

# Social Well-being Index-Instrument: Panacea for the failures of Islamic Economics and Finances

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## ABSTRACT

*This paper “Social Well-being Index-Instrument: Panacea for the failures of Islamic Economics and Finances” has undertaken a worldly (Muamalat) interpretation of verses (2:164-167) in view of Tawhid and the world-system. The verses point out the promised successes of truth and the defeat of Rationalism. Rationalism is shown to be defeated both by the overwhelming power of the divine law of unity of knowledge and by its own morally void self-contradictions. We have constructively argued in the spirit of the Qur’an and Sunnah vis-à-vis the project of Islamization of knowledge and the world-system that, the verses (2:164-167) instill a wider field of understanding and application out of the moral high ground. Every part of the Qur’an is firstly a framework of consciousness (scientific phenomenology) for understanding unity of the divine law as the precept of Tawhid. Next, they point out profound applications of the Tawhidi worldview to worldly matters. These essences together enable humankind to construct the morally excellent socio-scientific order. In this spirit of the total phenomenology of the Tawhidi worldview, we proceeded on to derive a comprehensive logical formalism from the verses (2:164-167). This answers both the questions of Truth and Falsehood as Signs of Allah. This paper establishes the logical formalism of Tawhid and its world-system. In it the treatment of both Truth and Falsehood has yielded a generalized model that applies both to the sublime and mundane issues of life. One such issue, using a limited matrix treatment, was proposing a new financial instrument. Such an instrument has escaped the academics and practitioners in the field of Islamic economics and finance to date. The new financial instrument that we have presented here in the light of the general Tawhidi worldview methodology is shown to answer the comprehensive questions of the Maqasid as-Shari’ah for the benefit of the individual and the firm embedded in the Ummah.*

**Keywords:** *Islamic economics, finance; Islamic philosophy of science; Qur’anic exegesis; Rationalism.*

## INTRODUCTION

*Tawhid*, meaning oneness of God and of the divine law (monotheism), is the worldview of ‘everything’ in Islam. This epistemic precept is extended by the meaning and application of the epistemology of unity of knowledge. The episteme forms the true foundational praxis of Islamic thought and world-system. The episteme of divine oneness as law and its application is introduced in the contrasting development of the portfolio of participatory

nature of development financing against the prevailing idea of Shari'ah compliance in so-called financial product choice. The prevailing Islamic development financing instruments have no organic meaning of interrelationship between them. They individually form distinct legal contractual instruments. The history of Islamic banking is about 30 years old. The history of Islamic economics is about 70 years old. The beginning of Islamic finance dates to a few years past. In comparison, the history of banking as such is about 200 years old and the beginning of economic thought dates in the western world to the same number of years. Yet if one were to extend the history of Islamic thinking on science and society including all its elements, we mark the heydays of the eleventh and twelfth centuries as the pinnacle of such Islamic thinking. This was well over four hundred years before Adam Smith and the School of Physiocracy that claims to have given the Occidental World the study of Political Economy (George, 1897).

In recent years, Muslims and their financial institutions have again raised their heads to emulate something being referred to as Islamic economics and finance. Yet, like the Occidental worldview, the empiricist fervor devoid of substantive meaning and contrary to the moral foundations (Husserl, trans. and Lauer, 1965), Islamic economists and financial experts too do not understand the substantive foundations of the truly Qur'anic worldview and its methodology for the world-system. What is the distinction between the two contrary epochs of thought and the choice of the one that can bestow light on the directions of human well-being and sustainability for a stable, just and progressive world-system? The answer is delivered at two levels.

First, the new worldview, which is much awaited for in socio-scientific thinking, must be delivered. This is an academic issue of significant import. Secondly, the application of this worldview to the practical world must be disseminated to establish its high watermark. Thus comes about the phenomenological concept of 'pairing' in the worldview with practical aspects of human betterment by the medium of application and scientific proof. The 'pairing' of entities of good things in the form of unity of being is referred to in the Qur'an in several verses. Of these is the verse (36:36): "Glory to Allah, Who created in pairs all things that the earth produces, as well as their own kind and other things of which they have no knowledge". Thus the realm of 'pairing' is extensive. 'Pairing' conveys the idea of pervasive complementarities, which we will use in this paper to propose our development-financing instrument and the generalized methodological formalism.

The application and verification of the 'pairing' principle is referred to in the Qur'an as Burhan (evidence = Ayath-Allah) (10:6): "Verily, in the alternation of the Night and the Day, and in all that Allah has created, in the heavens and the earth, are Signs for those who fear Him." The above Qur'anic verses and many other similar ones signal the unification between the worldview and its proof using a methodological formalism. This paper will first delineate the methodology of such a unified phenomenological principle. Our generalized formalism will be applied to propose a unique development-financing instrument. The financing instrument is claimed to be unique because a similar one does not exist in the literature on Islamic economics and finance. Besides, the construct of this development-financing instrument reflects the worldview of unity of knowledge and systems in terms of

the Qur'anic precept of *Tawhid*. *Tawhid* means oneness of Allah (monotheism), but the precept is extended to the worldview of unity of the divine law and of the world-systems ('Alameen) that are spanned by the evidences (Ayath-Allah) of the divine law of oneness. What is that which has been missed out in the present-days culture of Islamic economics and finance and in Occidental thought? The remiss is *Tawhid* as methodological explication of the divine unitary worldview and its application. It is a remiss of enormous proportion. The absence of the *Tawhidi* worldview as a methodological praxis in Islamic economics and finance fails to qualify these fields as being authentically Islamic. Consequently, like any other science in the hands of the Islamic modernists the enterprise has become a sheer imitation of Occidentalism and an engine for the spread of Occidental institutionalism and culture in the Muslim world (Murden, 2002 and Choudhury, 1997).

This paper has three essential contents. First, the distinctiveness between the Qur'anic worldview and the mimicry of Occidentalism in Islamic economics and finance is brought out in a methodological way. We point out that the prevalent imitation has sounded the parting knell of Islamic economics. It beacons the same fate for the so-called Islamic finance in the near future. Secondly, the methodology derived from the essential Qur'anic worldview of *Tawhid*, the oneness of Allah, and thereby, the unity of the divine law, which is the praxis of unity of knowledge and systems, is contrasted with the Occidental worldview of rationalism. Consequently, the methodology of Islamic economics and finance premised on such rationalism is critiqued. Thirdly, the evidence of the *Tawhidi* worldview methodology is represented in the derivation and application of the Principle of Pervasive Complementarities derived from the principle of paired universes of the Qur'an. This principle is used to propose a unique Islamic development-financing instrument.

This paper studies the Qur'anic verses (2: 164-167) to establish the nature of the contrast between the *Tawhidi* episteme and Rationalism. The *Tawhidi* episteme is then singled out in proposing a unique Islamic development-financing instrument. Such a development-financing instrument does not exist in the arena of Islamic financing today, one that would help the common shareholder. This remiss is because of the absence of systemic understanding of *Tawhid* as the law of unity of knowledge and the world-systems. On the other hand, the practical issue of deriving a pervasively complementary development-financing instrument from the *Tawhidi* implications of the verses (2:164-167) results in a novel application in Islamic economics and finance. This is represented in proposing a unique development-financing instrument not yet understood or practiced in Islamic economics and finance.

**Substantive concepts:** The precept of *Tawhid* as unity of knowledge in 'everything' is referred to in this paper as the unique and universal episteme in and between matter and mind. The scientific overarching idea of 'everything' is invoked as a philosophy of scientific thought by Barrow (1991). The complementarities encompassing matter, mind and the spiritual realm arising from the divine law of monotheism in the domain of 'everything' become the ontological and epistemological force of systemic unification between artifacts, entities and socio-scientific variables. The medium of knowledge-flows emanating from the *Tawhidi* unity of knowledge thus predominates in the synergetic dynamics of systemic

unity. This paper derives such methodological orientation from the verses (2:164-167). Contrary to the *Tawhidi* precept and its configuration of the world-system is the premise of Falsehood. Falsehood is represented here by Rationalism. The character of Rationalism is pervasive methodological individualism (Sullivan, 1989; Taylor, 1967). See (Kant trans. and Paton, 1964) for a philosophical meaning of Rationalism involving the partitioned dualism between a priori knowledge and a posteriori knowledge. The verses (2:164-167) selected here, but also complemented by many other similar verses of the Qur'an, bring out the distinctiveness between the two well-defined but opposite epistemological praxes. In the end, the Qur'anic argumentation points to the utter disgrace and defeat of Falsehood vis-à-vis Rationalism along with its character and institutions of methodological individualism. From the distinct but well-defined epistemic premises of *Tawhid* and Rationalism, emerge the opposite world-systems. There is nothing in common between these two. In regard to this argumentation, the commentary on the verses is given in Appendix II.

### GENERAL THEORY ON TAWHID AND ITS UNIFIED WORLD-SYSTEM

**Formalizing Tawhid and the World-System:** How can the lessons of verses (2:164-167) be formalized into a world-system modeling? The Qur'an with all it has is not detached from the delineation of its world-systems. Qur'anic truth is not metaphysical speculation. Rather, every guidance of the Qur'an (*Sunnat* Allah) carried through by the guidance of the Prophet Muhammad (*Sunnah*) is as much a worldly explanation. They have their final determination in the context of *Tawhid* and the Hereafter as terminal Events. But the organic systemic learning never ends between these Eventual Ends in the evolutionary learning world-system. The elimination of metaphysical speculation from the Qur'anic precept of knowledge as totality between *Tawhid* and the world-systems alters many of the logical formalism of philosophy of science. Namely, ontology is now not the domain of the metaphysical that is separated from reality (Maxwell, 1962). Contrarily, as we will show below, ontology in terms of Qur'anic meaning is better taken up in its engineering concept of engineering ontology (Gruber, 1993; Hossain, 2007). It is preferably as functional ontology, such as the concept of large cardinalities by Rucker (1983).

Likewise, the concept of epistemology stands for the episteme, which is the totality of the formalism of knowledge and the world-system. Our idea of episteme is like the one articulated by Foucault trans. Sheridan (1972). By *episteme* we mean ... the total set of relations that unite, at a given period, the discursive practices that give rise to epistemological figures, sciences, and possibly formalized systems... The episteme is not a form of knowledge (*connaissance*) or type of rationality which, crossing the boundaries of the most varied sciences, manifests the sovereign unity of a subject, a spirit, or a period; it is the totality of relations that can be discovered, for a given period, between the sciences when one analyses them at the level of discursive regularities."

**Logical Formalism:** In reference to verse (2:164), let an inter-system(s) matrix of interactive, integrative and co-evolutionary interrelationships between variables (Ayath-Allah,  $\mathbf{x}_y$ ) be denoted by,  $[\mathbf{x}_{ij}^s(\cdot)]$ . Here the knowledge-flow induced in the matrix is denoted by  $\theta_s$ . Because of its intrinsic unifying nature across system(s) 's', the knowledge-flows

are bound to be derived from the epistemic core of *Tawhid* as the universal law of unity of knowledge. The totality of the divine laws is denoted by the abstract ‘open’ super space (denumerable) denoted by  $\Omega$  (Maddox, 1971). By the essential character of uniqueness and universality of oneness of knowledge,  $\Omega$  is the explanatory premise of both Truth and Falsehood. See Appendix I for a formal proof. For more on the precept of uniqueness and universality of the symbiotic relational worldview of *Tawhid* and the world-systems the reader can refer to Choudhury (2007a).

*Formalism step 1*

Thus,  $(\theta_s \in \Omega) \rightarrow \text{World-System}, \{[\mathbf{x}_{ij}^s(\theta)], \theta_s\}$ . (1)

{.} denotes spanning the matrix [.] by the Signs of Allah (Ayath-Allah) across world-systems (‘Alameen) and thus (s, i, j);

s = 1, 2, ..., N; i = 1, 2, ..., m; j = 1, 2, ..., n.

Thus  $([\mathbf{x}_{ij}^s(\theta)], \theta_s)$  is [m x (n+1)] dimensional matrix.

In order to avoid the influence of Rationalism, and thereby, strictly induce Tawhid into the relationship (1), the mapping  $\rightarrow$  must be well-defined (unique). This is required first to determine  $\theta_s$ -value. This step is then followed by the knowledge-induction of the world-system. We signify this unique mapping by  $\rightarrow_s$ . S denotes the Guidance of the Prophet Muhammad (Sunnah).  $\Omega$  and S are complementary. Hence we take them together within the *Tawhidi* episteme and denote this total premise by  $(\Omega, S)$ . The Qur’anic verses (53:1-5) declare this inseparability between the Qur’an and the *Sunnah*.

*Formalism step 2*

Relationship 1 is now deconstructed as follows:

$(\theta_s \in \Omega) \rightarrow_s \lim \{\theta_s\} = \theta_s \rightarrow \{[\mathbf{x}_{ij}^s(\theta)], \theta_s\} = \text{World-System}$ . (2)

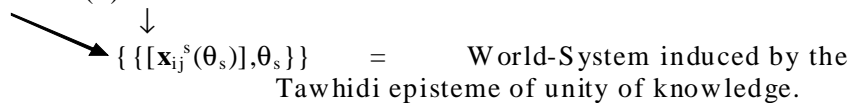
{.} denotes the spanning Signs of Allah (Ayath-Allah) across world-systems (‘Alameen), (s, i, j). Say that s = 1, 2, ..., N; i = 1, 2, ..., m; j = 1, 2, ..., n

Expression (2) means that the Sunnah is functional carrier of the divine laws into the explanatory knowledge-induced world-systems. S initiates social discourse in determining the knowledge-flows pertaining to specific issues under investigation. The Qur’an affirms this function of the *Sunnah* (4:58-59). The limiting value of  $\theta$  is determined out of discourse (interaction) followed by consensus (integration) over several  $\{\theta\}$ -values. Such social discourse is referred to in the Qur’an as the Consultation (*Shura*) (42:38). Knowledge of unity of the divine laws gained through the experience of the *Shura* explains the first reflection of unity of knowledge  $\{\theta_s\}$  obtained by virtue of the diversity of Signs (Ayath-Allah) at the realm of knowledge formation (Qur’an, 2:164).

*Formalism step 3*

We re-write relationship (2) as follows:

$(\Omega, S) \rightarrow \theta_s \rightarrow \{[\mathbf{x}_{ij}^s(\theta_s)]\}$ , (3)



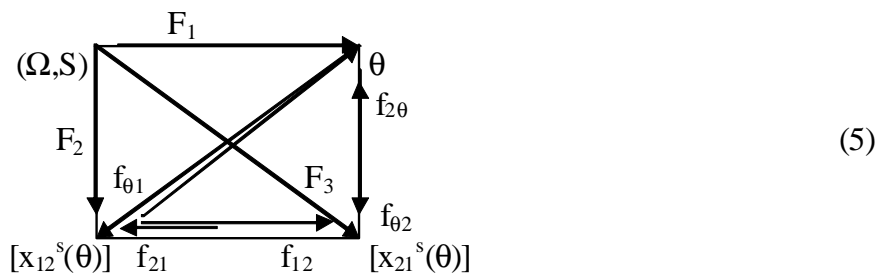
Because  $[x_{ij}^s(\theta_s)]$  is multivariate with each variable interrelating with the rest through the induction of  $\theta_s$ -values that are premised on the episteme of unity of knowledge  $(\Omega, S)$ , therefore, we can further disaggregate for a specific system 's' in two multivariate components, such as,  $[x_{ij}^s(\theta_s)]$  now disaggregated as  $[x_{12}^s(\theta_s)]$ , and  $[x_{21}^s(\theta_s)]$ . Relation (3) is re-written as follows:

*Formalizing step 4*

$$(\Omega, S) \rightarrow \theta_s \quad (4)$$

World-System induced by the  
Tawhidi episteme of unity of knowledge.

More closely, the relation (4) is shown as follows. Note the subscript 's' is dropped from  $\theta_s$  henceforth.



### Explaining the systemic dynamics of formal relations

We note in relation (5) that only  $(\Omega, S)$  and its primal mappings to the World-System, denoted by  $F_1, F_2$  and  $F_3$ , remain exogenous in the total system of relations. On the other hand, the mappings from  $\theta$  to the multivariates, and the mappings between the multivariates are endogenous in the system of interrelations as shown by the  $f$ -mappings. The endogeneity of the relations is indicated by the reflexive relationships indicated by two-way arrows. These denote functional maps. But the endogenous relations cannot stand by themselves, unless first, they are generated by the primal relations  $F$ 's arising from the *Tawhidi* episteme  $(\Omega, S)$ . These kinds of endogenous relations that are induced by the exogenous episteme of unity of knowledge,  $(\Omega, S)$ , are said to exhibit moral and ethical endogeneity.

Ethical endogeneity is carried by the  $F$  and  $f$ -relations from  $(\Omega, S)$  through  $\theta$ -values across the multivariate interactive and integrative world-system. The world-system is thereby fully induced and endogenised by interrelations between the  $([x_{ij}^s(\theta)], \theta_s)$ -values. Such two-way *inter*-relationships involving the  $([x_{ij}^s(\theta)], \theta_s)$ -values are called circular causation. For details on circular causation see Choudhury (2006). According to verse (2:164), the Signs of Allah (Ayath-Allah) generate such endogenous relations across multivariates spanning diversely intra-systems and inter-systems. For instance, the creation of the heavens is one system; creation of the earth is another *inter*-related system. The evidences for these Signs of Allah that learn by 'pairing' between them, and continuously so across space, time and knowledge domains, are shown diversely across intra-systems

and inter-systems. The phenomenology of consciousness for actions and responses (circular causation) by way of reflection is summarized in verse (2:164): “Behold!” and “(Here) indeed are Signs for a people that are wise.” Relation (5) shows the interactive and integrative processes that go on intra-systems, where the two multivariates are shown by the matrixes. Take the example from verse (2:164) — rain ( $i = 1$ ) causes vegetation (life,  $j = 2$ ); in turn vegetation causes rain for sustenance, etc. Other circular causation can be identified from the verses. We take the circular causation between  $([\mathbf{x}_{ij}^s()], \theta_s)$ -values within the same ecological system ‘s’. Estimation of  $\theta$  by ordinal values in terms of the learning parameters of the circular causation relating to  $[\mathbf{x}_{ij}^s(\theta)]$ -values in any one system is done by way of weighting applied to average  $\theta$ -values (Choudhury, Zaman and Nasar, 2007).

But next the knowledge-induced processes evolve into extended learning involving unified systems. In verse (2:164) the examples are the ‘heavens’ and the ‘earth’. In the sub-system of the total cosmic system is ‘heavens’ with its multivariates such as the paired realities of ‘Night’ and ‘Day’. In the sub-system ‘earth’ are paired realities of ‘rain’ and ‘life’. These two sub-systems are *inter*-related in terms of their jointly ‘paired’ entities. Other ones can be treated similarly. When evolution takes place from one system to extended and unified systems, we have an extension of the complex set of interrelations, as shown in relation (5) across systems. But nonetheless,  $(\Omega, S)$  permanently remains the exogenous episteme of reference. The  $f$ -kinds of relations now emanate from newly derived rules of unity of knowledge for ‘pairing’ together extended  $([\mathbf{x}_{ij}^s(\theta)], \theta_s)$ -values inter-systems. This marks the evolutionary stage of learning from the interactive and integrative experience of any one process in a system to linked systems. Thereby, new processes ‘s’ take values from  $s = 1, 2, \dots, N$ . In verse (2:164), sub-systems of the two major systems, ‘heavens’ and ‘earth’ can be enumerated, such as, ‘ecology’, ‘life-sustenance’, ‘agriculture’, ‘economy’, ‘transportation’, and ‘science and society’. Such specifics can be extended widely as embedded sub-systems in the universal system. We have now delineated the multi-system evolutionary learning processes that together carry forward new  $\theta$ -values derived continuously from the *Tawhidi* episteme of  $(\Omega, S)$  and through the learning processes. Such continuous processes of learning across space, time and knowledge domains permanently exhibit the formalism of interaction leading to integration. Interaction and Integration together co-Evolve across systemic learning processes (III-processes). *Tawhid*, as systemic unity of knowledge emanating from the episteme and instruments of the divine law, has thus been induced in ‘everything’. The synergy of unity of knowledge between systemic artifacts and their entities define the symbiotic dynamics. The character of such evolutionary learning in unity of knowledge is represented by the III-processes.

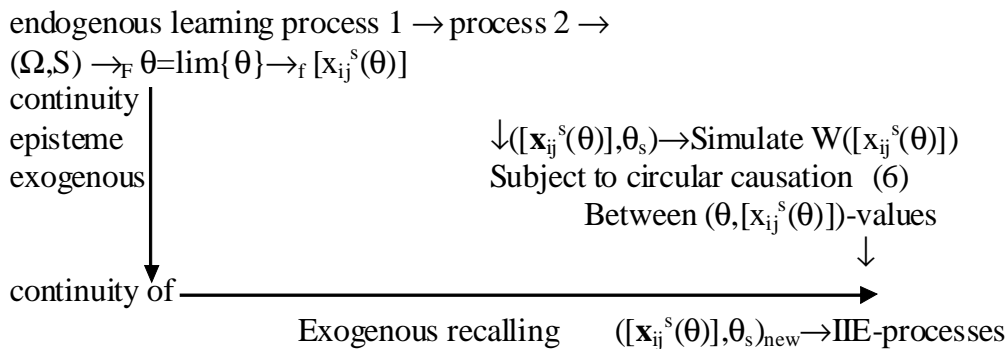
### **Moral valuation in the Tawhidi methodology of the world-system**

We now represent the inter-systemic learning experience in *Tawhidi* unity of knowledge by two stages of extension of the relation (5). The relational diagram is now collapsed into a chain-relational system, as shown in relation (6).

**Well-being criterion:** The first stage to note now in our formalization is the very important evaluative criterion function called the Well-being Function according to the Qur’anic meaning of blessings gained through pairing by knowledge premised on the *Tawhidi*

worldview (2:164; also see 36:36). This  $W([x_{ij}^s(\theta)])$ , as shown in expression (6), makes possible the evolutionary transition and continuous learning by unity of knowledge across IIE-processes of Islamic transformation. This dynamic and synergetic experience is referred to as Islamization of knowledge in the world-system. The Well-being Function is simulated at the end of a process. This takes place by changes in parameter values in terms of targeted degrees of complementarities ('pairing') that are desired between the multivariates to reflect the unity of the system 's' in terms of these estimated predictors. The circular causation between the  $([x_{ij}^s(\theta)], \theta_s)$ -values yield simulated  $\theta$ -values and the multivariates. Thereby, the degree of complementarities between  $([x_{ij}^s(\theta)], \theta_s)$ -values can be suitably targeted to attain simulated estimates in the system under study, given the dynamics of a discursive Islamic society at work. Policy implications on politico-economic, financial, socio-scientific and institutional, organizational and strategic changes are implied by such targeted simulated results.

**Systemic extension of the well-being criterion: Tawhidi phenomenology:** In the second stage following Well-being evaluation, extensions appear across systems 's'. Such extended processes of learning in unity of knowledge experience evolution out of the interactive and integrative character of a prevalent process. The complete phenomenology of the *Tawhidi* worldview is thus characterized by interactive, integrative and evolutionary (IIE) dynamics in organically learning-type symbiosis. Such dynamics repeat across co-evolution of the IIE-processes inter-systems, as also in the intra-systemic case. Verse (2:164) yields the extended micro-systems that remain embedded and continuously evolving in the realm of belief and practice of the *Tawhidi* Law: "But those of faith are overwhelming in their love of Allah." (2:165).

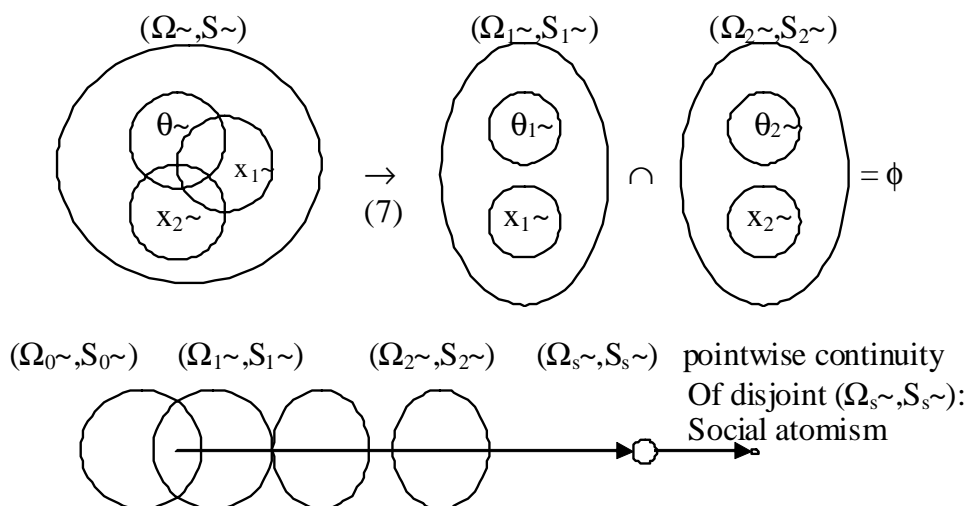


**Occidental contrast** (formalizing Rationalism, methodological individualism and their world-system): The complete phenomenological formalism of relation (6) uniquely explains both Truth (*Tawhidi* worldview) and Falsehood as Rationalism. Verses (2:165-167) bring out the self-defeated nature of Falsehood. Rationalism is equated with Falsehood by its character of methodological individualism and denial of oneness, replacing oneness by self and ego (von Mises, 1976). Methodological individualism is the core postulate of mainstream economics (Buchanan, 1954; Buchanan and Tullock, 1999). It has been thoroughly imitated in Islamic economics and finance for using the maximization methods of analysis. In the case of Rationalism we note that the continuity of the relation (6) eventually (as in social



Darwinism; see Dawkins (1976) or primordially (as in neoclassical economic theory) breaks apart after some processes. Continuing in this way, by a recursive process of deconstruction of methodological individualism and plurality of knowledge, we obtain a plethora of atomistic discontinuities. This could be shown in relation (6). Thus the character of IIE-processes according to unity of knowledge is replaced by competition, marginalism and individualism between the multivariates. These are induced by their ‘de-knowledge’ -flows (signified here by  $\sim$ ). We denote the ‘de-knowledge’ entities by the tuple,  $([\mathbf{x}_{ij}^s(\theta\sim)], \theta_s\sim)$ -values.

Fragmentation of the IIE-processes of unity of knowledge signifies permanent loss of systemic oneness. Hence, the relational symbiosis that characterizes complexity by richness is replaced by linearity of the optimal and competing processes of methodological individualism. In such optimal and steady-state equilibrium states learning ends and novelty is lost (Shackle, 1972). Such has become the permanent mark of all scientific episteme that emulate Rationalism, though unity of the sciences remains the desired but floundering scientific research program (Neurath, Carnap and Morris, 1970). In Marxist political economy for example, the assertion of a plethora of episteme between competing sources bedevils any epistemic uniqueness, purpose and predictive power. The multiplicity of competing episteme in Marxist political economy gives rise to the problem called ‘overdetermination’ (Resnick and Wolff, 1987). Relation (7) is an overdetermined formalism of relation (6). It shows the impossible project on unification of the sciences despite this intended scientific end-goal (Hawking, 1980). All that is endogenous in this system of epistemic fragmentation is the continuity of states of competition and individualism converging to atomism over space, time and ‘de-knowledge-flows’. That is,  $([\mathbf{x}_{ij}^s(\theta\sim)], \theta_s\sim)$ -values span the entire Rationalism domain with the epistemic overdetermination condition:  $\theta_s\sim \in \Omega_s\sim$ , with  $\cap_s \Omega_s\sim = \phi$  almost everywhere  $\Rightarrow \cap_{ss} = \phi$  almost everywhere  $\Rightarrow \cap_s [\mathbf{x}_{ij}^s(\theta_s\sim)] = \phi$ , almost everywhere, for every ‘s’.



The mainstream ‘economic welfare function’ corresponding to relation (7) is,

$$\text{Max } W\sim(\theta\sim) = W\sim([\mathbf{x}_{ij}^s(\theta\sim)]), \quad (8)$$

subject to the relationships between the variables under the conditions manifest in (7). That is,  $\theta_s \sim \in \Omega_s \sim$ , with  $\cap_s \Omega_s \sim = \phi$  almost everywhere  $\Rightarrow \cap_{ss} = \phi$  almost everywhere  $\Rightarrow \cap_s [x_{ij}^s(\theta_s \sim)] = \phi$ , almost everywhere, for every 's'.

Circular causation now fails to exist when some of the variables become exogenous in nature. An example here is the targeting of interest rates in contractionary money supply regime. Contrarily, in the Islamic case, interest rates are replaced by rates of return on productive Shari'ah-compliant investments as an endogenous variable. Another case is the maintaining of fiscal balance by targeting price level. Contrarily, in the Islamic case price level automatically adjusts under the condition of learning in dynamic basic-needs regimes of development. This causes sustainable fiscal balance by the endogenous relationship between knowledge-flow (dynamic basic-needs regime of development), price level and the resulting fiscal balance over time. We then have endogenously sustainable *inter*-relationship over space, time and knowledge-flows. Indeed, dynamic basic needs comprise the Shatibi-basket of goods and services (Biraima, 1998/99).

Because of the above-mentioned conditions of Rationalism, some of the elements of the matrix  $[x_{ij}^s(\theta_s \sim)]$  will reduce to zero. Besides, by the condition of substitution between variables in expression (8), the marginal rates of substitutions between the  $[x_{ij}^s(\theta_s \sim)]$ -values will be negative. That is, if  $[x_{ij}^s(\theta_s \sim)]$ -values are interpreted as output elasticity coefficients, then these will be negative, given the neoclassical postulate of marginal rates of substitution that follows from the optimization and steady-state equilibrium, competition and economic rationality conditions of expression (8). These link up with the character of Rationalism in world-systems (Choudhury, 2000a; Etzioni, 1988).

Consequently, the complementary forms of  $[x_{ij}^s(\theta_s \sim)]$ -variables implied by  $(d/d\theta)(W([x_{ij}^s(\theta_s \sim)])) > 0$  in the Islamic case is never attainable in the case of induction of  $W(\cdot)$  by  $\theta_s \sim$ -values. The latter case cannot therefore be evolutionary by learning. The properties of sharing, participation, resource augmentation and endogenous growth and development are therefore denied in the case of expression (8). Verses (2:166-167) point out this self-defeating and deceptive nature of Rationalism, equated with falsehood. Also, the uniqueness premise, as in the case of the *Tawhidi* episteme, is lost. It is now replaced by epistemic overdetermination property that remains embedded and universal in competition and methodological individualism. Verse (2:166) implies that not only individual entities, but also the entire episteme, mindset and artifacts of methodological individualism, are afflicted by the same character of moral non-sustainability. These characteristics form the constitutional core of liberalism that derives from the episteme of Rationalism (Buchanan and Tullock, 1999).

### **A theorem on uniqueness and universality of the *Tawhidi* worldview methodology**

We also note from verse (2:167) that the model of Rationalism (falsehood) cannot revert back to truth. There is no such methodology in 'de-knowledge' to enable such reversion to happen. Truth and falsehood are incontrovertible, disjoint realities. The completeness of this state of opposed reality is fully realized in the Hereafter as the Great Event of feat for Truth – Tawhid (Qur'an, 78:1-5) and complete destruction of Falsehood (Qur'an, chapter 88). Likewise, the Rationalism model of extensive individualism and denial of unity of the

divine law does not have a methodology to explain and return to the unified world-systems. In other words, there is no such episteme, which this model can use to bring about unification of knowledge between systemic artifacts, variables and their entities. There is absolute methodological void in Rationalism for such an enterprise. The human ego prevails over all (Russell, 1991, 2001), though there is earnest search by science for a formalism of unity of 'everything' (Barrow, 1992). Contrarily, the *Tawhidi* phenomenological model explains both the unity of knowledge as truth and the Rationalism model as falsehood. Consequently, the *Tawhidi* worldview is both unique and universal as an episteme to explain 'everything'. The above-mentioned statements can be stated in the form of a theorem:

*The Tawhidi unity of knowledge is the necessary and sufficient episteme for uniquely and universally explaining both the nature of truth and falsehood as distinct and opposed realities. Contrarily, any episteme that cannot explain these uniqueness and universal conditions of opposed realities, cannot be a worldview. See Appendix I for a proof.*

#### **A particular derivation from the general model: A development-finance instrument**

The generalized formal model established above can now be particularized to a specific application. We will develop an innovative Islamic financing instrument. It is the first of its kind in the Islamic economics and finance literature that rests solely on the Maqasid as-Shari'ah, the objectivity and purpose of the Islamic Law.

#### **SOME PROBLEMS OF ISLAMIC ECONOMICS AND FINANCE**

The principal Islamic project financing instruments are known to be profit-sharing (*Mudarabah*) and equity-participation (*Musharakah*). But nowhere in the conventional literature in Islamic economics and finance are these instruments treated in the *economy-wide and society-wide* context of learning linkages – systemic synergy. Hence, the fundamental essence of cooperation and participation across sectors, economy-wide and society-wide, has not been treated in the literature and practice. Consequently, the above-mentioned MM-instruments turn out to be focused merely on the profitability goal of a project. Short-run financing is emphasized. Long-term financing and medium-term financing are treated residually in Islamic finance.

Consequently, the socio-economic development issues that rest on the Maqasid as-Shari'ah are by and large ignored on the pretext of 'priority' and only *one* focus of all other Shari'ah injunctions, namely, maintenance of shareholders' property rights. This translates into maximization of shareholders' wealth, and thus maximization of the value of the financial firm. Islamic financing institutions have remained ambivalent to the social application of project-financing by sectoral linkages and institutional networking. As an example, no MM-project is found that has a component goal of poverty alleviation in it that is complemented by profitability goal. Consequently, the comprehensive objectivity and purpose of the Shari'ah (*Maqasid as-Shari'ah*) has been sacrificed in this property-rights based one-dimensional economic and financing focus. See (Jabsheh, Behbehani, Al-Shamali and Dashti, 2007) for a comprehensive coverage of the short-run verses the

long-run issues of Islamic economics and financing institutions that leave out the importance of the *Maqasid as-Shari'ah*. Cost-plus pricing method (Murabaha) is another instrument that is extensively practiced in trade-financing and asset sales. Yet, to be Shari'ah friendly, Murabaha must revolve around Mudarabah and Musharakah taken up *conjointly* in reference to market valuation of assets. Such complementary development-financing instruments (MMM) would then possess the essential character of economy-wide and society-wide diversity and holistic linkages by the synergy of *inter*-relationships according to the comprehensive objectives of the *Maqasid as-Shari'ah* (Choudhury, 2000b).

Because the above-mentioned MMM-financing instruments in theory and practice are devoid of the essential need for economy-wide participatory extensions, therefore, any secondary financing instrument revolving around the prevalent MMM-financing, seen as sleeping partnerships, cannot qualify for the truly Islamic instrument of development-financing. Examples here are unit trust (*Amana Saham*) and Sukuk (bonds). Likewise, even shareholding in Islamic bank PLS accounts and similar instruments need to be refined by accommodating the extensive meaning of the *Maqasid as-Shari'ah* (Mydin and Larbani, 2006). The substantive issues here are more than simply an instrument being asset-backed as opposed to being liquidity-backed. *Mere* asset-backed financing can fail to meet the *Maqasid as-Shari'ah*, if the social and economic sustainability is not conceptualized and applied on the basis of the Tawhidi implication of learning intra- and inter- systems through complementarities ('pairing'). Thus, the argument made by some in support of *Sukuk* (Kahf, 2007) remains untenable in the absence of such embedded linkages vis-à-vis the *Maqasid as-Shari'ah*. Along with this grand remiss both in Islamic economics and finance scholarship and in practice, sustainability of these fields for the uplift of the *Ummah* the conscious world-nation of Islam, remains in serious question. The absence of the *Tawhidi* worldview of unified linkages by evolutionary learning drives the Muslim mind and institutions into this kind of isolationism and absence the Islamic worldview.

Asset-backing in both the economy-wide and society-wide sense with a mix of short-term, medium-term and long-term complementary goals can be attained by linking up the monetary sector with the real sector through the medium of new financing instruments. Unless the resulting circular causation as endogenous learning relationship is not attained between money, real economy and financing instruments in the comprehensive sense of *Maqasid as-Shari'ah*, the goal of the Islamic economy to attain well-being (*Falah* and *Tazkiyah*) through the medium of a Riba-free economy and a just society, cannot be achieved. In the absence of such economy-wide and society-wide participatory transformation, neither an Islamic change is possible nor can the large liquidity of Islamic banks be mobilized into truly Shari'ah-compliant outlets to attain the *Maqasid as-Shari'ah*.

Besides, the extension in such a transformation process invokes the important possibility for the coterminous attainment of production-diversification and risk-diversification. These conditions are essential to attain cost-effective sustainable growth, and development and creative evolution of economy and society. A joint production function is now made the engine of resource mobilization in the complementary domain of total economic-diversification. The financing instruments in the money-real economy linkage

must be based on and be capable of mobilizing resources to achieve this extensive inter-sectoral picture (Choudhury and Hoque, 2004). Such extensively paired meaning of socioeconomic structure can be derived from verse (2:164). It is guidance premised on the organic unity of the divine law working throughout all world-systems. We will now use the *Tawhidi* episteme to enact a rule (*Ahkam*) of organic participation for the attainment of social well-being in the extensive sense of the *Maqasid as-Shari'ah*. Ours is a matrix,  $[\mathbf{x}_{ij}^s(\theta_s), \theta_s]$ , of participatory interrelationships. The *Maqasid as-Shari'ah* will be reflected in and by the Social Well-being Index (SWI). We will create a financing instrument that will simulate the SWI under conditions of circular causation in  $[\mathbf{x}_{ij}^s(\theta_s), \theta_s]$ , in reference to the *Maqasid as-Shari'ah*, while interconnecting money, real economy and the proposed financing instrument.

***An extensively participatory financing instrument for attaining Islamic transformation by the Maqasid as-Shari'ah:*** In the expression for  $[\mathbf{x}_{ij}^s(\theta_s), \theta_s]$ , let  $i, j =$  Money (1), Real Economy (2), Finance (3). In any given process of learning according to the *Tawhidi* Law of systemic oneness, denoted by  $s =$  socio-economic system, let the weighting on the degree of acceptability of  $\mathbf{x}_{ij}^s(\theta_s)$ -variables be set by  $\theta_s$ . We now exhibit the following matrix:

<u>Inter-sectoral</u>			<u>weighting of <math>\theta</math>-values</u>	<u>Circular causation</u>
<u>From the ranking of variables</u>				<u>Performance of the Respective x-values*</u>
$x_{11}$	$x_{12}$	$x_{13}$	$\theta^1$	$x_{11} = f_1(x_{12}, x_{13}, \theta_s)$ , money with other (9)
$x_{21}$	$x_{22}$	$x_{23}$	$\theta^2$	$x_{22} = f_2(x_{21}, x_{23}, \theta_s)$ , real economy with other
$x_{31}$	$x_{32}$	$x_{33}$	$\theta^3$	$x_{33} = f_3(x_{31}, x_{32}, \theta_s)$ , finance with other
Average $\theta_s = \sum_k \theta^k$				

\*  $\theta^k =$  Average of  $[(x_{ij}/x_{ij}^*).10]$ , where the observations for  $x_{ij}$  record a best value  $x_{ij}^*$  for which the ranking is 10 out of 1 – 10;  $i, j = 1, 2, 3$ .

$$\text{The SWI} = A(\theta_s) \cdot \prod_{i=1}^3 x_{ii}^{a_{ii}} \quad (10)$$

SWI is simulated over  $\theta_s$ -values, subject to the circular causation relations,

$$x_{ii} = f_i(\mathbf{x}_{ij}, \theta_s) \quad (11)$$

$$\theta_s = f_{\theta_s}(\mathbf{x}_{ij})$$

$i, j = 1, 2, 3$  for a given 's' as socio-economic system.  $a_{ii} > 0$ ,  $i = 1, 2, 3$  are simulated parameters of the estimated and simulated versions of (10) - (11). Hence, these parameters are  $\theta_s$ -induced elasticity coefficients of SWI in terms of the  $x_{ii}$ -variables.

Simulation of the estimated values by assigning new parameter values proceed in the light of levels of complementarities that can be attained in the system 's'. Such simulations signify strategic and policy targeting in the reformed system 's'. Finally, our financing instrument is a combination of MMM-instruments that satisfies the *Maqasid as-Shari'ah* by mobilizing all forms of resources economy-wide and society-wide to attain Social Well-being. At a pragmatic level, such a financing instrument is a pure shareholding. It swims across hybrid capital stocks in diverse sectors. Funds can freely diversify between MMM-

instruments according to the SWI-criterion. Thus, while a legal ledger will be maintained for the respective M, M, M for the benefit of the shareholders and financier, yet the economic and social meaning is an integrated one. Invested funds can flow freely between the MMM (Choudhury, 2000b). A close management of such a fund necessitates cooperation between the banking and non-banking institutions. Therefore, complementarities must be progressively extensive between the sectors and between institutional and policy simulations economy-wide and society-wide. Islamization in its true sense of synergetic learning in unity of knowledge referring to Ayath-Allah becomes the goal of the *Ummah*. Verse (2:164) implicates such blessings that ensue from the evidences of Ayath-Allah. We will call our proposed development-financing instrument of the Islamic *Ummah* as the *SWI-instrument*. It has not come into the Islamic economics and finance literature and practice to date. The reason is firstly, the failure of Islamic economics and finance to understand the Principle of Pervasive Complementarities and consequential sectoral linkages that spring from the *Tawhidi* unified world-system dynamics. Secondly, sheer focus on short-term financing goals for shareholders' maximization of wealth and value of the Islamic financial firm has missed out the comprehensive meaning of the *Maqasid as-Shari'ah*. Systemic pairing and the blessing derived from this is conveyed by verse (2:164) and many similar verses of the Qur'an.

#### **A particular way to operate the SWI-instrument**

One particular way to operate the SWI-instrument is to have MMM revolve around trade financing. The term 'trade' is taken here in its broadest sense of market-based transactions in Shari'ah-compliant goods and services (i.e. the good things of life). Consequently, according to this concept, the MMM are not based on sheer contractual determination of profit-sharing and costing of assets for hire and purchase. Any asset when evaluated for cost-plus pricing in resale by the supplier (*Sahib al-Mal*), such as a house or equipment must be tallied against the market value of such assets. On the other hand, a mechanism of cost-plus pricing based on sharing of excess rents can be exercised and such rents distributed over time between the partners in trade so as to ease repayment of financial liabilities. The costing mechanism is similar rent in hire-purchase transactions (*Ijara*).

Shareholders of such trade-based SWI-instrument sold by Islamic banks would be quoted a unit-value. Such a value would be derived from a rate applied to the share-capital. The total value will be distributed for recovery over time. Such share-values will be derived from the on-going (earnings/resource) ratios over time until maturity of the asset liabilities. The corresponding value on the ratios will be distributed over time for the mutual benefit of the shareholders and the Islamic bank in such market-based trades. Thereby, the (earnings/resource) ratio may be variable over time according to market-values of the asset under circulation net of depreciation. The total share-capital will thus be circulated economy-wide in a diversified portfolio of MMM kinds of Shari'ah-compliant investments with no restrictions on financial interflow between the MMM categories. The result of product-diversification and risk-diversification in such trade flows and diversified financing outlets would help in sustaining the value of the traded shares. Presently, no Islamic bank throughout the world has trade-based instrument revolving around trade

financing that can be held by the common public. Consequently, the economy-wide and society-wide benefits of Islamic development-financing are not attained by Islamic banks. The system of equations (10)-(11) can be used for constructing and evaluating the Foreign Trade development instrument revolving around MMM as follows:

$$SWI = M_1^a M_2^b M_3^c, \quad (12)$$

a, b, c are coefficients, appropriately estimated as learning coefficients by means of random-coefficients method.

Subject to,

$$M_1 = f_1(\mathbf{x}, M_2, M_3, \theta)$$

$$M_2 = f_2(\mathbf{x}, M_1, M_3, \theta)$$

$$M_3 = f_3(\mathbf{x}, M_1, M_2, \theta)$$

$$x_{ij} = f_i(\mathbf{x}_{ij}, \theta_s)$$

$$\theta = f_\theta(\mathbf{x}_{ij})$$

$M_1 = Mudarabah$ ;  $M_2 = Musharakah$ ;  $M_3 = Murabaha$ , all of which are taken up in the market-driven sense of trade and complementarities. All other variables have been defined earlier.

### The contrary scenario of financing instruments

In the interest-ridden economy and society, it is impossible to think of extensively participatory financing instruments. The impediments to resource mobilization are created by the existence of methodological individualism. Its mark is self-interest and ownership as ultimate man-made rights. In such an economic and social milieu, the animal spirit of competition and self-interest forms the individualist behaviour, and thereby, social preferences according to the tenets of methodological individualism (Buchanan and Tullock, 1999). Since the prevalence of interest rate limits resource mobilization, therefore, any model of pervasive participation, as in the case of the *Tawhidi* worldview and the world-systems, remains fragmented. We have explained such consequences earlier. As an example, the monetary sector, real economy and financial sector compete and marginalize each other by virtue of the individual preferences in order to choose between these sectors for the growth and market-shares of private ownership. Sectoral linkages are disrupted. Thus organic learning remains absent. Hence, no concept and practice of systemic unity of knowledge is possible. No relational learning occurs at any level of economy and society. Interest-ridden economies must be perpetually volatile and unstable. Growth, development, social and ethical values remain unsustainable. Now the wider understanding of verses (2:165-167) is that the social and economic systems based on Rationalism remain deprived in life. Such deprivation will be completed and falsehood terminally punished in the Hereafter. Only the ultimate truth of *Tawhid* must prevail to remove every trace of moral entropy. In the *Tawhidi* worldview, it is impossible for the falsehood model to yield and get any reward and fruitful recompense. Many of the economic and social implications of the Rationalism model can be worked out by referring to the 'de-knowledge' model of denial of unity of divine knowledge given in expression (8). The starting point here is to note that the following result must be permanent for this case:

$$dW_{\sim}(\theta_{\sim})/d\theta_{\sim} = \{dW_{\sim}([\mathbf{x}_{\sim ij}(\theta_{\sim})])/dx_{\sim ij}(\theta_{\sim})\} \cdot \{dx_{\sim ij}(\theta_{\sim})/d\theta_{\sim}\} \quad (13)$$

$$= \Sigma\{\partial W_{\sim}([\mathbf{x}_{\sim ij}(\theta_{\sim})])/\partial x_{\sim ij}(\theta_{\sim})\} \cdot (dx_{\sim ij}(\theta_{\sim})/dx_{\sim ij}(\theta_{\sim})) \cdot \{dx_{\sim ij}(\theta_{\sim})/d\theta_{\sim}\}$$

By the postulates of neoclassical so-called welfare economics,  $dW_{\sim}(\theta_{\sim})/d\theta_{\sim} = 0$ , for optimal  $W_{\sim}(\theta_{\sim})$ . But by the postulates of ‘welfare’ economics,  $dW_{\sim}([\mathbf{x}_{\sim ij}(\theta_{\sim})])/dx_{\sim ik}(\theta_{\sim}) > 0$ ;  $dx_{\sim ij}(\theta_{\sim})/dx_{\sim ji}(\theta_{\sim}) < 0$ ; and  $dx_{\sim ij}(\theta_{\sim})/d\theta_{\sim} > 0$ ; for each  $i, j$ . Therefore, each of the terms of expression (13) reduces to zero.

That is,

$$\partial W_{\sim}([\mathbf{x}_{\sim ij}(\theta_{\sim})])/\partial x_{\sim ij}(\theta_{\sim}) \cdot (dx_{\sim ij}(\theta_{\sim})/dx_{\sim ji}(\theta_{\sim})) \cdot \{dx_{\sim ij}(\theta_{\sim})/d\theta_{\sim}\} = 0, \text{ identically.}$$

This implies that in the optimal state of  $W_{\sim}(\theta_{\sim})$ , the following must be true identically:

$$\partial W_{\sim}([\mathbf{x}_{\sim ij}(\theta_{\sim})])/\partial x_{\sim ij}(\theta_{\sim}) = 0; (dx_{\sim ij}(\theta_{\sim})/dx_{\sim ji}(\theta_{\sim})) = 0;$$

$$dx_{\sim ij}(\theta_{\sim})/d\theta_{\sim} = 0; \text{ for each } i, j.$$

The inference drawn is that the growth of Rationalism in the system increases material and moral entropy to the limit. In this situation, each  $x_{ij}$  shuns its partner  $x_{ji}$ . Also the growth of total entropy increases falsehood to the limit, until all falsehood is destroyed, and terminal equilibrium is established. This is indeed the meaning conveyed by verses (2:165-167) in respect of falsehood.

### Reverting to Islamic economics and finance today

The episteme of methodological individualism, and every different terminology and belief of Rationalism including its model have entered Islamic economics and finance lock, stock and barrels. This field has therefore no paradigm, worldview of its own as it presently stands. There are only derived shadows cast by the dimmed setting sun of Occidentalism. Postulates of marginal rate of substitution, scarcity, competition, and the postulates of optimization, economic rationality, steady-state equilibrium, self and ego, have been borrowed from the Occidental model in scholarship and practice. On the basis of these foundations, the Islamic banking, financial and economic sectors are today molding their architecture to fit into the capitalist globalization agenda (Ahmad, 2004). Long drawn-out Acts governing Islamic banking and government financing fervently surrender to the institutional directives of global governance with the sheer objective of maximizing shareholders’ wealth and value of the Islamic financing firms.

In these situations, the Qur’an and the *Sunnah* are forgotten as the episteme of Islamic resurgence. As opposed to this, the reign of Fiqh (personal and institutional legal interpretations of the Shari’ah) has taken over (Asad, 1987). Such a prevalent state of affairs has caused divisions and isolationism in the rules that should otherwise bind rather than separate Islamic financing institutions. The result is absence of Islamic networking in trade, development and finance. Corporate governance of the Islamic institutions lacks



standardization of Shari'ah rules. Hence, effective regulation of Islamic financing institutions by and for the *Ummah* does not exist (Choudhury and Hoque, 2006). Muslim empiricists do not understand the meaning of reflective empiricism that springs from the Qur'an and the *Sunnah*. Imitative financing indicators fill the pages of egoistic publications without having any Islamic meaning and reconstruction for the guidance and evaluation of Islamic financing institutions and projects for the comprehensive model of the *Ummah* (Islamic world-system) via the *Maqasid as-Shari'ah*. Thus such works remain wasteful areas of futile scholarship. The *Tawhidi* episteme of the *Maqasid as-Shari'ah* is neither understood nor practiced in the goals of Islamic financing institutions and their modes of financing that are carried out today. Inextricably hinged to the Rationalism model today, Islamic scholarship and institutions have both forgotten the *Ummah* (Choudhury, 2007b). The *Tawhidi* worldview methodology needs to be revived in order to put Islamic scholarship, Islamic development instrumentation and institutions into the *Ummah* context. *Tawhid* is merely used as jargon in the lips of scholarship and institutions today. Its deeper epistemic import is shunned.

## CONCLUSION

The generalized development-financing instrument is founded on the participatory portfolio theory. It ties up development-financing in accordance with the precept of unity of knowledge conceptualized and applied across interacting systems. This is done firstly by integrating the various financing instruments into a diversified wholeness. This allows financial resources to flow freely between the diversified instruments without legal restrictions. Secondly, the generalized diversified development-financial portfolio also overarches across economic, social and ethical values as derived from the law of Tawhid in the epistemological sense of systemic unity of knowledge. The well-being criterion as opposed to maximizing objective becomes the governing focus of the ethno-economic portfolio. As an important application in the field of Islamic economics and finance, the episteme of oneness and rationalist methods are used to understand two distinct development-financing instruments.

The Islamic development-financing instrument derived here is unique for the literature on Islamic economics and finance. It has not been perceived either in Islamic scholarship or by Islamic financial institutions. The proposed development-financing instrument is different from the usual profit-sharing (*Mudarabah*), equity-participation (*Musharakah*) and cost-plus pricing (*Murabaha*) and *Mudarabah* bonds, and so-called Islamic bonds (*Sukuk*) as financing instruments now being theorized and practised in Islamic economics and finance within the rationalist lens. The contrast is due to the missing knowledge of the monotheistic law in action within the general-system approach. Truth points to those Signs of Allah that establish the good society. Falsehood points to the negative Signs of Allah that are self-annihilated. Rationalism is the model of Falsehood by its thought and application based on methodological individualism and denial of the law of divine unity and the world-system.

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