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EVOLUTIONARY LEARNING ORGANIZATION IN A SYSTEM ORIENTATION OF ETHICO- ECONOMICS

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Abstract. A new theory of learning organization bordering evolutionary economics and management is introduced. It is referred to as evolutionary learning organizational theory of behavior, decision-making, and goals of wellbeing in the larger context of the organization in a systemic sense of organic relations. The structure, functions, and analytical features of such an organization are studied in the context of an epistemological approach in order to lay down the inherent theory. This leads to a mathematical and rigorous explanation of the theory in a comparative and contrasting light with other contributions on learning organizations. The exemplification of the unique theory of evolutionary learning organization is found to exist in Islamic epistemological context. The study then is made for this particular case within a generalized system model of wellbeing for decision-making of the firm that over-arches-intra-system and inter-systems at large.

Keywords: Evolutionary epistemology, economics and organization, learning organization, comparative organizational behavior.

Objective

What is an evolutionary learning organization? We will explain this concept and its modeled dynamics by invoking the paradigm of integrated and unified decision-making between the ethical and economic parts of organizational management. The resulting model takes up an epistemological and systemic form. It fringes on the borders of analytical configuration with intellection in the domain of philosophy of science and mathematical formalism. Though some existing paradigms, mainly of Karl Popper (1988), Jackson (1993), George Soros (2000), Edel (1970), and Choudhury (2004) are used to model the ethico-economic form of evolutionary learning organization, the focus here is on a critical examination of several of such works.

The objective of this paper is thus to render an alternative model of evolutionary learning in the framework of the epistemology of integrated and unified decision-making, its postulates, and potential application within an institutional framework. The example of the alternative model of evolutionary learning organization is explained for the Islamic case of organization behavior.

The review of the literature is embedded in the discursive text. No separate section is allocated for this.

Some definitions

Some definitions commence our short journey. These are of (i) evolutionary learning; (ii) the objective criterion, namely of wellbeing, representing the

institutional ethico-economic worldview; (iii) the nature of unity of knowledge that underlies the idea of integrated decision-making.

Evolutionary learning (i)

In the tradition of Simon (1960) and Jackson (op cit) evolutionary learning models are based on rational economic behavior of maximizing objective criterion functions under bounded, limited, or incomplete rationality caused by incompleteness of knowledge. While these are commendable approaches in the study of management and organization behavior, the implication of optimization leaves the approach and the methodology to rely on certain completeness of knowledge. Any evolution from a given stage of knowledge to another requires injection of resources and innovation. Yet such implements are exogenously introduced into the model of the underlying bounded rationality. Technology and innovation in such models have for long now remained exogenously driven, not endogenously regenerated within the learning systemic fold of cause and effect. Consequently, in models of the exogenous nature of innovation and technology creative evolution comes to an end due to the consequences of the maximization objective, assumption of the existence of optimality of resource allocation, and the steady-state nature of equilibrium. These prevail even when the models of Simon's type relating to models of man (Simon, 1957) are carried over and changed over time. That is because unlike Simon's implications, time is never an input of the production function of any kind. Time is treated always as an independent variable connected with change. Yet time in such a case cannot be the cause of change; just only the momentary recorder of change.

Instead, knowledge causes the cause and effect interface in endogenous sequences of innovative change and learning out of these. Thus evolutionary learning is a concept of continuity between deductive and inductive reasoning, and of change; a methodology to describe the history of technological change by means of the inter-causality between the critical variables. In as far as such a definition of evolutionary learning implicating technological change and innovation is strictly and continuously endogenous in nature (Shakun, 1988; Romer, 1986), it denies acceptance of the neoclassical idea of exogenous technological effects, a point emphasized by Shackle (1971).

On the other hand, Myrdal (1958) and Schumpeter's (Gaffard, 2009) innovation theory in economic development being a study of cross-cultural social dynamics interactively mixed with economic factors are better representations of endogenous development models. They explain the role that technology and innovation can play in extending the range of stable and sustainable growth with price stability, and increased output and employment. The organization embedded in such an evolutionary learning behavior of the economy at large transforms by the participatory nature of decision making between institutional members and the wider interactive network. The critical variables inherent in the ethico-economic cross-cultural and social choices of the total decision-making framework of the organization are themselves interactively relational in nature due to the epistemology of unity of knowledge implying pervasive complementarities between all relational entities. This phenomenon remains continuous and never ending in the evolutionary

learning behavior of organizations that perpetually sustain themselves with innovation, technology, and unifying linkages between the critical variables.

Wellbeing criterion (ii)

The sustained evolutionary learning process with its objectivity of interactive social and economic relational becoming establishes the relational idea of organic unity between the diverse variables and entities in decision-making. The wellbeing function now becomes the objective criterion of unity of knowledge as its epistemology in the context of relational form of evolutionary learning *ad infinitum*. The resources of such a large system of organic relations in extensive complementarities between the critical variables are forever regenerated.

The same idea of evolutionary learning can be equally applied, as per the symmetrical methodology, to negative learning. Positive and negative learning are like dialectics as defined by Adorno (2007, p. 5-6): «Dialectics is the consistent sense of nonidentity...that whatever happens to come into the dialectical mill will be reduced to the merely logical form of contradiction... What we differentiate will appear divergent, dissonant, negative for just as long as the structure of our consciousness obliges it to strive for unity: as long as its demand for totality will be its measure for whatever is not identical with it. This is what dialectics holds up to our consciousness as a contradiction».

According to such explanation of consciousness in the two forms of knowledge as unity between the selected variables of the wellbeing model of unity of knowledge and the contradictory model of 'de-knowledge' with its own unity but differentiated from knowledge, the contrariness is proven by the self-same model of evaluation. Examples from the world of learning organization are those of social choices along with private objectives to attain on the one hand; and the organizations of self-interest and maximizing behavior of private profit-making. Kim and Mauborgne (2005) categorize such opposite organizations by the example of blue ocean strategy (social extensions formed by networking and participation) and red ocean strategy (self-centered competing and maximizing behavior).

The fact that the evolutionary learning sustainability of the wellbeing function in unity of knowledge of the networked organization between ethical, economic, social decision-making overarches into embedded domains, uses a substantive meaning of endogenous innovation and technological change. The different effects of endogenous as opposed to exogenous effects in the wellbeing objective of these opposite kinds of organizations can now be formalized.

The analytical nature of endogenous opposed to exogenous effects in a firm's production function (iii)

The firm as an organization with objective of wellbeing to incorporate shareholder's interest combined with community interest is the example of evolutionary learning organization. In such multidimensional pursuit of the two interrelated objectives between shareholders and the community, evolutionary is incessant and continuous intra-system (firm) and intra-system (community). The wellbeing function of stakeholding now replaces the limited financial formula of

maximization of shareholders' wealth; and thus of the valuation of the firm in terms of such maximum shareholders wealth (Lozano, 2000, 2002).

Let the wellbeing function be denoted by the firm's production function in endogenous value that represents cross cultural, social and ethico-economic, ethically induced innovation and technology norms, altogether denoted by θ -parametric value as consciousness. This is denoted by,

$$Y = F(K, L)[\theta], \quad (1)$$

where Y denotes output;

K denotes capital stock as factor input;

L denotes labour input as factor input.

Each of all these variables is induced by knowledge to denote evolutionary learning.

Consequently, the production function denoted by (1) loses all its properties of neoclassical model of optimization, steady-state equilibrium, tradeoff between labor and capital, and resource scarcity. We thereby reformulate the production function in the following way with its explanation:

Y increases as a result of learning (θ_l) with L . By the endogenous relationship between all the variables we write the capital stock relationship by,

$$K = K(\theta_2, L(\theta_l)). \quad (2)$$

Likewise, it is true of L in terms of K ,

$$\text{i.e. } L = L(\theta_l, K(\theta_2)). \quad (3)$$

$$\text{Thereby, } Y = F(\theta_l, \theta_2, K(\theta_2), L(\theta_l)) \quad (4)$$

$$\text{Also, } \theta_l = f_1(\theta_2, K(\theta_2), L(\theta_l)); \quad (5)$$

$$\theta_2 = f_2((\theta_l, K(\theta_2), L(\theta_l))). \quad (6)$$

In this form of the endogenous growth model, the neoclassical properties are annulled.

Besides, the induction of the variables by (θ_l, θ_2) introduces ethical, social, and discursive social, economic, policy and institutional impacts on the resource allocation rules. This creates learning dynamics continuously along with changes in (θ_l, θ_2) as signals of the gambit of interrelationships in the decision-making processes. Thus every point of the neoclassical kind of production possibility surface has turned into perturbations caused by evolutionary learning intra-system and inter-systems. The concave to the origin production possibility surface does not exist. Besides, this being a continuous phenomenon by evolutionary learning, therefore, both the neoclassical property of steady-state equilibriums and their long-run global property cannot exist. Hicks (1979) had pointed out this problem of neoclassical

equilibriums. Finally, no marginal substitution formula can exist in such a case of evolutionary learning.

A generalized form of the structure and functions of evolutionary learning organization

Generalization of the above formalism is now carried over to show how the confluence of the above-mentioned three components of decision-making in evolutionary learning organization is brought to bear on the supra-organizational structure. Here is that multidimensional problem; but by no means a closed optimization problem. That is because of the openness of the increasing set of influencing variables, and thereby, the widening and deepening extant of the complementarities between the knowledge-induced variables. The example of the underlying organization is a participatory Islamic enterprise (Choudhury & Hoque, 2006). Its features, structure, functions, and objectives align with the same kind of generalized formalism governed by the episteme of unity of knowledge.

For an experimental set we define the following vector of variables:

$$\mathbf{x}(\theta) = \{x_1, x_2, x_3, x_4, x_5, x_6, y_1, y_2, y_3, y_4, p_1, p_2, p_3, p_4, p_5\}[\theta], \quad (7)$$

where, $[\theta]$ - induction of each and all of the variables within $\{\dots\}$;

x_1 - denotes employed labor force in the cooperative enterprises making up the Islamic organizational structure;

x_2 - denotes capital employed as complementary factor to x_1 in the Islamic organizational structure;

x_3 - denotes output of the Islamic organization in accordance with the objective and purpose of the Islamic law, known as *maqasid as-shari'ah*;

x_4 - denotes profits of the Islamic producing organization in accordance with *maqasid as-shari'ah*, keeping in view its actualization out of a participatory nature of the organization;

x_5 - denotes shareholders' wealth for safeguarding and enhancing productive activities in accordance with *maqasid as-shari'ah*. This variable includes the technological and innovation effects in the light of the knowledge-induced objective, that is, induction by the knowledge parameter $\{\theta\}$, as shown earlier;

x_6 - denotes equitable distribution of the organization's productive resources, which are distributed in a participatory venue of joint production;

y_1 - denotes financing instrument of profit-sharing. In Islamic finance this is referred to as *mudarabah*;

y_2 - denotes financing instrument of equity-participation. In Islamic financing this is referred to as *musharakah*;

y_3 - denotes the financing instrument of mark-up pricing in traded goods over time. It is referred to as *murabaha*;

y_4 - denotes *shari'ah*-compliant financing instruments (Rosly, 2005);

p_1 - denotes policy variable or rule abstraction pertaining to inter-agency participation by discursive learning. Such discursive experience also seeks to find possibilities for complementarities between the members of $\mathbf{x}(\theta)$ - vector;

p_2 - denotes number (ratio) of cooperative enterprises existing in inter-firm network;

p_3 - denotes number (ratio) of cooperative enterprises existing in intersectoral linkages;

p_4 - denotes human resource development expenditure along lines of deepening the understanding and application of *maqasid as-shari'ah* in respect of organizational choices;

p_5 - denotes extent of transparency and disclosure in firm's accounts, investment financing, and shareholders' profitability.

These variables are further extended by discourse and selection of variables in accordance with the *maqasid as-shari'ah*.

The knowledge induction by θ -values appear in all the variables. Such knowledge-induction of the variables means that, they are selected and instruments diversified in the light of pervasively discursive medium of knowledge formation across evolutionary learning processes. Each process of evolutionary learning commences with, and carries through, the phenomenology of unity of knowledge and its diverse ways of implementation in practical matters both internal to the firm and in relation to the wider field of inter-communal interaction as well as the wider field of valuation of wellbeing.

The social wellbeing criterion of the corporation

The principal objective of the Islamic organization is serving the *maqasid as-shari'ah*. Matters of profitability, growth, shareholding, output, distribution, and social issues are taken up within this gamut of goals, even as learning proceeds on. The formalism to evaluate this kind of complementary linkages arising from the roots of conscious oneness is done by the wellbeing function for the public purpose. This equivalence of social choice concept in Islamic terminology is called *al-maslaha-wal-istihsan* that is wellbeing for the public purpose (Masud, 1995). The emergent wellbeing function is then seen as the objective criterion to measure the degree of simulated unity of knowledge in the organizational system and its inter-systemic complementarities realized by the implements of evolutionary learning in unity of knowledge. Such a transformation is actualized by the immanent organic unity between the diverse intra-system and inter-systems variables in accordance with *maqasid as-shari'ah*.

A combination of the above-mentioned characteristics of the wellbeing function, $W(\mathbf{x}(\theta))$, yields the formal evaluative model. This is written in the generalized case of *maslaha* functions,

$$\text{Simulate } \theta W(\mathbf{x}(\theta)) \quad (8)$$

Subject to the organic inter-causal relations of inter-variable complementarities:

$$z_i = f_i(\theta, \mathbf{z}_i)[\theta], \text{ where } i \neq i' = 1, 2, \dots, 14 \quad (9)$$

$$\theta = f(\mathbf{z}(\theta)) \quad (10)$$

A particular form of the non-linear and endogenously interrelated wellbeing function system in the variables of vector (1) is the following one:

$$W(\mathbf{x}(\theta)) = A(\theta) \cdot \prod_i x_i^{a_i} \quad (11)$$

$$x_i = A_i(\theta) \cdot \prod_{i'=1}^{14} x_{i'}^{a_{i'}^{ai}}, \quad (12)$$

$$\theta = B(\theta) \cdot \prod_{i=1}^{15} x_i^{a_i} \quad (13)$$

How the evolutionary learning parameters of knowledge-flows $\{\theta\}$ are measured?

Two ways, namely the empirical way and the discursive way, are combined to determine estimates of the θ -values in terms of ranking them by reference to the selected *maqasid* variables. These are the good choices realized by the organizational decision-making in the wellbeing function. One can think of assigning the value 10 to the best state of the selected variable within its own column of observations. The rest of the column variables in choice can be prorated to accept resulting levels of θ -values. Following a similar kind of θ -determination for every column of selected variables, the generated θ -values are then averaged across the variables for given time-duration (or any other reference for the observations).

Once such average θ -values prorated across variables for specific time frame (or by similar reference) are generated the table is completed for the $x(\theta)$ -variables and θ -values. The estimation of the whole system of equations (8)-(10) or equivalently of (11)-(13) can be completed by doing estimation and simulation of coefficients and the predictors of the $x(\theta)$ -variables in these structural regression forms.

It is noted that, expressions (11) and (13) are monotonically related, as they are 'similar' functions. We note that, expression (11) and its general type expression (8) provide theoretical constructs of the meaning of the wellbeing objective in unity of knowledge and pervasive complementarities between the $x(\theta)$ -variables. Expressions (10) and (13) are the empirical version of expression (8) and (11), respectively. Therefore, there is no need for independently estimating and simulating expressions (8) and (11) once the systems (9)-(10) or (12)-(13) are estimated, respectively. Such a method evaluating inter-variable recursive interrelationship in order to gain complementarities out of weak ones or absence of complementarities in the estimated case is referred to as circular causation.

Evaluation, meaning estimation leading to simulation of the coefficients in the light of gaining better complementarities and making policy analysis of this situation, of the system (12)-(13) (likewise (9)-(10)), is now schematized in Figures 1 and 2. Also over the boxes shown is the symbolic representation of the various sequential steps that together describe the phenomenological model of unity of knowledge, which governs decision-making and the wellbeing criterion in the true Islamic organization.

Furthermore, according to the Islamic methodological worldview in the framework of unity of knowledge according to the foundational epistemological sources of Islamic thought, and thereby, organizational behavior Figure 1, presents the organizational model as an intrinsic mind-set of the Islamic organization.

In Figure 1 the following symbols are defined:

Ω denotes the super-cardinal space of *Qur'anic* knowledge,

Ω is transmitted ($\rightarrow$) into the world-system by the medium of the guidance of the Prophet Muhammad, denoted by S .

Thus we write (Ω, S) by combining these two fundamental epistemological sources.

[fundamental epistemology $\equiv$ *Unity of knowledge*]

$\Downarrow$ = called *Tawhid* in the *Qur'an* and the *Sunnah*]

Figure 1: Summary form of the phenomenological model of unity of knowledge of corporate relations

Worldly knowledge-flows denoted by $\{\theta\}$ are derived from the epistemological source of (Ω, S) .

$\{\theta\}$ - flows then construct the formalism of the organizational model. The example here is of the data and wellbeing constructs of the evolutionary learning organization shown by expressions (8) - (13).

Thereby, the evolutionary learning of the same processes continues intra-system and inter-system with similar evaluation as mentioned above.

Details of the phenomenological model of unity of knowledge applied to Islamic organization behavior are shown in Figure 2.

Preference formation in Islamic corporate relations

Figure 3 explains the structural design of the evolutionary learning organization in the example of Islamic framework to address the organization and its wellbeing objective as a complementary (participatory) nexus of ethical, economic, social and systemic organic relations. The decision-making structure in such an evolutionary learning organization needs to be formalized. To address these structural designs of organizational decision-making we define the following symbols:

Let $\{\wp_{ij}(\theta_i)\}$ denote (θ) -induced organizational preferences; ' i ' denotes a given decision-making process. ' j ' denotes j^{th} -numbered θ -induced socio-economic variables; $i = 1, 2, \dots, n$; $j = 1, 2, \dots, m$. The evolutionary learning vector of variables by knowledge-induction is denoted by, $\{\theta_i, \mathbf{x}_{ij}(\theta_i); \wp_{ij}(\theta_i)\}$. This means that interactive preferences in the milieu of organizational decision-making (i), each of these process involving j -number of simulated variables (j).

As interactions by participatory discourse continue, the result is convergence by participation, and thus pervasive complementarities, between the participating elements. Each learning process is represented by the combination of integration (consensus) of variables $(\cap_j)$ over interactions between participants $(\cup_i)$. Thus each learning process is the combinatory denoted by Process $(P_s) = [\cup_i \cap_j \{\theta_i, \mathbf{x}_{ij}(\theta_i); \wp_{ij}(\theta_i)\}]_s$. Out of these interactions (I) and integrations (I) come about evolutions (E) of knowledge-flows, systems, and agency participation. E is denoted by simulation of P_s over θ_i -values. Each of the ranked (*within* given process P_s) and

evolved (across P_s) θ_i -value is derived by continuous recalling of the Islamic epistemological foundation of unity of knowledge in the *Qur'an* and the *Sunnah*. This recalling is shown in Figure 2.

Figure 2: Schema of simulation across evolutionary learning processes of organizational behavior: the phenomenological model of unity of knowledge

Uniqueness of the Islamic evolutionary learning model of organizational behaviour

A few questions face us at the end now: Can the optimization and rationality postulates be used to create an evolutionary learning organizational behaviour as in the Islamic framework? Can the dialectical rationalist methodology of mainstream theory of organizational behaviour be used to realize the evolutionary learning organizational behaviour as in the Islamic framework? Otherwise, what perspectives differentiate the

Islamic epistemological methodology of evolutionary learning organizational behaviour from the other ones?

Note: $U_i \cap \mathcal{X}_{ij} [\theta_{ij}] = \mathcal{X}(\theta^*)$ is formed by interaction, and dynamic evolution through the whole system. This is the *Shuratic* Process of Preference formation in the institutional framework when centered on knowledge (HRD). $X(\theta)$ are knowledge-included variables.

The criterion function is to simulate the social wellbeing function, $SW(\theta^*, X^*(\theta^*))$

Figure 3: Organizational structure according to Islamic evolutionary learning model of wellbeing by the method of interaction, integration, and creative evolution

Only a cursory answer can be provided to these ponderous questions. They can be examined in great details from Choudhury's work (2006) in respect of the opposite

ways of understanding reality between occidental epistemic basis of rationalism and the Islamic epistemology of unity of knowledge (referred to as *Tawhid*).

In answer to the first question posed here we note that, technological change, innovation, thus learning and knowledge in the optimization model remain exogenous implements. Hence knowledge and its induction of the vector of variables concerning the generality and specifics of the organizational world-system do not exist.¹

In answer to the second question, the postulate of bounded rationality sets a constrained decision-making space due to incomplete information. Nonetheless, the rationality postulates are repeated on such a constrained space of variables and objective function. Optimization and satisfying form of equilibrium are repeated. All of the methods and consequences of neoclassical optimization agenda are retained. Further enhancement of the information set acting on the variables and objective is caused by exogenous excitement of technology and innovation. We then have the same consequences as shown in the footnote here. The example of such organizations is the one studied by Simon (op cit).

When continuous dialectical processes are allowed then the multi-dimensional wellbeing function over processes takes various forms and objectives as by the oppositeness between knowledge and de-knowledge. The result then is to include both of such categories in organizational wellbeing function. The rationalist agenda returns. Along with this, the wellbeing function cannot be evaluated. Examples in this category are the organizational behaviour according to Marx's over-determination theory of choices (Resnick and Wolff, 1987); and Popper's (1965) conjectural history of falsification and perturbations. Such approaches to the study of organizational behaviour leave no sustainable objective end-goal after all. Organizations governed by such kinds of dialectical epistemologies remains utterly uncertain and volatile.

Thus there arises the question of uniqueness of the Islamic theory of evolutionary learning organizations at the end. That is, the nature of rationalism, optimality, steady-state equilibrium, and dialectical outlook is replaced by the objectified dynamics of the epistemological evolutionary learning model of organization behaviour within the bounds of an ever-expanding domain of certainty, objectivity, and purpose. We referred to this state of the objectified Islamic firm as *maqasid as-shari'ah*.

¹Note this explanation on the impossibility of *continuously* regenerating processes as given below. At the boundary of the two processes shown, technological induction by T remains exogenous. Contrarily, if T becomes endogenously regenerated then optimization fails to exist. This defies the postulates and consequences of optimization, steady-state equilibrium, opportunity cost theory, and assumption of scarcity of resources. Hence the objective of wellbeing as technically defined in this paper is annulled.

Process 1 ($P1$)

Process 2 ($P2$)

[Resource $\rightarrow$ Output $\rightarrow$ Inputs $\rightarrow$] T [New Resource (R') $\rightarrow$ etc....]

In the case of endogenous relationship, $P2 = f(P1)$, f being a continuously differentiable functional relationship between $P1$ and $P2$, which are functions of (R, O, I) and (R', O', I') , respectively, as shown. That is $P2$ is continuously regenerated by $P1$ etc. within system relations.

We write, $dP2/dP1 = (dP2/dT) \cdot (dT/dP1)$. This can take two possible signed values: (1) T is exogenous. Then $dT/dP1 = 0$. Hence, $dP2/dP1 = 0$; implying $P1$ and $P2$ are relationally independent as exogenous processes. (2) T is endogenous. Then, $dP2/dP1 \neq 0$. In this case an optimal process at the connection of T does not exist or is evanescent. The functional relationship is then given by, $P2 = f_1(P1, T)$; $P1 = f_2(P2, T)$; $T = f_3(P1, P2)$. This is the kind of wellbeing organic interrelationships. They are studied by the circular causation method that we have presented in this paper.

Conclusion

The theory of evolutionary learning organization is a field of analytical study existing between organizational behaviour and evolutionary economics. The emergent theory in this case has not been studied. Yet it is an area to devote to for examining the impact of endogenous technological change and innovation on dynamic organizations. This paper has undertaken such a study.

The exemplification of such an organization by the case of the Islamic epistemological theory of organization is studied. It is found to be uniquely distinct from the mainstream approaches to organizational behaviour and evolutionary economic dynamics. The difference is caused uniquely by the Islamic organizational behaviour because of the endogenous nature of knowledge induction in respect of institutions and systems that arise from and continuously establish objective criterion of wellbeing along with the reference to attain this away from the conjectural and over-determination hypotheses of change. The example of the Islamic evolutionary learning organization thus offers a universal transcultural model.

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ЭВОЛЮЦИОННАЯ ОБУЧАЮЩАЯСЯ ОРГАНИЗАЦИЯ В СИСТЕМЕ ЭТИКО-ЭКОНОМИЧЕСКОЙ ОРИЕНТАЦИИ

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Аннотация. Вводится новая теория обучающейся организации на граничащих эволюционных экономике и управлении. Это называется эволюционным обучением организационной в теории поведения, принятия решений и целей благополучия в более широком контексте организации в системном смысле органических отношений. Структура, функции и аналитические особенности такой организации изучаются в контексте эпистемологического подхода для того, чтобы соединить свойственные им теории. Это приводит к математическому и строгому объяснению теории сравнения и контрастному освещению с другими исследованиями по обучающимся организациям. Иллюстрация уникальной теории эволюционной обучающейся организации выявлена лишь в исламском эпистемологическом контексте. Далее в исследовании, в данном контексте, сделан вывод об обобщенной модели системы благополучия в принятии решений фирмой, которая представляется в целом сверх-над-внутрисистемной и межсистемной.

Ключевые слова: эволюционная эпистемология, экономика и организация, обучаемая организация, сравнительное организационное поведение.