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Article

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ISRA International Journal of Islamic Finance

Provided in Cooperation with:

International Shari'ah Research Academy for Islamic Finance (ISRA), Kuala Lumpur

Suggested Citation: Choudhury, Masudul Alam (2018) : Tawhidi Islamic economics in reference to the methodology arising from the Qur'ān and the Sunnah, ISRA International Journal of Islamic Finance, ISSN 2289-4365, Emerald, Bingley, Vol. 10, Iss. 2, pp. 263-276, <https://doi.org/10.1108/IJIF-02-2018-0025>

This Version is available at:

<https://hdl.handle.net/10419/236933>

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Tawhidi Islamic economics in reference to the methodology arising from the Qur'ān and the Sunnah

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Tawhidi
Islamic
economics

263

Received 26 February 2018
Revised 28 March 2018
15 June 2018
8 September 2018
Accepted 9 September 2018

Abstract

Purpose – The purpose of this paper is to lay down the methodological structure of the epistemology of *tawhid* (Oneness of Allah). In this paper, the meaning of *tawhid* also refers to the monotheistic unity of knowledge (consilience) in the cast of its organic pairing by circular causation relations between the moral and material possibilities. The paper thereby raises the critique of mainstream economic reasoning and its imitation by existing Islamic economics. Consequently, by the ontological, epistemological and phenomenological foundation of *tawhidi* methodological worldview, an altogether new socio-scientific reasoning in generality and economic reasoning in particular is introduced.

Design/methodology/approach – The socio-scientific methodological reasoning of unity of knowledge according to the *tawhidi* methodological worldview is introduced contrary to the inept rational choice postulates of mainstream economic reasoning and its imitation by existing notions of Islamic economics. The method of instructing students in the light of this approach according to *Tawhidi* Islamic Economics (TIE) is introduced from the existing literature.

Findings – The existing nature of mainstream economics and its imitation by Islamic economics is critically deconstructed and replaced by the true epistemological, ontological and phenomenological perspectives of TIE in the world of learning. Some inner properties of such a methodological study of TIE are laid bare for further investigation.

Originality/value – This is the first paper of its kind in this journal to expound the original and most creative methodological worldview that Islamic economics must bear. This is the foundation of the development of the true stance of Islamic economics and finance.

Keywords Economic methodology, *Tawhid* as monotheistic unity of knowledge, *Tawhidi* Islamic economics

Paper type Conceptual paper

Introduction

Islamic economics began around 70 years ago with the works of some Indian scholars in the field. The King Abdulaziz University Center for Islamic Economics records the origin of the

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The author thanks Mahfuzul Alam Taifur, research assistant and PhD candidate, Department of Shari'ah and Economics, Academy of Islamic Studies, University of Malaya, Kuala Lumpur, Malaysia, for making the required corrections.



ISRA International Journal of
Islamic Finance
Vol. 10 No. 2, 2018
pp. 263-276
Emerald Publishing Limited
0128-1976
DOI 10.1108/IJIF-02-2018-0025

contemporary approach to the study of Islamic economics to be thirty years. The works of great Islamic scholars, *mujtahids* such as Imam Ghazālī, Ibn Taymiyyah, Imam Shāṭibī, Ibn Qayyim and Ibn Khaldūn, recorded the study of Islamic economic and social problems either in reference to the Qurʾān and Sunnah (prophetic teachings) or independently of these as intellection borrowed from Greek social and economic thought. Examples of the latter include Ibn Khaldūn (Rosenthal, 1958) and the Muslim philosopher of Greek vintage, Al-Farabi (Waltzer, 1985). The use of the term “Islamic economics” is an imitation of contemporary intellectual fashion. It reflects the classification of educational disciplines left to us by the Occidental world. Such classification is devoid of the integrated beginnings of intellectual thought in which all Muslim scholars once immersed themselves in the search for knowledge. That search was not confined to this or that discipline but was, rather, conducted with an understanding that placed all disciplines within a comprehensive methodological worldview. This paper will address the socio-scientific methodology of holism emerging from the true foundation of Islam – that is, *tawhid* as the monotheistic law of everything. Islamic economics, finance, science and society are studied within trans-disciplinary holism under the primal ontology of *tawhid* and its methodological worldview.

As the classification of disciplines carried with it specialization and the independence of each area of learning, the spirit of holism disappeared. Islamic economics, under its contemporary rubric, has embodied such separable thinking at the loss of an integrative methodology that once made it relevant to everything. The proposed corrective methodological worldview is premised on “everything” and must therefore properly define its permanent epistemological basis.

Such a grounding of the Islamic economic discipline has remained absent since its terminological inception. Over the years, a methodical dissociation of Islamic moral and ethical issues that are inherent as endogenous inter-causality failed to assume the methodological worldview in global learning.

As the spirit of Western erudition entered lock, stock and barrel into Muslim thought, the original hallmarks of Islamic science and society were superseded. This process affected economics, which never developed a foundation, form or critical learning process to be pursued via Islamic epistemology, meaning the theory of knowledge expressed in a significantly analytical form. This marked the departure of the Islamic methodological worldview and its potential to contribute uniquely Islamic erudition, epistemology and consequential analytics to the world of learning (Choudhury, 2017).

Thus, Islamic economics entered the scene of the classified disciplines in a subservient state to existing mainstream economic and socio-scientific thought, devoid of its epistemological worldview informing an analytical perspective. Consequently, almost all of its argumentation, modeling, formalism, applications and inferences took the path of Western interpretations. The work of Mahomedy (2013) can be referred to for an incisive and insightful critique of the existing field of Islamic economics. Nonetheless, high potential remains for Islamic economics as a discipline of meta-science that is grounded on the truly Islamic epistemological foundations. These are, namely, the exegesis of the Qurʾān and Sunnah in respect of the *tawhidi* (monotheistic, consilience and unity of knowledge) methodological worldview.

Present-day Islamic economics is in a dire state. It is not original; it is failing to be derived from the teachings of the Qurʾān, Sunnah or Islamic scholastic thought. This is not to say that the Qurʾān is the divine book of science. Rather it is the revealed book of guidance for those who seek guidance (Qurʾān, 2:2). Nonetheless, it is the revealed book that is complete and final in knowledge. It thus provides guidance for all issues of mind and matter, and thus of science, economics and worldly matters in its meta-perspective of morality and ethics.

Islamic economics in its present state does not have a theory and foundation that can be called truly “Islamic” in terms of systematizing economic and social learning in a holistic way. Such an approach would emphasize inter-causality on the precept of unity of knowledge. The methods and models of Islamic economics today ignore the need to model Islamic morals and ethics in an endogenous way with materiality. The implications are thereby a borrowing and an interpretation that is either crassly Islamic, yet without the spirit, rigor and foundations or is parroting the Western methodological worldview. Only an outer semblance of Islamic values is attached to the economic reasoning of the present-day notion of Islamic economics[1].

Research objective

This paper focuses on the importance of the epistemological derivation of scientific methodology as the inevitable commencement of scientific thinking. There cannot be any scientific methodology without the foundation of the epistemological, ontological and phenomenological details of the underlying worldview and its specific application to selected issues of scientific inquiry.

The objective of this paper is to establish the indispensable fact that the socio-scientific epistemology of the Islamic worldview is premised on the analytical understanding of *tawhid* in relation to the generality and particulars of the world-system. This foundational methodological worldview emerges from the Qur’ān. It is transmitted by the Sunnah and thereby takes the path of learned discourse. In socio-scientific jargon, the *tawhidi* methodological worldview takes up the ontology, epistemology and phenomenology of the precept of unity of knowledge (consilience). This paper will establish this fact regarding the approach to studying Islamic economics as a particular case of the vaster methodological worldview of *tawhid*. The paper argues that such a foundational methodological worldview of Islamic socio-scientific thought has been fully missed in anything called Islamic economics and finance. In fact, it is missing in the whole socio-scientific domain. It is direly needed if Islamic economics and finance in particular and Islamic socio-scientific thought in general are to contribute to global scholarship and practical application for the well-being of all.

This paper is classified in the following critical viewpoints: the first part is an introduction to the current problems of economic reasoning in orthodox economics, which today’s Islamic economics has imitated. A critique is launched of mainstream and Islamic economics from the perspective of a methodological worldview. The second part is an introduction of the epistemological, ontological and phenomenological premises of true Islamic economic thought based on the *tawhidi* methodological worldview. The third part brings out the methodological organization of the proposed reconstruction of Islamic economics on the basis of its essential methodology of *tawhid*. Hence, we term the emergent economic science as *Tawhidi* Islamic Economics (TIE). The fourth part, as conclusion, continues with a suggested approach to the study of TIE.

The present state of the study of economics and Islamic economics: a brief reference to the literature

The Royal Economic Society points out that smaller universities in the UK have abandoned exclusive focus on economics since the year 1999. However, the larger universities in the UK, by virtue of their advanced ideas in economic reasoning and by integrating related disciplines, have flourished. The large universities are those that are reputedly established. One such area that has arisen in the larger universities is heterodox economic theory.

Subsequent to the heyday of Islamic economics in the Muslim world, it has by and large been supplanted by the now stylized caption of Islamic finance. This is an equally

problematic field in its imitation of mainstream finance, having only a palliative of Islamic instrumentation. This garb of Islamic finance is not epistemologically different or revolutionary in nature. Much has been lost from the beginning to the present (Wilson, 2014; Siddiqi, 2014).

The problem of Islamic learning started when it got increasingly dissociated from its epistemological origin in the Qur'an, Sunnah and intellectual discourse around these sources. That discourse is called "*ijtihad*", meaning authentic research based on epistemological foundations. This being the case, the axioms, assumptions, nature, methodology and applications of the core of Islamic economic reasoning, namely morality and ethics, have been marginalized. They have been replaced by substitutes imported from a commercial and materialist outlook. An example is the present failing of Islamic banks. They raise large equity values from the shares market. However, they remain oblivious of the cognition and practice of the Islamic methodological worldview applied to the commercial arena in the form of endogenously induced well-being (*maṣlahah*) (Furqani and Haneef, 2012).

According to orthodox economic theory – to which neoclassical economics belongs – the principal attribute of rational choice regarding goods and services is "marginal rate of substitution" between competing goods and services for command over scarce resource allocation between such competing ends. We will refer to this neoclassical premise as "marginalism". Likewise, Islamic economics immersed in mainstream orthodox economics could not emerge as a project within the sociological economic school that pronounces the principle of pervasive complementarities. This is the principle that arises from the understanding of organic inter-causality of learning in unity of knowledge between variables and their functions. This predicament is caused by it being immersed in the traditional microeconomic and macroeconomics branches of mainstream reasoning. There was blind acceptance to the underlying postulates of orthodox and mainstream economics with their traditional orientation. This is despite the fact that such orientations are being seriously questioned in mainstream economics by the works in rational expectation theory. The fields of microeconomic foundations of macroeconomics were the results of such theorizing. In Islamic economics of today, such original ideas of formalizing the ethical place of microeconomics in the development of the macroeconomic consequences did not arise. Islamic economics thus blindly followed the traditional theories of microeconomic and macroeconomics. Yet, in none of these followings is there any robust theory of endogenous ethical integration in economic theory, formalism and application (Mahomedy, 2017).

The major problem of Islamic economics like Islamic finance, Islamic banking and other Islamic socio-scientific ventures is that it has no articulated epistemological foundation. On the other hand, any science, whether social or natural, must be based on a solid epistemological foundation. Such an orientation subsequently provides axioms, assumptions and methodological formalism to the entire body of theory and application. Einstein said that science without epistemology remains muddle-headed (Bohr, 1988).

The rise of heterodox economics in recent times is of a deeply ontological and epistemological origin. Even neoclassical economics is epistemological in nature according to its own axiom of economic rationality. Classical economics is thoroughly epistemological in reference to the *Theory of Moral Sentiments* as Adam Smith's first great epistemological contribution to economic reasoning with endowed morality. All of the science that we have inherited rests on the epistemology of heteronomy (Bhaskar, 1978). Heteronomy conveys the nature of dualism between a priori and a posteriori domains of reasoning. Such issues can be discussed to bring out the distinctive difference between rationalism of the Occidental theory of science and the episteme of unity of knowledge of the *tawhidi* methodological worldview.

***Tawhid* as the foundational Islamic methodological worldview: the advent of *Tawhidi* Islamic economics**

Contrary to all such epistemological moorings, today's Islamic economics, as well as all other Islamic socio-scientific fields in recent times, have not been able to formalize and contribute to the internal dynamics and functioning of the primal axiom of the entire Islamic methodological worldview upon which a meta-science can be erected. This is the ineluctable axiom of *tawhid* as the monotheistic law of unity of knowledge. It exists not simply in utterance. Rather, as Imam Ghazali said, the understanding of *tawhid* as methodological worldview has sixty stages with increasing depth (Karim, 2018). Islamic economics casually adopted an utterance around the outer husk of declaring *tawhidi* belief without knowing its world-system dynamics and axiomatic character in the building of socio-scientific thought, meta-science and applications (Naqvi, 2003).

The *tawhidi* methodological worldview is the universal and unique foundation of all Islamic intellection. It is formal in nature if properly used for the construction of the cognitive and material world-system and its specifics. Such formal intellection with its methodology, methods and application is equally applicable to the building of meta-science in the entire world of learning. On the indispensability of the *tawhidi* methodological worldview in the mundane world-system, Ibn Arabi wrote in his Futuhat (Ibn al-Arabi trans. Chittick, 1989):

The first way is by way of unveiling. It is an incontrovertible knowledge which is actualized through unveiling and which man finds in him. He receives no obfuscation along with it and is not able to repel it[. . .]. The second way is the way of reflection and reasoning (*istidlal*) through rational demonstration (*burhan 'aqli*). This way is lower than the first way, since he who bases his consideration upon proof can be visited by obfuscations which detract from his proof, and only with difficulty can he remove them.

The Islamic economic approach, which only utters *tawhid* at the beginning and at the roots, is unable to formalize the monotheistic meaning as a methodology, formalism and application. Contrary to this narrow attitude is the induction of the progressive knowledge of unraveling the *tawhidi* methodological worldview into socio-science and economics. We will thereby refer to the *tawhidi* epistemological foundation of Islamic economic science by the term TIE.

In TIE, consequently, the Kantian *problematic* of heteronomy as enforced partition between the moral imperative of the *a priori* domain and the practical reasoning of the *a posteriori* domain has entered Islamic socio-scientific thought in general and Islamic economics and finance in particular in a most surreptitious way. Heteronomy is of the nature of rationalism in causing enforced dichotomy between the moral law (*tawhid = a priori*) and the world-system (*a posteriori*).

Contrarily, the Qur'an presents the moral and cognitive world-systems as being unified and indivisible holism. It bears its endogenous dynamics of organic unity of being and becoming concerning mind and matter. The *tawhidi* methodological worldview is thus indispensably required to give the universally and uniquely original, revolutionary, essential Islamic foundation to what may be referred to as TIE and finance, science and society (Choudhury, 2014).

As was mentioned above, Islamic socio-scientific intellection in general and Islamic economics and finance in particular have not been able to blaze the emergence of a field of heterodox economics. Heterodox economics by itself is a deeply ontological and epistemological inquiry (Lawson, 2003). If the ontological and epistemological foundations of the Qur'an and Sunnah are missed out, then the constructive dynamics of the *tawhidi* foundation of organic unity of knowledge cannot be understood. This is equivalent to

uttering but not knowing how to cognize and apply the methodology of *tawhid* in the building of meta-science for rendering to the world of learning.

Will it stay this way? Have not the Qur'an and Sunnah given the challenge to raise the world-system to the pinnacle of knowledge for global learning and well-being? The possibility is not to be found in the present state of Islamic thought by missing out the episteme of *tawhid*. Yet, substantive effort and contributions in this direction persist.

The nature of Islamic economics according to the *tawhidi* episteme

The present paper elaborates on the epistemological methodology of *tawhid* for the groundwork of a heterodox Islamic economics and finance. The resultant *tawhidi* methodology is found to be rigorously analytical, invoking science, formalism and analytical depth, as well as universal application to particular issues and problems. It is a gross mistake and complete denial of scholarly knowledge to say that *tawhid* is sheerly philosophical and that deep erudition of it in Islamic economics is not understood. On the other hand, Choudhury's scholarly works in the area of *tawhidi* methodology have been well published in the West, addressing problems and issues directly of Islamic economics and other ones globally.

The fundamental attributes of Islamic economics in the light of *tawhidi* methodology (TIE) is to start from the exegesis of the principle of "pairing" in the Qur'an[2]. Pairing conveys the meaning of organic unity between the good things of life and contrarily also conveying association of the bad things of life in accordance to the Qur'an. The good things are to be accepted, the bad things shunned. Pairing as organic unity of knowledge conveys the universal meaning of God's creation and purpose. It is a reflection of the unity of being and becoming along the dynamics of forming complementarities between the good and recommended things of life. The good things of life participate and complement in unity of inter-causal relationship. The bad things compete and marginalize each other. There is no scope of unifying for purposive unity, except to marginalize each other by association and differentiation. In Islamic economics, borrowing from mainstream and orthodox economics, the postulates of competition and marginalism are accepted.

This paper explains how the nature of *tawhidi* methodology is intellectually heightened by feedback of cause and effect circularity centered in knowledge *par excellence*. According to the Qur'an, *tawhid* is the bedrock of complete and absolute knowledge. God is the fullness of knowledge that is embodied in the monotheistic law as the primal ontology, meaning theory of being and existence. The world-system (*'alamīn*) is described and is spanned by the signs of monotheistic unity of knowledge in the good things of life and its opposite in the bad things of life by participatory association and differentiation, respectively. These are both the Signs of God (*āyāt Allah*). They together explain the nature of the paired and the differentiated universe oppositely. They provide the ways of moral construction by consciousness of unity of knowledge in the details of the conscious universe.

Thus, the nature of Islamic economics is axiomatically premised in *tawhidi* methodology of unity of knowledge functioning as organic relations of being and becoming. The result is the continuous nature of evolutionary learning emerging from inter-causality between the participatory and complementary good things of life. Complementarity signifying participation presents the sure sign of paired unity of knowledge acting upon diversity of things. The world-system that is constructed by the *tawhidi* episteme is a continuously simulated universe of unity of knowledge. The process of participatory and complementary organic relations never ceases. It simply closes in the Hereafter.

According to the *tawhidi* episteme of unity of knowledge and the imminent methodology applied to Islamic economics, this paper will prove that almost all orthodox and mainstream

economic thought in its critical components, is untenable in TIE. Continuous evolutionary learning in unity of knowledge results in annulment of steady-state equilibriums, optimization models, formal functions of maximization and almost all of the postulates of economic rationality. Only evolutionary learning models remain. The figments of optimization and steady state are eschewed. Evolutionary equilibrium is sustained in the evolutionary learning in the socio-scientific universe of TIE.

Critique of axioms and assumptions of Islamic economics borrowed from mainstream economics

The use of *tawhidi* methodology of unity of knowledge and its induction of the world-system causes almost all of the postulates of mainstream and orthodox economic theory to be null and avoid. They are replaced by the holistic, knowledge-induced, evolutionary learning of economic reasoning. Yet, Islamic economics, as we have inherited it, adheres to such postulates. The following are some of the rejections of mainstream economic theory by TIE:

- *Scarcity*: The core mainstream orthodox economic axiom is scarcity of resources. This assumption is unacceptable in the *Qur'ānic* worldview of abundance. This is true both in the absolute and relative meanings of resource scarcity. Scarcity does not exist in absolute terms by virtue of the principle of abundance in the Qur'an, except when resources are wasted by human acts. Yet, such states of scarcity are recoverable ones towards reviving abundance. That is, moral reconstruction is always the goal and possibility of the *tawhidi* evolutionary learning worldview that increases resources continuously. Scarcity of resources does not exist relatively because in the state of mutual learning and endogenous role of ethics and technology in resources, learning as by complementarities in the pairing universe of the Qur'an, *continuously* increases resources. Resources are thus endogenized continuously by knowledge.

Besides, evolutionary learning causes fuzzy points of allocation of resources and competing goods everywhere along the mainstream form of "optimal" surfaces. The result then is non-existence of the concept of marginal rate of substitution, and relative prices of all kinds, which together characterize the neoclassical mainstream economic world-system in both microeconomics and macroeconomics. Scarcity by technical definition represents the resulting opportunity cost of marginalism. As fuzzy surfaces caused by continuous evolutionary learning cannot allow for marginal rate of substitution to exist and relative prices to be defined along smooth surfaces. Therefore, the postulate of scarcity must be annulled in TIE.

- *Opportunity cost and marginal rate of substitution (marginalism)*: Because of the continuously endogenous effect of interaction, integration, and evolutionary learning as properties of the pairing, i.e. complementing or participatory universe, there is no steady-state equilibrium point, and no optimal resource surface exists. In this way, the entire consumer indifference curve, welfare surfaces, and the production possibility curve do not take shape and form.
- *Objective functions of mainstream and orthodox economics*: The non-existence of smoothly concave-to-the-origin indifference curves and production isoquants, and smooth convex-production-possibility curves imply that the well-behaved types of utility function and production function in substitutes do not exist. Besides, substitutes cannot exist in the continuously evolutionary learning by pairing the complementarities of goods, services and productive inputs.

Ethically speaking too, in the first-order condition of relationship between goods and productive inputs, the economic expansion path remains positively sloped. In the second-order condition of allocation of resources, it is possible that one of the goods and services receives differentially less than the other. But both gain along the positive economic expansion path. Such properties of the continuously learning universe negate the meaning of “priority” in resource allocation by marginalizing any choice by another.

- *Relative prices of goods, services, and productive factors:* The non-existence of smooth indifference curves, production isoquants, and production possibility surfaces cannot allow for well-determined relative prices.
- *Market prices:* In the absence of well-determined relative prices, consumer demand curves and market demand curves cannot exist in their smooth forms. This also happens due to the absence of a simple price-quantity relationship for a specific good in demand and supply. Rather, other critical factors militate against it and intervene as a direct consequence. Examples of such systemic interferences are dynamic preferences of choice and endogenously related variations on other characteristics, e.g. continuously variable relative prices, incomes and resources in the demand and supply functions (not curves).
- *Marginal cost pricing:* Marginal cost of variable factors cannot exist because of knowledge-induced learning cost curves and production functions in a continuously evolutionary learning case of “everything” in the world-system. Besides, under the effect of increasing returns to scale, the total cost curve, average cost curve and the productivity curve of output altogether remain continuously evolutionary and downward shifting with endogenous learning.
- *Marginal productivities of productive factors:* The absence of substitution and its replacement by pervasive complementarities between goods, services and productive inputs cannot allow for marginal productivities of inputs, goods and services. All other characteristics of non-existing steady-state equilibrium and optimal points cannot allow for marginal productivities to exist.
- *Dynamic preferences as by induction of technological change:* The evolutionary learning properties of the utility curve (therefore consumer indifference curve) and production function (therefore production isoquants) are causally related with dynamic preferences, tastes and technology. Consequently, all the properties of rational choice theory are annulled in the presence of evolutionary learning and pervasive organic complementarities caused by the *tawhidi* axiom of organic unity of knowledge and its effect on the evolutionary learning (pairing) universe.

The same kind of result is true of *technology*. Unlike the exogenous nature of technology in mainstream orthodox economic theory, technology is endogenously determined by continuous evolutionary learning. Such learning phenomenon in unity of knowledge affects resources, preferences and choices by their mutual interaction and integration followed by continuous evolution. These are substantive characteristics of evolutionary learning TIE that are explained in detail throughout this paper.

- *Economic rationality:* This is a mainstream orthodox axiom based on full information and pre-ordering of given preferences as datum, so as to establish internal consistency of the neoclassical theory in problem-solving. However, in Islamic economic theory according to the *tawhidi* methodological worldview, the postulate of full information is untenable. The *tawhidi* universe to which we are

exposed by cognition and experience under evolutionary learning in unity of knowledge can never allow for discontinuity of knowledge (and thereby differentiation oppositely in the states of non-learning). Besides, dynamic preferences and endogenous technological change under the impact of evolutionary learning in unity of knowledge cannot be pre-ordered. Problem-solving is done not by any consistent assumption of rational choice; rather, the formal results and experiences of emergent economic and social models cause the need to address the problems at hand in pertinent ways. McCloskey (1985) promoted such an idea of addressing the nature of the state “as is” rather than by theoretical prediction of economic theory in its normative form.

- *Optimization and equilibrium consequences of the absence of economic rationality:* The absence of the postulates of economic rationality in the *tawhidi* methodological worldview results in the complete absence of optimal states and steady-state equilibrium. While mainstream economics allow for exogenously induced changes in Pareto-optimal steady-state equilibriums, the *tawhidi* methodological worldview has only endogenous resource augmentation and changes of preferences and institutional organization under the impact of unity of knowledge. The result then is a continuously endogenous change in resource allocations, technological change, preferences and every other participatory variable. Consequently, all points on the economic surfaces are continuously perturbed by continuous change along non-optimal directions. Likewise, steady-state equilibrium points are changes into evolutionary learning points without convergence into attained states:
- *Economic systems:* The concepts of perfectly competitive markets (economy), imperfect competition and monopolistic competition are shown to be untenable, in the continuously evolutionary learning methodology of *tawhidi* unity of knowledge. The reason for this is that the existence of optimality and steady-state equilibrium makes all genres of economic systems untenable. The attenuating cost and production functions do not preserve their smooth structures according to the calculus of functional differentiation. Only learning curves in cost and output exist, causing non-existence of the marginal cost curve and marginal productivity measures. This was pointed out above. In the *tawhidi* perspective of continuous evolutionary learning with inter-causal participation and complementarities, the competition and methodological individualism concepts of self-interest that are found in mainstream and orthodox economics cannot exist.
- *Behavioral perspectives:* Morality and ethics remain exogenous to mainstream and orthodox economic theory. Knowledge borne out of the monotheistic law of unity of knowledge is centrally poised in morality and ethics. Thus, for example, social justice and materiality – likewise, social capital and private capital ownership – are oppositely competed-for substitutes in mainstream economic theory of opportunity cost and scarcity of resources, except as exogenous ethical impacts change behavior though not continuously. Such resource injection occurs exogenously by external imposition. On the other hand, in the case of endogenous nature of knowledge, learning, and thereby of the continuity of moral and ethical consciousness, social and economic choices are treated to be complementary, participatory and continuously evolutionary by learning in unity of knowledge. Islamic behavioural attributes are first based on the consciousness of *tawhid* as Oneness of God and unity of the monotheistic law. This, in turn, needs the extraction of the ontological knowledge (theory of existence of being) from the Qur’ān through the medium of the

Sunnah and discourse among the learned ones on the Islamic nature of a purposive world-system.

- *God, morality, ethics and the world-system:* The oneness of God as belief, which is projected in the episteme of unity of knowledge in the *tawhidi* law, is the sole exogenous ontology of the *tawhidi* world-system. All other variables in the *tawhidi* world-system (*‘ālamīn*) are paired by endogenous interrelations and circular causality of complementary relations (organic “pairing” as in the Qur’ān). Thus, unlike the exogenous nature of morality and ethics in mainstream and orthodox economic theory, and then to the notion of ethics emerging from the *a posteriori* world of mind-matter, *tawhidi* methodology sets the emergence of ethics and morality in the monotheistic law of unity of knowledge and points out the opposite of differentiation. The extraction of such morality and ethics proceeds from the Qur’ān via the Sunnah for inducing the paired causality of the world-system. The ontology of *tawhidi* law is then rendered to human discourse vis-à-vis the generality and details of diverse world-systems. These comprise the mind-matter dynamics, formalism, application and context.

The study of moral and ethical induction of Islamic behaviour and its representative inter-causal variables in the light of the *tawhidi* methodology of unity of knowledge invokes mathematical methods mostly of the topological type. Topology is the only branch of advanced mathematics that studies relations between non-dimensional categories. Differential calculus is sparingly used in relation to the knowledge variable. Time in the tuple comprising knowledge, space and time dimensions of *tawhidi* functional categories, remains simply a recorder of events, not a creator of anything. Knowledge remains the sole creator of events and change over the knowledge, space and time dimensions.

- *TIE* and its applications studied in this paper have the following definition: *TIE* is a scientific study of issues of economics in concert with all possible related fields that together interact to form organic influence on economic issues and events and vice-versa. This encompassing scientific worldview of *TIE* is particularized in the meta-science of the principal and sole axiom of all Islamic socio-scientific studies. It is the axiom of the monotheistic law of unity of knowledge in the good choices of life, which are choices derived from the purpose and objective of the Qur’ānic law-*maqāṣid al-Shari‘ah*. The same law rejects the bad choices of life. The two categories of goods and services are deciphered out of evolutionary learning according to the *tawhidi* law of unity of knowledge and the induced economic world-system with its moral, ethical, and systemic congeries.

The contrariety mentioned above exists between the nature of mainstream economics, its offspring in existing Islamic economics as presently understood on the one hand, and the *tawhidi* methodology applied to the generality and particularity of human cognition and experience on the other hand. An example of the particular is the emergence of the Qur’ānic study of the economic issues of man and the universe. This paper formalizes the *tawhidi* methodological worldview in the rise of the corresponding economic and socio-scientific reasoning. Examples will be provided to bring out the contrariety between the opposing two worldviews of science, society and the economic world-system; and of morality, ethics and the world-system with particularity in economics.

An example here is of the problem of Islamic economics copying from orthodox and mainstream economic leaning. The example is that of acceptance of marginal rate of substitution or the opportunity cost idea in the existing idea of Islamic economics. Such

marginalist idea leads to the substitution between social justice and economic efficiency as substitutes. Both of these are dear to Islamic epistemological reasoning. They are internalized in endogenous choice behavior in social preferences and their technological implications. In the *tawhidi* methodological worldview, morality and ethics are endogenously embedded in human inclinations by consciousness. They are not determined exogenously by costly external imposition, as by government and policing by the state. Humankind for the common good of well-being (*maṣlaḥah*) and purpose (*maqāṣid al-Sharī'ah*) naturally accepts *Sharī'at al-tawhid*. The *maqāṣid al-Sharī'ah* is not a coerced law, as the Qur'an declares (10:32-33):

Such is God your real Cherisher and Sustainer: Apart from Truth, what (remains) but error? Thus is the Word of thy Lord proved true against those who rebel: Verily they will not believe.

Teaching structure of TIE: for whom is this paper appropriate?

This paper is recommended for students who have acquired a rigorous course of economics as science and with critical thinking. Indeed, TIE studied in the light of its epistemological foundations and as a scientific discipline should only be taken up after the student has completed introductory economics courses or, better, has done economics at the intermediate level. Indeed, the study of economics in the light of its epistemological issues is taught to international baccalaureate (IB) students as a general mandatory course.

The internet version of the IB theory of knowledge course states the significance of the theory of knowledge as follows:

Theory of knowledge (TOK) is assessed through an oral presentation and a 1,600-word essay. It asks students to reflect on the nature of knowledge, and on how we know what we claim to know. TOK is part of the International Baccalaureate (IB) Diploma Programme (DP) core and is mandatory for all students.

For introduction to the theme of epistemology as scientific methodology, see [Martin \(2010\)](#):

TOK aims to make students aware of the interpretative nature of knowledge, including personal ideological biases—whether these biases are retained, revised or rejected. It offers students and their teachers the opportunity to:

- reflect critically on diverse ways of knowing and on areas of knowledge; and
- consider the role and nature of knowledge in their own culture, in the cultures of others and in the wider world.

In addition, TOK prompts students to:

- be aware of themselves as thinkers, encouraging them to become more acquainted with the complexity of knowledge; and
- recognize the need to act responsibly in an increasingly interconnected but uncertain world.

TOK also provides coherence for the student by linking academic subject areas and transcending them.

It therefore demonstrates the ways in which the student can apply their knowledge with greater awareness and credibility.

Conclusion: how *tawhidi* Islamic economics (TIE) ought to be studied

In the wide scope, this paper on TIE covers five distinctive areas under the *tawhidi* methodology of unity of knowledge. These are:

- (1) methodology;
- (2) analytical formalism of the imminent theory of TIE;
- (3) application to the important field of Islamic financial instruments in the light of TIE;
- (4) analytical applications arising from the theory of TIE; and
- (5) supporting exercises and working examples encompassing all these areas.

The study of *tawhidi* methodology of unity of knowledge must be used as the foundational premise for the nature of TIE in view of the Qur'ān, Sunnah, and comparative intellectual discourse. The rest of the study is a combination of theoretical and applied contents in the light of comparative study economics. Given below is the distribution of contents in this paper in reference to the *tawhidi* methodological worldview in comparison and contrast to the mainstream and orthodox economic theory and its influence in presently received idea of Islamic economics.

It should be noted that, because this paper introduces some rigorous and advanced treatment of the subject matter of TIE, it uses terms that are at an advanced level as well. These terminologies and concepts may arise from mainstream economics, which is studied at the introductory and intermediate level economics courses. They may also arise from epistemological terminologies in establishing the *tawhidi* analytical methodology, derived methods, formalism and applications. It would therefore be necessary for the teacher of TIE to explain such terms at places where they are used in the teaching text. Besides, the teacher ought to select out specific list of topics of his pertinent choice in TIE for introducing to students and for self-learning.

Topics to be covered*Introduction*

The foundational issues:

- TIE methodology;
- the scope of TIE;
- the formulation of $W(\mathbf{x}(\theta))$ TIE model; and
- Islamic participatory instruments and the ethical dimensions.

Contrasting Islamic and mainstream theoretical issues: microeconomics:

- TIE contra mainstream consumer theory;
- TIE contra mainstream theory of the firm;
- TIE contra mainstream imperfect competition; and
- TIE contra mainstream general equilibrium theory.

Contrasting Islamic and mainstream theoretical issues: macroeconomics

- TIE contra mainstream generation of outputs and macroeconomic variables;
- policy and institutional issues: money, finance and the real economy and general ethico-economic equilibrium;
- *Maqāṣid al-Sharī'ah*, Islamization, and TIE science; and
- conclusion: more examples and exercises.

Students' preparation

- undergraduate courses in microeconomics, macroeconomics;
- undergraduate mathematics: set theory, calculus and statistics; and
- exegesis of the Qur'ān and Sunnah.

There is no need to overwhelm the students with difficult areas all at once in the beginning; though an ensuing book ought to be a substantively rigorous work of TIE as the explication and application of the *tawhidi* epistemic core of the truly Islamic methodological worldview contra mainstream economics and Islamic economics in the mainstream garb.

TIE would represent a rigorous course of a scientific and analytical treatment of economic issues in general and their Islamic perspective in particular. Its best slot for teaching is after the student has taken up introductory and intermediate courses in microeconomics and macroeconomics. At this level of maturity, the student would have also acquired mathematical preparation to understand the analytics and the terminology of TIE and the concepts of mainstream economic terms and theories. This will help the teacher and students to have a critical approach to the study of mainstream and neoclassical economics. There is no good reason for teaching any good course in Islamic economics at sub-standard levels below the levels comprising TIE. Any such course cannot ignore inclusion of a sound content of methodology; therefore, epistemology, ontology and phenomenology and the corresponding analytical understanding of what the true Islamic orientation in economics and socio-scientific project is as a meta-scientific worldview. Such is the holistic content of TIE.

Notes

1. The Qur'ān (30:7) speaks of the concept of outer semblance as follows: "They know but the outer (things) in the life of this world; but of the End of things they are heedless."
2. On the aspect of pairing, the Qur'ān (36:36) states: "Glory to Allah, Who created in pairs all things that the earth produces, as well as their own (human) kind and other things of which they have no knowledge."

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