



Methodology of Islamic Economics From Islamic Teachings to Islamic Economics¹

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Abstract: The existing literature on Islamic economics has not undergone any of the processes of verification or falsification. It is mostly restatement of the postulates as found in the Qur'an² or *hadith*.³ The literature on methodology of Islamic economics is either superfluous, or ambiguous or confusing. It does not help in transforming the Islamic economic teachings into a social science. For developing Islamic economics as a social science, we must understand the primary sources in a contemporary context; formulate hypotheses based on that understanding and present these hypotheses for validation through testing. The paper illustrates the proposed methodology with some examples. For making this methodology a going concern, several basic steps would be required. The paper enumerates those steps also.

Key words: Islamic economic methodology, hypotheses of Islamic economics, developing Islamic economics as social science

JEL Codes: A13, B49, Z12

Introduction

Economics relies only on knowledge obtained through human thinking and sense-perceptions. It does not recognize any super-sensory source of knowledge and more so if it has the tag of a religion because of the general revolt against it in all social sciences. However, divine guidance revealed by God upon His

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- 2 The Qur'an is the book revealed upon Prophet Muhammad during 610-632 AD at Makkah and Medina and preserved by him verbatim. Its authenticity is guaranteed by God. Citations from the Qur'an indicate chapter(s) before the colon and *verse(s)* after the colon. For example: Q. 2:30 means chapter 2 and verse 30.
- 3 *Hadith* refers to the body of knowledge consisting of authenticated sayings, actions and approvals of Prophet Muhammad (pbuh).



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prophets, briefly termed in this paper as revelation, provides a rich source of knowledge. Some segments of the revelation deal with human economic problems. The main argument of this paper is that the existing body of knowledge under the nomenclature of Islamic economics can be transformed into a social science *by integrating human understanding of the divine sources of knowledge (the Qur'an and the hadith) to the conventional methods of theory building in social sciences.* Since Islamic economics would be based on two sources of knowledge, human thinking and divine revelation, it has the potential of enhancing our understanding of the economic problem. The scheme of the paper is as follows:

Section two gives a review of the existing literature on methodology of Islamic economics. Section three suggests a methodology for developing Islamic economics as a social science. Section four illustrates the proposed methodology. Section five presents a set of proposed hypotheses, by way of examples only, based on Islamic economic teachings. Section six enumerates some related issues for making the proposed methodology a going concern. Section seven presents defence of the proposed methodology. The last section consists of some concluding remarks.

Review of Some Main Strands on Methodology of Islamic Economics

When professional economists took over the task of developing Islamic economics as a social science, it was a welcome transition from religious scholars to professionals. The earlier contributions by religious scholars were mostly theological, explaining various tenets of Islam. The professional economists started reflecting on various technical dimensions of the subject which was yet at an embryonic stage. Methodology of Islamic economics was one of the subjects they took up for discussion and development. The main questions before them were as follows:

- What should be the appropriate philosophical approach for developing Islamic economics as a social science?
- How to integrate the Islamic legal knowledge into economics as it existed?
- What is the relationship of Islamic economics with economics?
- What shall be the criteria for accepting or rejecting Islamic theory?

Muslim economists addressed these and similar questions. However, it is unfortunate to say that most of the literature on methodology is replete with *superfluous, ambiguous or confusing* statements. In the following discussion, we shall illustrate this assertion with examples from the literature.

Examples of Superfluous Statements

Inductive vs Deductive Reasoning

An example of superfluous statements is the occupation of Muslim economists with appropriate philosophical basis for Islamic economics: Should Islamic economics follow inductive reasoning or deductive reasoning? The consensus is that Islamic economics uses both. For example, Bendjilali (2009, p. 165) says:

Both deductive and inductive reasoning are acceptable methods of analysis in Islamic economics, and this has never posed a methodological problem for Muslim scholars in the past...

He approvingly quotes Chapra (2001, p. 38)

Methodological pluralism may be the most suitable method preferred by Muslim scholars in the past. (Bendjilali, 2009, p.167)

By arguing that Islamic economics uses both deductive and inductive methods, Muslim scholars tend to say that it has a wider canvass and can handle economic issues with greater flexibility and dexterity than conventional economics. If we go a bit deeper in this argument we can see that the whole case for methodological pluralism is, at best, superfluous. The deductive reasoning derives various postulates and builds hypotheses from retrospection based on human reflection, social values, laws or history. For example, two postulates of economics are: "people are selfish." or "people seek wealth". These are postulates based on deductive reasoning derived from human reflection or observation.

John Stuart Mill (1806-1873) applied this method in economics.⁴ An essential ingredient of this method is that the deductive postulates or hypotheses are subjected to verification. Popper (1959) developed the concept of falsifiability for natural sciences. Terence Hutchison (1964) popularized it in economics. Briefly, the idea was to confront economic hypotheses with observed reality. The hypotheses should be verified either through validation by facts or by a process of falsification. The hypothesis that is verified or which cannot be falsified becomes theory for further examination until through a similar process either

⁴ J.S. Mill authored A System of Logic (1843) and *Principles of Political Economy* (1848) where he pleaded for inductive reasoning and applied it to economics. His *Principles* remained a text book of economics in the nineteenth century. Its seventh edition came out shortly before his death in 1871.

it is validated or falsified. If it is continuously validated it becomes scientific law otherwise, it is modified and the whole process of validation starts all over again.

Inductive reasoning uses the method of inspection and experimentation. Based on the data collected, hypotheses are framed and presented for further examination through a similar process of validation as is used in deductive reasoning. At the end of the day, both deductive and inductive reasoning formulate hypotheses and validate them through a process of confirmation or falsification. Saying Islamic economics uses both is a superfluous statement. Economics also uses both methods.

The whole debate about inductive or deductive method regarding Islamic economics is superfluous. As Nienhaus (2013, pp. 188-89) has aptly put:

It is not the *method* but the *object* of knowledge that counts. The social scientists should keep an open and unbiased attitude toward reality and should be willing to modify their hypotheses in light of more rational and convincing evidence. It hardly matters whether a hypothesis was originally formulated through deductive or inductive method. What matters, is a rational attitude and the humility to correct oneself if more persuasive evidence becomes available. The science should keep its rational attitude (only), *i.e.*, the readiness to challenge whatever proposition is made and to revise it in the light of convincing arguments. From an *epistemological* point of view, a scientist may choose whatever objects he or she wants to explore with whatever method.

Criteria of Islamic Economics

Another example of superfluous statements is that some writers argue that Islamic economics uses three criteria to evaluate the validity of various hypotheses: (a) the Qur'an and *Sunnah*; (b) logical reasoning and, (c) empirical testing.

There cannot be any dispute about the first criteria: evaluating a hypothesis against the benchmark of the Qur'an and *Sunnah*. However, this statement is superfluous. The hypotheses of the Islamic economics must be derived from our understanding of the Qur'an and *Sunnah*. What is the need for evaluating theses hypotheses against the same criteria from which they have been derived? How could a hypothesis be against these sources if it has been derived from them? Evaluating the hypothesis against these criteria is unnecessary. The other two criteria are the same as used by economics. Therefore, Islamic economics can adopt them without professing any innovation in methodology. The statement

relating to evaluation criteria is, at best, superfluous.

Examples of Ambiguous Statements

Sources of Islamic Economics

Bendjilali (2009, p. 169) says:

Islamic economics is distinct from conventional economics in that it accepts not only observation, testing and experimentation as a source of knowledge, but also the knowledge embedded in the Qur'an and *Sunnah*. In order to utilize the knowledge of the Qur'an and *Sunnah*, we also need other Islamic sciences, such as *Tafsir, Fiqh, Usul al-Fiqh*, etc., that helps us understand and interpret all verses and *Hadith* related to economic affairs.

It is a plausible statement that aims at achieving the best from the two streams of knowledge: using the methodology of Islamic law for defining the religious percepts and the methodology of economics for validation of hypotheses. However, the author does not explain how it would be achieved. Some examples could have added clarity to the general notion of integrating the two streams of knowledge. In the absence of any such attempt, it remains a fond hope and wishful thinking.

Besides, like several other writers, he also does not have a clear grasp of the fact that the *tafsir, fiqh* and *usul al-fiqh* literature produced in the past was time-specific. With the change of time and perspective, there is a need for an extensive review of the whole treasure of knowledge. Without this extensive exercise, we shall create situations of mismatch that leave people wondering on how they can use this literature in their real-life situations.

Integrating Islamic economic teachings with conventional economics content

Another example of ambiguous statement is what Ahmed (2009, p. 180) has quoted from Zarqa. He says:

Zarqa (1998; 2003) suggests that the methodology for developing Islamic economics with respect to conventional economics should include the following. Firstly, adopt all the value-free positive statements in conventional economics. Secondly, include all the positive statements of *Shari'ah* that cannot be found in conventional economics. Finally, replace the normative aspects of conventional economics with Islamic values and norms.

The methodology is ambiguous: how to segregate value-free positive statements

from normative statements in conventional and Islamic economics? There could be difference of opinions about the process of classification and segregation. Then, how do we replace the normative statements of conventional economics with normative statements of Islamic economics? How do we defend this act? Why are we doing this? Are we not restricting our audience to Muslims only? It would have been better if this methodology was illustrated with examples from Islamic economic teachings and conventional economics, showing clearly the formulation of the content of Islamic economics. In absence of any such illustration the idea remains ambiguous.

Examples of Confusing Statements

Nature of Islamic economics: Normative vs positive

There is confusion among Muslim economists about the nature of economic statements. They are not clear whether Islamic economics should be a positive or a normative science or both. Most of the literature on Islamic economics appears to be normative in the strict sense in which the terms 'positive' and 'normative' are used in social sciences. Some take the easier route of saying that Islamic economics is both a positive as well as normative social science. (Yasin & Khan, 2016, p. 11).

Positive economics purports to be based on facts as observed, that is "what is". As compared to this, normative economics pertains to "what ought to be" based on the specific value system, culture, religion or belief system to which the person making such a statement adheres to. Since most of the literature on Islamic economics restates the Islamic economic teachings, its overwhelming slant is towards being a normative subject. That is not an unfair approach. In fact, it should be like that, if the objective of the subject is to communicate to the world the economic teachings of Islam and not develop a social science as we tend to claim.

However, when the question of developing *Islamic economics as a social science* from the *economic teachings of Islam* comes we need to take a pause. When we stick to normative statements we tend to uphold a higher authority or value system or philosophy as a point of reference to make a judgment about the truth or falsehood or right or wrong of an idea or postulate. In case of Islamic economic teachings, this authority or philosophy emanates from God, His Apostle or His Book (the Qur'an). By itself it is a laudable position. However, we cannot take a position with respect to any statement from the divine sources that tend to disagree or refute or judge these statements. That means after stating the divine statements we come to a

dead-end as far as development of a social science is concerned. These statements are there, and we must uphold and follow them.

As compared to this, in a positive social science, the standard methodology is that we observe, examine, analyze, agree or disagree with what social scientists say. Economics as a science has moved away from being a normative science to a positive science.⁵ Economists now make positive statements about facts and then present these facts in a format which can be either verified or falsified. This cannot be done with the normative statements, particularly, if they are derived from the divine sources. However, if we take the positive statements from divine sources and present our *understanding of these statements* in the form of postulates, *we can test or validate our understanding* of the divine statements. The process can open the way for developing a social science from Islamic economic teachings.

This task has not even been started as such by Muslim economists. The divine sources of Islam have several positive statements as well. These statements are given in a language and format which requires interpretation and understanding. If we venture to interpret these statements and present them in a language that is amenable to validation we can make a robust start toward building Islamic economics as a social science. That is not to argue that the normative economic statements are of no relevance to us. They are quite relevant for Muslims. However, when we argue that we should develop Islamic economics as social science, in fact, we want to open the scope, approach and audience of the subject.

If we insist on keeping our focus on normative statements we would effectively de-limit the scope of Islamic economics to Muslims only. *It would become a science of the Muslims by the Muslims, for the Muslims.* It would narrow down the scope of Islamic teachings, although the Qur'an was revealed for the whole humanity and is relevant for everyone. Yet making it a normative science would create deterrence for non-Muslims. They would not like to get involved in it or take a closer look to what we present in the name of Islamic economics. Therefore, we should aim to develop IE as a positive social science and open it for the whole of humanity.

⁵ That is not to argue that the economists do not take normative positions. They do. They work as consultants and policy makers in governments and elsewhere and suggest actions to be taken. However, these normative suggestions are based on positive economic analysis. To the extent they do so, they are actually upholding the position that economics is a positive science. Based on the positive economic analysis, normative advice can be given. This position is valid for Islamic economics as well.

Keeping it a normative science would exclude the non-believers.

Muslim economists need to answer a more basic question: What business are they in? If they want to transform the society according to Islamic teachings, by its very nature, it is a desirable objective. But this is the work of *da'wa* (preaching). There should not be any hesitation in undertaking this work. But that has nothing to do with developing Islamic economics as a social science. Muslim preachers have been doing that work for centuries and are also busy in it at present around the globe. Muslim economists can join hands and continue that work. Proclaiming that they want to develop a distinct social science in the name of Islamic economics and then getting into the business of preaching is losing sight of the destination. This, to our mind, is the primary reason that the project of Islamic economics has not made much head-way although work has been going on at least for over four decades since 1976 when the first conference on Islamic economics was held in Makkah.

Meanings of the Shari'ah

Another example of confusion is the reckless use of the term "*Shar'iah*" to mean everything found in the Qur'an, *hadith* and *fiqh* literature. While, the texts of the Qur'an and *Sunnah* are no doubt divine in nature, the whole body of literature on *fiqh* is a human contribution. Most of the Muslim economists treat fiqh as an indispensable source of Islamic economics (see, e.g. Mozer Kahf, n.d., p.28). Without belittling the value of this monumental treasure house of knowledge, we must acknowledge that this is not divine and can be subjected to inspection and modification. Most of the literature in *fiqh* is centuries old and has lost relevance to the present times. It requires a thorough re-examination. Some Muslim economists also acknowledge this fact. For example, Habib Ahmed (2009, p. 179) says:

While *fiqh* can be consulted in order to come up with solutions, contemporary reality in terms of human knowledge and technology cannot be ignored (Siddiqi, 2004). Doing this may not only require expanding the scope of *Maqasid al-Shari'ah* in framing new laws for the present time, but may also need revisiting the *usul al-fiqh* that has remained unchanged since the 11th century CE (Alwani, 1990).

Relationship with conventional economics

Another example of confusion is the position that Muslim economists have been taking on the relationship of Islamic economics with conventional economics (Farooq, 2013, p. 24). There have been several responses from the Muslim scholars

and economists. One, reject everything that the conventional economics offers since the basic assumptions and worldview of conventional economics is different from those of the Islamic economics (e.g. Zaman, 2013; Haneef, 1997, p. 48). The idea was to develop a brand-new branch of knowledge, solely based on Islamic primary sources. Once the upholders of this point of view proceeded to do so, they found themselves using the same tools of analysis as the conventional economics does. They started grappling with economic issues considering Islamic assumptions but arriving at a similar pool of knowledge with Islamic assumptions. They assumed an ideal Islamic society where everyone was behaving according to the pristine teachings of Islam, substituting the ideal capitalist society assumptions but retaining the same format of analysis as was in vogue in the conventional economics. Besides having the blame of mimicking a well-established academic discipline, they were unable to proceed further in the absence of any real-life Islamic society. The result was an imaginary world with hypothetical and unpersuasive pool of knowledge. There was no basis to prove or disprove what the Islamic economics was offering.

The second response took the conventional economic analysis as given and incorporated the Qur'anic verses and traditions of the prophet (*pbuh*), unwittingly "reinforcing" and "legitimizing" what conventional economics was saying. Kasri (2009, p. 25) also arrives at a similar conclusion when he says, "the discipline has actually achieved little more than a re-marketing of the capitalist debt-peddling model as a pseudo-Islamic alternative."

A third response was pioneered by Monzer Kahf (nd). A crude summary of this response is that the term 'Islamic economics' is a misnomer (though he does not use this word). The pre-fix "Islamic' is unnecessary (p.19). Conventional economics studies capitalism and socialism. It can study the Islamic economic system as well. In this perspective, Islamic economics is no more than application of economic theory to Islamic economic system (p. 23). What we want to do is to study economic behavior of human beings, Muslims and non-Muslims alike, in the perspective of an Islamic economic system (p.19). The objective is to study the "is situations" and to suggest the mechanism of arriving at "ought situations" (pp. 21-22).

A deeper look in this response will show that Islamic economics is nothing but study and effort to create the Islamic economic system (p.21). Though the author has chosen the more generic expression of "study of human behavior" (p.14) and has tried to convey the message that he wants to liberate Islamic economics from the clutches of religiosity, yet at the end he is arguing for creating an Islamic economic system. By his definition, he wants to suggest that everyone, Muslims and non-Muslims alike, can study this economics as it does not deal exclusively with any religion (p.17). But this impression is nullified when he concludes his argument. He wants to create an Islamic economic system and the study of human behavior in that system would constitute Islamic economics, although it would be a sub-set of conventional economics using same tools of analysis as conventional does. How does this definition and approach make Islamic economics a universal science? It would not interest non-Muslims to study a subject that aims at creating (to their belief) 'an offensive system'. Even more significant is the fact that Islamic economics is reduced to the work of 'da'wah'. Further, studying Islamic economic system is an impossible task. It does not exist anywhere and is not likely to come into being in foreseeable future. Not only this, it is not even known what are the minimum conditions that will make a system Islamic economic system. Even if we say that the task before us is to create such a system, we do not know if we have achieved that objective. Moreover, there is no clue how he likes to develop a social science from application of economic theory to a hypothetical economic system?

A fourth response which seems to be more moderate pleaded for using the conventional economics where it does not conflict with the Islamic worldview (See, e.g. Farooq 2013, p. 31). Habib Ahmed (2009, p. 180) illustrates the fourth and moderate response as follows:

Chapra (2000, 129) points out that Islamic economics can benefit from the knowledge produced in conventional social sciences in general and economics in particular. Similarly, Ahmed Yousri (2002) also maintains that as long as concepts and principles of conventional economics do not contradict Islamic principles, they can be adopted in Islamic economics.

At the micro-level, experimental economics can verify various assumptions of Islamic economics, especially those concerning values and ethics. Furthermore, many recent empirical studies show that cultural variables and values can be measured by using appropriate proxies. For example, Guiso *et. al.* (2004) use proxies for social capital in an empirical work on financial development. Similarly, Knack and Keefer (1997) and Calderon *et el.* (2001) study the relationship between 'trust' and a variety of economic variables. At the macro-level, simulation models incorporating the beliefs and norms of Islamic behavior can be worked out in order to see their impact on economies. Two recent papers that use simulations to see the impact of Islamic values and principles are Al-Suwailem (2005) and Ahmed (2006).

We think the first two responses were fallacious. In the first case, since there is

no ideal Islamic society in existence and there is none in sight in near future, there is no point in hypothesizing on the basis of this concept. The second response is trying to seal the conventional economics with Islamic approval, which is uncalled for. It will not add to or subtract from the creditability of conventional economics, nor will it add anything to the value of Islamic point of view. (p. 181)

We think that the fourth response is more balanced than the other responses. Let us accept that in its core, most of the Islamic economic principles and assumptions about human behavior are in line with capitalism; e.g. private property, free market economy, welfare and regulatory role of the government, and objectives of full employment and social security net, etc. Therefore, most of the conventional economic analysis can fit quite well into the Islamic framework. Since there is no ideal Islamic society in existence, the economic behavior of most of the Muslims is like non-Muslims. There is no reason to have different assumptions about human behavior. Thus, most of the conventional economic analysis would apply to the Muslims as well. We need not quote Islamic injunctions to 'Islamize' the conventional economics.

Validation procedure

Another area of confusion is regarding Muslim reaction to the conventional economics methodology of verification or falsification. Some Muslim economists thought that verification or falsification of Islamic postulates would expose the divine ordinances to human verification or falsification, which would be synonymous to committing a sacrilege. Therefore, the methodology is not suitable for Islamic economics. For example, Addas (2008, p. 29) writes:

To be sure, Islamic economists have little interest in the *falsificationism* or *verificationism* criterion to evaluate the efficacy of economic theories: they scrutinize their validity just from an Islamic perspective anchored in a set of beliefs and rules derived from *revelation*. Muslims would *falsify* or *verify* what is to be considered as true knowledge or otherwise on that criterion alone. In this sense, the methodology of Islamic economics is based neither on 'falsification' nor on 'verification'. It uses both.

It is a highly confusing statement. It mixes up divine ordinances with their human interpretation and understanding. To say Islamic economics would falsify and verify theories on basis of revelation only does not recognize the fact that the divine ordinances are only a few in number and cover only some of the key situations in social reality. Functioning of economies and markets and the related human behavior, in most of the cases, remains within the domain of human reasoning and understanding. Muslims cannot find explicit criteria in the divine texts for verifying or falsifying of most of the hypotheses in economics.

Objective of Islamic economics

There is also confusion about the primary objective of Islamic economics? Why do Muslims want to develop Islamic economics as a social science when already a body of knowledge in the name of 'economics' exists? They are not clear. A popular argument is that they want to develop Islamic economics because economics is a positive science and studies the conditions as *they are* and not as *they should be* (for example, Bendjilali, 2009, p. 168; Farooq 2013, p. 27). Bendjilali supports Chapra (2000) that the empirical data should be collected of the real condition of Muslims around the world so that a strategy can be devised to change the present state to the desired state.

Nienhaus (2013, pp. 196-197) has rightly pointed out that despite all the lipservice to fill the gap between "what is" and "what ought to be", Muslim economists have not produced any model for transition from the existing situation to the desirable situation. Similar observations have been made by Farooq (2013, pp. 27-28). Until that is done, the whole project of transforming the existing economies into Islamic economies would remain unfinished.

Scope of Islamic economics

Still another area of confusion is about the scope of Islamic economics. For example, Bendjilali (2009, 169) says:

As far as the scope of Islamic economics is concerned, it should study all economic phenomena throughout human society, whether that society is Islamic or not, because Islam is a universal religion, and as such draws our attention to relationships and variables applicable to all human behavior and not just that confined to Muslims.

It is a tall order. It takes us to the basic question: The economic phenomenon around the globe is being studied by economics. In what respect are we going to make a difference if we study it under the banner of Islamic economics?

The above discussion shows that Muslim economists have not been able to present a generally accepted approach toward methodology of Islamic economics. The distinctive feature of Islamic economics is that it pleads for benefitting from revelation as a source of knowledge. But the format of the revelation is not that which is generally accepted for a social science like economics. For this purpose, Muslim economists need to develop a distinct approach which enables them to integrate the knowledge received through revelation with the knowledge acquired through observation, experimentation, and human thinking. To this subject, we now turn in the following section.

The Way Forward

Economics is a social science that has evolved over centuries. It is based on the knowledge derived from human thinking, observation, experimentation and analysis. It does not accept any super-sensory source of knowledge as valid. The distinctive feature, and the very rationale of Islamic economics, is that it aims at integrating the human knowledge with the divine content. The idea is that God provided a rich source of knowledge through His apostles. God granted all His apostles the same basic truths such as oneness of God, a list of righteous deeds, resurrection after death and a Day of Judgement. Within this general framework of guidance, each apostle was given a set of rules and dos and don'ts according to the socio-economic development of each age. In the series of God's apostles, Muhammad (pbuh) [570-632] was the last, after whom no apostle has been sent by God. He was granted the final guidance which is preserved verbatim since his time and is available in the form of Qur'an. The Qur'an contains the last word of God and contains guidance on the entire spectrum of human life, including economic matters.

The basic idea of developing Islamic economics as a social science is to benefit from the guidance provided by God in His final book, the Qur'an, and from the practical example of its practice by the Prophet Muhammad (pbuh) himself, called his *Sunnah*. The work done so far in the name of Islamic economics is a restatement of the economic teachings of Islam. The task before Muslim economists is to transform the guidance contained in the divine sources of Islam into a social science. We have discussed the methodology of theory building in Islamic economics elsewhere (Khan, 2013; 2014-a; 2014-b; 2016). In the following paragraphs, we shall recapitulate our ideas on the subject just to complete the argument.

Islamic economic teachings, as found in the primary sources of Islam and as presented in the literature on Islamic economics are sets of rules and regulations dealing with economic aspects of life. They are prescriptive by nature and are to be followed as guidance for leading everyday life. However, these teachings of Islam contain a wealth of material, not yet properly focused by Muslim economists; have seeds for developing a social science in the name of Islamic economics. The difference between *economic teachings* and *economics as social science* is that the former is normative and prescriptive and aims to transform the human behavior and the latter are positive and objective and focus on making predictions about future outcomes. Since the source of Islamic economic teachings is divine, there is no question of applying the standard methodology of verification and confirmation on these teachings. However, *human understanding* of these teachings can be subjected to the process of verification and confirmation as followed by economics.

The idea is that Muslim economists should understand the texts of the primary sources of Islam and present their understanding in a language and format which is amenable for verification or falsification. This is the standard procedure for developing knowledge in economics and other social sciences.

The advantage of resorting to economic teachings of Islam for formulation of hypothesis is that it can cut short the human thought process. It is possible that human reason and thinking also leads us to the same hypotheses as the guidance from the divine sources would. But the process of arriving at a hypothesis through human reason only may take much longer and remain exposed to human errors. However, a hypothesis derived from the divine guidance is likely to cut-short the journey for arriving at the same conclusion and reduce the hazards of human errors considerably. For example, human thinking has now arrived at the wisdom and sagacity of more equitable distribution of income and wealth after centuries of thinking, and committing errors and omissions (See e., g. Stiglitz 2015). But this conclusion could be reached in a much shorter span of time and with minimal mistakes, had the humanity availed the guidance from divine sources. More examples can be cited to illustrate the point that the economic teachings of Islam have the potential of helping the humanity in finding robust solutions to economic problems. By studying the economic teachings of Islam and transforming these teachings into a social science, frontiers of economics can be expanded.

We propose the procedure for transforming the Islamic economic teachings into a social science, briefly, as follows:

Step1: Develop a clear understanding of the Islamic economic teachings in the context of present day social reality, without discarding the interpretations of divine sources by earlier scholars. However, an understanding of the texts that considers the contemporary reality is essential. It would also require extensive use of innovative thinking (*ijtihad*) to see and understand the relevance of the divine texts to the present age.

Step 2: The human understanding of divine sources of Islam developed at Step 1 above should then be transformed into hypotheses. Several injunctions can become one hypothesis or one injunction can lead to formulation of several hypotheses.

Step 3: The language and format of the hypotheses should be such as is amenable to validation though processes of verification or falsification. We have given examples of 25 such hypotheses in two of our papers (Khan, 2014b; 2016). These examples can stimulate thinking of Muslim scholars for further work in this direction.

Step 4: Through an extensive process of consultation, discussion, verification or falsification, the hypotheses developed should be tested. Data should be collected from the field to confront the hypotheses. The objective would be either to confirm what the hypotheses claim or to falsify their outcomes. In any case, if the hypotheses are confirmed or cannot be falsified by real-life evidence, they would be validated. [See Fig 1 below]

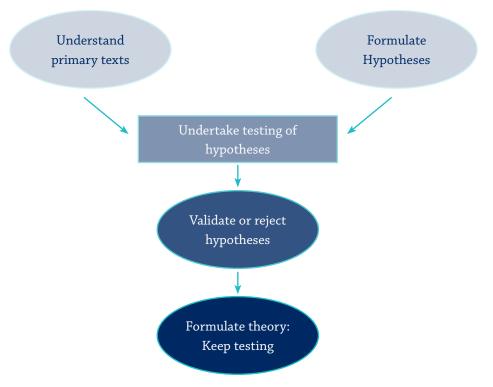


Figure 1. Theory Building in Islamic economics

Step 5: The process of theory building would continue after the initial validation of a hypothesis. The hypotheses would continuously remain under examination and people would keep confirming or falsifying them. Only after repeated trials for extended periods, the hypotheses would be accepted as theory.

Step 6: The theory of Islamic economic thus built would remain under examination in future. If it cannot be refuted, it would become the economic law.

In the process, at each stage of testing, conditions and qualification would be added to the initial hypothesis and theory. This is the standard methodology used by economics. Islamic economics would also follow this methodology.

So far Muslim economists have been diffident in using this methodology as they were reluctant to confront the divine teachings of Islam to the stand ARD procedure of confirmation or falsification. They even openly rejected such a procedure. But our proposal is that the divine *teachings of Islam need not be subjected to the procedure of testing and confirmation*. Muslim economists should develop an understanding of the divine teachings; formulate hypotheses based on this understanding; and subject those hypotheses to confirmation and falsification process. They would not be exposing themselves to any sacrilege.

Illustration of the Proposed Methodology

Positive Economic Statements of the Qur'an

The first step for developing Islamic economics as social science is to concentrate on positive economic statements of the Qur'an and *hadith*. We present below some examples of these statements from the Qur'an. Although these statements have normative implications yet they provide basic material for developing Islamic economics as a social science. A similar exercise can be done by focusing on positive economic statements of the *hadith* literature.

Prosperity and misery at macroeconomic level

The Qur'an discusses prosperity and misery in general terms. It refers to deeper, imperceptible and long-term currents of events taking place in the cosmos because of human actions and under the will of God. These currents affect the process of wealth creation in ways that cannot be explained easily in a simple cause-effect framework. The factors of production combine in the production process and create wealth. Over and above the visible cause-effect relationship of the factors of production, there are moral laws which influence the ultimate result. These laws operate in response to certain traits of human character and behaviour which influence the state of prosperity and misery. A normative change in human behaviour can transform misery into prosperity and vice versa. The precise mechanism through which the laws operate is yet unknown because the meanings and interpretations of the Qur'anic texts on the subject require further thinking and deeper understanding.

The Qur'an visits the subject of human prosperity and misery at various places to draw attention toward God's almightiness and invites human beings to adopt the path of righteousness. These statements address communities and societies as well as individuals. For example:

- Economic deprivation and prosperity are states of trial from God. [Q. 2:155, 7:130, 7:168]
- Following the divine guidance brings material prosperity. [Q. 5:66, 7:96, 16:39, 24:55, 72:16]
- Material prosperity accompanied by unethical behavior is short-lived and ends in misery. [Q. 6:6, 6:42-44, 7:96, 22:45, 22:48, 30:41, 34:15-17].
- Transformation of economic well-being of a community into economic deprivation and vice versa is a consequence of changes in the ethical behavior of people. [Q. 8:53, 13:11].
- Unethical behavior by majority of the people brings economic misery and transforms prosperity into misery. [Q. 11:116, 89:15-20]
- Persistent ingratitude by a community at macro-level transforms prosperity into poverty and brings insecurity in the long-run. [Q. 16:112]

Prosperity and misery at microeconomic level

Human beings require for their survival material resources such as income and wealth and non-material resources such as good health, peace of mind, healthy children, knowledge, skills, social respect and harmony, and safety and security, etc. The Qur'an terms these resources as "*rizq*". There are several positive statements relating to distribution of *rizq* among individuals. For example:

- God has absolute power in distribution of the *rizq*. [Q. 2:212, 3:27, 3:37, 13:2629:62, 30:37, 34:36, 34:39, 39:52, 11:6, 29:60, 42:19]
- Expression of gratitude for God's bounties leads to increase in *rizq*. [Q. 14:7]

- God deprives income from *riba* of all blessings. [Q. 2:276]
- God has created all human beings unequal to enable them create civilizations. [Q. 43:32]
- Spending on others (*infaq*) *is* a loan upon God who promises to return it with manifold increase. [Q. 92:18-19, 2:195, 2:219, 2:245, 17:26-27, 25:67, 47:36-37, 57:11, 57:18, 64:17]
- *Infaq* is a vehicle for an increase in the wealth at individual and social levels. [Q. 2:261, 2:265]
- *Infaq* accompanied by God consciousness (*taqwa*) and ethical values lead to a life of ease while miserliness, arrogance and unethical behavior lead to a life of hardship. [Q. 92:5-10]
- Compliance with divine injunctions while being God-conscious opens doors of ease. Reposing trust in God during hardship brings unexpected financial help from God. [Q. 65:2-3]
- An attitude of humility and willingness to mend past errors, termed as repentance (*tauba*) by the Qur'an, opens door-ways for material prosperity.
 [Q. 11:3, 11:52, 71:10-12]
- Patience in bearing adverse changes in economic well-being is a foreboding of increase in income and wealth. [Q. 2:155, 94:5]
- God determines the *rizq* keeping in view an individual's needs. God also considers the requirements of social balance while distributing income and wealth. [Q. 42:27]
- Ethical behavior in economic dealings leads to prosperity. [Q. 72:16]
- Some forms of unethical behavior lead to financial hardship. [Q. 89:15-20]

Both sets of statements regarding economic prosperity and misery are general indicators of the way the wealth and income are distributed by God among individuals and communities. However, the exact mechanism of how God implements His plan is yet unknown to us.

From Positive Economic Statements to Islamic Economics

Second pillar of the strategy for developing Islamic economics as a social science is to proceed from the positive economic statements of the Qur'an and *hadith and*

transmute theological statements into a social science. For this purpose, we can adopt the same methodology as that of the conventional economics. However, we should take a fresh look over the positive economic statements of the Qur'an and *hadith*. The injunctions of the Qur'an and *hadith* are divine and immutable but our understanding is not. We should be willing to formulate human understanding of the divine texts in the format of hypotheses which are amenable to validation and falsification. We have discussed the methodology of developing Islamic economics as a social science from the positive economic statements in the Qur'an and *hadith* elsewhere (Khan, 2013; 2014; 2014-a; 2014-b; 2016). At this place, we shall only present a summary of these discussions. For developing Islamic economics as a social science, we should proceed as follows:

- (a) We should take economic statements of the Qur'an or hadith as immutable and unchangeable. Since each of the Qur'anic verse or hadith dealing with divine economic laws can be interpreted in more than one way, our objective should be to understand the cause-effect or operational process of these statements. The challenge before us is to arrive at interpretations which can be tested and verified empirically or rationally. It is not that we need to test the Qur'anic or hadith statements. It is the human interpretation and explanation of these statements that we need to test empirically or rationally.
- (b) Based on our understanding of the statements in the Qur'anic or hadith, we should develop hypotheses that propound to make some predictions. There could be several hypotheses for each statement or one hypothesis from several statements. The form and content of the hypotheses could change with passage of time as our understanding evolves. We should present various hypotheses in a format which can be either verified by empirical testing or cannot be falsified by facts and rational thinking⁶.
- (C) The hypotheses should be available for testing and verification in varied conditions. The results of hypotheses testing should be widely published inviting the world community of knowledge to examine and comment on this research.
- 6 It is interesting to note that the methodology of verification presented by Karl Popper (1902-1994) under the generally accepted thesis of falsification has its origins in the Muslim theological thought. Iqbal (p.102) says: "It was, I think, Nazzam (775-845) who first formulated the principle of 'doubt' as the beginning of all knowledge. Ghazali (d.1111) further amplified it in his 'Revivification of the Sciences of Religion' ('Ihya al-Ulum al-Din), and prepared the way for 'Descartes' Method'."

After years of research and introspection, operation of some of the moral laws would be discovered and we shall be able to present our understanding in a format that can be used in wider economic analysis. The suggested procedure will enable Islamic economics extend frontiers of the conventional economics. However, it will have a distinct research agenda for itself and have no dispute with the conventional economics. Both social sciences can complement findings of each other and live side by side. One of the contributions of Islamic economics to human knowledge would be to develop a methodology for making the Qur'anic economic laws manifest in human situations. It will add a new dimension toward understanding and analyzing the human economic problems.

Examples of hypotheses based on Islamic economic teachings

We have illustrated the above procedure in two of our earlier papers (Khan, 2014-b; 2016). These papers explain in greater detail the steps to be taken for developing theory of Islamic economics. In this section, however, we shall present some examples of how the procedure discussed above would be applied.

Hypotheses on Riba

The Qur'an declares riba as illegal (Q. 2:274-281). However, it does not say in so many words if the commercial interest in vogue is riba or not. Classical Muslim religious scholars, almost unanimously, declared that all forms of interest, including, commercial interest are forms of *riba* and must be avoided. Based on this interpretation of the term *riba*, the entire movement of Islamic finance was launched during the last three decades or so which has now bloomed into hundreds of institutions. However, in actual practice, the Islamic financial institutions have adopted methods and procedures so similar to interest that it is difficult to tell if they have actually succeeded in eliminating *riba* from their transactions. Because, of this controversy, the question of definition of *riba* remains alive. However, instead of going to definition issue and remaining locked there for all times, there is another way of understanding the Qur'anic injunctions on riba. The Qur'anic Verse Q. 2:276 clearly says that God deprives riba of all blessings (yamhaqu Allah *al-riba*). One method of developing theory of *riba* in Islam could be to develop understanding of the Quranic expression of 'yamhaqu Allah al-riba" in the context of our age. The understanding of this expression can lead us to several hypotheses, which can be tested and can confirm our understanding. Some examples of the hypotheses are given below:

Hypothesis 1: Average rate of return on capital invested as interest-bearing loans tends to decline in the long-term, other things remaining the same.

Hypothesis 2: Aggregate value of assets of money-lenders whose major source of income is interest earned on consumption loans which tends to decline in the long-term, other things remaining the same.

Hypothesis 3: Average rate of return on the cost of goods sold on deferred payment basis that includes interest in the sale price on the delayed payment tends to decline in the long-term, other things remaining the same.

Hypothesis 4: On an average, development projects financed by international donors as interest-bearing credit lead to lower than planned rates of net present value and internal rate of return, other things remaining the same.

Hypotheses on Infaq

We can take another example. God has emphasized the importance of spending for His sake on other people, relatives and community. This is expressed in the generic term '*infaq*'. At various places in the Qur'an, God has persuaded people to undertake *infaq* and has promised rich rewards both in this world and in the hereafter. In this world, God has promised to replace the money spent as *infaq* or to multiply it in future. Based on such verses of the Qur'an we can understand that *infaq* leads to prosperity and peace in this life as well. Assuming this understanding of the verses on *infaq* is persuasive, some of the possible examples of hypotheses could be as follows:

Hypothesis 5: Spending from collective receipts of obligatory *zakah* at the national level leads to increase in employment level at macro level through multiplier effect of the increased consumption of the recipients in the long-term, other things remaining the same.

Hypothesis 6: Systematic and sustained charitable spending by an individual or a business firm has a positive correlation with gross income or economic growth of the giver, other things remaining the same.

Hypothesis 7: Regular and systematic payment of *zakah* by an individual or a business firm enhances the volume of *zakah* obligations of the giver in successive years through increase in income and wealth liable for *zakah*, other things remaining the same.

Following the above procedure, we have tried to formulate hypothesis on

certain economic subjects such as gratitude (*shukr*), repentance (*tauba*), Godconsciousness (*taqwa*). Examples of various hypothesis on these subjects can be referred to in our two papers cited above. The crucial point is that these are only examples of application of the methodology suggested in this paper. There is nothing sacrosanct about the format, language and even the understanding of the Qur'anic text on which these hypotheses have been formulated. In actual practice, if Muslim economist find this approach plausible, they can take these hypotheses or formulate more such hypotheses for further examination through the process of confirmation and falsification suggested above.

Some Related Issues

Developing Statistical Infrastructure

Fourth pillar of the strategy for developing Islamic economics as a social science is to develop statistical infrastructure for collecting and analyzing the data. Most of the required data would pertain to socio-economic behavior of people. In some cases, testing would require information on long-term basis. That should not discourage us. There are traditions of long-term research in other disciplines. For example, in health sciences, sociology, psychology and anthropology data are collected over long-periods on large numbers consisting of a variety of individuals, situations and assumptions. Information collection continues until the researchers can conclude on certain trends and hypotheses. Since the economic subjects in the Qur'an and *hadith* also deal with human behavior, in some cases data would be required for representative and unbiased samples (preferably for large numbers) over extended periods of time. In most cases, five years would be too short a period. We think that process of hypotheses building should take place at levels of institutions such as universities, academies and research institutions which should collect and analyze data over long periods of time.

Relationship with Conventional Economics

Fifth pillar of the strategy for developing Islamic economics as a social science is to understand clearly and precisely its relationship with conventional economics. Islamic economics has no dispute with it as it does not replace, or modify it. The two disciplines have their own subject matters and can develop side by side. The conventional economics studies the economic problem of man from purely material and physical angle. It focuses on the behavior of individuals, markets and organizations regarding resources produced, distributed and consumed. Islamic economics studies the economic problem of man regarding ethical and spiritual principles. Both these planes of discussion are complimentary and not mutually exclusive. While the invisible hand of markets determines supply and demand, the Invisible Hand of God acts in an over-arching manner and influences the operations of these very markets by influencing human minds and thoughts. God implements His grand scheme of distribution of income and wealth through markets and organization. Economics does not study this phenomenon. Islamic economics purports to do that. While doing that, it attempts to understand the moral laws of God in operation over and above the market laws. Thus, the two disciplines have no conflict. They only complement each other.

If we must develop Islamic economics as a social science, and we think it is a potentially feasible enterprise, we should not attempt to modify conventional economics from an Islamic perspective. Instead, we should study conventional economics as it is but develop Islamic economics as a social science from its theological roots. It should not be an attempt to transform conventional economics into Islamic economics. We can use the methodology of conventional economics without any reservations. Islamic economics should not feel shy of adopting and using tools of analysis used by conventional economics or other social sciences. These tools are available in the present form after centuries of thinking and experimentation and are common heritage of the humanity to which Muslims had also contributed in their heydays. Islamic economics should make use of that heritage freely.

Focus of Islamic Economics

One of the pillars of the strategy for developing Islamic economics as a social science is to define the focus of Islamic economics clearly. Islamic economics addresses the whole of humanity. It is not a science that deals with the problems of Muslims only. Its study does not require faith in Islam nor does it require an Islamic society for developing its knowledge-base. Its postulates, hypotheses, theories and laws are valid for all societies and for all people. Islamic economics should come out of the problem of conceiving its postulates in the context of Islamic economy since it does not exist anywhere in the real world. Instead, it should deal with problems of the economies that exist in the real world.

In Defence of the Proposed Strategy

Since the strategy discussed above departs significantly from the path adopted by

contemporary Muslim economists we think it necessary to present some thoughts in its defence.

- (a) Qur'anic verses 2:258-260 refer to three incidents which indicate God's preference for empirical evidence. Verse 3: 137 invites people to 'go around the world and see the fate of those who rejected the Truth.' Verses 10:36 and 53:28 say that 'conjecture can never be a substitute for truth.' Verse 17:36 advises people 'never to concern themselves with anything about which they do not have sure knowledge'. These verses clearly indicate that all knowledge must be supported by indefensible evidence.
- (a) Without breaking from the past, the methodology opens new opportunities for having a fresh look at past understanding of the divine sources. The method owns and adopts the divine sources as supreme, which makes it a continuum of the past. At the same time, it permits people of the present age as well as future generations to review and reinterpret all that the past intellectual efforts have retained for us. In that respect, it opens immense possibilities for creating new knowledge.
- (b) The strategy adopts scientific method developed by social sciences over centuries of thinking and experimentation. It does not discard gains of the scientific knowledge. It only builds upon those gains. It adopts the now generally accepted method of formulating and testing hypotheses considering empirical evidence. It applies the concept of falsification of hypothesis which would not be possible if we remain confined to *Islamic* economic teachings because venturing to test those teachings may be construed as blasphemous in the first place. The methodology goes a step further from Islamic economic teachings. It applies scientific method to human interpretation of the divine sources, avoiding all conflict with religious elite and social scientists. The method displays a unique situation of humility. On the one hand, it respects the divine sources and all that has been presented by religious scholars of the past. On the other, it adopts the scientific method developed by the social scientists. Thus, with the humility and willingness to benefit from both streams of knowledge, it tries to integrate human understanding of the divine sources with empirical testing of that understanding. Simultaneously, the method avails of the freedom to have a fresh look on the past religious thought. It provides a sort of dynamism to the religious thought and may become a vehicle for

emancipating the *fiqh* knowledge from immobility of the past centuries⁷.

- (C) The method opens new vistas of interaction with other faiths. Once we can demonstrate the utility of this method we remain open to apply it to divine sources of other faiths like Judaism, Christianity, Buddhism, etc. It will provide corridors of hand-shake with the people of other faiths. The current environment of 'Islamophobia' would give way to new methods of borrowing from other faiths for Muslims as well as for people of other faiths. It will provide a forum for positive and fruitful inter-faith dialogue.
- (d) There is a realization among economists and finance professionals to bring ethics into mainstream branches of knowledge⁸. But aversion of getting sucked into a religious framework creates barriers against incorporating ethics in economics and finance. The method allows economists and finance professionals to embrace education and teaching of ethics without getting into the business of professing any specific faith.

Concluding remarks

In this paper, we have argued that the work done so far under the nomenclature of 'Islamic economics' mainly consists of *Islamic economic teachings*. It cannot be termed as *Islamic economics* because it does not have theory which can make predictions about the future. The Islamic economic thought has not been recognized as a social science by the wider academic community in the field of economics. One of the reasons for this is that the Islamic economic thought consists of material taken from the intellectual heritage of Muslims without much review and modification. Most of it pertains to pre-modern age and is about one thousand years old. The society has moved on since then. New modes of production, new methods of wealth creation and distribution, new problems, issues and concerns have emerged. A knowledge that discusses a thousand years old issues cannot attract attention of the contemporary world.

It does not mean that the original aim of developing Islamic economics as a social science was baseless. It still has a merit. The knowledge received though

⁷ It is important that the Muslim scholars feel nostalgic about *fiqh*. They want to go back to the *fiqh* as it is, without any major fresh thinking. They think that the revival of Islamic economics should be made by anchoring the subject on the *fiqh* which is suffering from antiquated ideas for the last six centuries. See for a recent example introductory chapter by Kizilkaya (2015, 9).

⁸ See for example, Maghrebi et el (2016, 49); Lagarde (2015); Stückelberger (2012, 454); Schwartz and Carroll (2003, 512);

revelation can guide the humanity in solving the economic problems. However, for making an effective contribution, human understanding of the primary sources of Islam should be stated in the language and format of hypotheses which can be tested for validity. A subsequent process of detailed validation should follow to conclude on the understanding of the primary texts. If the hypotheses are validated, they would constitute the hard core of Islamic economics. If they are not validated further thinking and research would be necessary to refine understanding of the primary texts. This would be an ongoing process.

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