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Ummatic* Globalization Versus Neoclassical Capitalist Globalization: Formalism and Application

Masudul Alam Choudhury, Mubarak Al-Ghamdi and *Yakubu Umar*

Abstract: This paper expounds the new term, 'political economy of globalization' against the contrasting paradigms of neoclassical economics and the Islamic globalization concept of the *ummah*, which enables an ethico-economic perspective. The emerging Islamic results on economic diversification through complementary sectoral relations are presented in the light of the two contrasting views on globalization by the use of an underlying epistemological model of unity of knowledge (*tawḥīd*) as *formal-systems analytic*. Policy perspectives in the globalization context are critically investigated. The case of small-scale enterprises as an ethico-economic issue with the Islamic genre is examined within the framework of complementary relations between economic efficiency and distributive equity, money and real economy, institution-market debate in contrast to their competitive efficiency treatment in the neoclassical concept of capitalist globalization. Saudi Arabia's small-scale industry sector is examined to show the application of the epistemological methodology of *tawḥīdī* unity of knowledge and thereby to reinforce the arguments in favour of infant industry protection using the *ummatic* model of globalization.

I. Introduction

In these times of capitalist globalization led by trade and capital-flow liberalization and privatization as prime instruments, it is difficult to

DR. MASUDUL ALAM CHOUDHURY is Professor of Economics, College of Commerce and Economics, Sultan Qaboos University, Al-Khod, Oman & the School of Business, the University College of Cape Breton, Sydney, Nova Scotia, Canada.
DR. MUBARAK AL-GHAMDI and DR. YAKUBU UMAR are Assistant Professors of Finance and Economics in the Department of Finance and Economics, College of Industrial Management, the King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia.

argue in favour of infant industry protection theory. Nonetheless, in this paper arguments are advanced in favor of small-scale infant industry protection in view of two opposing paradigms on the political economy of globalization. These are the neoclassical economic paradigm and the Islamic ethico-economic alternative. They form our contrasting views in making a critical examination of two polar concepts of globalization that emerge, and the opposite types of policy perspectives that causally relate to these polar concepts. The Islamic alternative outlook to globalization referred to as the *ummah* (or *ummatic* globalization) in this paper is derived epistemologically from the *tawḥīdī* worldview (unity of divine knowledge) as a *formal system of unity of knowledge in all world-systems*. This involves investigation of, and by means of, mathematical systems. Some mathematical concepts are therefore inevitable against the epistemological background.

II. Objective

In this paper we will argue against the preconditions of the neoclassical model of capitalist globalization relating to its principle of 'marginal substitution' that grounds the neoclassical theory of market competition, economic efficiency and economic growth. Contrary to the methodology of independence and individualism that emanates from neoclassical economic theory, we will argue that globalization is not a mere economic process. It is a vastly interdependent system between interacting markets and institutions that together take stock of the interests of powerful world governance under which development financing institutions, instruments and economy combine in perpetuating the interests of owners of capital and resources. We are thus extending the concept of globalization beyond economic integration by the interdependency caused by trade and capital flows in respect of institutional-market interaction in the light of social issues of development. Here the Islamic model of globalization referred to as *ummatic* globalization will be formally derived from the epistemological premise of unity of knowledge (*tawḥīd*) as *formal-systems analytic*. This episteme constitutes the central meaning in all Islamic pursuits of knowledge and reformation of the Muslim world toward the future *ummah*. The nature and depth

of *tawḥīdī* epistemological methodology applied to world-systems in general and the infant industry case within globalization necessitate an analytical formulation. This is undertaken here.

III. Introducing the Context of Infant Industry Protection in the Globalization Debate: Contrasting Views

We will formalize and apply a *formal-systems analytical model* of *tawḥīdī* episteme to the case of infant industry protection as an ethico-economic example. The concept of infant industry protection will mean a program of necessary government subsidy, support and protection for the development and survival of small-scale enterprises in the context of overall development priorities and against an increasingly risky economic and financial environment. Such subsidies and support can ensue through co-operation between government and large corporations for the benefit of the small-scale enterprises or exclusively by the former agency. Infant industry protection measures could entail nominal import tariff protection on the goods traded by small-scale enterprises. It could also appear as export subsidy and marketing support for the goods and services of such enterprises. The important point to note in this perspective of infant industry protection argument is the need for sustained complementary relations among small-scale enterprises, large corporations and governments toward sharing the cost and production in an increasingly diversifying economic environment. There is also the need for targeted government spending and the consequential re-organization of the social economy along the lines of a widely based complementary order. This is a picture on policy co-ordination in terms of a complementary and co-determined development framework using the episteme of *tawḥīdī* unity of knowledge as the be-all and the end-all of *Sharī'ahh*, the Islamic Law.

Small-scale enterprises are characterized by their low value-added contributions to GDP, low level of investment and small number of employees. This definition of small-scale enterprise or microenterprise fits particularly well to the case of small-scale enterprises in Saudi Arabia, our case study, as we will note.

In the *tawḥīdī* methodology of systemic complementarity we will argue that the approach to infant industry protection will logically be

a co-operative and complementary economic framework between all sectors of the economy in the light of national development perspectives, the institution-market-economy variables and trading partners. This concept of infant industry protection is different from the neoclassical concept of infant industry protection. In the neoclassical case, protection means subsidy and nominal import tariff on critical goods produced by the infant enterprises over the short run only. It is argued that such short-term protection will be followed by withdrawal of protection in the medium term. Thereupon, the small-scale enterprises will revert to market competition to attain efficient allocation of resources for maximizing profits. Long-term survival of small-scale enterprises is not an objective criterion in this neoclassical model of infant industry protection (Kenen, 1985).

Against the backdrop of market-driven competitive forces for efficient allocation of resources to which the small-scale enterprises must subject themselves, exist the usual arguments of the neoclassical macroeconomic proponents of trade and capital accounts liberalization and economic growth. Neoclassical economic theory assumes that mobilization of resources in the most efficient directions arises from economic competition premised on the 'marginal substitution' principle and leads to economic growth. The goal of economic growth is thus placed supreme in the agenda of capitalist globalization according to neoclassical economic theory.

IV. A Generalized Formalism: Investigating the Epistemological Premise of Islamic Political Economy of *Ummatic* World-system

The study of *ummatic* globalization in the framework of co-determined interdependence according to the episteme and the instruments of *tawḥīdī* unity of knowledge is contained in the discipline of political economy. In this regard, the Islamic political economy is defined as the intellectual domain that investigates interaction, integration and creative evolution of pervasively complementary *inter*relations between variables and their functions in the light of *Sharīʿahh* permissibility and as driven by *Sharīʿah* instruments. The epistemology of Islamic political economy in view of its pervasively complementary relational worldview across diversity of *Sharīʿah* possibilities is the unity of divine knowledge (*tawḥīd*).

Such a functional context of the *tawḥīdī* epistemology is derived from the Qur'ānic worldview of the diverse yet 'paired' universe that unravels itself through knowledge evolution and finds expression in the Signs of God across all world-systems through reflective examination. This total principle is brought to bear on the construction of the Islamic political economy and socio-scientific world-system by way of *formal-systems analytic*.

The fact that such a characterization is fully cognizant with the *Sharīʿah* is derived from the notion of *systemic unification* through interaction and integration together with pervasive learning in the Qur'ān. These are central attributes of Qur'ānic knowledge in the area of Islamic knowledge and world-systems according to the most powerful episteme of *tawḥīd in formal systems* as the unique Sign of Oneness of God as the divine law (*sunnat Allāh*) in the order of reality. Within this fundamental epistemological delineation the *Sharīʿah* assumes its sole meaning and relevance. Without it, there is no meaning of *Sharīʿah*. This is an undeniable Islamic axiom of truth versus falsehood.

We now turn briefly to the derivation of our pervasively complementary-diversity model of the socio-scientific order first in a non-technical way. This formal construction will then be placed formally in the context of the *ummatic* globalization precept as a specific application of the *tawḥīdī* worldview to contrast with the neoclassical idea of capitalist globalization. In this way it will be shown that the *ummatic* globalization precept and its application to the ethico-economic issue of infant industry protection is an altogether new one. This cannot be contained *within* the neoclassical methodology. Contrarily, the neoclassical methodology can be explained as an aberration of the *tawḥīdī* worldview by virtue of the contrast between the axioms of complementary unity of knowledge for *tawḥīd* and 'marginal substitution', 'economic rationality' and 'competition' for the neoclassical economic methodology. We will prove this fact.

The groundwork of the episteme of unity of *tawḥīdī* knowledge as a *formal system* is presented in expression (1), which can then be taken up across increasing levels of complexity in complex levels of interaction, integration and creative evolution of admissible processes caused by the growth of *tawḥīdī* unity of knowledge and the

consequent discovery of systemic complementarity with diversity in the *inter*relating systems. The essence of the interactive, integrative and evolutionary (IIE-process) is thus knowledge-flows caused by the episteme of unity that reflects oneness of God in systemic and instrumental wholeness as *formal-systems analytic*. This is the idea conveyed by the Qur'ān in reference to pervasively complementary world-systems. While the Qur'ān is profuse in this unique message of divine oneness, the derivation of the term of *shuratic* is in reference to verses 49-53 of the Chapter of *Shūrā*. A detailed derivation of the *shuratic* process from these verses by exegesis is not undertaken here. We therefore refer equivalently to the IIE-process and the *shuratic* process and the underlying methodology of circular causation as encapsulated below.

Expression 1

the fundamental episteme		*shuratic* process 1		continuum of *shuratic* process (1)		
Primal stock of knowledge →	Derivation of primal knowledge - flows →	Process of deriving knowledge -flows by →	Post- evaluation by means of the social wellbeing function →	Evolution of similar processes (IIE-process of the *shuratic* process) →	...Continuity →	Closure in the very large scale universe

Note: In what follows → denotes the derived causation in the relational order. The repetition of similar *shuratic* processes as indicated below conveys the idea of circular causation

In the above causation string, the primal stock of knowledge is the *tawḥīdī* epistemology. It explains the fundamental Qur'ānic axiom of divine oneness and assumes a *formal systems analytic* in the causal relation (Choudhury, 1995, 1999, 2000a). From the *tawḥīdī* epistemological premise is derived the fundamental *Sharīʿah* knowledge as primal knowledge-flows. *Tawḥīd* is thus the core of *Sharīʿah* and there is no *Sharīʿah* without this fundamental episteme. *Tawḥīdī* knowledge-flows of the world order in the formal system, so derived, unravel the spontaneous and *pervasive unveiling* of divine oneness in all world-systems by reflective examination. Thus this part of the chain in expression (1) ('the fundamental episteme') marks the

start of the process of deriving knowledge in relation to the unity of experiential systems.

Next are derived the worldly knowledge-flows emanating from the 'fundamental episteme'. We will denote knowledge-flows (*ʿilm al-maʿrifah*) by {θ} in what follows. {θ}-values are derived by the exercise of the discursive interactive, integrative and evolutionary *process* (or the *shuratic* process = IIE-process), which in accordance with Qur'ānic terminology is also termed as the *shuratic* discourse at the level of deriving *Sharīʿah* rules by reference to the conjoint epistemology of Qur'ān and *Sunnah*.

Now, from the organization of world-system in relation to the unity of knowledge-flows {q}, comes about the post-evaluation of this unity of knowledge by means of a well-being function that is used by the discursive system as an evaluative criterion. We call this criterion the 'social well-being function'.

From the post-evaluation of unity of knowledge in the context of the specific problems at hand, follow similar relations in continuity until the 'completion' of the original 'stock of knowledge' in the Hereafter. Thus we realize 'closure in the very large-scale universe'. This kind of pervasive process over space and time is established by the fact that Islamic derivation of rules using the 'fundamental epistemology' (*ijtihād*) and the Islamic community remains permanently entrenched in all world-systems until the Hereafter.

Next, in order to specify for the infant industry as an issue of the developmental world-system, we can imagine two similar strings of relations similar to expression (1) one for infant industry and the other for globalization. This means that in the epistemological sense infant industry is a creation of Allah for the purpose of attaining well-being of individuals and society through justice, equality and co-operation. Likewise, the global economic order is consequently patterned for the same unique purpose of attaining unity of relations according to the ethical values and instruments to be derived from the Islamic Law. The two together, namely infant industry globalization relationships and institutional guidance (*Sharīʿah*) as complementary pairs follow from the Qur'ānic principle of the 'paired universe' in the good things of life. The IIE-processes (*shuratic* processes) within and between the infant industry globalization relations would now proceed in the way explained by expression (1).

The continuum of repetitive inter-systemic interaction, integration and creative learning by evolution of the same between infant industry and globalization generates a circular causation and continuity model of complementary *inter*relations. Such an IIE-worldview makes risk-diversification, product-diversification, institutional development and participation between the agents, variables, resources and their relations to acquire permanent consequences of evolutionary learning. Knowledge augmentation of the socioeconomic variables by new learning enhances systemic complementarity across diversity. This phenomenon reduces the risk and unit cost of production and investment through product, risk- and economic diversifications in the framework of unity of knowledge.

We have now propounded the *ummatic* concept of globalization as the *process*-related complementary globalization order that emanates from an IIE-form in various areas encompassing global relations. However, to attain such unifying complementary relations is no simple matter. It invokes the use of *Sharīʿah* precepts of the oneness of God as the law of *unification* in *formal systems* combined with the use of *Sharīʿah* instruments that realize this systemic oneness and then implement them to the socioeconomic world-system. The emerging order then is *ummatic* globalization. A specific example that we are examining here is the infant industry globalization *inter*relationship in the formal system of the IIE-process derived by the *tawḥīdī* episteme. Economic co-operation and integration in this *ummatic* globalization order are not cursory concepts as in neoclassical economic theory. The latter is deterministic, benign of *process* and hence foreign to the methodology of *knowledge-induced formal analytic of systemic complementarity*.

4.1. The epistemologically derived generalized model of infant industry *ummatic* globalization

It is noted that every variable of the social well-being function is of the micro-type. Aggregation to higher levels of ethical decision-making is explained by IIE-type compound mappings that result in non-linear multiplicative indexes. Although the IIE-expression (1) is generalized to all types of socio-scientific problems in the framework of the

tawḥīdī unity of knowledge, its specificity to infant industry-globalization interrelationship is now formulated. The simulative form of the infant industry globalization circular *inter*relationship is explained by the following system of recursive relationships that gives the idea of circular causation in expression (1):

$$\text{Simulate } \{\theta_{ikl}\}\ [W([\theta_{ikl}],[X_{ikl}(\theta_{ikl})]] \qquad (2)$$

Subject to the *circular causation recursive relations*,

$$X_{ikl}(\theta_{ikl}) = f_{jkl}(X_{jkl}[\theta_{jkl}]), \qquad (3)$$

$$\theta_{ikl} = g_{jkl}([\theta_{jkl}],[X_{jkl}(\theta j_{kl})]) \qquad (4)$$

i,j (i≠j) = 1,2,….;
k = infant industry system;
l = globalization.

All variables, $\{X_{ikl}, \theta_{ikl}\}$ are to be taken in vector notation. f_{jkl} and g_{jkl} are recursive relations of the circular causation model over interactions (i) within and between the k, l-systems.

Specifically, we can write for infant industry and two selected global markets both endowed with a limiting consensual value of $\theta_i = \theta^*$ over k and l,

$$X_{ikl}(\theta^*) = (M_{k1}, p_{k1}, y_{k1})[\theta^*], \qquad (5)$$

k, l = 1, 2 as k = infant industry specific to two categories of spending and valuation in markets, l = 1, 2.

The nature of complementarity across diversity and dynamic evolution in the social well-being function is causally linked with complementary *inter*relations between every one of the variables in the vector (5). This means that ethicizing markets in *ummatic* globalization emerge by complementary spending in real goods and services, whose valuation is shown in terms of infant industry supporting such complementary spending patterns. Likewise, the existence of regimes of dynamic basic needs as life-fulfilling goods

cause complementary outputs in the two sets of goods and services. There is no such concept as the 'marginal rate of substitution' in this case now. Only relative choice is applicable within a discursive framework interlinking infant industry and globalization through the medium of the IIE (*shuratic*) process.

Such unifying relations among the variables require appropriate development and policing of infant industry–global markets. Examples of *Sharīʿah* instruments used are asset valuation in the absence of interest-based discount factors, equity and profit-sharing joint venture instruments revolving around economic co-operation, trade financing and secondary instruments that revolve around these other principal ones. Above all, there is the central role played by human resource development along the lines of *ummatic* transformation in the light of the *tawḥīdī* worldview. All of these knowledge-inducing factors and instruments are comprised in the θ-induced policies and preference changes determined in and by the IIE-process.

When an evolution from lesser to higher regimes of infant industry and globalizing linkages is being established in the knowledge-inducing systemic change, θ-induced variables, policies and preference changes determined in and by the IIE-process are once again active in progressively reducing the neoclassical principle of 'marginal substitution' between the goods and services and thus create greater complementary relations between these. The unwanted goods and services are thus phased out by the θ-induced variables, policies and preference changes determined in and by the IIE-process.

As an example, the progressive evolution of the interactive and integrative processes reflect growing unification and responsiveness between the variables in a regime of structural change characterized by convergence between the growth rates of spending and the quantity of money (Choudhury, 1998). This is a sure sign of progressive reduction of instability and inflationary pressure in the economy with increasing infant industry globalizing linkages. With gains in output arising from the side of technological change, organizational efficiency and accentuated mobilization of resources (spending), the infant industry globalizing *inter*relationship would cause the growth rate of output to exceed the growth rate of spending and the price level. Thereby, a sustained increase in real output

growth can be maintained both by the endogenously allocative and X-efficiency conditions of infant industry globalizing causal *inter*relationship.

We can now write down the complete form of the infant industry globalizing *inter*relationship in the light of the simulative social well-being function of the knowledge-centered worldview of Islamic political economy. Because of nonlinear aggregations due to interaction and relational complementarity that is embodied in the social well-being function we take it in the multiplicative form. This is denoted by mathematical intersection $\cap_{jkl}$ over j variables interacting across (k, l)-systems.

$$\text{Simulate } \{\theta\}\ W(\theta) = \cap_{jkl}\, X_{jkl}^{aj} \qquad (6)$$

k, l = 1,2 are the infant industry and globalization, respectively, as the two interactive and co-determining systems.

$X_{jkl} = \{M_1, M_2, p_1, p_2, y_1, y_2\}$ is the vector of variables pertaining to markets that are interconnected with the micro-money flows, M_1 and M_2, in two markets.

Because of the knowledge-inducing process of the IIE kind all variables including the a_j coefficients are q-induced. We have taken this q-value in the limiting form.

X_{jkl}^{aj} are thus the indexed variables $\{M_1, M_2, p_1, p_2, y_1, y_2\}$ by the corresponding elasticity coefficients a_j, j ranges over the given variables.

The recursive relations according to the circular causation system are,

$$M_1 = f_1 (M_2, p_1, p_2, y_1, y_2) \qquad (7)$$

$$M_2 = f_2 (M_1, p_1, p_2, y_1, y_2) \qquad (8)$$

$$p_1 = f_3 (M_1, M_2, p_2, y_1, y_2) \qquad (9)$$

$$p_2 = f_4 (M_1, M_2, p_1, y_1, y_2) \qquad (10)$$

$$y_1 = f_5(M_1, M_2, p_1, p_2, y_2) \quad (11)$$

$$y_2 = f_6(M_1, M_2, p_1, p_2, y_1) \quad (12)$$

$$\theta+ = f_7(q, M_1, M_2, p_1, p_2, y_1, y_2)_- \quad (13)$$

All of the above variables are recursively q-induced through the IIE (*shuratic*) circular causation processes. The sign '+' indicates a forward recursive value upon the lagged values of both the institutional *shuratic* policies and preferences and the socioeconomic variables. The recursive lag indicated by '–' is shown to govern all the variables inside the bracket. All the functions denoted by f's are nonlinear.

In a progressively transforming Islamic infant industry complementary globalizing system the coefficients of the given relations are expected to be either positive or tending towards positive signs out of progressively weakening negative relations. This signifies the passage from a non-learning system, such as the one characterized by the neoclassical 'marginal substitution' methodology (Shackle, 1972), to increasingly complementary relations, as signified by the *shuratic* process or equivalently the IIE-process methodology.

4.2. Socioeconomic development implications of the infant industry protection in the formal model of *ummatic* globalization

The above formalism translates into the following analytical form. In the evolutionary life-fulfilling regimes of development promoted by the *Sharīʿah* induced preference changes and the use of instruments selected out of discourse and extensions, the variables p_i and y_i denote prices and outputs of such *Sharīʿah* induced goods, respectively. Thereby, (p_iy_i-cost of production) are distributed among participants in a co-operative Islamic political economy. This implies that the cost of production is also shared. Consequently, no concept of opportunity cost of production and resources allocation can be valid.

Spending in the production and consumption of y_i at prices p_i is financed by M_i; and thereby, some of the spending flows between production value and consumption value of *inter*related goods and services. The above-mentioned equations bring out this kind of interdependence. It follows the circular causation methodology as can be derived epistemologically from the extended form of expression (1).

Equations (7) and (13) involve the monetary relations giving the quantity of money in circulation in multimarkets of real goods and services. Note that interest rates are now logically ruled out in this system of relations by the absence of the time value of money and opportunity cost of real goods and services, as is otherwise expressed by relative prices of goods and money in neoclassical economic theory. The 'marginal substitution' hypothesis is now replaced by the endogenous nature of money as currency pursuing a volume of spending in causally *inter*related multimarkets. The circular causation process found in simulation using the IIE-methodology sustains the evolution of the system of diversification leading to pervasively complementary relations through the medium of the *shuratic* process applied inter-systemically.

We note from the system of complementary relations that a well-defined circular causation exists between money and the real economy. That is to say, Islamic money as currency is truly micro in nature as it remains in pursuit of financing the *Sharīʿah* recommended life-fulfilling basket of goods and services by the use of specified instruments that promote ethical values and complementarity between knowledge-induced possibilities. This makes the stock of money equivalent to the quantity of currency circulating in multimarkets as spending according to *Sharīʿah* rules. Subsequently, new rounds of multimarket spending become the springboard for producing further quantity of money as currency in the *ummatic* global economy.

4.3. Interaction between selected variables in the *political economy of ummatic globalization* as derived from the tawḥīdī worldview

From our above formalization, the *ummatic* globalization process is seen as an extensive *shuratic* process of interaction, integration and creative evolution across all domains of the *Sharīʿah*-driven political economy, as such diverse issues and processes are incrementally introduced into discourse and complementary understanding emerges by the rise of knowledge premised in the unitary epistemology.

During the *ummatic* progress, the variables of the circular causality and of the social well-being function for *ummatic* globalization would be trade and capital flows between nations,

stable prices, output and money levels, employment, entitlement and empowerment. There would also be relevant policies, such as co-operative instruments of foreign trade financing, *muḍārabah*, *mushārakah* and secondary financing instruments revolving around these M&M instruments. For our case of infant industry protection as an ethico-economic goal, the powerful transformation variables and policy instruments would aim at 100 per cent reserve requirement monetary system backed by the gold standard. The selection of co-operative instruments would particularly look at the concept of the 100 per cent reserve requirement monetary system in terms of inter-agent multimarket integration, microcredits and microenterprises (Choudhury, 1997). There would be further pursuit of policy and institutional arrangements in realizing the integration of the grassroots with the private sector, trade and development along the lines of dynamic basic-needs regimes of socioeconomic development.

The generalized character of pervasively complementary-diversity *inter*relations arising from the unity of *tawḥīdī* epistemology that is now functionally explained by the formal system can be formalized in specific terms for the case of *ummatic* globalization. Such a model system is summarily written down as follows:

$$\text{Simulate } \{\theta\}\ W(\theta) = \cap_{jkl}\, x_{jkl}^{aj} \qquad (14)$$

k,l = the national economy, the world/*ummah* considered interactively and integratively. x_{jkl} is a vector of variables such as, merchandise trade (x_{1kl}) and capital flows (x_{2kl}), sectoral output (x_{3kl}), money (x_{4kl}) in 100 per cent reserve requirement monetary system, terms of trade (x_{5kl}), exchange rates (x_{6kl}), returns on capital (x_{7kl}), employment (x_{8kl}) and entitlement (x_{9kl}). Each of these variables is induced endogenously by θ-values generated by the *shuratic* processes resulting in consensual (integrative) preferences ($\cap_{jkl}$ Preferences)[θ].

Because of the knowledge-inducing process of the *shuratic* kind, each of the variables including the well-being elasticity coefficients a_j is also θ-induced. For reasons of simplicity we have taken simply the consensual knowledge-value θ attained through *shuratic* participation. We have taken this value to be in the limiting form of the complex discursive experience that the *shuratic* process experiences. The policy variables that can be included are now thoroughly endogenous in

nature. Such policy instruments are the M&M instruments and similar co-operative development financing instruments. Endogeneity of the policy variables is established by the circular causation in the *shuratic* or IIE-processes that lead to inclusion of these variables by recursion and post-evaluation by the social well-being function.

The simulation *inter*relations of expression (14) are given below. The way to interpret this matrix of equations is to consider j,j' (j≠j') = 1,2,..,9 number of variables. That is, recursively each variable is expressed at a time on the right hand side in terms of the remaining variables shown within the bracket of the $f_{j'kl}$ function. k,l = national economy, world/*ummah* are considered to be interactively integrated. Thus the variables and policies are determined and evolved by the evolutionary process of circular causation between them. This recursive iteration expresses the central property of endogeneity between all the variables including the knowledge variable, as shown. θ+ value denotes forward recursion on the basis of the previous (θ-,$x_{jkl\text{-}}$) knowledge and knowledge-induced socioeconomic and policy variables.

$$x_{jkl} = f_{j'kl}(x_{j'kl}) \qquad (15)$$

$$\theta+ = g(\theta\text{-},x_{jkl\text{-}}) \qquad (16)$$

j,j' (j≠j') = 1,2,..,9;
k,l = national economy, world/*ummah*

All the functions and the well-being criterion are nonlinear.

In a progressively transforming *ummatic* world-system (as noted earlier) the coefficients of the relationships are expected to be either positive or tending towards positive signs by progressively weakening negative relations between the variables.

V. Can the *Ummatic* Globalization Process Emerge from Neoclassical Methodology? No

Our next question is to investigate whether the system (14)–(16) can evolve from a neoclassical methodology as well? The answer is clearly in the negative.

The central theme of neoclassical epistemology is that the rules of optimal allocation of resources and steady-state equilibrium require optimal knowledge under economic rationality even if this was instrumental or bounded rationality. Thereby, pre-assigned preferences and competing behavior define the concept of economic rationality in whatever form we interpret this (Choudhury, 2000b). The optimal nature of self-interest in the preference function of the decision-maker causes methodological individualism to prevail and result in the 'marginal substitution' rule of both optimal resource allocation (full information) and sub-optimal resource allocation (bounded rationality). Consequently, although local and short-run complementarity can occur between complements, pervasive long-run complementarity is ruled out in neoclassical economics. Even the short-run perturbations caused by dynamic preference changes and the environing factors (ethics) leaves the steady-state optimality-equilibrium points untenable in neoclassical optimal steady-state resource allocation.

Consider for example the money and price stability question in our above formalization. Neoclassical economics would treat them endogenously, as in the Austrian concept of the quantity theory of money. But as money supply increases, price stability falls. Likewise, in the neoclassical production function, employment and capital would be long-run gross substitutes at every point of the evolving production isoquants. Thereby, in the development sense, employment and entitlement as variables denoting distributive equity would become 'marginal substitutes' (tradeoff) with economic growth (output, efficiency and capital accumulation).

Above all, the most damaging difference between the *tawḥīdī* and neoclassical epistemologies is caused by the permanent presence of interaction, integration and evolution of similar *processes* in the *tawḥīdī* methodology. This leads to continuum of θ-values along continuous *shuratic* processes, as shown in the formal system. This causes the discursive complementarity-diversity principle (the Qur'ānic 'paired universe') to thoroughly replace the 'marginal substitution' principle of neoclassical economics. Consequently, relative prices, opportunity cost concept and time-discounting as a time value of money in intertemporal allocation of resources, cannot exist on logical grounds. The neoclassical type production possibility

curve, the production isoquant and furthermore the consumer indifference curve, the utility function, the social welfare function, pricing rules, etc., are all undefined in the *process* sense of the *tawḥīdī* perspective of unity of knowledge governing resource allocation. Nonetheless, they are explained by the *tawḥīdī formal-systems analytic* in the limiting case of a non-learning world-system.

The neoclassical capitalist globalization process is thus negated in the *ummatic* globalization process by the formal system of the *tawḥīdī* worldview. This system is the cause and effect (circular causation) of the *ummatic* globalization process. The absence of process and continuous learning by interaction and unity in neoclassical methodology cannot therefore explain the *tawḥīdī* universe. Contrarily, the *tawḥīdī* worldview explains the neoclassical methodology as a limiting case of a non-learning universe. This contrasting result is significant and universally damaging against neoclassicism. According to it all the implications of theory, policy and programs of neoclassical capitalist globalization launched by the Bretton Woods Institutions are contradicted by the corresponding implements of the IIE-processual worldview of unity of knowledge in the *shuratic* framework.

VI. Contrariwise: Examining Selected Critical Relations in the Political Economy of Neoclassical Capitalist Globalization

Globalization follows a paradigm that is deepening its presence in the planning menus of developing countries and is governed by neoclassical macroeconomic reasoning. This is manifest in the central concern with economic growth and market-driven 'competitive' mechanisms in the globalization agenda both at the level of academic theorizing and economic restructuring. Consequently, the institutions, policies and programs launched by national governments and international development financing institutions take the same view on directing their instruments toward attaining the neoclassical goals of capitalist globalization.

Economic integration, international trade and capital flow liberalization have become the medium for realizing the competitive market economy globally for efficient resource allocation across the large-scale domain of the world economy. This argument of largeness

and competitive market system was advanced by the classical economic school and was followed up by its neoclassical protagonists in the pure theory of international trade (Chamberlain, 1976).

6.1. Production and institutional interrelations in the neoclassical macroeconomic model of capitalist globalization

Neoclassical capitalist globalization is the result of a global sharing of markets and economic power between colluding oligopolists who play the principal role in trade and capital movements across integrated markets. The goal of attaining oligopolistic market shares is linked with a special kind of politico-economic arrangement under globalization, viewed as a relationship between financial development institutions and powerful market-driven processes. Power in such an arrangement arises from the dominant role played by international development finance institutions, their policies and, thus, by the resulting power of global governance. These factors are intertwined together to give neoclassical capitalist globalization its muscle.

On the side of market arrangement, the globalization outlook has pursued a neoclassical macroeconomic approach to economic change. This means that resources are mobilized in the direction that most efficiently accumulates capital and market shares for maximizing oligopoly profits of colluding agents (producers). The interests here are shared between profit-maximizing oligopolies, national governments, transnational corporations and the governing international development finance organizations. This nature of the political economy of development organizations has been pointed out by Ansari (1986).

According to the social objective of distributive equity on which our case of the infant industry argument rests, there exists tradeoff between economic efficiency (economic growth) and distributive equity (employment, entitlement, social well-being) in the neoclassical growth model or the social welfare function, as the case may be. This occurs due to the very methodology of 'marginal substitution', scarcity and competition, and independence between 'marginal substitutes' in their states of optimal allocation and steady-state equilibriums. The neoclassical optimal resource allocation is premised upon these states. Economic efficiency and distributive equity,

multimarkets, money and the real economy etc. are now seen to be 'marginal substitutes' in the neoclassical model of economic growth. This feature of the neoclassical model remains intact even in growth models with endogenous technology, for the institutional and economic relations underlying such a technology still carry along the marginal substitution property of the neoclassical model (Romer, 1986). In other words, the producer choices of specific kinds of technology stem from the capitalist menus of production and efficient resource allocation. Such a case is similar to the aggregation of consumer preferences that defines a utilitarian perspective of public choice theory of institutions (Buchanan, 1954).

In neoclassical capitalist globalization the instruments for attaining control of market shares arise from such particular kinds of economic reasoning, policy framework and competing self-interests. All these are together required in order to realize the stated goal of capitalist globalization, that is, to attain market shares through economic growth generated by market-driven forces under the assumptions of economic competition, methodological independence and so-called 'efficient' resource allocation (Henderson, 1999), all centered on the 'marginal substitution' (tradeoff) principle. Finally, neoclassical capitalist globalization perpetuates the mentioned kinds of politico-economic relations by maintaining such politico-economic relations over the long term.

Thus in the neoclassical capitalist globalization agenda the long term is marked by control of and access to global resources, capital accumulation and free market process. These together deepen the preferred interrelations among market-driven competition, institutional policies, programs and global governance. The existing agenda of globalization aims at laying down those conditions for reinforcing the economic, developmental, institutional and political forces that are jointly required to capture and sustain maximal oligopoly market shares over the long term in an increasingly integrating economic world (Korten, 1995).

Trade liberalization acting on the side of both merchandise and capital flows appears as a principal medium for enhancing the interrelationships among the forces just mentioned. Yet we must understand that in such a domain of interaction capitalist globalization must construct the particular *inter*relations between

markets, foreign trade, economic growth and development. Relevant institutions and their power in global governance together enhance the survival of neoclassical capitalist globalization in the long term.

Yet the missing element in neoclassical capitalist globalization argument vis-à-vis market competition is a failure to recognize the short-run and long-run social and private costs that globalization brings about through its methods of market-driven competition. The result of such competition and the resulting maximization of economic efficiency of financial resource allocation to gain market-shares through international trade cause a great tradeoff between economic efficiency and distributive equity (large and small enterprises, respectively). The neoclassical model of international trade, specialization and economic growth establishes this neoclassical marginalist (tradeoff) scenario.

We can now round off our perspectives on the subject matter of political economy of neoclassical capitalist globalization. By the idea of political economy of neoclassical capitalist globalization in this paper we mean the organization of the capitalist mode of production, ownership and control of market-shares in the milieu of interaction between markets, governments and development finance organizations. Within this milieu of interaction we are also to consider the particular relationship between the markets of goods, money capital and factors of production, both in the domestic and international contexts. We are also to consider the instrument underlying such relations, the most central of which is the rate of interest.

Neoclassical political economy entrenches a permanently competing and 'marginal substitution' relationship between the financial sector and the real economy. The two compete with each other for investment resources over the short run. These phenomena of competition and tradeoff are explained by the well-known M-C-M model of money-commodity-money accumulation relationship as explained by Heilbroner (1985).

Likewise, labour and capital are gross substitutes of each other in the neoclassical growth model with optimizing objectives and the assumption of resource scarcity. Scarcity here is caused either by natural causes or by acts of economic waste, especially by the industrialized countries in terms of their ecological and consumption

mismanagement (Jackson, 1993). The latter adversely affects availability of natural resources for human and social well-being.

6.1.1. Capital accounts liberalization and its consequences in the neoclassical capitalist globalization model

Escalation in the total cost of industrialization under globalization has not eased in recent years. The financial world under the flair of capital accounts liberalization agenda first promoted by Stanley Fischer (1997) of the IMF, found itself in the grips of continuous uncertainty and volatility with no sign of ending. The currency runoff and the high cost of development in the face of low export revenues have constantly caused high indebtedness of the developing countries. Today, in the face of these massively retrogressive consequences we find that the problem of poverty at all scales has become a major one to address. The World Bank and IMF have both recognized the impact of global poverty and deprivation even in the midst of their agenda of capitalist globalization and the attenuating policy and institutional mechanisms supporting it (IMF Survey, 5 March 2001).

VII. Contrariwise: *Ummatic* Globalization and Infant Industry Protection Argument as an Ethico-economic Agenda Contrasting the Neoclassical Economic Approach

In contrast to the neoclassical capitalist globalization scenario we invoke the *ummatic* globalization model as formalized earlier. According to that model globalization is seen as a vastly interactive domain of global *inter*relationships between the economic and institutional forces in the context of *inter*relating these for purposes of attaining targets of both economic efficiency (economic growth) and distributive equity (development) together. The treatment of infant industry protection is essentially an issue of distributive equity, but in the *ummatic* globalization perspective, the goal of distributive equity is taken up in complementary relation with economic efficiency.

To use the implication of endogenous policy relations with the socioeconomic variables explained earlier we invoke a market-institutional interaction and integration for attaining all those conditions that would thus lead to complementarity between the goals of distributive equity (social well-being) and economic efficiency

(economic growth). Within that discussion we will treat the theme of infant industry protection.

In addressing the topic of infant industry protection of small-scale producers our concern centres on the above-mentioned kinds of predicaments for this sector in a globalization scene. The small, and thereby the marginal, are left out of the economic growth agenda in a neoclassical tradeoff model. They find themselves excluded from productive participation by the action of 'marginal substitution'. In the capitalist globalization agenda under the neoclassical framework, international trade and economic growth cause tradeoffs both in the short run and the long run. This is due to the nature of technology in a neoclassical framework of globalization. It persists in causing tradeoff among alternatives for the interest of owners of capital, rent-seekers and the industrialized countries where the TNCs pay taxes on their surpluses. There now exists a complementary relationship between the interests of capitalists and the nature of technology that the capitalists invest in for further enhancing their market surpluses within a prescription of economic growth (Amin, 1989).

Thus the political economy of globalization based on international trade and economic growth is not a sheer market-driven game of efficient resource allocation. Instead, it is driven by major macroeconomic policy intervention aimed at attaining political governance and market-shares for the benefit of large transnational companies, their home governments and national rent-seekers. This is the methodological individualism embedded in an interdependent perspective of capitalist globalization, which the neoclassical economic theory propounds. Perspectives, policies and programs on human resource development, opposing relations between labour and capital, science and technologies are all subsumed within the same methodological individualism and power-centered politico-economic arrangement of neoclassical capitalist globalization.

WTO policies on globalization (Naqvi, 1994), such as the Trade Related Intellectual Property Rights (TRIPs), Trade Related Investment Measures (TRIMs), surveillance plus countervailing measures, are specific ones in the package of such jointly institutional and market-driven policy instruments. The neoclassical macroeconomic model of globalization that is adopted uses such instruments to intensify the substitution between goods, factors and

technologies in production and industrialization menus. Two major kinds of substitution that have occurred in developing countries are, firstly, that of manufacturing and industrialization replacing agriculture. Secondly, low wages though creating low value-added employment has intensified underemployment in the hinterland economies (Wallerstein, 1979).

In the global economic growth menu there is not much room for nation states to focus upon a program of economic diversification in and between the agricultural, manufacturing and service sectors. Consequently, the small-scale enterprises that remain on the fringes of servicing agricultural goods for the transnational companies become marginalized in terms of earning even normal profits.

Now either largeness becomes the source of economic efficiency in such high-cost service sector economy or the small-scale industries facing the crippling cost of competition between the small and the large, and thus among themselves, go bankrupt. Long-term economic survival becomes an important objective for the small-scale entrepreneurs as a goal of sustainable development. Neoclassical economics sees long-term survival of firms in terms of market 'competition' and technically 'efficient' allocation of resources. All other policies, institutions and programs remain *exogenous* in enforcing this fundamental perspective.

Behind all these adverse politico-economic developments pronounced by neoclassical tradeoffs in the neoclassical market-driven theory of globalization and the WTO macroeconomic policy prescriptions enhancing such a neoclassical framework of globalization, lies the withering away of nation states to the politico-economic motives of large businesses, organizations and industrialized countries. The integrating world and the globalization process thus get divided between suppliers of primary commodities and of marginally manufactured goods and services of the small-scale enterprise sector on the one hand, and the large market shares of technology, finished goods and commodity cartels, on the other hand. The latter kinds of items comprise the tradables of transnational companies and large-scale domestic businesses.

Now in contrast to the neoclassical model of globalization and its adverse effects caused by marginalization of small-scale enterprises, we invoke our alternative prescription of globalization

mentioned earlier. In this framework, protection of small-scale industries is important in the face of flagrant financial and economic uncertainties and the long-run fear of unsustainable development. Now the nature of economic development from which the socioeconomic consequences such as of sustainability and indigenous technological appropriateness arise, depends to a large extent on complementary relations between economic diversification and its effect on risk and cost control. Both of these are necessary and conducive to the survival of small-scale entrepreneurs.

In this case there exists a circular causal *inter*relationship between economic diversification, risk and cost control. Such a causality cannot be explained by the theory, application and policies based on the neoclassical macroeconomics of globalization. That is because sustainability of complementing factors in economic growth and development cannot be established in the otherwise inherently 'competing' and 'marginal substitution' framework of the neoclassical growth model.

Economic diversification is the result of knowledge and application of resources and technological linkages within and across diverse sectors and possibilities for attaining economic growth and development *together*. The effect of diversification is felt in and across all complementing sectors and possibilities. In such an organically interactive system the agricultural, industrial, manufacturing and service sectors are interdependent in producing *joint* products and in cost and profit sharing (extended version of the M&M mechanism earlier mentioned).

Consequently, the productive factors in these sectors are also organized in similarly complementing menus of co-operation and co-determination. Market forces alone do not determine the ends of economic diversification and complementary relations, for linkages and co-determination are simultaneously determined by the interplay of institutional and market forces in the IIE-process model. The needed institutions and policies that now emerge must promote the momentum of diversification and economic complementarity, which are the principles of the unity of knowledge. Failing this, the desired complementing relations would not be sustained in the face of market competition led by TNCs under the protection of the capitalist globalization agenda.

Small-scale businesses find their future in the midst of the diversification and complementing relations between sectors as suppliers of primary, semi-finished or intermediate goods and services. The mitigation of economic competition and its replacement by economic co-operation and co-determination determine the *shuratic* kinds of restructuring of the production environment, appropriateness of technology and sharing of resources, costs and returns. An increase in the number of entrepreneurs and the emergence of an increased number of diversified goods and services in such a co-operative agenda of sustainable development causes a decrease in the unit cost of production and investment. Institutional organizations take account of the need for constant human resource training and improvement of economic efficiency as well as of promoting participation at all levels. Participation here is signified both by co-operation among agents as well as by market, economic and sectoral linkages between socioeconomic variables that must prevail in the milieu of product diversification. This gives the meaning of the extended embryonic nature of the *shuratic* process, rather than simply limiting it to the political and institutional contexts.

In the co-operative model of economic diversification and linkages, labour and capital become mutual partners in a social contract caused by cost and output sharing in complementary ways. The productive nature of the underlying political economy of market-institution-technology interrelationship spells out simultaneous betterment for both capital and labour. In conjunction with this, there will be conservation of resources and the lowering of total cost of production and investment through cost and production sharing and in terms of adopting appropriate technology. The dynamics of life-fulfilling regimes of development are at point here again.

All these configure in the productive and co-determining perspectives of complementary product diversification menus. Such are the elements of the political economy of small-scale business sustainability within the new concept of globalization that we presented above. The same approach to sustainability cannot be addressed in a neoclassical model of globalization. This is due to the inherent property of marginal substitution (tradeoff) between all kinds of 'competing' ends in the neoclassical economic approach.

References to the complementary-diversity politico-economic transformation can indeed be found most recently in the World Bank's (1997) study on grassroots community economic development in which decentralized local developmental efforts and their integration within national development plans is promoted. Community economic development programs within the complementary integrative perspectives have drawn the attention of the NGOs, national and international development organizations. In the literature too this idea has captured significant attention in the direction of developing effectively decentralized and participatory approaches to economic development (Daly, 1992; Ekin, 1992; Vanek, 1971). These are all non-neoclassical ways of addressing sustainability and social well-being within economic development as opposed to a sheer focus on economic growth.

VIII. A Case Study: Setting the Context of Infant Industry Protection in Reference to Saudi Arabia qua *tawḥīdī* Formal System Analytic and Against Neoclassical Economic Theory

In Saudi Arabia, the value-added contributions of small-scale productions to GDP, particularly in the agricultural, small-scale manufacturing and service sectors are low (figure 1). Here we take a recent case of this economic arrangement in Saudi Arabia and make projection by the use of current data on related economic indicators. Corresponding data on small-scale enterprises are not available in the Seventh Development Plan, the Saudi Arabian Monetary Agency, the Saudi Arabian Planning Ministry and the new Saudi Arabian Investment Act (SAGIA). However, we can use the information on the private sector in Saudi Arabia in the Seventh Development Plan to draw relevant inferences on small-scale enterprises.

We will note below some of the characteristics of microenterprises in the context of Saudi Arabia in reference to the specifically low level of investment that such enterprises undertake and the small number of employees they employ. Consequently, small-scale enterprises are characterized by their low value-added contributions to GDP, low level of investment and small number of employees as specified in the case of Saudi Arabia. This reference forms our definition of small-scale enterprise in this paper.

8.1. Statistical information on small-scale enterprises in Saudi Arabia

According to the Saudi Sixth Development Plan (1995-2000, p. 157), 'Although the vast majority of private enterprises are small, these small businesses account for a large proportion of total employment. From the outset of the planning process, the government recognized the important role of small enterprises in achieving the development objectives to diversify the national economy, to create job opportunities, to mobilize small savings and channel them into investment, and to promote regional development throughout the Kingdom.'

In near historical reference, according to the statistics for 1995 on the size-composition of enterprises in Saudi Arabia, 95 per cent of reporting establishments were small-scale enterprises employing less than ten workers. A small-scale enterprise made less than SR 10 million in investment and accounted for approximately 1,469 operating factories. Medium-scale enterprises comprised investments between SR 10 million and SR 100 million and reported 542 operating factories. Large-scale enterprises whose investments were in excess of SR100 million had only 249 operating factories.

Besides, in 1995 there were also retail outlets and small-scale service facilities licensed by municipalities. These totaled 134,000 units. Agricultural small-scale units employed 377,000 farmers and agricultural workers.

We note that the small-scale private sector enterprises have engaged the attention of the Saudi government. In this regard, various government agencies are co-ordinating their programmes with the Chambers of Commerce and Industry and Saudi Credit Bank to promote small-scale enterprises in view of the target of economic diversification.

Now in such a futuristic development scenario, if sufficient protection is not given to small-scale enterprises, market competition could eliminate them. In this regard, Figure 1 shows that even though in recent years a cautious engagement of government expenditure on small-scale industries was adopted, yet by and large the private non-oil sector needs to derive much more support from government expenditure.

In the context of infant industry protection argument for Saudi Arabia we see good scope for some of the government expenditure to be directed into the development of small-scale enterprises within the context of the complementary and co-determining menu of economic diversification. The effect of this kind of restructuring in government expenditure could boost the investment curve of the small-scale enterprises. Note that the investment curve for small-scale enterprises lies below the already low level of investment curve of the private sector. As it now stands, there exists a weak correlation between government expenditure and the almost constant level of private sector expenditure, as shown by Figure 1.

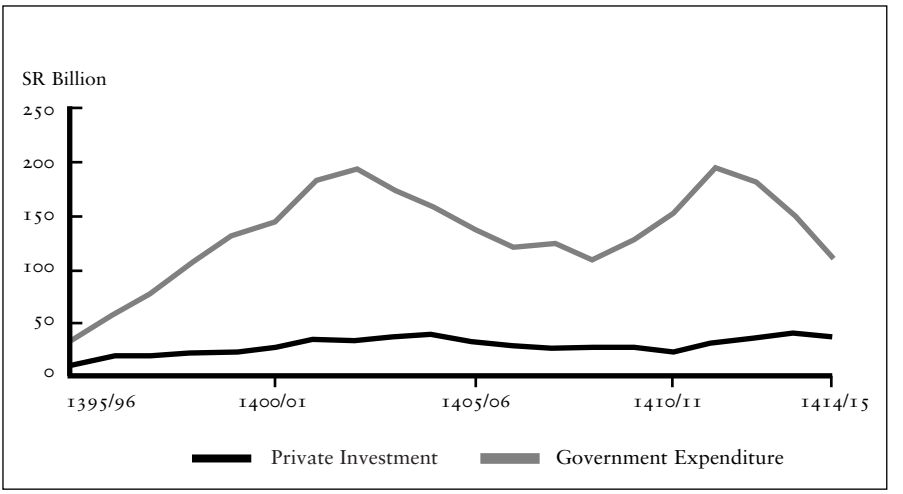

Figure 1: Government expenditure and private investment (at current prices, billions of Saudi Riyals)

Note:Interpret the years as follows: 1395/96 (Islamic) = 1975-76 etc; SR = Saudi Riyal

Source: *Kingdom of Saudi Arabia Sixth Development Plan 1995-2000*, p. 19.

It can then be noted that government expenditure support in promoting small-scale enterprises would push up the latter's low-lying investment curve. However, such government expenditure support must be directed into productive and complementing activities. In the context of economic diversification such a complementing and productive sector would be joint production between the resource-based and the secondary manufacturing types.

8.2. Value-added contributions to GDP of small-scale enterprises in Saudi Arabia

The trend in value-added and GDP shares proves our concern with small-scale enterprises in the face of sheer market-driven competition. Such enterprises need both policies and expenditure to protect their present nascent period of establishment and sustained co-operation among the sectors thereafter by a complementary and co-determining agenda within the perspective of a long-term economic diversification future.

If the share of small-scale industries in GDP declines, it would mean the rise of market shares for large businesses or transnational companies at the cost of the former. These large producers including the TNCs will seek their protection under the WTO policy prescriptions. As a result, much of the activity of local businesses will be shifted from production to services. Thereby, the total factor productivity will remain low, as retail consumer goods oriented businesses fill the small-scale enterprises instead of the much-needed productive entrepreneurs. Consequently, economic diversification will either be taken up by large-scale businesses in the interest of creating export-led surpluses for the interest of transnational companies, or alternatively, the economy will carry on as a rent-seeking one by the TNCs.

8.3. Foreign trade implications of small-scale enterprises in Saudi Arabia

The need for infant industry protection in light of economic diversification is also seen from the trade balances on goods at the level of small-scale enterprises. On foreign trade balance we find that the small-scale industries need considerable development (Government of Saudi Arabia, 1998). This too will need infant industry protection in their present nascent state.

The same statistical data point out that the balance of merchandise trade in commodities traded at the small-scale enterprise level. We note the special disadvantage facing them as shown by their trade deficits in such goods. The overwhelming presence of the oil and mineral sector in the trade balance points out that economic diversification from oil to non-oil sector will require considerable sustainability of the small-scale enterprises. This requires a cautious

approach in not letting the small-scale enterprises unduly face the competition of market-driven forces. Infant industry protection is thereby required.

Survey results by Al-Qahtany (2001) point out that the first major impediment to the export possibility of Saudi non-oil businesses is foreign competition. He also points out the second problem in this order to be the lack of effective information and guidance provided for non-oil sector exporters. While Al-Qahtany does not segment his survey by small-scale enterprises, historical statistical data point out that these firms will be all the more adversely affected by the two factors mentioned in the survey results. It is clear from the statistical data for the small-scale enterprise sector that there are all-round trade deficits in this sector. Nonetheless, the total trade balance is in surplus. This points to the heavy reliance of the Saudi economy on the oil sector and its resource-based manufacturing sector dominated by large enterprises and TNCs.

8.4. Inferences from data on economic diversification and privatization in Saudi Arabia

We now examine more recent data to make our projected inferences. Data available from the U.S. Embassy Report on Saudi Arabia economic trends (U.S. Mission, 2002) point out a continuation of low real growth rate of 0.8 per cent annually for Saudi Arabia. Recent historical data point out that the productive possibility of small-scale enterprises remains low. This problem needs to be addressed before the small-scale enterprises are subjected to market-driven competition emanating from Saudi Arabia's recent developments respecting WTO accessions, the new Saudi Arabian Investment Act (SAGIA) and the consequences of the neoclassical capitalist globalization agenda.

The problem of low real economic growth rate is further compounded by increasing government debt. Government debt exceeded 12 per cent of GDP in the year 2000. Growing public sector debt is accompanied by high debt servicing cost that in turn crowd out much of government spending in the budget. Saudi Arabia is found to depend upon the oil sector heavily for its program of economic diversification and privatization in the non-oil sector. Oil production and derivatives account for 90-95 per cent of the export earnings; 75 per cent of the budget and about 35-40 per cent of GDP.

In the face of the low real economic growth and increasing indebtedness, Saudi Arabia has decided to diversify and privatize the economy from oil to non-oil sector. This goal will increasingly occupy the Seventh Development Plan and the new Saudi Arabian Investment Act (SAGIA) (Saudi Online internet undated a). In working toward this goal the government of Saudi Arabia has taken bold steps to privatize publicly held assets and to promote her presence in the WTO accessions. Yet it is found that much of the benefits of privatization, and thereby, the roles played in the economic diversification efforts are taken over by large monopolies. The most prominent ones among these large-scale corporations are ARAMCO, Saudi Basic Industries Corporations (SABIC), Saudi Telephone Company (STC), Saudi Electric Company (SEC), Saline Water Conversion Corporation (SWCC).

Although privatization and economic diversification will involve the development of industrial products, it is pointed out by Saudi Arabia Magazine (Spring 2001) (http version, May 16, 2002) that much of the resulting 90 per cent of the Kingdom's non-oil exports will come from large corporations. Among these will be the petrochemicals, plastics, metal goods, construction materials and electrical appliances. These are products that will dominate in the above-mentioned monopolies and their conglomerates.

The Seventh Development Plan (Government of Saudi Arabia, 2001) points out that although a substantial proportion of the private sector comprises small-scale enterprises employing less than 20 persons, their productivity remains low due to dearth of investments and management skills. As a comparison between large scale and small scale enterprises, the Seventh Development Plan points out a rate of gross return of 14.2 per cent for the former and a mere 4.4 per cent for the latter. The rate of return on assets is found to be 18.7 per cent for large-scale enterprises and a mere 5.4 per cent for small- scale enterprises. Sales per person as a measure of factor productivity, amounts to 486 riyals for large-scale enterprises and a mere 158 riyals for small-scale enterprises. These indicators signal the need for accentuated protection of the small-scale enterprises by a tripartite participatory discursion on development between the government, the large-scale enterprises and small-scale enterprises.

It is encouraging to learn that the Seventh Development Plan would aim at the following two measures and initiatives in support of small-scale enterprises within the privatization programme:

> Streamline procedures for establishing small and medium scale enterprises to eliminate associated routine constraints and enhance technical and administrative support for these firms.
>
> Study the possibility of establishing a special fund, with government and private sector participation, to facilitate access to loans by small and medium scale enterprises and develop Islamic financing instruments such as, *Mushārakah*, *Murābaḥah* and *Muḍārabah* to further broaden finance opportunities available to these enterprises. Expand the lending activities of the Saudi Credit Bank. (p. 179)

While such directions cannot be possible in a medium of sheer market forces under the privatization programme and the neoclassical perspectives of WTO accession, they are contrarily central to the IIE-methodology and participatory model that we have presented in this paper. The broader implication of extending this kind of tripartite participation and economic support is the IIE-model of *ummatic* globalization. Here we tie nations and their resources together under the same type of participatory political economy.

In view of SAGIA (Saudi Arabia online a), which emerged both from the prevailing state of debt and economic growth in Saudi Arabia and her accession to the WTO, the government of Saudi Arabia will promote the free flow of foreign investment in and from the country. The new investment laws deal with foreign investment matters, particularly land ownership and the option for foreign investors to enjoy sole proprietorship of investments and tax holidays. Foreign investment privileges are given particularly to infrastructure projects and manufacturing and agricultural projects. Substantial tax benefits would be awarded to foreign investors. Notwithstanding SAGIA, some major foreign TNCs have benefited by lucrative contracts (Saudi Arabia online b). Particular note is made here to the foreign investment bid of $145 million from Saudi Telecom to Lucent Technologies in the area of optical data network contract. The Saudi Chevron Petrochemical won a joint venture for $650 million plant to produce benzene and cyclohexane. There are many more such

projects for which foreign investment data are not available but are expected to be a massive total amount.

A combination of the above near historical and recent economic trends and private sector diversification efforts in Saudi Arabia in these early days of her SAGIA and the Seventh Development Plan should encourage a positive examination of the infant industry protection and privatization in concert with the general momentum of complementary relations of the development agenda. WTO by itself as a neoclassical engine of economic change in the capitalist globalization process is not expected to award this complementary scenario of development for Saudi privatization and economic diversification effort. The impact of the emanating economic change led by WTO accessions will continue along macroeconomic lines, export orientation and economic growth, privatization and market competition. These are bound to result in large-scale enterprise concentration in the Saudi economy.

Thus the trend presented by Figure 1 with regard to a low scale of spending in infant industry development would continue under the neoclassical globalization agenda. It is therefore the appropriate time now under the Seventh Development Plan and SAGIA to adopt government–large enterprises–infant industry discursive interrelations as formalized in the *shuratic* process methodology on co-determination of the development agenda.

The *Sharīʿah* implications of this type of development direction according to the IIE-model (*shuratic* process) are clear. Complementarity with diversification emanating from the episteme and the economic instruments of the IIE-model lay down the scenario of distributive equity *together with* economic efficiency. This calls for a continued direction of government spending in the infant industry protection in the private sector according to the *shuratic* model of co-determination and discursion. Other implications are to complement the real economy with endogenous monetary and financial structures, as was pointed out earlier, and to guide the economic transformation in the direction of complementary multimarkets according to *Sharīʿah* rules.

This kind of guidance and monitoring of the social economy has precedence in the practices of the Prophet and was emulated by Ibn Taimiyyah in his *al-Ḥisbah fi' l-Islām*. This kind of organization

reflects the systemic formalism of unity of knowledge that comes out of the *tawḥīdī* worldview. The Chapter of a*l-Naḥl* (the Bee) brings out these systemic and organizational aspects of unity of knowledge of the *tawḥīdī* principle in the world-system.

Furthermore, we have argued that such a protection cannot come about from the premise of a neoclassical economic theory. Rather, the complementary economic restructuring approach of the IIE-methodology in the country-specific version of the *ummatic* globalization model should be used to protect the small-scale enterprises. This can be done both through subsidies and entrepreneurial directions towards developing incubators for small-scale enterprises and by having small-scale, medium-scale and large-scale enterprises co-operate in cost and production sharing (Choudhury & Hallaf, 2001). Through such a prescription of resource mobilization the neoclassical tradeoff model of globalization vis-à-vis small-scale industrial development would be avoided. Besides, by adopting the normative prescription here, Saudi Arabia should follow a cautious approach to the programs and other institutional policies and commitments towards capitalist globalization. An example is the need for Saudi Arabia to adopt a cautious approach in her WTO accessions.

8.5. The IIE-model applied to Saudi Arabia small-scale industrial development program

The prescriptions of the *ummatic* model of globalization now taken up only at the one country level as shown by the internal IIE-structure suggest the choice of the following vector of variables for the case of well-being of the small scale enterprises in Saudi Arabia:

$$x_{jk} = \{q_j, I_j, M_j, p_j, Q_{nonoil}/Q_{oil}\} \qquad (17)$$

where,
q_j, denotes the output of jth industry;
I_j denotes investment in the jth industry;
M_j denotes micro-money flow as total of investment and consumption spending in the goods and services of the jth industry;
p_j denotes prices of goods in the jth industry;

Q_{nonoil}/Q_{oil} denotes targeted ratio of the non-oil to oil sector output as a policy variable.
j = 1 (small scale industry), 2 (medium and large scale industry).

The principle of complementarity-diversity in the IIE-framework now arising out diversification of production and inter-industry linkages suggests that the two levels of industries must increasingly *complement* each other and this must also be supported by government policies to increase investments in these sectors and to monitor the (Q_{nonoil}/Q_{oil})-ratio. This perspective is in keeping with the prospect of diversification from the oil to non-oil sector as part of the focus in the Saudi Development Plans (Choudhury and al-Sahlawi, 2000).

Such industrial linkages and diversification can be realized in the IIE-perspective if both the interdependence between the productive factors as well as technology between the two industries support one another's production levels. This is the implication of the dynamic regime of life-fulfilling goods. Consequently, the investment levels will also be having complementary trends. Prices in the two sectors would remain stable if the life-fulfilling production system is emulated. Otherwise too, a higher price in one sector followed by a similar increase in the other sector would only mean the profits and costs in the two sectors are shared. Thereby, economic efficiency along with income distribution will be maintained. Now a quantity of money would pursue the activity of *Sharīʿah* determined spending in the two sectors accordingly. The impetus of government investment in the two sectors would be in response to the development program of effective diversification from oil to non-oil sectoral production. This in turn can determine a conscious protection of the infant industry.

All of such transformation and monitoring of the diversification and linkage process will require intensive co-determination of policies, technologies and perspective among the three role players – government, medium and large scale industry and infant industry (small scale enterprises). Such a co-determining approach would define the progressive *shuratic* nature of the IIE-process as explained by dynamic changes in preferences governed by knowledge induction. We now have the complete recursive system of knowledge-induced simulation of the *ummatic* globalization process.

IX. Policy Perspectives Relating to the Adoption of the IIE Complementary Framework of *Ummatic* Globalization in view of Infant Industry Protection

By extracting from the formalism and application of the IIE-process methodology to *ummatic* formalization we now note the following seven policy prescriptions as derived from our formalism in this paper.

1. The contrary picture afforded by infant industry protection of small-scale production and technological diffusion according to our statistical inference in this paper suggests cautious inroads to privatization, the WTO-agenda, trade and capital accounts liberalization prescriptions, and thus into neoclassical capitalist globalization.

2. This does not mean reverting to a closed economy. Rather, it is a socially guided knowledge economy attained by making the human resource development process understand and comply along lines of the complementary process concept of development as injected by *Sharīʿah* rules into globalization. An Islamic political economy as a guided system of *inter*relations by discursion is a globally open system. Nonetheless, it is also selective in terms of the injunctions of *Sharīʿah*, which when extended to the ethico-economic case of infant industry protection, cannot make market forces dominate over ethical compulsion. Rather, the two exist in complementary relations made possible by the IIE-process.

3. The paradigm of *ummatic* globalization must prioritize trade and development firstly within the Muslim world community (formalized in our model as *ummah*) but would not exclude the world community (formalized in our model as world). In every case the paired possibilities are interactively complemented together in view of the epistemology of unity of knowledge as the divine law. The *shuratic* process methodology is thus a paradigm that sharply contrasts with the neoclassical economic methodology.

4. The benefits to small-scale businesses and technological developments cannot come about by following the neoclassical

approach to international trade, economic development and markets. Contrarily, we prescribe the IIE-process methodology of *participation, co-determination and complementarity* toward diversification by using a blending between indigenous methods of institutional participation *with* market realities. The process of development and growth under such a participatory *shuratic* process-oriented outlook cannot therefore surrender to sheer market forces. The institutional direction and guidance of the *Sharīʿah* principles and socioeconomic instruments would be essentially required.

5. The forces of institution–market–technology interaction and co-determination through participation and selection of appropriate policies and technology should mark the trends of Saudi Arabia's economic transformation toward a new age both in the short run and the long run. This is due to the fact that the ensuing social contract of IIE-complementary relationships and co-determination under economic diversification is not a picture of the short run alone. In the short run it marks the launching pad of a constructive *ummatic* future. Its long-run perspective is the continuation of the same institutional-market complementary process through IIE-type systemic participation as required for developing economic diversification and complementary inter-sectoral relations.

Our policy prescription on infant industry protection argument differs from the way neoclassical trade theory treats this idea in terms of short-run to long-run abolition of all tariffs for small-scale enterprises, thus finally yielding them to market forces. Such a conflict between the short-run and the long-run approaches to infant industry protection argument is avoided in our *ummatic* globalization model, which contrarily is attainable by the permanence of complementary and co-determined paths of change.

6. In the *ummatic* globalization paradigm the small are to link up with medium and large businesses, labour with capital, the social with the economic well-being, institutions with markets, money with real sector and enhanced trading between partners in the *ummah*. In this scenario all inhering factors are progressively guided to co-exist along path-dependent participatory socioeconomic evolution as *shuratically* evaluated by the social well-being function.

7. In the case of Saudi Arabia a cautious approach to development in the interest of small-scale business development through complementary and co-determined sectoral diversification would be an important one to keep in view of national development planning. This kind of view is to enter the calculus of Saudi Arabia's Seventh Development Plan, SAGIA and WTO accessions.

X. Conclusion: The Contemporary Currency of the Complementary-Diversity Process-oriented Worldview

Is the complementary-diversity agenda of development relevant in the face of the neoclassical capitalist globalization approach promoted by the Bretton Woods Institutions and the WTO? This paper has referred to the World Bank and IMF's studies with a changed emphasis on globalization and development in the direction of complementary-diversity relational models. The multidimensional participatory organisms of community economic development processes for human development, alleviation of poverty, generating opportunity, empowerment and guaranteeing security have been recognized in relation to the concept of human development (World Bank, 2000).

Beyond these still, the precept of sustainable development invokes the wholeness of unity of knowledge in systemic *inter*relationships (Hawley, 1986). Henderson (1999) points out that beyond globalization the new vista of social contract and socioeconomic sustainability calls for the awakening of human consciousness. This indeed is the area of the *formal system of unity of knowledge*. This indeed is the approach we have developed in this paper to explain the application of the *tawḥīdī* worldview as the unique centerpiece of the Islamic theory of knowledge and of the application of *Sharīʿah* to the topic of *ummatic* globalization versus neoclassical capitalist globalization. We have examined the application of the generalized formalism to the case of infant industry protection argument as an ethico-economic issue. The extension of the infant industry participatory model to the Muslim world in all spheres ties up with the social well-being of human development and economic integration. This is yet another example of the extensive application of the *formal-systems analytic of the tawḥīdī world-system* to diverse issues.

NOTE

* *Ummatic* as 'of the *Ummah*, the conscious world nation of Islam.'

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