

The role of human capital in economic development of the earliest Islamic period

Seyed Kazem Sadr

*International Center for Education in Islamic Finance,
Kuala Lumpur, Malaysia*

398

Received 12 December 2014
Revised 12 May 2015
Accepted 15 May 2015

Abstract

Purpose – The purpose of this paper is to provide explanation for the economic development of the earliest Islamic state. It focuses on the role of human capital as the most important element of this model and focuses on four dimensions of development of human personality in Islam: the incentive structure, rules of behavior, institutions and policies.

Design/methodology/approach – A review and analysis of the measures and policies that Prophet of Islam and his successors adopted are made to arrive at the underlying economic model of development.

Findings – The major finding is the role of human capital in the development of the economy at that time.

Originality/value – The contribution of the paper is to identify the critical role of education and skills for the development of the economy at present.

Keywords Human capital, Economic development, Early Islamic period, Economic policies of Prophet of Islam

Paper type Research paper

1. Introduction

History records that, after 13 years of struggle and persecution in Mecca, when the Prophet of Islam Sala Aliahe wa Alehi wa Sallam (SAAS) and his followers first entered Medina, they were destitute economically and homeless. Forced to leave Mecca surreptitiously, they could not take any of their wealth and possessions with them even if they had any. While the Muslim inmates (Ansar) of Medina treated the newcomers generously sharing income, wealth and homes with them under the “brotherhood” arrangements initiated by the Prophet (SAAS) (Ayati, 1980, p. 216), still a number of new immigrants had no homes and slept outside of the Prophet’s mosque.

In a short span of eight years, the Community of Medina had created a dynamic growing economy, in which poverty had been reduced significantly; no one was homeless and all had sufficiently comfortable standard of living. Commerce had flourished and agriculture had become productive, despite the arid conditions. New technologies had been imported from Byzantine and Persian Empires. And despite the rapid growth of population due to migration of new Muslims, per capita income had



increased rapidly. Education and health services had expanded, new economic and social institutions were established, rules of behavior prescribed by the Qur'an actualized and Qist (inter-relational justice) spread in the society. This paper attempts to provide the underlying model that can explain this phenomenal growth. It focuses on the role of human capital as the most important element of this model of development.

Economic development and progress in human societies depend on many factors. It may be thought that focusing on only one element may lead to an incomplete understanding of the development process. However, in economics, focus on one element as the primary factor in the development process does not mean that other influential elements are ignored. For example, there is no intention in Physiocrats' focus on agricultural land and its development as the most important factor in economic growth, or in Classical economists' emphasis on capital accumulation as the fundamental factor in industrial growth, to ignore all other influential elements responsible for economic development. Their purpose is to focus on factors they consider most important in economic growth and alleviation of poverty (Taffazzoli, 1993). Similarly, it can be argued that human capital is the most important factor in the economic development process (Schults, 1971; Ahmad, 1995). Growth and accumulation of human capital allows a society to experience rapid growth and poverty reduction. *It is the contention of this paper that it was indeed the process of growth and accumulation of human capital that allowed the development of the economy in the earliest Islamic Community.* The combination of incentives, rules and policies implemented in that period allowed rapid growth and accumulation of human capital. Combination of latter with natural resources provided the basis for economic flourishing.

When the Prophet (SAAS) and his followers entered Medina, they possessed no wealth and had no access to resources, but possessed potential human capital. Prophet's initiatives and implementation of appropriate policies allowed this potential to actualize; the rapid economic progress was due to this important factor.

The human capital of Muslims emerges as skilled labor in the market institution. The role of human capital in Islamic pattern of development is visible in the way experienced, skilled, innovative and expert manpower is treated as compared to other factors of production. Islam's attention to science, research, education and the prestige and social status that it bestows to scholars and scientists reveals the importance of human capital in Islam.

Qur'an is the most important miracle of Islam. In his first explicit contact with the Divine, the Prophet (SAAS) is ordered to "read" (96/1, 17/70). The Messenger, in turn, invites people to Islam by reciting the Qur'an to them. The clear implication is that the focus was on guiding human consciousness and thought through knowledge attainment. This process actualized human mental capacity into human capital as the most important factor of production in the development model of earliest Islamic period. It was also the most important element in the development of social institutions. These institutions constituted a crucial dimension of Islamic development model and much of the economic rights of individuals depended on the social division of labor in this model. Therefore, the way individuals participated in the society and the various roles humans assumed in social relations need be considered to understand the growth and development of human capital in the model.

The Qur'an is the first source of discovering the model of economic development operating during the earliest Islamic period. It considers humans the crowning

achievement of creation (2/28-29). All natural resources are created for all human beings (7/10, 14/32, 31/20). The objective of Islam for humans is their felicity here and in the hereafter. Here, the objective is achieved when humans establish justice in their social life. And what they accomplish here, on this plain of existence, determines their condition in the next. The economic development model of Islam is designed based on these objectives.

The initial verses of Qur'an, which were revealed in Mecca, instructed the principles of Islamic worldview, the mission of man, the Islam's way of life and the destiny of human being. By teaching Qur'an, Prophet of Islam (SAAS) puts his efforts to change the previous ignorance "Jahiliyyah" culture of Arabs into new unified and glorious vision of life. Part of this cultural change program is bestowing value to knowledge and prestige to skilled and learned persons.

To understand the contents of the model of development of earliest Islamic period and its operation, one needs to discover the rules, institutions and policies adopted by the Prophet (SAAS) that allowed transformation of the society from an Age of Ignorance (Jahiliyyah) to the Age of Islamic Enlightenment, an age of guidance to justice and felicity of human society.

A review of the Prophet's (SAAS) initiatives and measures for enhancing the stock of human capital of new Muslims shows that his holiness targeted four dimensions of human personality: the incentive structure, rules of behavior, institutions and policies. They are discussed in order in the following sections. These initiatives seem to be accomplished along a socialization process, the feeling and responsibility of individuals to become partners in a family and the latter to turn into a unit of the community, the Ummah. This socialization process will be discussed, next, to serve as a forum for analysis of the said measures.

2. Dimensions of the human personality

Within the framework of Islamic development model, human personality assumes three dimensions. First, as an individual, humans are expected to perform duties prescribed for them, avoid what is prohibited and struggle to earn a living. Second, a human is expected to perform duties as a member, or a pillar, of a family. This represents an increase in responsibilities as a member of the society. Families constitute the basic elements of a Muslim society. They obtain then new roles and social obligations. Part of the incentive structure of Islam relate to humans as individuals, another part to families and the remainder to the society. Rights also follow this division. Economic institutions are organized for protection of individuals and families as well as for the health of the society. These three dimensions of human personality complement each other. Islam sees human progress in the process of individual's ascension to become a member of a family. Progress is furthered when a family becomes an active part of the society. At the same time, each dimension maintains its independence with associated rights and responsibilities. Economic rights of individuals in the rules governing property rights and in economic transactions are specified. When individuals become part of a family, additional responsibilities are imposed as additional rights are also accorded to the individual. The privileges and duties of spouses and the laws of inheritance are examples of such concessions and obligations. Islam considers the family as the foundational institution of the society. This view provides the bases of rights of husbands and wives, fathers and mothers, brothers and sisters in the family. And when

considering individuals and families as integral to the society, rules govern their behaviors that guarantee the rights of the society. Rules, such as prohibition of extravagance, waste, opulence in production and consumption, third party damage, earning income from prohibited sources, disturbing the stability of society, guarantee society's rights by constraining the behavior of individuals and families harmful to society.

Another effort by the Messenger to enhance the socialization process in the Arabian Peninsula was to send teachers, judges and missionaries to people in areas that had accepted Islam (Sadr, 1989). This service allowed new Muslims to become familiar with the teachings of the Qur'an and Sunnah regarding rules of ethical behavior. As a result, Muslim consciousness not only learned Islam's teachings regarding its relationships with the self, the world and the Creator, but also found the capability to align its preferences and ethical structure with Islam's expectations, thus promoting convergence of behavior among Muslims.

All these efforts in strengthening human capital led to clarity of social priorities, ease of planning and preparedness of Muslims to persevere to achieve their aim of felicity in the face of difficulties and challenges. Tribal mentality was replaced with that of Ummah consciousness and Islamic law replaced tribal traditions. Faithfulness to terms and conditions of contracts and promises became an accepted tradition.

2.1 Incentive structure

Islam has established an incentive structure for the economy with positive and negative elements. These relate to consumption, saving, investment and transfer of income and wealth. It encourages individuals (with promises of rewards from Allah Sohanahoo wa Ta'ala (SWT) to seek ways and means of earning a living and discourages voluntary unemployment and relying on others for handouts. It considers a person who struggles in trying to provide for his family as someone striving in the "way of Allah" (Koleini, 1971) with all the rewards attached to this effort.

The most available means of learning skills is by doing and working. Islam upholds work. Legitimate income earning is both an obligation on every adult individual and his most valuable contribution. In the Holy Qur'an, Allah (SWT) states that he has created man from the earth and has prescribed the mission of developing the land for him (Hood, 11/61). Elsewhere, Allah (SWT) states that he has made the earth a place for man's settlement and has created ways and means for his earning (Zokhrof, 213/10). Further, Almighty reveals that all the blessings in the world have been created for mankind's sake (Baqarah, 2/29). Similarly, the Prophet of Islam (SAAS) has praised earning permissible income and considered it the best of deeds (Mottaqi al-Hindi 1401L/1980, Vol. 4, p. 8), so much so that he regarded it as the most valuable manifestation of worship (Al-Hur al Ameli, 1403L/1982, Vol. 12, p. 11). Once, his holiness encountered a seller in the market who was offering goods at relatively lower prices. He commended him and said that market suppliers are the same as the strugglers in the cause of Allah (SWT), while the hoarder of goods is as heathen in the book of Allah (SWT) (Al-Hakim al-Naishaburi, 2015, Vol. 2, p. 12). Equating market place to the battle field and market participants to strugglers for the sake of God indicates great reward and recompense. The same analogy has been given by several members of the Prophet's (SAAS) progeny. Imam Ja'afar Ibn Muhammad Alaihe as Salam (AS) likened a hard worker for his family's livelihood to a struggler in the way of Allah (Koleini, 2015, Vol. 5, p. 88). It is also

reported from his son, Imam Musa Ibn Ja'afar, that whoever seeks his living and that of his family in a lawful manner is like a struggler in Allah's (SWT) cause (Al-Hur al Ameli, 1403L/1982, Vol. 12, p. 11). Imam Ali (AS) has stated that Muslim's market is the same as their mosque (Ibid, 300). Thus, the Holy Qur'an and the Prophetic Sunnah not only encourage people to strive for a decent living but also grant the highest conceivable value for this effort. In another source, expenditures on one's self, family, children and servitors is equated to alms giving (Mottaqi al-Hindi, 1401L/1980, Vol. 4, p. 9).

Revered in the value system of Islam, economic activities are defined and categorized by the leaders of Islamic state. When asked about the most virtuous profession, the Prophet (SAWS) responded, "Man's work with his hands and every sanctioned sale" (Noori Tabarsi, 1408L/1988, Vol. 2, 417).

A fellow traveler was once praised for committing all his time to practices of worship. The Prophet (SAAS) inquired about his food and expenditures and was told that his fellow travelers were paying them willingly. His holiness commented, "You are all more pious than him. The best of you is he who does not burden others with his living expenses. Whoever does burden others with his livelihood is cursed by Allah" (Al-Hur al Ameli, 1403L/1982, Vol. 12, p. 18). Having assigned so much value and pride for participation in market and business conduct, the Islamic value system denounces negligence in this obligation. Imam Musa Ibn Ja'afar has advised one of his companions to "seek your honor early morning i.e. the market" (Al-Hur al Ameli, 1403L/1982, Vol. 12, p. 4). Thus, usefulness and value-creating should be the aim of every member of Islamic community.

Islamic teaching does not award consideration to issues of superficial prestige in the society. A job is decent, by Islamic standards, as long as it creates value. The Prophet (SAAS) is reported to have said that mean work is better than begging (Mottaqi al-Hindi, 1401L/1980, Vol. 4, p. 122). Imam Sadiq (AS) advised a poor person to "work, even by carrying freight on your head, [in order to be] self-sufficient and independent from people" (Al-Hur al Ameli, 1403L/1982, Vol. 12, p. 22).

For each member of the society, incentives are established to encourage transfer payments, redemption of the rights of the less-able in the income and wealth of the more-able[1], endowments[2] and (non-interest) loans of beneficence[3]. Priorities are given to spending for the purpose of ensuring sufficient living standards for one's household and expenditure to help a member of one's immediate or extended family.

It is worth noting that within the Islamic development model, incentives for expenditure and maintaining a moderate standard of living relate to the three dimensions of human personality as individual, a member of a family and a member of the society. At lower levels of income, earning enough to support one's household takes priority. As income increases beyond what is needed to sustain a moderate standard of living, helping others in need takes priority. Thus, the incentive structure strengthens social solidarity.

2.2 Rights and rules

Economic rights in Islam relate to allocation of initial resources and the distribution of returns. Rules that govern reviving and preserving land and other natural resources that are left fallowed or unused[4] and associated property rights rules determine the distribution of income and wealth.

In allocation of natural resources, rules regarding property rights focus on human effort to revive and preserve fallowed lands and unused natural resources; human capital is given priority over financial resources. The revived land or production derived from agricultural partnerships becomes the property of the work force that exerted efforts to bring land and other resources to production stage (Sadr, 1969).

In distribution of income earned from combination of labor and natural resources, the work force is given priority and positive consideration compared to other resources. In a comparative analysis, Sadr (2015) demonstrates that, in accordance with Islam's rules of distribution, labor receives considerably greater reward for its efforts than other factors of production. In addition to wages, human capital can receive rewards as a partner in economic activities. This right, compared to that of other factors of production, gives the owner of human capital an advantage in the process of income distribution.

Rules regarding transactions and participation in production determine the return to resource owners. What is clear is that (Sadr, 1969; Sadr, 2015) the Islamic verdicts and rules are in such a way that the labor force, under different conditions and in various productive and commercial activities and occasions, can select a contract that offers the highest benefits, whereas no such priorities are available for the owners of capital. For instance, under the certainty conditions, the laborer can sign a contract that will offer him a share in the output of an enterprise, or under the uncertainty and risky conditions, he may opt to work for fixed wages. This privilege is not available to the capital owner due to the prohibition of *Riba*. The developers and extractors of raw materials not only gain the ownership rights on the said materials but also on the final or intermediate goods that are produced by them. In addition, they could even sell the said material for a fixed price and transfer their ownership title to the buyer. Finally, the financial capital, unlike physical equipment, can be used in any participation arrangement. It can claim a share in value added only after the activity and the partnership contract has been terminated with a profit. On the other hand, the laborer can enjoy making either participation or fixed wage contracts. Therefore, the nature of rules and regulations pertaining to partnership and the shares of production factors is such that they give more privileges to workers as compared to capitalists.

As stated earlier, the fundamental objective of Islamic paradigm for the economy is the strengthening, growth and guidance of human capital which is embodied in labor.

2.3 Importance of society

It is worth noting that while a family is composed of individuals and a society of both individuals and families, none of these components lose their independence and identity in the community. In Islam, society is not considered as a composition in which elements lose their individual identities (Motahhari, 1974). Concurrently, the relation of the individual elements within the society is not one in which the sum total of individuals are what make the society no more, no less. On the contrary, the society is more than its individual parts and has its own independent identity, just as a family is more than the sum collection of its individuals. Relations among members of family would not appear without marriage of wife and husband. In a society, too, relations appear that would not be possible without association of the members. Language, culture, civilization, specialization, cooperation, institutions, rules and regulations, arts, science and technology are all results of social life. Individuals and families living separately and

isolated could not produce these results. The same way that a family's social identity is broader and deeper than the sum total of its individual members, society too has an identity greater and more comprehensive than that of the sum total of the units that compose it.

Islam considers that societies have their own traditions and rules; those who try to understand them will be guided by Allah (SWT). Messengers of Allah were sent for the guidance of humans and their collectivities, some were sent for a generation or a people and some were sent for all humans in a particular epoch. The Messenger of Islam was sent to all humanity till the end of time. The mission of prophets was to guide humanity to know the potential abilities of individuals, families and, most importantly, their societal capabilities to establish justice. To accomplish this, prophets were sent with books[5] and "standard"[6] against which justice in society is measured. While Islam provides guidance for individuals, major portion of its teachings relates to social relations.

All prophets gave the same message, but according to the stage of growth of human cognitive abilities, prophets were sent to deliver portions of the overall message. With each prophet, the Divine message for humanity became progressively more complete. This is the most important factor of distinction of the message of one prophet from the ones sent before. In Islam, accordingly, individual and family are given a greater and more comprehensive recognition as well as greater responsibilities and duties than previous messages. But what is the most important factor of distinction of Islam is its societal point of view and how a society has to be organized (Tabatabaei, 2015). For this purpose, Islam has prescribed rules and traditions and has required the believers to discover and understand them. It is incumbent on Muslims, therefore, to acquire knowledge and discover the Qur'anic laws.

The essential objective of the society, Qist[7] (inter-relational justice), is possible only in a society. Qur'an ordains consultation (Shura), a social institution. Additionally, the Messenger organized other social institutions, such as a state treasury (Baytul Mal), sources of government revenues (Anfal and Fay'), and provided a social responsibility maxim that "whoever sleeps the night without giving active consideration to the affairs of Muslims is not of them." (Koleini, 2015). This became the slogan of the Islamic movement.

2.4 Institutions

To strengthen human capital, the development model of Islam prescribes acts of worship, such as ritual prayer (Salat) and fasting, that allow the training and expansion of the individual's human capital to draw closer to Allah (SWT) and also be prepared to accept family and social responsibility. From these acts of worship emerge institutions that make it possible for individual to become social while performing acts of worship.

Salat has greater reward performed congregationally. Friday prayer (Salat al Jum'ah), in which the prayer leader delivers sermons dealing with social issues, draws greater rewards. Prayers in the two Eids, Fitr and Adhha, are held twice a year with high levels of public participation. These constitute means of socialization. Additionally, to provide an opportunity for world Muslims to become acquainted with one another and exchange social and economic ideas, pilgrimage (Hajj) is ordained as a result of which Muslims develop a strong sense of social solidarity. Given the emphasis on the growth

and development of society, Islam has established its acts of worship as socializing processes.

2.4.1 Market development. To allow the society to meet the economic needs of its members, two important institutions developed in the earliest Islamic period: market (Kister, 1965) and public treasury (Hasan-uz-Zamn, 1981). While the institution of market is ancient, the pre-Islam Arabs had developed conditions and contracts that constrained accumulation of human capital and actualization of justice (Al-Afghani, 1960). The Messenger (SAWA) removed the constraints and reformed the conditions of market operations. As well, he created incentives to encourage growth of trade and investment. For example, he established a market for Muslims in Medina with free entry and exit, contrary to the practices in the then existing markets of Arabian Peninsula (Afghani, 1960).

By surveying the literature on activities of the holy Prophet (SAAS) and the commander of the believers, in this regard, Mortadza (1988, pp. 23-25) has concluded the following:

- The land and the buildings and any construction needed for the markets were supplied by the public sector.
- There were no rentals as such for the use of the land and facilities provided by the markets.
- Some of the market places had buildings and some others had no facilities at all. They did not allow the stall-keepers to intrude into the common spaces of the markets or into the spaces allotted to others.
- It was prohibited to build any construction or occupy the non-permitted places in the market. Once the great messenger of Islam ordered to burn the tent of a date-seller who had erected his tent in a non-permitted area and once Imam Ali (AS) ordered to destroy the shops that were built in the forbidden areas.
- In places having no construction, the priority was granted on first come first served basis and the permission was valid only for the current day.

Concurrently, he created an incentive for non-Muslims to trade in the Muslim market by guaranteeing their goods against risk of any damage in this market (Mortadza, 1988).

When the Messenger and his followers migrated to Medina, local Muslim residents of Medina (Ansar: Helpers) offered to gift half of their farm and garden wealth to the Migrants, who were in a state of destitution. The Messenger encouraged them, instead, to allow Migrants to become partners of Helpers in their farm production activities in contracts of Muzara'ah (Ahmadi Mianaji, 1982). Many among the Migrants were urbanites of Mecca with little or no experience in farming or other agricultural activities. Partnership contracts in the form of Muzara'ah allowed them to become skilled in these activities. As a result of increased economic activities, market transactions expanded and incomes increased allowing both Migrants and local residents, the Helpers, to accumulate capital and wealth (Setia, 2014).

2.4.2 Baytul Mal establishment. The Messenger also established another economic institution, public treasury (Baytul Mal). This institution allocated state revenues to social expenditures and strengthened the public sector along with policies that had supported the private sector. Public treasury allowed expansion of supplies of social overhead capital, including infrastructure investment, new technologies, social safety

net, defense, security, public education and cultural activities. Baytul Mal had an effective role in the progress enhancement of human capital in the earliest Muslim Community. A short account of Baytul Mal activities at the time of the Prophet (SAWS) and his successors are given in order.

The noblest Prophet (SAAS) had much concern for the instruction and education of the Muslims and made use of every opportunity to make them literate. The Messenger established Darul Qurra'[8] (House of Readers) for teaching reading and writing to young people. Each prisoner of war was given freedom in exchange for teaching 10 young people of Medina. This basic education policy leveled the ground for early Muslims to become familiar with knowledge of farming and technological activities, irrigation techniques, wells and underground water canals, public health, medical services, construction, architecture, urban development, weapons manufacturing and other techniques that had been practiced in the Byzantine and Persian Empires. This transfer of technology policy designed by the Messenger laid the foundation of growth and development of Muslim economy. Social and other sciences made great progress under the leadership of Imam Ali and continued over time, such that during the time of Imam Musa Ibn Ja'far and Imam Ali Ibn Musa al Ridha, Muslims became the leader of these sciences of their age (Yadegari, 1977).

In addition to sending forth propagation teams and appointment of judges and teachers, the Messenger was very concerned with the building of masjids and using them as centers for communal prayer and as places to assemble, consult and make decisions, as well as distribute funds from the public treasury. He also, at one time, used his masjid to house homeless companions.

During the rule of the noblest Messenger, scholars, physicians and men of letters who already were at hand were held in respect and were employed in the diffusion of science and knowledge. Indications of the Messenger's concern for the science of medicine and sanitation and his mustering the resources for the health of Muslims and their learning will be given due account in the following sections.

Another art that was very important in the time of the Messenger was that of the production of arms. It is said that one of the companions of the most noble Prophet (SAWS) with the latter's permission went to Persia and brought back to Medina four experts in the production of swords, shields, helmets, lances, arrows and bows together with the raw materials needed – iron ore and Badameshk wood. With the construction of a smelting furnace, he made the aforementioned weapons from iron ore and arrows and bows from the Badameshk wood (Hasan Ibrahim Hasan 1,356/1977). In the battle of Khaybar, the Muslims faced two new weapons – the mangonel and the testudo – which the Jews had constructed. Thanks to the measures that Allah's (SWT) Messenger had implemented, the Muslims also learned to make these weapons, and they used them in their subsequent battles, including that of Al-Tae'f (Al-Kattani, 2015, Vol. 1, p. 375).

Through the policies of Messenger and the resources of Baytul Mal, human capital of Muslims increased rapidly to allow Islamic world view and culture to dominate the then known world (Sadeghi Tehrani, 1996).

2.5 Policies

Growth of human capital requires provision of food, security, social and health services, schooling and policies in support of knowledge and research. Some of the policies of the

Messenger (SAAS) to provide these services have been mentioned briefly. What follows provides greater detail of these policies.

2.5.1 Food security. The arid environment of the Arabian Peninsula was not very suitable for agricultural activities. Except for places like Medina, Ta'if and Kheybar, not much agricultural activities were taking place. Nevertheless, using possibilities available, the Messenger (SAAS) created food security for the Community. As mentioned earlier, learning new farming techniques and partnership contracts allowed increased food production and employment. In the fourth year of Hijrah, the tribe of Bani an Nadhir, that had broken their peace treaty, left Medina, and at the recommendation of the Helpers, their land was divided among the Migrants, who already have become skilled farmers (Waqedi, 1982; Yaqoubi, 1959). The redistribution helped further increase the production of food and other agricultural products.

At the conquest of Ta'if and Kheybar, the Messenger (SAAS) allowed their farmers to remain on their land and continue their activities as before. In exchange, the tenants would pay annual Kharaj (taxes) to the Baytul Mal. The Messenger appointed an agent from the Baytul Mal to oversee their activities. Keeping non-Muslim farmers on their own land and encouraging them to continue to manage and produce, and his recommendation to the Helpers to maintain full ownership of their land while sharing output with the Migrants under partnership contracts, demonstrate the Messenger's farm production policies. In both cases, physical capital and land remained under the management and supervision of the owners of human capital, and the farm operations were carried out under his direction. These policies that skillfully combined human capital with other factors of production allowed physical and human capital to complement one another to increase their efficiencies and output despite the harsh condition of an arid environment.

In the Arabian Peninsula, water was scarce and its sources were wells and underground canals. The Messenger designed and implemented a policy that, on the one hand, made water a resource which was to be shared by all and, on the other hand, encouraged investment in finding new sources of water. He reduced Zakat for agricultural output for lands irrigated with well water compared with products of dry farming.

Kharaj (land tax) on farms was levied as a function of land rent, neither total product nor total cost. Thus, it did not impede efficiency of farm production (Sadr, 1989).

Zakat on agricultural crops was levied in a way to encourage this activity and secured production efficiency. Production less than a predetermined amount were not subject to Zakat. Output of irrigated land was subject to half that of dry land farming. In both cases, the nature of Zakat was similar to a quasi-rent, as it was imposed on the net revenue (total revenues minus total costs). Therefore, it did not affect the incentive structure of efficiency and output. Another notable element of Zakat structure was the way it was imposed on the four most important products, that is, wheat, barley, raisins and dates. They constituted essential components of food for members of the community. The Zakat of these products helped assure food security for people. Their in-kind Zakat to the Baytul Mal helped assure food security to meet the needs of the poor members of the Community. It might be for this reason that Zakat imposed on these four products was higher than other products subject to Zakat. Zakat ul Fitrah, that is giving out 3 Kg food by each adult individual to the poor each year on the day of Eid Fitr,

supports this conjecture. All products other than these four were not subject to mandatory Zakat but payment was recommended.

Animal husbandry had existed in the Arabian Peninsula in limited scale. Life was nomadic and animals were needed. Camels were raised as a commercial enterprise. There were limited pastures in some valleys, despite the generally arid environment. The Messenger declared these pastures public or as common to prevent their monopolization (Sadr, 1989). Given their power, the tribe of Quraish had already monopolized many of the fruit orchards in Ta'if. Without the action of the Messenger that declared pastures as commons, it was likely that sooner or later Quraish would have taken over the pastures as well. Zakat of animals was structured not to have negative incentive effect on production activities in animal husbandry. If animals were grazed on private farms or rehabilitated land, then they were exempted from Zakat as were animals used in productive activities and services, such as camels for transportation and bulls for farming. If the size of a herd of sheep, cattle or camels was less than 40, 30 or 5, respectively, then no Zakat had to be paid on them. On the other hand, the rate of Zakat was constant with respect to the size of the herd (Sadr, 1989).

In the development model of the earliest period, policies to assure food security for human capital had special importance. Incentives to encourage agricultural activities, rules governing property rights, structure and method of Zakat and facilitating training of human capital were the components of these policies. Division of war booties that often included animals and food, and trade and importation of these items supplemented other actions to ensure food security.

The method of animal Zakat collection instructed by Imam Ali to one of his tax collectors resembles random Zakat selection (Najul Balaghah). Like Zakat on crops, it does not impair incentives for animal husbandry development.

2.5.2 Industry. The arts of weaving, needlework, ironworking, construction and leatherworking, well-digging and the use of underground water flourished among the Prophet's followers in the days of his rule, and artisans were engaged in these activities (Al-Kattani, 2015, Vol. 2, p. 103).

One of the arts that reached the Islamic world when Umar ibn Al-Kattab was ruling was the art of managing the fiscal and accounting affairs of the public treasury. The conquest of Syria and Egypt, also under his rule, acquainted the Muslims with new technologies. Among these arts were architecture and urban planning, with the result that at his order the two cities of Kufa and Basra were built. Likewise, by his leave, a canal was constructed between Al-Fustat, Egypt's capital at the time, and Bahr al-Qulzum, (The Red Sea). The importance of these measures will be explained below.

In the era of the Imam Ali's caliphate, and as a consequence of his concern for the diffusion of knowledge, Basrah and Kufah became two centers of science and literature. Abul-Aswad Ad-Du'ali, who is recognized as the compiler of the science of Arabic grammar, was living in Basrah at that time according to one narration. Abul-Aswad, who was one of the close companions of Imam Ali (AS), was instructed by the Imam in the science of grammar and its compilation (Al-Kattani, 2015, Vol. 2, pp. 272-275). The science of interpreting the Qur'an, the traditions of the Prophet (SAAS), poetry and literature, biography, narration of the Prophet's acts and some other fields also matured in that era (Yadegari, 1977, pp. 179-180).

Among the other important steps taken by Imam Ali (AS) during his caliphate was the striking of coinage in the name of the Islamic state (Hassa uz Zaman, Jafar Murtaza, 127-137). Up to that time, Persian and Byzantine coins had been used.

Umar ibn al-khattab also had a praiseworthy interest in infrastructure investment. The two cities of Kufa and Basrah were constructed at his order. Furthermore, when the two aforementioned cities were being constructed, he paid much attention to the layout of the avenues, the width of the streets and the centrality of the mosque in both cities. After he received a report on the geographical situation of Egypt, he wrote to Umr ibn el-Aas, who was governing Egypt on his behalf, ordering him to spend one-third of the public revenue of Egypt to build bridges and canals and repair the water supply networks. He also obliged Christian and Jewish experts to maintain and repair roads and bridges (Al-Kattani, 2015, Vol. 1, pp. 282-283). The most famous act of Umar ibn al-khattab in that land was his permitting Umar ibn al-Aas to dig a canal between al-Fustat, which at that time was the capital of Egypt and was located near Cairo, the present capital, and the port of Suez. This canal facilitated navigation between Hijaz and Egypt and made it easier and quicker to transport provisions and food stuffs from Egypt to Madinah (Al-Kattani, 2015, Vol. 2, pp. 53-54).

2.5.3 Health and hygiene. In terms of health and treatment, the efforts of the Messenger were in two fields. First is inviting non-Muslim physicians and surgeons to dwell in Hijaz. Prophet's plethoric compassion and forgivingness led to their heartening to stay. His kindness and especial attention to them was a source of encouragement for their continued interest in remaining in Hijaz. The second is the instructions and the policies that his holiness adopted to enhance the health and hygiene among Muslims. One of the famous physicians and a contemporary of the Prophet (SAAS) was Al-Harith, ibn Kaladah, who had completed his education at the Judi Shapur University in Persia and had also practiced medicine there for a time. When he returned to his homeland, the Messenger welcomed his arrival (Al-Kattani, 2015, Vol. 1, pp. 455-457). Among other physicians of that era was Al-Nazr ibn Al-Harith, the son of Al-Harith ibn Kaladah; Dзамad ibn Thalabah Al-Azdi, who also was a devoted friend of the most noble Prophet (SAAS); and Ibn Abi Ramtah At-Tamimi. The last-named was a surgeon, and reports about operations performed by him have come down to us (Al-Kattani, 2015, Vol. 1, pp. 456-461).

At the time of the caliphate of Imam Ali (AS), several physicians were residents of Kufa, Imam Ali's capital. The best known of them was named Atheer ibn Amr ibn Hani As-Sakuni. This physician was called upon to treat the Imam after the terrorist attack by Ibn Moljam, which led to Imam's martyrdom (Yadegari, 1977, p. 180). The aforementioned physicians were Zoroastrians. The fact that they were called upon to treat and save the life of the caliph of the Muslims shows the closeness of the ties of mutual trust and respect.

In history, the names of a few Muslim women who were known as midwives and those who practiced nursing have been recorded (Al-Kattani, 2015, Vol. 1, pp. 453-454).

The great Prophet (SAAS) was also much concerned with the matter of sanitation. He ordered something resembling the quarantine to be established (Al-Kattani, 2015, Vol. 1, p. 466). On the basis of 40 traditions of the Messenger containing medical and sanitation instructions and injunctions, Ibn Tarkhan composed a book called *The Prophet's Precepts on the Art of Medicine* in 10 chapters (Al-Kattani, 2015, Vol. 2, pp. 339-340). He

also issued rules and order for maintenance, protection and preservation of public waters as well as of trees, hunting animals and grass lands (Gorji, 1984).

3. Savings, investment and prohibition of Riba

To understand how the development model of the earliest period guided the development of the economy, what follows explains how the incentive structure of the model worked in influencing the behavior of savers and investors and how it led to the accumulation of physical and human capital.

Belief in the Day of Accountability (Ma'ad) broadens the planning horizon of Muslims and gives hope for the future to those who consider that an eternal life of felicity or difficulty depends on what is accomplished in their present life. One way in which this belief manifests itself is in saving behavior. The life on this earth is used to provide for future eternal life in accordance with the Messenger's saying that life on earth is a field for sowing seeds that pay off for the life to come[9]. Excess income is saved to give beneficial loans (Qard Hassan), spent in charity, invested or used to create endowments to benefit others (Waqf). These objectives motivate saving. For example, to establish an endowment of a farm, hospital or a school, physical and financial capital is needed. Expenditures in the way of Allah (SWT) in helping others is not limited to financial or physical capital. Human capital can be utilized as well. For this, too, a person has to invest time and effort to obtain knowledge and skill. To undertake acts of beneficence toward others, especially one's father, mother and other members of one's family, teaching others, nursing the sick, providing free medical care, engineering and other professional services, investment of money, time and effort is needed that has spiritual and non-monetary returns. Desire to perform these kind of activities also motivates saving.

Willingness to save depends on the rate of time preference and distribution of income between now and the future. The rate of time preference is an indicator of attitude toward present and future consumption. Optimism regarding the future makes one indifferent between consumption now or in the future. Therefore, preference for consuming now rather than in the future weakens the willingness to save. As mentioned earlier, belief in the ever-lasting life increases willingness to save. Future income prospects, too, influence saving. If lower income is expected in the future, then the willingness to save increases and vice versa. Muslims believe that opportunity and ability to behave in ways pleasing to their Creator are available on earth, but that ends with their earthy life. Knowing this motivates them to save to invest in activities that will have returns for them in their life in the hereafter. This attitude depends on the degree of belief. And that strengthens with learning, training and purification. Faith and piety reflect the level of human capital that has been attained by education and training and realization of potential talents of human beings; they shape human discernment and lead to the said behaviors.

Prohibition of Riba in the earliest Islamic period influenced greatly saving and investment behavior. Prior to the prohibition, market rate of interest determined the opportunity cost for investment. Elimination of the rate of interest allowed the latter to be determined endogenously in the capital market and made it dependent on the willingness of individuals and families to save and invest (Sadr, 1989). Because the elimination of the rate of interest also eliminated the income from interest-based loans, savers were directed to make their funds available to investors. In the capital market, a

menu of investment projects with different risk and return profiles became available to meet the preferences of market participants. Contracts of *Nasyah*, *Salaf*, rent and installment sales, where present and future values could be determined, provided low-risk opportunities for those seeking them. Contracts of *Muzara'ah* (partnerships in farming), *Mudharabah* and other contracts, where the return to capital is based on the return to the activity, provided appropriate venue for high-risk, high-return activities. Financial intermediaries provided the needed information to investors in search for information regarding their desired investment opportunities.

Prohibition of interest rate had a noticeable effect on the growth of human capital in the Islamic development model. Financial resource owners that searched for partnerships in high-return projects always looked for partners who were innovative. This ability is possessed by those with accumulated knowledge, training and expertise whose proposed investment projects are very profitable. Demand for their services meant higher rate of return to their effort, leading to high returns for human capital and increase in the share of human capital in total national income (Sadr, 1989). This phenomenon increased the demand for research, new technology and innovation. While these services and techniques were imported in the early stage of development, it became endogenous in later stages. *Baytul Mal* played an important role in importation of new science and technology (Yadegari, 1977). *Baytul Mal* also undertook many infrastructural projects that created investment opportunities and reduced risk for the private sector. It also provided information to the market and created a secure environment to allow investment in human capital (Sadr, 1989).

4. Justice and human capital

Allah (SWT) has created, according to the Qur'an, all resources of the earth and heavens for mankind. Therefore, humans have a natural right to access these resources. Concurrently, Allah (SWT) has prescribed a duty for humans to develop the earth. Whoever performs this duty has a legal right to benefit from the result of his/her effort (Motahhari, 1974). Compensating individuals or members of society in proportion to their rights – that is, his efforts towards development and of land – is called justice, and lack of proportion is oppression to individuals, families or clan. Concentrating on the definition of justice in Islamic doctrine, especially the one provided by Motahhari (1979) for social justice in Islam, it becomes evident that the definition has been based on enhancement and efficiency of human capital. Developing natural resources requires skill, ingenuity, experience, thought and planning which are not possible without human capital. With increased knowledge and technical progress in the society, human capital increases. This allows humans to access natural resources everywhere on earth. Without human capital, the extent to which these resources can be utilized is limited. Therefore, it is the trained thought and skilled intelligence of humans that are the sources of value creation. Allocating rewards according to the efforts of individuals to actualize their potential rights constitutes justice in an Islamic society. Consequently, lawful privileges and social justice in Islam are also defined on the basis of productivity and application of Allah-bestowed talents.

The companionship of rights and obligations has been numerously indicated in the holy Prophet's (SAAS) and the holy *Imams'* deportments and conducts. The holy Messenger stated: "One who puts the burden of his living on other people's shoulders, is deprived of Allah's blessings". Such person makes use of public rights and benefits

obtained through hard work by others as well as Allah's (ST) endowments, but does not exercise his obligations towards production and rehabilitation. *Imam Ali* (AS) stated in the early days of his rule: "You are responsible not only before *Allah* (SWT) and the public, but before animals and lands". Habitation and cultivation constitute one of the four obligations of the Governor put forth by *Imam Ali* (AS) in the letter to *Malik Ashtar*. In another instance, regarding the interdependence of privileges and responsibilities, he states: "There is no privilege for anyone unless he is bound by a responsibility, and no responsibility is considered for anyone unless he is benefited or rewarded for it". Therefore, obligations and rights are interrelated in the Islamic doctrine; if an individual receives some rights, then he has obligations for it as well.

Following the discussion on the basis of rights in the Islamic worldview and the definition of social justice as "allocation of every individual's privileges to himself", the next step will be assessing the mode of origination of these rights. Habilitation and development are among the social activities, and it is not possible for human beings to live in isolation because of their inherent civilized and social nature. Co-operation, employment and division of labor, whose benefits have been proved to human beings following extensive experiences, are considered as group activities. Habilitation and development are also carried out as group work. In this case, how are the rights of different individuals to be calculated out of the outcome of their developmental efforts?

Inspired by the virtue of "strive as in a race in all virtues" (*Baqarah* 2/148, *Ma'edah* 5/48), *Motahhari* equates the economic and social activities to a contest where all the members of the society have the right to participate. The preconditions to take part, from his point of view, are:

- Freedom of participation and free conditions for entrance; and
- Maintenance of the society's rule and order.

The important point is having the privilege to participate in the contest, which is intrinsic right of every individual. However, in the course of contention, those who are more talented will be rewarded; likewise, those who have tried harder to obtain skills and have practiced more will also be rewarded. If all individuals are given equal opportunity to take part in the contest and they compete with one another, then they will achieve various ranks and placements based on their efforts and talents. Two foundations of such contention are:

- (1) The work and activity that the contest is about; and
- (2) The benefit and reward which is given to the achievers.

Theme of the contest is about economic and social activities which are beneficial to the society: charity and benefaction, production and services, agriculture and industry, piety and honesty, alleviation of poverty and unemployment. In general, value creation, as well as any activity which reflects that, constitutes the theme of contest. The benefit and reward of the contest are nothing but the privileges which are allotted in accordance to the quantity of labor, probity, merits and endeavor. *Motahhari* contends that:

"A just and balanced society is the one in which, by the order of the holy Prophet (SAAS), all its "people are like teeth of a comb" and receive equal privileges; from the viewpoint of obtaining concessions "Say: are those who know and those who do not know alike?", the evidence for such justice is "Surely, the most honored of you in the sight of

Allah is (he who is) the most righteous of you” (Hojorat 49/13) and “Shall we treat those who believe and work deeds of righteousness, the same as those who do mischief on the Earth? Shall we treat those who guard against evil, the same as those who turn aside from the right? (Saad 38/28).”:

“This was the case in early Islamic era as evidenced by “*And we wished to be gracious to those who were being depressed on the Earth, to make them leaders (in faith) and make them heirs*” (Qisas 28/5-6). Did it not happen that in the early Islamic era, the talented and pious servants and their children like *Abdullah Bin Masoud* reach lordship and magnanimity? Were not the unworthy judicial dignitaries like *Abu Jahl*, *Abu Lahab* and *Walid Bin Moqayreh* debased with humiliation? Did it not happen that the oppressed and the slaves became lords of masses based on the power of their merits, piety and endeavors?”

In the development model of Islam, value concepts are based on human capital indicating the comprehensive nature of this model of development.

5. Indicators of development

The economic development model of the earliest Islamic period provides a number of indicators of development to demonstrate the degree of progress in an Islamic society. Some of these indicators are in use today as well, such as gross national product, per capita income and its distribution. The more the human capital increases in society, the higher the per capita income. According to the definition of justice above, however, distribution of income, particularly the share of owners of human capital, is also a crucial indicator. Skills and technology used must be of a kind that increases the employment of and returns to this factor. However, every member of the society has a right to a minimum living standard. At the same time, each member of the society must receive rewards in accordance with the efforts expended; that is, the human capital invested. A balance in the distribution of per capita income must be observed. Therefore, the indicator of distribution of income can demonstrate the degree of actualization of justice.

Indicators of literacy, public health, life expectancy, reduction of child mortality, proportion of doctors and providers of health services to the total population, primary, secondary and advanced education, teachers and educational facilities in relation to the number of students are all indicators of services needed for the growth and development of human capital. Increase in these indicators is an expression of progress in human life and development in the Islamic society. Protection of the environment, its purification from pollution and preservation of the beauty of nature are indicators of absence of waste, extravagance and harm in the society. Protection of the health of the society, attachment to its values and to its ethics lead to reduction in criminal and exploitative activities, violence, imprisonment, drugs and their illicit importation. Hence, the protection of the social and natural environments is an important indicator of the development of the society. Another important indicator of development is the amount of Zakat, Khums, Sadaqat, alms giving, beneficent loans (Qard Hassan), expenditures in the way of Allah (SWT) and endowments (Waqf) in the society.

Level of employment of work force and reduction in unemployment are also indicators of implementation of Islam’s prescription based on valuable economic activities and implementation of correct economic policies to create employment. Population growth in an Islamic society has to be considered carefully. Increase in the population can lead to growth of human capital and creation of human mental and

physical capabilities. However, this phenomenon can only be helpful and valuable so long as it is not accompanied by reduction in public services. If the society wastes its human capital or is constrained in provision of public services, then population growth is not an indicator of development.

It is important to note that employment of women has special importance. A woman who marries is employed in the family, according to Islamic model. She can ask and must receive wages for housekeeping and child rearing. Based on the social division of labor, this duty has priority over all other social activities, just as taking care of the financial needs of the family, their safety and security and training of children is a priority among the duties of the man. At the same time, the society too needs the services of its women in provision of nursing, medicine, teaching and research. Therefore, percentage of women in marriage in the society is an indicator of the progress of the society and divorce is the opposite. Finally, the percentage of women medical doctors, those in medical sciences, nurses, midwives, teachers and professors in the total population is especially important. Lack of sufficient number of women in these professions is deficiency in provision of these services, especially for other women. In other professions, too, women are to be equally engaged along with men, as in agricultural, industrial, financial, handicraft industries and activities in arts. But the percentage of women in the total population engaged in provision of medical and other health services enjoys special importance.

6. Summary and conclusion

This paper focused on the development model implemented during the earliest period of Islam. It demonstrates that despite the persecution and difficulties, especially in provision of food, shelter and employment, Muslim Community overcame all constraints and experienced economic growth and development. Finding reasons for this phenomenon has been the major objective of this study. None of the current economic theories that may attribute this growth to accumulation of gold and other hard currencies earned through trade or development of agriculture and industry does not provide a valid accounting for the economic development of the earliest Islamic period. History shows that there was never large surplus food or other products available for trade through which other economic activities could be expanded. As well, commerce and trade were monopolized by the tribe of Quraish who were then enemies of Muslims and would not allow them much trade activities. Moreover, the geographical position of the Arabian Peninsula that rendered much of its land arid, limited the expansion of agricultural activities to production for domestic consumption. Industrial technology too had not developed to the degree that could become a source of expansion of industry and progress of technology and produce surpluses for trade.

Because the objective of Islam is the felicity and welfare of humans here and hereafter, the basis of the development and growth of the economy of the earliest period of Islam was the training and guidance of human abilities and their productivity. Indeed, the only resource available to the Messenger (SAAS) to build the new Muslim community was the potential human capital of the Muslims. Through teaching, training and actualizing these abilities, the Messenger was able to bring about major changes in the economy of the Arabian Peninsula and, utilizing the relative advantage of the Peninsula, brought economic development to Muslims.

The economic development model of the earliest period of Islam has been investigated from four dimensions:

- (1) The motives it provides for economic activities;
- (2) Institutions that facilitate exchange;
- (3) Rules of behavior prescribed for the purpose of guiding economic activities while constraining distortions and conflict of interests in these activities as well as actions that caused harm to public; and
- (4) Policies implemented for the purpose of achieving the objectives of Islam and justice.

Based on these dimensions, it was demonstrated that it was the actualization of the inherent abilities of Muslims that was the central policy implemented by the Messenger (SAWA). Increasing human capital of Muslims led to the progress of science and technology. Moreover, comparative advantages of the Arabian Peninsula for activities, such as trade, were utilized to create opportunities for growth. Additionally, and despite enormous constraints, such as the aridity of the area, agricultural activities were given priority. Transfer of science and technology from Byzantine and Persian Empires allowed the growth and endogenization of science and technology with the adoption of appropriate institutions for this process.

In the Islamic model of development, conceptualization of poor or rich society is given a new meaning. Scarcity of arable land, unhelpful geographic location and unavailability of mines and underground resources do not mean that people and their economy are poor. A society is poor when the abilities of its people remain idle. In societies where innate abilities of individuals actualize through education and training, where the vision and thought processes of individuals progress and where various scientific and technological skills develop along with arts can have well-developed and rich economies. Members of such societies compensate for scarcity through the use of their knowledge, skills and ingenuity and develop their economy.

The overwhelming objective of Islam is the progress of mankind. For the economy, this translates into focus on guidance and growth of human capital. Islam targets the role of humans as individuals, family and society, and through division of social work, justice prevails in the society. This is realized through prescribing duties and responsibilities for individuals, families and society, on the one hand, and fair determination of their shares and rewards when they perform their duties, on the other. On this basis, economic and social rights are defined. Moreover, these rights are clarified and explained through establishment of laws, regulations and appropriate institutions. Based on the model of development of the earliest Islamic period, the paper proposed observable and empirical indicators which measure the degree of development. These indicators can be used to assess economic policies and progress toward establishing the ideal Muslim societies. They can also be used to evaluate the degree of success of various economic policies.

Notes

1. حق المعلوم
2. وقف
3. قرض حسن

4. أحكام احياء موات وحيازة
5. كُتُب
6. ميزان
7. قسط
8. دار القراء
9. الدنيا مزرعة الآخرة

References

- Ahmad, K. (1995), "Economic development in Islamic framework", *Studies in Islamic Economics; edited by Khorshid Ahmad (in Persian – Translated by Muhammad Javad Mahdavi)*, Islamic Research Foundation, Mashhad.
- Ahmedi Mianaji, A. (1982), *Principles of Proprietorship in Islam:- Private Ownership of Land (in Persian)*, Islamic Publication Bureau, Qom.
- Al-Afghani, S. (1960), *Aswaq-ul-Arab fi'l-Jaheliya val-Islam (in Arabic)*, Dar-ul-Fikr, Damascus.
- Al-Kattani, A. (2015), *Nizam-el Hokumat-e-Nabaviya: Almosamma at Tartib-el Idariya (in Arabic)*, Dar-al Ehya Al-trath Al-Arabi, Beirut.
- Ayati, M.E. (1980), *History of Islam, edited by Abolghasem Gorji (in Persian)*, Tehran University Press, Tehran.
- Gorji, A. (1984), "Islam and environment", *Noor Ilm (in Persian)*, Qum, Iran, No. 4.
- Hasan-uz-Zamni, M. (1981), *The Economic Functions of the Early Islamic State*, International Islamic Publisher, Karachi.
- Kister, M.J. (1965), "The market of the prophet", *Journal of the Economic and Social History of the Orient*, Vol. 8 No. 3.
- Koleini, M. (1971), *Al-Forou'el Kafi, Part 5 (in Arabic – revised by Ghaffari)*, Darul Kitab Al-Islamiya, Tehran.
- Koleini, M. (2015), *Osul-e Kafi (in Arabic – Translated and Explained by Javad Mostafavi)*, Elmiya Islamiya Publications, Tehran.
- Mortadza, J. (1988), *As-Sooq Fi Dhel-e Dolat-el Islamiya (in Arabic)*, Al-Dar Al-Islamiya, Beirut.
- Motahhari, M. (1974), *Devine Justice (in Persian)*, Islami Publications, Tehran.
- Motahhari, M. (1979), *Twenty Lectures (in Persian)*, Sadra Publications, Qom.
- Sadeghi Tehrani, A. (1996), "An economic analysis of the structure and performance of the urban economy in the medieval World", PhD dissertation, Exeter University, Exeter.
- Sadr, S.K. (1989), "Fiscal policies in early islamic period", in Al-Hasani, B. and Mirakhor, A. (Eds), *Essays in Iqtisad*, NUR Corp, Silver Spring, MD.
- Sadr, S.M.B. (1969), *Iqtisaduna*, 3rd ed., Dar-ul-Fikr, Beirut, translated into English and Published by The World Organization for Islamic Services, Tehran.
- Sadr, S.M. (2015), *Economy in Islamic Doctrine (in Persian)*, Jahan Ara Publication, Tehran.
- Schultz, T.W. (1971), "Rise in the capital stock represented by education in the United States, 1900-1957", in Wyrstra, R.A. (Ed.), *Human Capital Formation and Manpower Development*, The Free Press, New York, NY.
- Setia, A. (2014), "Trade, commerce, money and market", *The Adab and Fiqh of the Islamic Market*, Organised by UNRIBA and CASIS, Kuala Lumpur.
- Tabatabaei, S.M.H. (2015), *Social Relations in Islam (in Persian – Translated by Muhammad Javad Hojjati Kermani)*, Azadi Publications, Qom.

-
- Taffazzoli, F. (1993), *History of Economic Doctrines (in Persian)*, 2nd ed., Ney Publications, Tehran.
- Waqedi, M.B.O. (1982), *Maghazi (in Persian – Translated by Mahmood Mahdavi Damghani)*, University Publications Center, Tehran.
- Yadegari, A. (1977), *Transfer of Islamic Sciences from Baghdad to Khorasan (in Persian)*, Maghalat va Barrasiha, Tehran University, Faculty of Elahiat (Islamic studies), Vols 27/28, pp. 174-193.
- Yaqoubi, A.B.I. (1959), *Tarikh-e Yaghoubi (in Persian – Translated by Muhammad Ebrahim Ayati)*, Translation and Publication Center, Tehran.

Further reading

- Nahj ul Balaghah (1967), *edited by Sobhi as Salih, (in Arabic)*, Dar al Kitab al Lobnani, Beirut.
- Tabatabaei, S.M.H. (1983), *Sonanul-Nabi (in Persian – Translated by Muhammad Hadi Feqhi)*, Islamiyeh Publications, Tehran.

About the author

Seyed Kazem Sadr, PhD, is Professor at the International Center for Education in Islamic Finance. Before coming to INCEIF, he was a Professor at the Shaid Beshti University, Tehran Iran, where he served for 31 years. He has been a Member of the Islamic Banking drafting committee at the Finance Ministry and also a Member of the Economic curriculum program at the Ministry of Higher Education in Iran. He is the author of books and refereed journal articles on Islamic Economics and Banking, Agricultural and Natural Resource Economics. He received his PhD at the Ohio State University. Seyed Kazem Sadr can be contacted at: sadr@inceif.org

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com

Reproduced with permission of copyright owner. Further reproduction prohibited without permission.