

Paradigm Shift for Sustainable Development: The Contribution of Islamic Economics

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ABSTRACT

Sustainable development is a common concept of the 21st century. However, the expected changes towards sustainable development are slow. We believe every change starts with changes in understanding of the subject matter. If sustainable development is the aim, it should start with changes in understanding. This paper aims to explain the necessary paradigm shift for sustainable development by the contribution of Islamic economics. While doing this, the reasons of paradigm shift, the content of such a paradigm shift, and the possible contributions of Islamic economics will be analyzed.

Keywords: *Sustainable Development; Paradigm Shift; Islamic Economics*

Introduction

The concept of 'sustainable development' started to appear in the 1970's and became a frequent hot topic for discussions about world politics, economy and the environment. However, the fulfillment of the aim of sustainable development is yet to happen. There are different reasons for this un-fulfillment, such as the lack of political will, the effect of financial crises, etc. But we believe the problem is at a deeper level, i.e., at the paradigm level.

The aim of this paper is to discuss the possible contribution of Islamic economics to the necessary paradigm shift for the aim of sustainable development. In this sense, there are two hypotheses:

H₁: A paradigm shift is necessary for the aim of sustainable development

H₂: Islamic economics can contribute to the paradigm shift for the aim of sustainable development

While trying to find out the validity of the above hypotheses, we will analyze the reasons for the necessity of a paradigm shift, the structure of a possible paradigm shift, and why and how Islamic economics can contribute to such a paradigm shift.

The next section will give background information on sustainable development, the paradigm shift concept and Islamic economics. The third section will be about the relationship between sustainable development and Islamic economics. The last section will conclude the paper.

Literature Review

To be able to analyze the possible contributions of Islamic economics to the paradigm shift for sustainable development, some concepts should be clear first. The three basic concepts of this paper will be introduced. These concepts are sustainable development, paradigm shift and Islamic economics.

The concept of sustainable development started to appear in the 1970s. The reason behind the emergence of such a concept was the growing awareness of the depletion of natural resources, and worsening environmental conditions on the one hand and increasing world population on the other hand, i.e., demand-supply discrepancy. Despite the common use of the concept, there is a lack of an explicit definition. One of the first attempts towards the definition of this concept was done by World Conservation Strategy (1980): "For development to be sustainable, it must take account of social and ecological factors, as well as economic ones; of the living and non-living resource base; and of the long-term as well as the short-term advantages and disadvantages of alternative action." However, today the most commonly used definition is the one established by the World Commission on Environment and Development (1987): "Economic and social development that meets the needs of the current generation without undermining the ability of future generations to meet their own needs." This definition can sound vague since it does not indicate what is meant by 'meeting the needs of the current generation' and 'without undermining the future generations' ability of meeting

their own needs'. At this point, Dalal-Clayton and Bass (2002) explain what they actually mean. According to them, meeting the needs of the present generation covers the economic needs, social, cultural and health needs plus the political needs. On the other hand, "without undermining the future generations' ability to meet their own needs" refers to minimising usage, the sustainable use of renewable resources, and keeping within the absorptive capacity of local and global sinks for wastes.

Efforts to maintain sustainable development include treaties and establishment of rules, laws and regulations. The actors taking part in these efforts are quite diverse, such as intergovernmental organizations, non-governmental organizations, nations, international organizations, the private sector and civil society. One of the earliest efforts in the global arena was the Stockholm Conference held in 1972. However, the first comprehensive attempt came with the Rio Declaration on Environment and Development (1992), issued as a result of the United Nations Rio Conference. The declaration covers 27 principles. The following Earth Summit was in South Africa. It ended with the Johannesburg Declaration (2002) where the commitment to sustainable development is mentioned once more and the challenges were indicated. Additionally, three sets of goals were established due to the three different time horizons: the short-term (for 2015) goals of the Millennium Declaration of the United Nations; the two-generation goals (for 2050) of the Sustainability Transition of the Board on Sustainable Development; and the long-term (beyond 2050) goals of the Great Transition of the Global Scenario Group. Another declaration was released by the International Law Association Committee on the legal aspects of sustainable development, called the New Delhi Declaration on the Principles of International Law Related to Sustainable Development (2002). The declaration includes 7 principles which are based on the previous declarations mentioned above. Some of these principles are the duty of states to ensure sustainable use of natural resources, the principle of equity and the eradication of poverty, and the principle of common but differentiated responsibilities. Another important document is the Kyoto Protocol (1997) which was adopted with a direct focus on global warming. Heretofore, around 200 countries have signed the protocol, which includes 28 articles. Efforts are not limited to the global summits. There are also efforts at the regional or state level. The fourth Asia-Pacific Forum for Environment and Development (2003) summarizes the efforts done in the region, e.g., a sub-regional cooperation in Southeast Asia, the ASEAN Regional Centre for Biodiversity Conservation established in the Philippines in 1999 to coordinate ASEAN initiatives on biodiversity conservation, biodiversity loss and degradation in the region; and the Regional Environment Programme (SPREP) established in 1982 by the governments of the South Pacific region to protect the regional environment. According to the report of the Minister of Public Works and Government Services (2001), the Government of Canada Action Plan 2000 on Climate Change outlines cost-effective measures that will take Canada one-third of the way to its Kyoto target.

Despite all these efforts, there are different problems and challenges ahead for the aim of sustainable development. Some of the basic problems are lack of conformity among different actors who have their own agendas, properties and capabilities, financial inadequacies and lack of legal enforcement. However, there is another problem which we believe should attract basic concern, i.e. paradigmatic problems. Woods (2002) argues that sustainable development confers a contested paradigm since the term 'sustainability' is vague in itself and more importantly, it lacks an approach that tackles the

irreconcilability among economic, social and environmental dimensions. Henceforth, we argue that to be able to tackle such a problem, a paradigmatic shift is necessary.

Paradigm and Paradigm Shift

Literally, a paradigm is “a typical example or pattern of something; a model” (Hobson, 2004). The prominent figure known for the idea of paradigm shift is Kuhn. He identifies paradigm as “... what the member of scientific community, and they alone, share” (Kuhn, 1970).

The idea of paradigm shift is a cyclic process which starts with an already settled paradigm. In time, anomalies and crises emerge as a natural process. As a response to these crises, scientific discoveries begin which result in scientific revolutions through paradigmatic shift. A typical paradigm shift cycle follows the scheme below:

Normal science--> Model Drift--> Model Crisis--> Model Revolution--> Paradigm Change

Islamic Economics

Islamic economics has medieval roots, including an immense literature from Muslim scholars such as Al-Ghazali, Ibn-Khaldun, and Ibn-Qayyim. On the other hand, a better-organized contemporary Islamic economics paradigm flourished in the second half of the twentieth century, especially with the de-colonization of Muslim countries. Islamic economics is built upon the knowledge coming from the basic sources of the religion of Islam which are *Quran* and *sunnah* -sayings and living habits of the prophet Mohammed-, plus the accumulated knowledge of Islamic jurisprudence generated by consensus (*ijma*), analogy (*qiyas*) and independent interpretation (*ijtihad*).

According to the well-known contemporary definition, economics is the science of allocating scarce resources due to unlimited wants. The difference in Islamic economics starts from this point, where the assumption is the lack of absolute scarcity (stock) even if there is relative scarcity (flow) in this world. According to a comprehensive definition (Ahmed, 2002) “Islamic economics is the science that studies the best possible use of all available economic resources, endowed by Allah, for the production of maximum possible output of *Halal* goods and services that are needed for the community now and in future and the just distribution of this output within the framework of *shariah* and its intents.” Rules and regulations in Islam follow the objectives of public welfare (*maslahah*) which are categorized as preservation of life, property, religion, reason and procreation. Asutay (2007) describes Islamic economics as a ‘system’ which owns its framework paradigm, value system, foundational axioms – such as doctrine of oneness (*tawhid*), justice and charity (*adl wa’l-ihسان*), self-development (*tazkiyah*), responsibility (*fardh*) - operational principles, specific methodology and functional institutions. Because of these peculiarities, Islamic economics is seen as an alternative paradigm (Presley & Sessions, 1994; Zaman, 2005). The primary properties of Islamic economics can be seen below:

1. Islamic multi-faceted point of view connecting the different parts of life together, e.g., social, economic, political and religious issues
2. Dominance of a normative approach
3. Importance of social altruism
4. The approach of connecting financial sector and real sector
5. Acceptance of no absolute ownership, no absolute scarcity
6. Criticism of waste

Discussion

According to the Kuhn cycle, paradigm shifts occur when there are anomalies which need novel explanations. When the concept of sustainable development came into existence, there were anomalies which necessitated a paradigm shift. Such anomalies were increasing inequalities within and among the nations, increasing poverty, especially in developing countries, depletion of the ozone layer, global warming, depletion of some species of animals and plants, water and air pollution, etc. Sustainable development was an effort to change the way of thinking towards the planet. That is why the concept of development is preferred instead of growth, which is believed to reflect only a quantitative aspect of countries without taking into account some other qualitative items such as education, health and equality. However, the success of sustainable development as a new paradigm is yet to be clear. The basic problem arises due to the inconsistencies between its rhetoric and the axioms of the entrenched economic paradigm. In that regard, here comes the possible contribution of Islamic economics which is pronounced as an alternative economic system. Below, the possible contributions of Islamic economics to the paradigm shift of sustainable development will be analyzed according to different issues.

The first possible contribution can come from the *normative approach* of Islamic economics. It is one of the criticisms of contemporary economic theory that it identifies itself as a value-free science. One of the reflections of such an identity can be seen in the determination of efficiency in society. As it is known, in the classical economic theory, economic efficiency is described by Pareto optimality, where it is impossible to make one better without making another one worse off. The problematic part in that approach is the lack of any statement on equity or social well-being. Similar criticisms are made for utilitarianism, the social utility theory of classic economics. According to Van Wijk (2001), the basic criticisms of utilitarianism are the consequentialism where "... the rightness of actions is judged entirely by the goodness of the consequent state of affairs" and welfarism in which "... the goodness of the state of affairs must be judged entirely by the goodness of the set of individual utilities in the respective of state affairs." It was mentioned before that one of the foundational axioms of Islamic economics is *adl wa'l-ihسان*, which can be named as just balance or equilibrium where "a 'maximal' rate of economic growth must be maintained to satisfy the requirement of intergenerational equity. By the same token, from the many growth paths available, the choice will be restricted to those which satisfy the Islamic ethical constraints." (Naqvi, 1997) In order to show the difference of the welfare structure in Islamic economics, the below model of Naqvi (ibid.) can be followed. First of all, welfare (W) is a function of u (the average individual utility function) which depends on $k(t)$ (the per capital

consumption), C (the average commodity basket) which depends on k(t), x(t) (the per capita capital stock) and t (time). The welfare function can be seen below:

$$W(u(k(t)), C(k(t), x(t), t)) \quad (1)$$

On the other hand, there are two constraints, motion and wealth:

$$x(t) = c[k(t), x(t), t] - k(t) \quad (2)$$

$$Q^2[k(t), x(t), t] \leq B(k(t)) \quad (3)$$

where, Q2 is the square of the difference of wealth holding in the society. The second constraint means that the tolerance for inequality is dependent on the level of per capita income. B is an upper limit in a constraint maximization problem. The next step is to maximize the first equation due to the constraints of 2 and 3. At the end, we get the equalities: below:

$$Q_1^2 / Q_1^2 = B \quad (4)$$

$$Q_2^2 / Q_2^2 = 0 \quad (5)$$

According to Naqvi (ibid.), these equalities prove that “in order to maximize aggregate social welfare and the growth in the size of the commodity basket containing the wage goods *in a growing economy*, the inequality of wealth must be held at a minimum, while capital is priced efficiently.” Indeed, one of the problems with the paradigm of sustainable development is the Sisyphean effort of combining value free economic theory with non-value free social issues.

Another possible contribution can be to adopt the *altruistic point of view* of Islamic economics instead of the self-interest driven, rational economic agent (homo-economicus) theory. In the economic dictionary, homo economicus or economic man is defined as “a person who makes rational decisions in order to achieve their most preferred outcome given the constraints upon choice” (Black, Hashimzade, & Myles, 2009). The most typical aspect of economic man is profit maximization ability. As a result of profit maximization, the equilibrium occurs where (Hasan, 1992):

$$Q = 1/2[a/b + c] \quad (6)$$

$$P = a[1 - b/2(b + c)] \quad (7)$$

$$R = 1/4[a^2/b + c] \quad (8)$$

when,

$$P = a - bQ \quad (9)$$

$$AC = cQ \quad (10)$$

In these equations, a, b and c are positive constants and R refers to the profit. Meanwhile, equation 9 and 10 show the negative relationship between price (P) and output (Q) and the positive relationship between average cost (AC) and output (Q). It is quite a common criticism that the basic agent of the classic economics, homo-economicus, is a value-free agent. This was the basic reason why Kahneman and Tversky developed a new theory, called Prospect Theory later on, i.e., to include the ideas and values of the people into the economic decision-making system. On the other hand, there is another type of agent called homo-islamicus who "... is said to be both entrepreneurial and moral. He is an Islamic personality who defines his existence by combining private and public life and religious and economic activities through his Islamic ethical values and norms. He does not eschew economic activity and retreat to other-worldly asceticism because of his religion. Nor does he make concessions with regard to his religion and morals for his business activity. He is competitive, productive and innovative, rather than a rent-seeker and speculative. He thinks that being economically successful is a duty of any and every Muslim, as Islam condemns idleness, laziness and encourages hard work and resourcefulness" (Adas, 2006). According to the profit maximization results of a homo-islamicus agent (Hasan, 1992):

$$Q = 1/2[(a + y)/(b + c)] \quad (11)$$

$$P = a - b/2[(a + y)/(b + c)] \quad (12)$$

$$R = 1/4[(a + y^2)/(b + c)] \quad (13)$$

where,

$$y = W(\text{marketwage}) - w(\text{minimum maintenance wage}) + i(\text{rate of interest}) \quad (14)$$

The results of these two profit maximization calculations show that the equilibrium quantity and profit are higher for homo-islamicus agent, showing that the efficiency is higher, while the price is lower.

The aforementioned properties of Islamic economics, normative and altruistic approaches, are especially the ones in which classic economic theory has problems with respect to becoming an alternative paradigm of sustainable development. Additional contributory properties of Islamic economics can be mentioned, such as the *multi-faceted point of view* where the coherence among the social, political, economic and environmental issues is not neglected, and the *non-absolutist point of view*. Non-absolutist point of view refers to the acceptance of not having absolute freedom and ownership. One of the problematic points of view of today's generation is that they have the rights of limitless ownership without taking into account the responsibilities towards society and humanity. According to Islamic economy, what people earn is not immune from the rights of other people, e.g., according to the seventieth chapter, twenty third and fourth verses of the Holy *Quran* (Asad, 2006) "... And in whose wealth there is a right acknowledged for the beggar and the destitute..." It can be argued that there are limitations or constraints in terms of private ownership in other systems

besides Islam. However, the sources and contents of such restrictions are different for Islam. For instance; because of the faith in God and the hereafter, Muslim people are obliged to pay a tax called *zakah* to the needy people as a proof that people have rights on other people's earnings. On the other hand, as an Islamic law, a private ownership can be limited if there is concern for social well-being. Islam is unique in its idea of ownership since it is seen by many, e.g. A. Kia and M. S. Chaudhry, as lying between capitalism, where private ownership is almost sacred, and socialism, where private ownership is not accepted. The last contributory part can come from the *criticism of wasting* in Islamic economics in the age of massive commercialization and consumption, e.g., according to the Holy Quran (7:31) "O Children of Adam! Wear your beautiful apparel at every time and place of prayer: eat and drink: But waste not by excess, for Allah loveth not the wasters."

Conclusion

In this paper, we discussed why the sustainable development paradigm has not been turned into a paradigmatic shift of Kuhnian cycles. In this regard, we indicated why Islamic economics can contribute such a paradigmatic shift. In doing this, we elaborated on the possible contributory points. At this point, it can be argued that the practice of Islamic economics is not promising, e.g., the backwardness of Muslim communities in terms of economic, political, social and environmental issues. However, the success of applications depends on different aspects such as different comprehensions by different authorities, political power, historical dynamics, necessary institutions etc. Presently, the rejection of Islamic economic paradigm due to the negativness in applications seems hasty.

Another issue is the universal applicability of Islamic economics. First of all, it should be indicated that to get contributions from Islamic economics for the paradigm of sustainable development does not necessarily mean to be Muslim. As can be seen, the above-mentioned possible contributory properties include universally acceptable aspects. The peculiarity of Islamic economics is the combination of these aspects with economic theories. It is true that there are some other alternative points of view trying to put value-based analysis into current economic theory, such as cognitive economics or prospect theory, but none is as comprehensive as Islamic economics yet. Moreover, the criticism of Islamic economics against the current one is deeper than these alternatives. As a comprehensive alternative, socialism can be mentioned. However, its practicality is a big question mark. It can be asked at this point why Islam as an economic system is more viable in practice than socialism. My quick answer is because the former one is more compatible with human nature where private ownership, family and faith are not neglected.

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