

A PRESCRIPTIVE MODEL OF TRADE AND DEVELOPMENT FOR THE MUSLIM WORLD

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ABSTRACT

The question of sustainability is studied in the context of a process model of knowledge formation according to the interactive, integrative and evolutionary (IIE) worldview of the Shuratic process in the *Qur'an*. This process formalism is applied to the issue of trade and development in the Muslim World. Such a theme is fundamental in the study of complementary or participatory interrelationships between economic, financial and social factors such as money, the real economy, technology, debt-management, exchange rate and well-being, all of which are endogenously related with the inter-communal flows of trade and its effect on development in the Muslim World. These central issues of sustainability in relation to the problem of trade and development in the Muslim World and including in it the specific treatment of institutions, money, real economy, debt-management, technology transfer and social well-being are covered in this paper. The thrust of this paper is on normative derivations with quantitative estimation of the normative model. The empirical results are reproduced in the light of an actual Shura meeting named here as the Khartoum Shuratic Meeting (KSM) on trade and development that was organized. Empirical computations are excluded. The country blocs comprising Bloc 1 = Bangladesh, Indonesia and Malaysia and Bloc 2 = Pakistan, Turkey and Iran are specifically studied in the light of the issues and problems of economic integration by the use of a dynamic input-output model and its empirical estimation using the KSM questionnaire results. Relevant policy implications on trade and development are derived by specific attention to the results of the empirical work and in general sense by referring to the KSM results and the dynamic coefficients input-output model, both of which are derived on the basis of the Shuratic methodological worldview.

Keywords: international trade, economic integration, economic development, Islamic economics and finance, quantitative modeling, institutional approach

Background

Statistical data on trade and development for Islamic countries cannot help in forecasting the future state of reconstruction of the Muslim World in this field. The limitation here is due to the age-old debility of the Muslim World to project any significant economic, social and institutional transformation in the light of her own communal interest and self-reliance. Thus the past economic data on trade and development variables show no pattern of future change. Forecasting with these data simply projects the past state of the Muslim World into the future. For these reasons, a model of reconstruction and transformation of the Muslim World on Islamic grounds necessitates reliance on normative issues. Yet these are issues that are firstly theoretically modeled and then quantitatively investigated for viability according to survey data.

The theoretical model used here is premised on Islamic discourse methodology. The same model is taken up in the extensive sense of participation that remains intrinsic both within and across the human and non-human domains. Institutions, decision-making, policies and programs are examples of discourse methods within and across human domains. The agency and markets, interactions among critical variables and their interrelationships are interactive processes within the non-human domain. Investigation of the latter by the former in the light of the intrinsic methodology of interaction, integration and dynamic evolution, is the comprehensive analytic of the study of interrelationships across human and non-human domains. In each of these cases we retain the unique principle, model and attributes of the extensively participatory process as an interactive, integrative and dynamically evolutionary process of learning and knowledge-formation.

In light of the model of extensive participation as pointed out above, we will first introduce the institutional decision-making theory in Islamic perspective. This Islamic approach is then adopted here because of its strongly non-neoclassical politico-economic content that alone of all theories is found to explain strong interaction, integration and creative evolution realized within and across socioeconomic systems through discourse and an analytical approach.

A brief explanation of this institutional decision-making process-based model is formalized below. In accordance with the terminology used in the *Qur'an* relating to an interactive, consensual (integrative) and creatively evolutionary process of knowledge-formation called the *shura*, we shall refer to such a process as the *shuratic* process.

I. A Brief Introduction To The *Shuratic* Process: Formulating The Praxis Of Sustainability

The *shuratic* process is the *Qur'anic* methodology of decision-making through discourse (interaction), leading to consensus (integration), and further evolving to more of the same cycles of interrelationships (creative evolution). This characteristic of the

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knowledge-forming process is also referred to for Islamic socio-scientific systems as the interactive, integrative, and evolutionary process (IIE) of understanding the complexity of real world phenomena (Choudhury 1998a). The IIE-model forms the groundwork of sustainability in the Islamic framework. This concept of sustainability is applied in this paper to the study of trade and development in Islamic work.

A process-oriented worldview emanates directly from the *Qur'an* in the following way: Knowledge is the primal and sole epistemological root of every Islamic issue under investigation. Such knowledge exists at a number of levels. Epistemologically, it is derived from the unique premise of the Oneness of God. This Unity precept explains God's existence as the absolute, complete and full in knowledge. From this divine root of unity of knowledge flows the divine law (*sunnat al-Allah*). The divine law is in turn explicated into reality by the primacy of Prophetic guidance in Islam (*sunnat al-Rasul*). In this way, human comprehension, analysis, applications and dynamics associated with the issues at point are subsequently generated. But the same methodology of deriving knowledge from the epistemological roots, and carrying it to the level of reality, is extended to all issues of life in minutest detail at which any analysis is done.

The implication here is that there must be interaction not only within socio-scientific issues (systems) but also across such issues (systems) as well, by virtue of the singular existence of fundamental Unity, Oneness of *Allah* (*tawhid*) as the episteme within each and every one of these issues. Thus a systemic development of issues (systems) in which knowledge is epistemologically derived and applied and then evolved by inherent dynamics of the same kind, underlies the nature of the Islamic worldview and world-system.

The process of deriving knowledge from the epistemology of fundamental unity carries along with it the medium of *sunnah* (Prophetic Guidance). This initiating step then injects the epistemology into human inquiry through mutual *interaction* (*ijtihad*). Interactions lead to consensus or integration (*ijma*) among the agents who discourse given issues. Finally, the confirmation of the process from interactions to integration is established by a continuum of similar processes. This involves evolutionary epistemology to appear in continuous cycles within and across the learning processes. This last stage explains the creative and evolving transformation of the embryonic nature, mentioned in the *Qur'an* as *khalq in-jadid*.

The entire IIE-process, from the epistemological derivation of unifying knowledge-flow premised in the Fundamental Unity of Knowledge to its induction on cognitive phenomena, and thereafter followed by further evolution to higher levels of actualization, is referred to in this paper as the *shuratic* process. In the sense of unity within IIE, the underlying process manifests the attribute of linkages and participation among the entities under study. A systemic complexity arises across endless series of linkages among agents, variables and systems. While the interactive medium defines extensive diversity of being, the resulting integrative state defines the universally complementary nature among the interacting entities. That is among agents, variables, and their systemic interrelations.

Such complex linkages delineated by the IIE-characteristics take place among varieties of systemic entities. Such entities comprise human agents, systemic variables, their relations and complexes of systems. Complex relations among these kinds of entities are to be found embedded in the IIE-order in view of the Islamic effectiveness of the *shuratic* process at any given time for the issues under discourse.

Thereby, denseness of the knowledge formation characterizes the nature of effective Islamic emergence of knowledge through the complexity of the issues and problems that the Islamic world-system faces. The derivations of such evolving rules of life and thought are taken up from the fundamental epistemology of divine Oneness (*Tawhid*). This primordial unity of knowledge is referred to in this paper as the Stock of Knowledge, by virtue of its unchanging nature, its completeness and absoluteness. From the Stock of Knowledge emanate knowledge-flows in world-systems.

The medium of functionally transforming fundamental unity into systemic unity in world-systems comprises the following steps: The media of prophetic guidance (*sunnah*) maps the divine law (Stock) into the particular knowledge of the issues and problems under investigation. This functional mapping of unity into world-systems is discursively investigated. Thereby, inquiry and interaction (*ijtihad*) premised on the *Qur'an* and the *Sunnah*, emerge. Interactions are followed by consensus or integration (*ijma*) among the entities of the systems. Finally, further dynamic evolution of the same functional interrelations appears in continuum of cycles, indicating evolutionary epistemology of unity of knowledge (*khalq in-jadid*).

The *shuratic* process continues in this self-same continuum. It traverses complex orders reflecting creatively evolutionary equilibriums in the states of entities in all world-systems. Here the evolutionary equilibriums have only simulative states as opposed to optimal ones (Grandmont, 1989). Consequently, steady-state optimal equilibrium conditions cannot exist with the increasing denseness of knowledge-flows in the IIE-process order.

II. The *Shuratic* Process Methodology Applied To The Theme Of International Trade And Development

To exemplify the pervasively unifying nature of the *shuratic* process we will invoke it to study the problems of trade and development in the Muslim World from a normative perspective for reasons as explained before. Such a normative study will lead us into prescriptions of institutional reformation, policy formulation, and organization of economic integration of the Muslim World.

Next we examine the nature of discourse in the *shuratic* process. In trade and development, the choice of *shari'ah* instruments arises from epistemological roots that cannot blindly accept the methods and methodology of received economic doctrines. The

politico-economic methodology of trade and development must now be derived endogenously from the premise of *Tawhidi* epistemology. For example, Islamic socio-scientific inquiry cannot simply accept the argument that Islamic banking is 'empowered' to eliminate interest-based transactions and that the Central Bank must accordingly set exchange rates in an interest-free venue even though the economy may not be well Islamized. Such an action has resulted to date in accepting the mainstream conventions on money and banking practices, monetary policy, fiscal policy, trade policy, and economic stabilization as well-known macroeconomic instruments. Consequently, although interest rate may be eliminated by institutional 'enforcement' and political decree, and thereby, exchange rates are set by the Islamic Central Bank, yet the result has proven to be unsustainable.

II.1. A Specific Treatment of Financial Relations in Trade and Development from *Shuratic* Perspective

Unsustainable relationships between exchange rate, abolition of interest rate and monetary policy arise from the very nature of money as understood as not having an intrinsically endogenous relationship with the real economic sector. In an economic and social system, the preferences of consumers and investors may not be sufficiently transformed by existing knowledge towards attenuating them into ethicized ones. Technological choices may not have been directed into the choice of appropriate sectoral projects that establish one-to-one 'real' interrelationships with the monetary and financial sectors. Projects selected may thus fail to have sufficient linkages among themselves due to the instability caused by the prevalence of de-link between the real sectors and the monetary and financial sectors with their divergent self-interests. Consequently, national development plans cannot become sufficiently reformed by a participatory learning process within the common weal of agents taken from these diverse sectors when they remain systemically de-linked.

The result of exogenous rather than endogenous money (Desai 1989, Choudhury 1997) and real sectoral interrelationships has caused a permanent subservience of the Muslim countries' currencies to hard currency basket and to interest-based debt financing. We thereby find Muslim countries have come to acquire large outstanding external debts in the name of industrial developments that have weak linkages between themselves. The dictates of international development organizations to organize their policies, programs and institutions in the light of the existing notions of exogenous money, finance and preferred sectors, have caused high volatility of portfolio investments. These culminated in the financial turmoil in South-East Asia region, the currency runoff and socio-political instabilities.

Monetary policy based non-speculative real sector activities, with the demand and supply of money being primarily determined by the demand for goods and services under *shari'ah*, cannot become functional unless the prevailing economic and political climate is changed. We argue in this paper that such a transformation can come about by adoption of the extensively complementary model and by so rejecting the prevailing socioeconomic and socio-scientific thinking based on marginalism and methodological individualism (Choudhury 1998b). The latter factors are at the root of exogenous treatment of money and the real economy. Endogenous relations are characterized by learning and thereby unifying (complementary) relations between all the good things of life. Among these is the endogenous relationship between money, finance, and the real economy. Trade and development for integrating the *ummah*, the world-nation of Islam, belong to this kind of circular causation interrelationship.

Can the *shuratic* process prove to be effective in realizing such change? Even in the choice of appropriate Islamic financing and developmental instruments there are these centrally underlying issues against which the *shuratic* process determines the system of linkages, which in turn must be dynamically realized within the knowledge continuum. Discussing issues of *unnatic* trade and development within a mainstream economic framework cannot address the issue of Islamic future, because the principal guidance of unity and unification as cause and effect (circular causation) is missing when complementarities are dispensed with for acceptance of a marginalist model of socioeconomic organization.

The complementary process of understanding and organizing interaction remains unknown in the marginalist system. Even when the topic of interdependency is discussed, the focus is always on a regime of development, co-ordination of trade, and capital market policies and choices of technology that are of the type found embedded in neoclassical marginalist outlook. This is testified by the development plans of all developing countries, included in which are some major Muslim counties (Alias & Choudhury, 1996; Korten, 1998). The resulting prescriptions are then driven by the governing models of the neoclassical, monetarist or institutional type. They emanate strongly from the background of the Bretton Woods institutions and their latter days' sister organizations. If then the Muslim countries are to import these methods and methodologies for Islamic reconstruction, the core principle of complementarities through diversities, which is the mark of unification of knowledge in the *shuratic* process, will always be contradicted by the foundational premise of marginal tradeoff in neoclassicism, monetarism and institutionalism.

II.2. Appropriate Technology, Trade and Development in *Shuratic* Process

The issue of appropriate technological choice is linked with trade and development. In a *shuratic* methodology characterized by its unifying complementary process among diverse possibilities, *dynamic* basic needs regimes of development make up the moral and socioeconomic goal (Biraima on Shatibi, 1998/99; Ghazzali trans. Karim, undated). Such regimes are subsequently sustained by ecologically interconnected technological know-how capable of integrating the grassroots responses with higher levels of technology in moral meaning. Markets for goods in such regimes are transformed by the interactive, integrative and evolutionary preferences of consumers, entrepreneurs, lobbying groups and Islamic institutions.

Such endogenous transformations bring about the acceptance of appropriate *dynamic* basic needs regimes of development as the basis of Islamic change, self-reliance and development futures (Ahmad 1991). Consequently, the issues of price stabilization,

debt management, monetary issues, intersectoral linkages are concurrently determined by the appropriate choice of technology and economic transactions that emanate from a worldview of systemic linkages as the sign of unification of knowledge increasingly complementing world-systems.

II.3. Debt Management and Exchange Rate Stability in *Shuratic* Perspective

Debt management and control of volatile foreign investments, particularly those that come in the form of portfolio investments, lured by short-term returns of speculative transactions, can be attained by maintaining a close relationship between money and real economic activities. Indeed, it was the de-linking factor between money and real economic activity that brought about global volatility, financial and economic uncertainties in recent years. Instead, *shari'ah*-compliant economic and financial instruments will help because of their inherent attributes of ethical values that are endogenously embedded in the projected unified worldview of the *shuratic* process. The processes employed in such a coordinated organization and action, both at the grassroots levels of policy-making (*shura* committee) and at the level of strings of decentralized socio-scientific *shuras*, are contrary to the doctrines of marginal tradeoffs and hegemonic models of the Eurocentric genre. They are participatory in nature.

At the end, elimination of interest rate and the consequential determination of stable exchange rates in Islamic political economy are resumed in the problem of establishing endogenous money and monetary interrelations with real sectoral activities. This kind of complementary relationship between money and real sectors, on which the economic sages have written (Von Mises 1981, Yeager 1997a,b), is a realization that can be feasible and sustainable within a progressive transformation of the *ummah* according to *shuratic* process.

Here are some examples. Equity-financing, joint ventures, profit-sharing, economic cooperation, foreign trade financing, leasing, choices of investments for the Islamic investors' portfolio, development of Islamic secondary financial instruments, development of an Islamic capital market and segregated markets for the grassroots and for the specific Islamic financial instruments and goods under transaction, and many more, must all be taken up in the milieu of the complementary processes of unification of knowledge in all systems of life.

Now on the one hand, resource allocation, participation, distribution and opportunities are expanded in the midst of interest-free transactions and financial instruments. On the other hand, exchange rate ceases to be an issue of monetary policy alone. It is instead jointly determined by conditions of productive linkages between the monetary sector and real economic activities. The base line of both of these sectors is made up of prices of exchangeables reflecting average costs of production. Real prices now become the determinants of rate of return. They replace interest rate as an exclusive price of money when money and real sectoral valuation become complementary in an ethically and systemically interlinked market environment (Yeager 1997a,b). Exchange rate stability is now attained in terms of a stable ratio between terms of trade and the cost of production of commodities transacted in dynamically basic-needs regimes of development.

Such perspectives of Islamic political economy are contrary to the theory of interest rate and exchange rate determination as exogenous policy instruments in the interest-bearing economy or in a system that imports the methodology of the same economic arrangement. Interest rate cannot be removed by logical market forces from an Islamic economy that imitates the macroeconomic policies and programs that remain premised on the concept of exogenous money, promissory notes carrying interest rates and banking methods based on paper money contrary to a statutory 100 per cent reserve requirement. Consequently, interest rate and exchange rate movements remain volatile as long as speculation arising from promissory notes negates the money-good linkage within a *shari'ah*-environment, wherein morally guided human possibilities are continuously evolved by the *shuratic* process.

III. The Policy-Theoretic Analysis

In order to study the developmental impact of trade flows between sectors and countries intra- and inter-regions, we have elsewhere (Choudhury, 2003) adopted two approaches. First, a time-dependent estimation of the computed socioeconomic effects on balanced trading, value-added, employment and wages was carried out. Then a *shuratic* institutional background of policy directions is incorporated in these estimates by the responses from discourse in a *shuratic* setting on issues pertaining to the problems and prospects of trade and development in OIC grouping.

We have considered the following two blocs of countries for reasons of their geographical diversity and normative possibility for Islamic integration across diverse regions in the *ummah* by virtue of a complementary linked model of economic co-operation and integration. This selection of blocs also helps us to understand the problems and prospects of future economic integration in the face of a diverse *ummah* interlocked against the realities of the capitalist globalized process. Bloc 1 comprises Pakistan, Iran and Turkey. Bloc 2 comprises Bangladesh, Malaysia and Indonesia.

III.1. Exogenous Policy Treatment

While examining the structure of commodity flows of goods between the countries in bloc 1 and bloc 2, the developmental outlook in these regions is studied in the light of the Bretton Woods institutional policies on trade liberalization and their consequential effect on macroeconomic stabilization and structural adjustment (Choudhury, 1998c). In such a theory, policy variables of the macroeconomic type, trade protection and property rights are found to be linked with the neoclassical concepts of optimal and efficient trading. Interest rate and exchange rate interrelationships are seen to be entrenched in the movements of these variables as they affect resource flows.

Interaction between the various Bretton Woods and WTO trade policies are examined in deducing the implications of such policies as neoclassical prescriptions (SESRTCIC, 1994). The important implication of marginal substitution and tradeoff among neoclassical alternatives are shown to lead to immiserizing growth for the primary resource producing economies (Alias & Choudhury 1996). The case in point here is to look at the binding WTO policy clauses on substituting industrialization and secondary manufacturing for agriculture and resource-based manufacturing diversification. Such a policy is clearly reflected in the development plans of each of the countries in the two blocs that we have examined. The consequences of such a neoclassical tradeoff in development planning are found to cause costly production menus, technological choices and debt burden.

The conclusion then is to abandon the methodology and policy prescriptions of the neoclassical and macroeconomic genre. Regretfully, these are presently being imitated by the Islamic countries. Instead, Islamic countries ought to take recourse to endogenous policies that arise from a *shuratic* process for the Muslim countries concerning trade and development and those socioeconomic matters that lie between.

III.2. Endogenous Policy Treatment

The theory of endogenous policy-making relies upon agent-specific (institutions and participants) interactive decision-making (UNDP, 1997). In this case, since market agents such as entrepreneurs, corporations and consumers are locked in continuous dialogues with the institutions and governments in making choices within a *shuratic* process, the possibility of product and risk diversifications increases monotonically with the production of knowledge through participation (Blauert & Zadek 1998).

Policies that emanate from the *shuratic* process are strongly endogenous in nature by virtue of being knowledge-induced. The common induction of both policy variables and the socioeconomic variables by knowledge-flows in the plane of unification as derived from the episteme of divine unity, makes all such variables to be interrelated in a circular causation and continuity model of unified reality (Choudhury 1994).

The policy variables on economic integration affecting development, trade, technology, monetary, financial and fiscal matters in the two regional blocs must be addressed from the Islamic viewpoints. This can now be normatively examined in the light of choices of *shari'ah*-compliant financing indexes and policies for promoting the goals. Such interactively generated policy variables are derived from discourse involving a cross-section of agents from various sectors.

III. 3. An Epistemological Study of Endogenous Policy-Institutional-Market Interaction, Integration and Creative Evolution: the Continuing Issue of Development Sustainability

The knowledge-induced endogenous policy and socioeconomic variables in our study of international trade shows that there is no escape from a certain permanently embedded trade-distortion effects of tariffs and non-tariff barriers, trade protection or otherwise. The main issue at hand instead is consensual discourse premised on interaction in agent-specific participation in reference to the trade and development issues. Such an issue forms the analytic approach to unification of knowledge that emanates from the *Tawhidi* worldview and its interpretation pertaining to the particular issues under *shuratic* discourse. When the common will of participants is established in such a discourse oriented environment under the tenets of the *shari'ah*, then the market process determines the consumption, production and distributive menus, regimes of development, transactions and sustainability in accordance with *shuratic* policies on socially friendly choices. Markets of all kinds now interact in unison as systems of social contracts that the *shuratic* process engenders within its model of social well-being.

IV. Deriving Results From The Normative Study Of *Shuratic* Process In Trade And Development

IV.1. Dynamic Coefficients Input-Output Model for Trade Reconstruction

A powerful analytical method for studying interactive and unifying linkages in the economic world by virtue of *shari'ah* instruments reflecting complementarities of interrelationships among entities is the dynamic coefficients input-output model. The input-output model is of the dynamic form in its knowledge-induced I-O coefficients due to the underlying IIE-methodology and the circular causation worldview of unified reality that is reflected in this methodology. The unraveling of this kind of worldview is manifested in the real world by complementarities among systemic entities.

Dynamic input-output coefficients are estimated in two ways: First, a quantitative model with linkages among the variables is used. Secondly, factual workshop results of a pilot *shuratic* process on trade and development issues are used to develop normative inputs for transforming the sheer time-dependent I-O coefficients that are estimated on the basis of statistical data.

To formalize the dynamic I-O coefficients in terms of the $(\theta, x(\theta))$ -values, an actual pilot project on the *shuratic* process on issues of trade and development was conducted at Khartoum, Sudan. The results of this Khartoum *Shuratic* Meeting (KSM) are given below.

IV.2. The Khartoum Experiment on *Shuratic* Process relating to Trade and Development in Islamic Countries

A pilot *shuratic* process was conducted in Khartoum (Sudan) under the auspices of selected participants from different walks of life. They comprised academics in the fields of economics, *shari'ah*, *Qur'anic* fundamental knowledge, political science, bankers and businessmen. The one-day intensive workshop, hereafter called the Khartoum *shuratic* Meeting (KSM), was organized on the behest of the Institute of Islamization of Knowledge, the University of Gezira in Wad Madani, Sudan and was held at the Khartoum Hilton on November 18.

The principal objective of KSM was to experiment on the viability of *shuratic* process as groundwork to collectively evaluate critical policies, programs and make decisions after investigating various interrelationships among *shuratic* entities on a scientific scale by using *shari'ah* instruments and rules (*ahkam*). The conduct of the *shuratic* process was also to be tested as a decentralized and free forum for discourse on issues by using the methodology of unity of knowledge reflected by the principle of complementarities among the entities. Thus the test was for the KSM to evolve and endorse, out of such free and vehement discourse, the end result of discerning, promoting and establishing rules that promote complementarities among a diversity of *shari'ah*-possibilities. This is a strong perspective of unification of knowledge in the light of the fundamental epistemology of divine unity. The approach is thoroughly contrary to the entire methodological perspective of non-Islamic worldview premised, as it always has been, on marginalism (tradeoff by competition and individualism).

Sudan was chosen as the venue of the *shuratic* meeting because of the successful experience of her Islamic banking system and the gradual Islamization of the Sudanese economy over the years. Khartoum was chosen as our place for the KSM because of the availability of many learned scholars in the field of Islamic jurisprudence and Islamization of knowledge who could discourse the issues at hand freely without inhibition in the open Sudanese society. Sudan is a rare country that has boldly launched free and healthy debates among her citizens to consider her full transformation into an Islamic State with the *shura* as a central engine of decision-making at all echelons. The result of the choice was highly rewarding and the results of the intensive one-day workshop greatly contributed to our understanding of *shuratic* process as the Islamic medium of understanding unity of knowledge in a broad perspective. Within this, participation was understood as an intrinsic process of comprehending and deriving rules from the perceived complementarities among agents (interaction and consensus) and among the critical variables and objectives of the problem of Islamic economic integration.

The active participation in KSM among the members across diverse sets of issues ranging from conceptual foundations of the *shuratic* process, the Islamic theory of knowledge and its viability in studying diverse interactions between trade and development matters in the Islamic World, were vigorously debated and discussed among the participants. The result was development of a near consensus on the proper directions to be adopted to address the aspirations of these *shuratic* members for the *ummah* in the years to come.

The realities of capitalist globalization and the impact of international development and financial organizations together with what some members perceived as the political onslaught of the West against Muslim countries were taken into considerations. Most importantly it was felt that the existing predicaments of Islamic economic integration in the face of a lack of political will among Muslim nations foment a future Islamic economic integration have led to a sense of alarm on this topic for the near future. Notwithstanding, the common aspiration for a better Islamic World remained unique among all members.

While debating the issues on trade and development, a guided discourse, monitored by the author here, was maintained, so as to gear the *shuratic* process toward recognizing how complementarities among the selected variables and their relations can be derived. Here specific Islamic financing instruments were considered in the complementing process of a future normative perspective of economic integration among Islamic countries.

The following approach was adopted in the conduct of the *shuratic* process in KSM (video-taped): The workshop commenced with a brief deliberation on the idea, philosophy and nature of the *shuratic* process as it relates to the theory of knowledge in Islam. The central focus here was to present the *shuratic* idea as a methodology and a worldview that remains intrinsic in every socio-scientific problem. Hence the *shura* is not to be conceived narrowly as a political process or organizational behavior in Islamic institutions and decision-making. Rather it overarches into the domain of hidden interaction in every human and non-human order, albeit that all such hidden processes are unveiled by the derivation and perpetuation of knowledge through human intervention in the *shuratic* process. When understood as such a worldview, the *shuratic* process can be effectively applied to issues of economic integration in Islamic perspective. We do not develop the idea of *tasbih* as moral consciousness in conjunction with the *shura*. But this phenomenology is a highly substantive issue in the *Tawhidi* worldview. See (Choudhury, 2006).

Our objective of gathering normative responses on the aspired future state of the *ummah* was modeled. Contrarily, without such a normative input to a futuristic structure of *ummatic* transformation, existing data cannot be extrapolated to configure that change. Thus the importance of normative input in information gathering is evolved out of the *shuratic* process to be fed into a dynamic input-output analysis of trade and development in the *ummah*.

V. Synthesizing The Results Of The Khartoum *Shuratic* Meeting

The passage toward attaining this kind of self-reliance and independence was pointed out to be a reformulation of political will and a great deal of linkages among institutions, financing and development policies, programs and sectors. Such linkages are found to be seriously lacking at the present time.

It was also pointed out that product and risk diversification was presently lacking but essential toward realizing the direction of development that could generate economic stabilization, debt management and well-being among the Muslim countries. Such an *ummatic* future was uniquely pointed out to be the *dynamic* basic-needs regime of development, as defined in this paper.

In the end, we have taken the path of *dynamic* basic-needs regime of development as the convergent prescription from which to learn on the future of trade and development in the *ummah*. Around this focus are to revolve the issues of *shari'ah* modes of

financing and development of extensive coordination and cooperation as signs of policy, institutional, instrumental and sectoral linkages at all levels.

It is evident that in an age of globalization and its engine of privatization, there is ample scope for the private sector and entrepreneurs, including the Islamic sub-nation of the Muslim World, to play a greater role in socioeconomic development and resource mobilization. Such an entrepreneurial transformation of the *ummah* can overcome the existing political lethargy by passing over economic power to the Islamic grassroots. Subsequently, market, sectoral and institutional linkages primarily with *musharakah*, *murabaha* (mark-up in foreign trade financing) and *mudarabah* instruments can evolve in reinforcing the direction of trade and development. Appropriate technological change within the purview of product and risk diversification would then be taken up through the progress of such extending linkages. Economic stabilization, debt control, cost minimization in joint ventures and the terms of trade of the dynamically transformed basic needs into manufactures, can then be forthcoming. These are signs of a complementary process of transformation, wherein trade and development get intertwined. The *shuratic* process in its extended sense is now used to realize such an objective criterion of well-being for Islamic future.

In the midst of the entrepreneurial perspective of *ummatic* globalization, Governments become joint venturists with the Islamic private sector and markets. Being so, market forces prevail over undue policing by governments. The private sectoral transformation of this nature endogenizes Islamic values through market process and various instruments, promoting linkages. Macroeconomic policing but with a microenterprise basis to it and dissemination of information and knowledge for proper guidance of Islamic transformation are important.

The *shuratic* process practiced at the entrepreneurial level used for developing extensive linkages among all kinds of possibilities now becomes a model of participatory democracy. The very linkages generated and mobilized by coordination and co-operation become ways of realizing the epistemological roots of unity of knowledge both among participants and among the variables and their relations pertaining to specific issues under discourse.

VI. Formalizing The Dynamic Input-Output Coefficients Model Of Trade And Development With The Ksm Results

Incorporating the above-mentioned factors emerging from the KSM questionnaire in the trade-related input-output coefficient defines the dynamic version of such input-output coefficients b_{ij} , with $i, j = 1, 2, \dots, n$ sectors (or countries) (not shown, for details see Choudhury, 2003).

$$b_{ij} = T_{ij}(\theta)/T_j(\theta), \quad (1)$$

$$\text{with, } T_{ij} = T_{ij}(Q, p, t, D, P)[\theta], \quad (2)$$

where, Q denotes the GDP arising from a dynamic basic needs regime of development,

p denotes price level for commodities in such a dynamic basic needs choice,

t denotes terms of trade arising from interconnected markets through *shuratic* linkages,

D denotes debt management arising from the choice of dynamic basic needs regime of development,

T_{ij} is inter-country export in the case of better trade relations between Muslim countries,

P denotes a vector of policy variables, say $\{P_i\}$, such as *mudarabah*, *musharakah* and *murabaha* that promote coordination and co-operation through extensive linkages,.

The appearance of θ inside the [.] bracket means that each of the variables within the bracket (.) is qualified by the *shuratic* evolution of the variables through discourse affecting decisions and variables in modes of linkages.

The transformation issue of the *ummah* based on the above variables as brought out by KSM means the study of changes in b_{ij} as a result of changes in θ -values reflecting factors as derived from KSM questionnaire. Note that our emphasis is not on mere time-variation of the coefficient, for this by itself is not found to yield the desired transformation to the *ummah* in the near future. On the contrary, dependence on θ -values means the importance of the learning and unifying eosteme of the *shuratic* process in Islamic transformation involving trade and development.

The dynamic input-output coefficients in the normative sense can be estimated by first determining the ordinal θ -values associated with a given regime of trade and development as described by expression (2) in the midst of a *shuratic* process on trade and development. However, the dynamic adaptive features of the input-output coefficients are formalized as follows:

$$db_{ij}(\theta)/b_{ij}(\theta_-) = g(T_{ij}) - g(T_j) = A(\theta_+). \quad (3)$$

As a growth rate differential, expression (3) implies a positive fraction under the normative assumption of increasing effectiveness of inter-country (hence inter-sectoral) linkages in response to *shuratic* discourse on improving trade and development relations.

$$\text{Thus, } g(T_{ij}(\theta_+)) = dT_{ij}(\theta_+)/T_{ij}(\theta_+); \quad g(T_j(\theta_+)) = dT_j(\theta_+)/T_j(\theta_+); \quad i, j = 1, 2, \dots, n. \quad (4)$$

The adaptive expression for b_{ij} is obtained by,

$$b_{ij}(\theta_+) = b_{ij}(\theta_-)/(1 - A(\theta_+)) \quad (5)$$

By the n th. iteration of the adaptive process of expression (5), we would obtain,

$$b_{ij}(\theta_{n+}) = b_{ij}(\theta_{-}) / \prod_{i=1}^n (1 - A(\theta_{i+})) \quad (6)$$

Furthermore, if *shuratic* discourse leads to dynamic consensus over issues of trade and development, as this was found to be the case within KSM, then $\lim (\theta_{i+}) = \theta^*$, within a given range of interaction, say n , leading to integration (consensus) in θ^* . Thereby,

$$T_{ij} = T_{ij}(Q,p,t,D,P)[\theta]$$

over sequences of evolution of the *shuratic* process. In this case, expression (6) results in,

$$b_{ij}(\theta^*) = b_{ij}(\theta_{-}) / (1 - A(\theta^*))^n, \quad (7)$$

with n itself changing over ranges of interaction, integration and creative evolution as the unique IIE-feature of the *shuratic* process. Thereby, over evolving ranges of such IIE-stages we come up with different values for the consensual $\{\theta^*\}$.

Expression (7) can be re-written differently. For this we assume that there is an average $A(\theta)$ -value, say $A(\theta)/n$, resulting from all possible interaction, that is, now for $n \rightarrow \infty$, the *shuratic* process arrives at a convergent knowledge value, say θ^* (without changing the symbol). The corresponding $a(\theta^*)$ -value is $A(\theta^*)/n$. We now re-write expression (7) as,

$$b_{ij}(\theta^*) = \lim (n \rightarrow \infty) [b_{ij}(\theta_{-}) / (1 - A(\theta^*)/n)^n] = b_{ij}(\theta_{-}) \cdot e^{A(\theta^*)}. \quad (8)$$

Under normative assumptions in expression (8), since $b_{ij}(\theta^*)$ should reflect growing trading and sectoral linkages, $A(\theta^*)$ would minimally attain a value of zero. This makes $b_{ij}(\theta^*) = b_{ij}(\theta_{-})$, where $b_{ij}(\theta_{-})$ indicates the value as given by the time-dependent estimates of the input-output under reconstructed scenarios. Detailed empirical computations are not given in this paper.

Expression (7) implies that as $A(\theta^*)$ increases under the force of increasing $\{\theta\}$ -values converging to the long-run average value, θ^* , greater degrees of linkages are generated progressively. This is a reinforcing sign of *shuratic* effectiveness premised on unity of knowledge. Such effectiveness is reflected in complementarities, diversification and linkages among (i,j) . Consequently, better linkages are conveyed by $b_{ij}(\theta^*)$ upon starting from $b_{ij}(\theta_{-})$.

In all of the above variants of formulating $b_{ij}(\theta_{+})$, note that $b_{ij}(\theta_{-})$'s can be set at their empirical values as estimated by time-dynamic input-output coefficients (not shown here). The rest of the forward moving variables are discoursed in the extended meaning of the *shuratic* process as the medium of discovering intrinsic linkages for attaining complementarities and diversification among *shari'ah*-based possibilities.

We also note that in each of the above cases of $b_{ij}(\theta_{+})$, with the progressive evolution of a *shuratic* process, the following conditions will necessarily hold:

$$\prod_{i=1}^n (1 - A(\theta_{i+})) < 1 \text{ or } (1 - A(\theta^*))^n < 1, \quad (9)$$

over evolutionary values of θ .

Hence, $b_{ij}(\theta_{n+})$ or $b_{ij}(\theta^*)$, respectively, will be monotonic increasing functions of $\{\theta_{n+}\}$ -values or $\{\theta^*\}$ -values, respectively. This also implies that inter-sectoral, inter-country and other kinds of linkages that are represented by $T_{ij}(i,j=1,2,\dots)$ and its functional variables on trade and development, are improving. Establishing such linkages is a principal objective of the *shuratic* process in the light of its unifying and complementary objective.

In the above expressions a list of *shuratic* normative implications are combined with the possibility for empirical estimation. The normative implications are yielded by θ -values that are generated in the *shuratic* process by ordinal assignments in view of the emerging regimes of expression (2). The empirical values are the causally related trade values during the process of *ummic* transformation.

VI.1. Economic Analysis of the Normative Estimates of I-O Coefficients and Export Flows

In our empirical economic analysis of the time-dependent input-output coefficients and trade flows we noted the problem of unbalanced trading between member countries of the two selected blocs of countries. The concept of balanced trade (hence unbalanced trade) was shown to be that which maximizes inter-country trade flows so as to make the export and import values in this respect close to each other.

The percentage changes in inter-country export flows between time-dependent and normative estimates for 1995-2000 and average annual values for this period. It is clear from these estimates that the much higher levels of export flows from countries like Pakistan to Iran and Bangladesh to Indonesia will need substantial re-alignment on various fronts including institutional

restructuring, policy and program coordination affecting trade, enhancement in economic growth and development. These are factors that cannot be included in the time-dependent estimates for reasons as explained earlier.

In the light of the normative responses of the Khartoum *Shuratic* Meeting on trade and development issues facing the Muslim World, it is evident that the expectations of the Muslim World would be far beyond the present state of affairs. These would range from the gamut of political changes and re-alignment of trade and development issues, policies and programs. In view of the powerful institution and process of *shuratic* discourse the high percentage growth of trade among the disadvantaged countries (particularly Bangladesh and Pakistan) can be realized through development co-operation in the context of the *shuratic* process. Such kinds of institutional induction keeping in view the natural process of emergence of market forces and the appropriateness of the factors such as appropriate technological change, pricing, risk and product diversification, sectoral linkages, human resource development configure the knowledge-inducing augmentation. Assignment of values to the knowledge-inducing variable is therefore only through the normative source of *shuratic* discourse that leads to changes in the structural parameters of economic, social and political life. Such knowledge-flows can be assigned ordinal values in accordance with the dynamic regimes of consensus gained within *shuratic* processes.

Consequently, while the *shuratic* process drives the momentum of structural change, in turn within the regimes of consensus gained in evolutionary planes of knowledge formation the *shuratic* process itself is driven by the realities of the structural change that it enhances. A circular process of structural change and its interrelationship with the *shuratic* process is thus generated. This is also of the essence of the IIE-model that we have identified with the *shuratic* process.

On combining the observations from the questionnaire responses with the results of normative input-output analysis we arrived at policy perspectives given below. The questionnaire responses followed by their use in normative input-output analysis implicate the need for serious rethinking on the new paradigm of complementarities between trade and development together. These must spring from the indigenous forces of the Muslim World and remain cautiously insulated from the capitalist globalization process.

VII. Policy Conclusion

Through our presentation of the methodology of the *shuratic* process relating to trade and development for *ummatic* transformation along with its ramification by the KSM, we have come full circle now to conclude on the policies that must be adopted to realize such a transformation. While this intellectual and institutional project has always been in view of the Organization of Islamic Conference for sometime now, this paper concludes that the realization and sustainability of that project as a reality reside on a normative model of institutional and policy constructs of a substantive nature that require extensive changes (Choudhury, 1999). This paper has offered a central venue for that transformation to lie in trade, money, technology and development in the Islamic World.

We now go on to chart the way toward those policy and institutional construction that would be required for realizing the *ummatic* transformation.

1. In the light of the KSM deliberations we have deduced that the OIC with its membership is to galvanize the intellectual minds, practitioners and governments to establish a think tank or center/institute enabling discourse on the ways and means of putting into action a human resource program that would develop the pragmatic understanding of the *shuratic* process of decision-making and put that into action, as normatively explained in this paper.

2. The Human Resource Development Center on the understanding and application of the *shuratic* process methodology for *ummatic* change in all fronts but with a focus on the interactive and unifying dynamic relations between trade, development and real money must be signified. This calls for a policy to get the banking systems of the Muslim World to enact a program that will incrementally change the existing banking relations based on fractional reserve requirements into a 100-percent reserve requirement monetary system with the gold standard. This monetary policy change calls for a program of establishing a monetary system that looks at the function of money in terms of its direct relationship with real economic transactions. Thus all the asset valuation methods are to be changed into this kind of forward relationship of the real linkages. Trade and development are then automatically linked up with the use of endogenous money in promoting merchandise trade and capital that have linkages directly with real sectoral activities rather than with speculative portfolio investments (Choudhury & Hoque, 2004).

3. The banking community along with the national decision-makers and Muslim intellectuals are to assign a program promoting linkages between money and the real economic sectors and markets within the Muslim World over a stipulated period of time, within which a reasonable transformation into the endogenous monetary system with 100-percent reserve requirement monetary system would be progressing. During this process of change growing linkages between effective sectors and activities should be subjected to the trading and developmental patterns on the basis of the on-going monetary transformation.

4. We should then be contemplating a regional trading bloc of the Muslim countries that would ultimately enact a common monetary transformation based on 100-percent reserve requirement with the gold standard. This would cause the exchange rates and the common tariff value of the Islamic customs union to be based on the economic and social productivity of the commonly integrating economies and in view of their resource endowments. Thus the exchange-rate setting in such a case of 100-percent reserve requirement monetary system would be converted into a productivity driven indicator rather than be determined by a monetary policy as the latter is conventionally treated exogenously to affect exchange-rate and interest-rate mechanisms.

5. Exchange-rate setting and common tariff policy of the progressively integrating Muslim customs union would automatically have to think of a common tariff on the imports from outside this bloc. A two-tier pricing is automatically generated in the hope that this change will cause improving terms-of-trade of the commodities and manufactures of the Muslim World. This is possible as is well known that the effect of customs union could be to increase the producer surplus of the importing countries and the exporting countries within the economic bloc by utilizing the tariff revenue in favor of consumer and producer surpluses. These revenues are then recycled into development projects, contributing thus to the common well-being of the *ummah* in which the complementary effect of the two-tier pricing would act in favor of both the consumers and the producers simultaneously. This is a sign of the complementary nature of relations between economic growth, efficiency and distributive equity that is so much emphasized in the sustainability concept of the *shuratic* model of trade and economic development.

6. In view of the existing agricultural predominance of the Muslim World but having also a viable intermediate manufacturing technology, a Center of Intermediate Technology Transformation needs to be established for the Muslim World's *ummatic* transformation. Its task would be to conduct research and development with effective applications of the results in the social use of appropriate technology. An important area to focus on in this front would be to look at the complementary sectoral model of dynamic basic needs regime of development that was presented in this paper and reinforced at the KSM. As explained, a *dynamic basic-needs regime* of development means a growing linkage model between the sectoral inputs and outputs of the agricultural and manufacturing/service sectors that bring about all-round development benefits at the grassroots but links the grassroots with the mainstream sectors within the framework of creating effective rural-urban linkages a la the *shuratic* process.

7. Islamic banks, other banks and financing development intermediaries in concert with the national planning departments would now establish programs to jointly fund such complementary projects as an accepted focus of trade and development in the Muslim World. The Islamic Development Bank, the Islamic Chamber of Commerce and the Statistical, Economic and Social Research and Training Center for Islamic Countries (SESRTCIC) must together enable the development of such linkage programs. Such programs for developing and executing complementary projects should aim at vitalizing the private sector in co-ordination with the public sector and governments toward facilitating such developments that build on programs of linkages along lines of the dynamic basic needs of development. That is the practical overtone of the *shuratic* process in trade and development through the process of linkages between endogenous money and real sectoral activities. This was enhanced at the KSM.

8. The dynamic basic-needs regimes of development would automatically define the trade patterns of the Muslim bloc. This kind of *dynamic basic-needs regime* vis-à-vis its linked manufacturing/service sectors would be a good sign in capturing today's global trend towards green industry and to keep the gaze of technological transformation on its appropriateness in this age of ecological revolution (Korten, 1990). The commodity sector would then realize improving terms of trade, which is an important pre-condition in establishing the complementary relations between economic efficiency with distributive equity and between trade and development with the 100 percent use of money on real economic activities.

9. The financing modes of the Islamic transformation process must of course be based on co-operative joint ventures. *Mudarabah* and *Musharakah* (M&M) instruments cannot remain simply as the financing instruments for specific project financing as they presently are. Rather, their broader meaning and effectiveness are to be realized within the foundational meaning of Islamic socioeconomic co-operation. M&M must thus be changed into policy instruments by the financial sector in concert with the central and commercial banks and the planning departments of members of the OIC. The same M&M instruments would determine the co-operative character of all other Islamic trade instruments and secondary financial instruments. This transformation can be realized through the use of 100-percent reserve requirement in determining the productivity driven values of exchange rates and common tariffs as mentioned earlier. Such a computation was mentioned in this paper.

10. In every area of institutional and policy change recommended above the OIC with her sister organizations such as the IDB together with the Islamic Research and Training Institute, Islamic Chamber of Commerce, SESRTCIC must play a catalytic role in collaboration with the governments, private sectors and development financing organizations of the OIC membership. The *shuratic* process model of *ummatic* change must become the human resource foundation (epistemology) for the progressive *ummatic* transformation as charted above. The progress of the Islamic transformation in the years to come would then see the effective interactive, integrative and dynamic evolution of the echelons of linked *shuras* and their complementary relations in terms of policies, programs and economic transactions on all fronts. This is the essence of the complementary *shuras* of the *ummah*. The OIC would then need to become the *ummatic* governing *shura* that circularly connects with the hierarchies of micro-*shuras* through feedback.

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