slumps, and everything decays. People scatter everywhere in search of sustenance, to places outside of the jurisdiction of their present government (p. 238).

One of the greatest injustices, which lead to the exodus of skilled people, is the failure to give them opportunities to do what they can do best. This situation arises when there is a mismatch between jobs/income opportunities and available skills. This causes a lot of suffering to people because...

...a good deal of their livelihood is gone, or even all of it. If this occurs repeatedly, all incentive to cultural enterprise is destroyed, and they cease utterly to make an effort. This leads to the destruction and ruin of civilization (Ibn Khaldun, 1978, p. 241).

Other vices leading to the ruin of civilizations include immorality, wrongdoing, insincerity, mockery and trickery. In a declining civilization, people only focus on quickly acquiring wealth, often through improper means. They become lazy, leading luxurious lives without spending the necessary effort. In short, there is a general degradation of character. People, including members of the ruling class, no longer care to receive proper education that could make them responsible human beings. Luxurious living, indulgence in pleasures and loss of self-control and the ability to delay gratification lead to problems like overeating, promiscuity, and homosexuality, and the resultant physical diseases and social problems.

Once a civilization reaches that level of corruption, decline becomes inevitable. When people cease to be interested in learning, they cease to be productive and courageous. When people can neither take care of their own needs, nor protect their personal or collective interests, they become dependent on others to defend them. They are simply too lazy to think or to find means to utilize the resources they have. Worse still, they become corrupted in their religious lives. On this Ibn Khaldun observes: "When the strength of a man and then his character

and religion are corrupted, his humanity is corrupted, and he becomes, in effect, transformed into an animal” (Ibn Khaldun, 1978, p. 289). The only way this can be avoided is through education.

The Role of Knowledge, Skills, and Values

From the foregoing, it is quite clear that for a civilization to rise and survive, let alone to flourish, it needs political stability and means for its citizens to satisfy their basic needs. These in turn necessitate the values of justice, courage, industry, and wisdom. The most important element in the rise and survival of a civilization is the quantity, and more importantly, the quality of the human resources available in that civilization. The latter depends on how successful a civilization is in educating its population and/or attracting suitably qualified scientists and professionals from other civilizations.

Among the keys to the success of any civilization is the ability of a civilization to provide its citizens with means and ways of earning a living. Because earning a living is necessary for human survival, Ibn Khaldun gives it priority to excellence in the sciences. Excellence in the sciences, according to Ibn Khaldun, is a luxury and convenience (Ibn Khaldun, 1978). Following Ibn Khaldun’s logic that the status of crafts and sciences changes with time, I would venture to argue here that in the 21st century, excelling in the sciences has become a matter of necessity for the survival of a nation. A nation’s livelihood today depends, more than ever before, on scientific skills and the capacity of its inhabitants. Countries, which excel in science and technology, are performing better, economically, than those which do not (UNDP, 2001; UNDP, 2001a). This is simply because science and technology have become the keys to creating opportunities for gainful occupation.

Although the nature and contents of science and technology have undergone tremendous changes, human needs today are not much different from human needs in Ibn Khaldun’s time. Then, and it is still the case today, most of the gainful occupations were in the crafts, thus explaining the attention he gave to them. As a civilization develops,

more and more crafts and professions which were hitherto considered luxuries, become absolute necessities. Simple crafts for producing the basic necessities of life become more composite, scientific, and highly specialized, requiring prolonged professional training (Ibn Khaldun, 1978; Fareed Zakaria, 2006). According to Ibn Khaldun, wealth can be acquired by extraction of natural resources in activities like mining and agriculture, both of which require certain skills. Adding value to agricultural produce and minerals requires even more skills. A higher level of skills is required for producing services. In all these, an individual can work either for himself or for someone else for a wage. In apparent encouragement of entrepreneurship, Ibn Khaldun argues that being a servant is not a natural way of earning a living. It is impossible, according to him, to find a servant who is both capable and trustworthy. Only people who are not competent work for others. Competent professionals who decide to work for others cannot be trusted. This is because, according to Ibn Khaldun, a competent professional would earn more by either being self-employed, or by having direct access to those in power (Ibn Khaldun, 1978). One point Ibn Khaldun apparently missed here is that there are some professionals who are really competent and trustworthy, but because of lack of entrepreneurial personalities and skills they end up being employed by governments or other—sometimes less competent—individuals. Nevertheless, the point remains that an entrepreneurial spirit is very important for a nation to be able to optimally utilize the skills of its citizens.

The demand for certain professions and skills usually depends on the circumstances and needs of a nation. According to Ibn Khaldun (1978),

Profit is value realized from labour. This differs according to the (varying degrees of) need for (a particular kind of labour). Certain (types of) labour (products) may be necessary in a civilization and be a matter of general concern. Then the value realized from these products is greater and the need for them more urgent (p. 308-309).

Trends change. Skills which are on demand today may be obsolete tomorrow. Moreover, some skills may be needed more than others in a given society. Since labour and skills are essential for the growth and survival of a civilization, it is important to have an efficient allocation of human resources. Today, this can be achieved through a good career advisory system not only in schools but also in the community at large (compare this with the view of al-Ghazali (1982) especially his discussion of the concepts of *fard 'ayn* and *fard kifayah*, whereby for a society with many *fuqaha* and no physicians, it's obligatory to train physicians). This can help to solve the problem of mismatch between skills and available opportunities, which is one of the injustices that lead to the decline and fall of civilizations.

Good skills and values can only exist where there is a good education and training system. Ibn Khaldun refers to what happened to the Muslim realms in the East as well as in Andalusia as a good example of what happens when people become really committed to the acquisition of knowledge and skills. For many centuries, Muslims were the experts in professions like agriculture, architecture, textiles, medicine, book production, and even nursing (Ibn Khaldun, 1978). Success begets more success. As Muslims mastered some of the simple crafts, argues Ibn Khaldun, their intelligence increased and they went on to master even more difficult skills. Among the crafts he believed to increase people's overall intelligence are literacy and numeracy. This is an important point for Muslim nations as they struggle to achieve the Millennium Development Goals (UN Millennium Project, 2005).

A special craft that deserves mention here is scientific instruction. It gives people the ability to express themselves clearly and discuss scientific matters logically and objectively. The importance of critical thinking skills cannot be over-emphasized, given Ibn Khaldun's view that man's ability to think is one of the major pillars of a civilization. Ability to think, by its self, is not enough:

Man's ability to think may embark on (the process of knowing the realities of things) in either the right or the wrong way. Selection of the way to be followed by man's ability to think, in its effort to attain the knowledge desired, requires discernment, so that man can distinguish between right and wrong (Ibn Khaldun, 1978, p. 383).

This is what logic is all about. In addition to equipping students with proper thinking habits, says Ibn Khaldun, it is important to equip them with a good working vocabulary. Besides, children's creativity has to be encouraged by sometimes casting away conventions and using their natural ability to think.

Encouragement of scientific activity was an important characteristic of Muslim civilization when it was at its best, both in the East and in Andalus. A significant portion of the *Muqaddimah* discusses the most common sciences at the time. These included the traditional sciences of language and religion, the intellectual sciences of Arithmetic, Algebra, Business Arithmetic, the Laws of Inheritance (*fara'id*), Geometry, Mechanics, Surveying, Optics, Astronomy, and Logic. They also included Physics, Medicine, Agriculture, Metaphysics, Sorcery and Talismans, the Science of secrets of letters and alchemy (Ibn Khaldun, 1978).

To be beneficial, scientific instruction must be set in the right political atmosphere. Divergent views should be not only tolerated but actively encouraged, the acquisition of knowledge should be rewarded, and resources should be made available for those interested in seeking knowledge. Once scientific activity gains momentum, it gradually influences all aspects of a civilization, creating a knowledge society. The opposite happens in a declining civilization. This is exactly what development experts are telling us today (e.g., The World Bank, 2002, and The World Bank, 2003). Ibn Khaldun observes that when Muslim civilization in Andalus decreased, scholarship and concern with the sciences decreased and gradually disappeared. This corresponded with their resurgence in Europe, whose civilization gradually became dominant.

The right combination of scientific and traditional knowledge and values may be of little use if not imparted properly. On the critically important issue of teaching methods, Ibn Khaldun advises educators to take a gradual approach. First, there must be a clear, focused subject matter: children should not be taught too many subjects at the same time. Too much variety can confuse them. The process has to be gradual, taking into consideration the levels of development and abilities of the children. The details given at each stage should be in line with the intellectual capacities and prior knowledge of the learners (Ibn Khaldun, 1978). The teacher's focus should be not on making children to memorize content, but to develop in them the capacity to think, solve problems and engage in further learning. The two supportive skills necessary to achieve this are logic and the acquisition of a good working vocabulary. Problem solving and creativity, says Ibn Khaldun, can be greatly enhanced by having children engage in discussions and debates about what they have learned in an atmosphere free of severity to children, especially in the form of corporal punishment. All these ideas are as relevant to educators today as they were to Ibn Khaldun's contemporaries. In them, Muslim educators can find means for taking the *Ummah* out of its current state of backwardness and stagnation.

Implications for Muslim Education in the 21st Century

The point made by Ibn Khaldun is that civilization is a natural characteristic of man which results from man's native capacities to think, organize, and struggle to earn a living. In order to subsist and survive, civilization - being man's discharge of the God-given duty of inhabiting the earth, exploiting its resources, and keeping it in good condition - requires knowledge, science, practical skills, and values. All these are reflected in the quality and quantity of the human resources available in a nation.

Thus, the key to the development and survival of a civilization is education; the process of imparting knowledge, science, practical skills, and values to all citizens. This is as true today as it was during the life of Ibn Khaldun, giving further credence to his view that "the past resembles

the future more than one drop of water (resembles) another” (Ibn Khaldun, 1978, p.12). In this section we shall attempt to summarize lessons that Muslim countries today need to draw from Ibn Khaldun’s views in the *Muqaddimah*. Particularly, an attempt will be made to define the kinds of knowledge and skills, values, and systems that the Muslim world must have in order to be relevant, let alone to lead, in the 21st century.

To begin with, all Muslim countries today realize the importance of having a good system of general education (see for example, UNDP, 2001, 2001a, and 2003). This usually includes basic literacy and numeracy (or the 3 R’s of Reading, Writing, and Arithmetic). In addition to the basic skills, more emphasis needs to be placed on training in logical/critical thinking skills and basic creative skills from the earliest stages. These pave the way for the more advanced training in the scientific and technical professions.

Mastery of science and technology has become more crucial in the material well being of nations than it has ever been in the history of mankind. What matters today is not how many natural resources you have, but what kind of talent you have and how you utilize it. The inequalities between the rich and poor countries of the world is not because there is a shortage of natural resources in the former, but simply because of the unequal distribution of talents. Wealthy countries produce and/or attract more talented professionals than poor ones. The global power game has shifted from having Intercontinental Ballistic Missiles (ICBMs) to Intelligence Quotients (IQs). Having the smartest, most efficient, most reliable, creative workforce is now considered the key to national prosperity. Societies with the most innovative scientists and engineers are economically better off than those without them (Zakaria, 2006; Friedman, 2006; Hewitt & Liu, 2006; Nilekani, 2006; and Gates, 2006). Science and engineering have become critical in all areas of society; in the design, building, and deployment of products and services. Science and technology have, indeed, become critical for the spiritual well-being of the *Ummah* today. This may sound quite outrageous, but consider the hundreds, if not thousands, of souls in Asia and Africa that are being

taken out of Islam every year because of their material needs. On a positive note, mastery of science and technology can be put to use to help mankind play his role of vicegerent of Allah, helping human beings to put nature to good use for catering to their needs, without spoiling or destroying it.

The implications for educational policy makers are, first and foremost, to invest more in education, both general education (where religion and values are emphasized), and higher education and professional training. Today, this may be more worthwhile than the amounts spent on acquiring the most sophisticated missiles systems, which Muslim citizens may not even know how to operate or maintain in a good working condition. To thrive, Muslim countries must bring out the best from all their citizens, not only the elite. All citizens, regardless of their social or economic backgrounds, must have access to quality education at all levels. This necessitates the implementation of the Islamic system of social justice, whereby all citizens are given their rights and dues are taken from them without fear or favor.

To achieve the above goals, more investments must be made in educational infrastructures for early childhood, primary, and secondary education. More investments need to be made in higher education and professional training facilities. Here, an open-access system should be implemented, to give all citizens a chance to acquire the necessary skills. To ensure that only those who are competent graduate, however, rigorous academic standards must be implemented. The proliferation of information and communication technologies should make the implementation of some of these ideas and sharing them among Muslim communities easier than it has ever been before.

To become centers of excellence in science and technology, Muslim education systems have to go beyond gathering, memorizing, and reproducing information. We have to create our own knowledge which is in line with the Islamic values and purpose of life. The ultimate aim is to be able to provide solutions for the problems faced by the entire humanity, thereby actualizing the *Ummah's* duty of being "witnesses"

and “mercy” for humanity. To achieve this, more emphasis has to be placed on the acquisition of problem solving skills. Muslims should be good at solving novel problems and to quickly design and build solutions based on Islamic ethos. This requires the enhancement of the creativity skills. Indeed, among the fastest growing occupational areas today are in the “creative sector,” which includes a mixture of science and technology, art and design, as well as culture and entertainment. This will produce “hybrid workers” who are trained to be flexible and are capable of performing different tasks under different circumstances (Florida, 2006; Hsien Loong, 2006).

Considering the foregoing, one may get the impression that focus must be only on producing scientists and technicians. That is a gross mistake that many educational policy makers in the Muslim world are committing today. A careful analysis of Ibn Khaldun’s views shows that although the quality and quantity of technical skills play an important role in a civilization, they cannot exist by themselves. For the technical skills to be really useful, they have to be established upon a firm foundation of a general education, the most important components of which are literacy, numeracy, thinking skills, and, most importantly, religion and character development.

For Muslims to succeed in science and technology, they have to focus on their religious lives and morals (Arsalan, 2004; al-Attas, 1993; al-Salih, 1983; al-Salih, 1990; Sardar, 1987; and Wan Mohd Nor, 1998). Religion, if properly taught, ensures that man has a perspective in life, a clear purpose which integrates whatever he does. Civilizations get corrupted and decline not because people do not have skills, but when their character has become corrupted. Corruption spreads like a cancer which quickly spoils the moral fabric of the nation. The powerful abuse their power, the skilled professionals misuse their skills, and nobody cares about the common good, let alone the primary responsibility in making the world a better place.

Thus, a good religious education is an essential foundation for a civilization. Focus should be on making children aware of their mission

in their universe, as *khulafa'* (vicegerents) of Allah, charged with the task of making themselves good, making the world good and pleasing to Allah and being of service to the other creatures of Allah (al-Mahdi, 2004). All aspects of *'aqidah* (theology), *shari'ah* (law), and *akhlaq* (morals) have to be practically oriented. When memorization of some contents, such as passages from the Qur'an and Hadith, is deemed necessary, efforts should be made to make the children understand what they memorize. Pure rote learning should be avoided at all cost. Moreover, learners should be given opportunities to discuss and reflect upon their lessons as they try to apply them in real life.

If properly internalized, the cardinal virtues emphasized by religion have the potential to become foundations of a unique scientific culture, a culture aimed not at self-aggrandizement and maximization of personal profits and well-being, but at pleasing Allah through being of service to His creation. Having a purpose larger than themselves and their immediate families, the professionals get additional motivation to excel in their specialties. Although it is rarely pointed out, what the Muslim world needs today is to implement the full range of values taught in the Qur'an and exemplified in the life of Prophet Muhammad (SAW).

Among the principal virtues taught by Islam are: knowledge and wisdom, courage, temperance, and justice (Sherif, 1975). Knowledge and wisdom include many character strengths which are essential for scientific achievement. Among these are: creativity, curiosity, open-mindedness, love of learning, and having a sense of perspective. The virtue of courage includes strengths like bravery, persistence, integrity, and vitality. Justice includes civic mindedness, fairness, and leadership, while temperance includes forgiveness and mercy, humility and modesty, as well as self-discipline (al-Ghazali, 1982; Sherif, 1975; Seligman & Peterson, 2004, provide a more detailed list and explanation of character strengths and virtues). Above all these is the virtue of being God-conscious, or *akhira*-minded (to paraphrase al-Ghazali, 1982. See also Sherif, 1975). The above qualities are essential for man's success in this world and his salvation in the afterlife. If the above values are properly inculcated,

producing professionals, who are not only smart and efficient but also humane, becomes almost automatic.

Summary and Conclusion

To sum up, Ibn Khaldun holds that civilization is an innate characteristic of man, related to three other characteristics, i.e. man's ability to think, his capacity for organization, and his deliberate struggle to earn a living. A civilization is built upon the foundations of political/military strength and wealth, both of which depend on the quantity and quality of available labor and skills. The quality of a nation's human resources depends on its success in providing a good basic education, availability of economic opportunities, and the character and morality of both the citizens and the rulers. Civilizations decline when injustice, coupled with general immorality and lack of knowledge of and respect for religion, leads, to the vices of lassitude, corruption, and a general lack of productivity. Among the lessons to be learned from this by contemporary Muslim educators is the need to emphasize on science and technology education, coupled with a practical, comprehensive approach to religious education. This, it is hoped, will breathe new life in the *Ummah*, make it dynamic, and return it to its rightful position as the center of human civilization.

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