

The Role of Socio-Economic Medium in Diffusion of Innovations

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Abstract: The currency of the topic is conditioned by theoretical and practical importance of studying and understanding correlation of the system of normative regularity in innovation sphere with economic behaviour. Similar search meets such trend of contemporary economic theory and social sciences as steadfast spreading of a spectrum of noneconomic research of economic-organizing sphere. The study deals with the study of socio-economic medium of innovation distribution, being based on the system of social institutes of a certain territory. The goal is defined to study the theoretical approaches to the problem of the impact of institutions on distribution of innovations. The study reveals the role of social capital in ensuring of stable relation in society due to real and potential resource pool. A socio-economic, institutional constituent of the medium of diffusion of innovations is in the focus of attention. The main elements of this medium is civil liability, cultural-historic identification, awareness of importance of the position of solidarity, confidence, sense of involvement and the other components of social institutes. Integration of these factors into the strategy of development of the country as a whole forms a growing interference effect, influencing establishment of stability and cohesion of community as a stylobate of innovation creative process.

Key words: Institutionalism, diffusion of innovations, social capital, social stability, economic security, path dependence

INTRODUCTION

Challenges of time which appear in the form of decline in living standards, production falling, rise in unemployment, withdrawal of capital, including human budget deficit and, as a result, underfunding of important items of expenses, have high-coherence. Hereupon, these problems cannot be surmounted in the process of implementation of development strategy, in which every single problem is eliminated and considered beyond socio-economic environment that conditions the results of economical activity. Therefore, one of the most important national tasks for improvement of quality and standard of life, competitive ability at the world markets and embarking on the path of sustainable development is arrangement of new conditions of socio-economic environment. The developing such environment, in which high efficiency at the micro and macro level would be reachable, requires the synthesis of various fields of economic and sociological sciences, the first-priority task of which is ensuring and maintaining economic security. Precondition for solving this task within the scope where it is possible at all is exarticulation of the resource constituents of innovation potential, each of which has a certain functional designation: material and technical, information-educational, financial, human and the other components (Matveikin *et al.*, 2007).

Due to the events which happen in the world, it is necessary to admit that economics, aimed at production of high-tech products, the only constructive possibility to follow a national interests and maintain economic security. The problems of economic development raised by the Russian president require as strategic adjusted priority development of science and diffusion of its achievements, the success of which will largely be determined by the share of the sixth technological setup in economy.

Currently, a dynamic system is not characteristic of the domestic picture of technological development receiving more distinct outlines, as, for example, in the United States, the share the sixth technological setup accounts for 5% and the fifth for 60%, in Russia the main share falls on the 3rd-4th setups. Overcoming of backlog of the developed countries will depend on the quality characteristics of the medium of generation and diffusion of innovations.

This is reflected in the proposals of the Russian engineering scientists in forming the national innovation system which takes into account the traditions of the Soviet scientific school and modern international experience, with giving the independent status to the science sector, being able to act as guarantor of the state's interests and carry on an equal dialogue with business (Kablov, 2015).

MATERIALS AND METHODS

Awareness of social change and paradigmatic shifts in science by political and cultural classes, within the period of the years 1875-1905, in conformity with technological determinism, is referred to as the “second industrial revolution”, has caused a need to study the processes that give rise to these changes, as well as to describe the model of civilization development. The diffusion theory of innovations, first proposed by French sociologist Tarde, was an attempt to explain these changes through the prism of spreading the inventions and the change of benchmarks influenced by them for others to follow. Seeking to explain the social transformations in the industrial society, Tarde (1903) comes to the conclusion that it is the ideas, innovations and the aspiration to imitate which are the essential elements to ensure the progress of civilization.

Preference given by Occidental cultures to development strategy based on the economic growth, increase in specialization and division of labor, supported by the scientific and technical progress, was determined by the attractor movement (Nureyev, 2012). This is a kind of “path dependence” a strong communication of new institutions from the old ones (North, 1990) which establishes the dependence on the preceding historical development and experience, performs a fundamental factor in the continuity of the development of the society, where the culture, institutions and organizations interact in a universal structure of factors. The chosen strategy has predetermined two paths of motion of the countries, both are characterized by economic growth, with the difference that the growth occurs at different rates. The main force that keeps the countries in its trajectory of development is the quality of institutions, it is obvious that in the countries with a high rate of development, the quality of institutions is higher (Auzan, 2014). Since, these paths of motion are not the successive stages of development but different social orders, the cultural and institutional approaches in considering the economy acquire a particular importance for searching for possible structural changes that would make full use of factors of economic development.

In accordance with the plan of this study, our focus is the socio-economic, institutional component of the medium of diffusion of innovation which includes civil liability, cultural and historical identity, the awareness of value of a position of solidarity, trust and other components of social institutions being able to ensure the stability and cohesion of the community a basis of innovative creative process. In this connection, to analyze the elements of diffusion of innovations one needs to use an unorthodox economic approach, in which the economic

situation does not come to economism, the social context is taken into account. It is an institutional trend of economic thought which arose at the end of XIX century in the United States and by the middle of the XX century took shape in the well-known scientific school. Unlike the neoclassical tendency in which, under the influence of Cartesianism, it was formed the concept of “rational economic man” seeking to maximize the utility function, the institutionalism treats man in relation to cultural and institutional environment (Hodgson, 2000), focusing on endogenous institutions.

RESULTS

According to a well-known representative of institutionalism, John Commons, the original unit of economic activity is a transaction in which a mutual transfer of rights and obligations of the future property occurs, thus, in the transactions, there is a relation between law, economics and ethics (Commons, 1931). The spread of innovation is a flow of transactions between the actors which is regulated by collective rules of the society. To make the best choice among possible alternatives, one needs to incur charges (material, psychological), connected with collecting, analyzing information, minimizing risks and decisions making, the effect of which is unknown till the results of transaction to be obtained. These costs mount insurmountable challenges for optimizing behavior and serve as a basis for the formation of habits by people (Clark, 1923). Since, the information as an object of social communication is a necessary condition for transactions, the result of which, in particular, is the spread of innovations, it should be taken into account not only the quality of physical infrastructure but also the quality of social and cultural environment. Thus, the economic dynamics is closely linked with the ideas, ideologies, myths, stereotypes, prejudices, desires and habits, i.e., with those having been created by man in the course of history and brought into the development of social systems and norms, it overlaps methodologically with the concept of social capital of Bourdieu (1986).

The concept of social capital was introduced by an eminent French sociologist and philosopher to describe social relations that can act as a resource of making gains (Bourdieu, 1986). In many researches, where the concept of social capital and its practical application are analyzed, an advanced idea is that “moral resources” allow the groups that have them to solve more complex problems that require serious institutional efforts. By contrast, a deep distrust is very difficult to overcome by experience, because it blocks the relevant forms of social experience (Keohane, 1984; Coleman, 1990).

The process of adaptation to the new conditions are related to population growth, increase of specialization and division of labor, the accumulation of knowledge, changes in the eco-system, slows down with the hierarchy of social relations. Since, by virtue of its inherent non-susceptibility or low susceptibility to changing internal and external conditions, a social group with a delayed response forms which hinders development of the entire system (Veblen 1899). An American philosopher and political scientist, Robert Putnam, also notes that vertical relationships less suited to solving the dilemmas of collective action as the formation of reciprocity, social trust and cooperation between social factors is not characteristic of them, which results in less path of information volume in the vertical hierarchy, in contrast to the horizontal one. Putnam (1994) notes that this social phenomenon may partly explain the reasons of capitalism being predominated feudalism in XVIII century. An important and necessary in overcoming this barrier is the fact that permeating both formal and informal institutions, the social capital gives multifariousness and properties being uncharacteristic of vertical structures to the system of social relations which is expressed in smoothing vertical ties and accelerating information flows being relevant for adaptation.

The considered "public good" in the process of regular transactions between individual tends to be accumulated and concentrated. This phenomenon forms homogeneous groups, provides consolidation of a social structure, increases its stability and ability to cooperate, integrates complementary horizontal and vertical relationships. All this causes the efficiency of the institutions in adjustment to changing conditions and solution of the problems of innovated development. The concentration of a social capital manifests itself in the structure of social channels which is characterized by rapid dissemination of information about the adoption of innovations by early adopters among the other members of the community. Since, the involvement of members of the society is based on the flexibility and density of social relations, the process of exclusion of archaic ideas, habits and attitudes, that have an adverse effect on the achievement of public interest objectives, occurs in good time. Therefore, correspondence of innovation with generally accepted pattern of thoughts is provided which is required for wide and rapid diffusion of innovations. The lack of social capital and reflection about being involved in social processes, challenges and successes is, first of all, felt, curiously enough, in every day social relations, in the form of isolation, conflict, lack of good will and mutual assistance. Over time, it tends to be fixed

in the social institutions, affecting the comfort level of life and leading to negative consequences for the economy, for example, the "drain" of the most enterprising and clever, isolation from global trends and knowledge, low business ethics and conservatism. This process results in deceleration of the necessary social and economic changes that are associated with acute demands made by the general economic and political situation.

DISCUSSION

Since, social capital is an emergent phenomenon of social organism, its features in the role of "public good" consist in the phenomenon of social institutes. According to the founder of institutional trend of economic thought, Veblen (1899), institutes are "a commonly-held pattern of thought", "usual ways of response to stimuli", "a system of social life", so different habits, rules, patterns of behavior are referred to such institutions, a certain part of which is fixed in the form of various public institutions and the principle of law. Formation of social institutions is the result of the process of selecting dominant species and types of relationships, thus the set of institutions forms a system of public relations. This system is a form of social selection, so that the change or formation of new institutions leads to the selection of individuals with a character and a set of habits being the most adapted to the new environment. The majorizing relations largely determine the ability of community to meet the challenges of contemporaneity. In cases, when these relationships hinder the process of adaptation to the new environment, their qualitative changes satisfying the spirit of the times occur.

It should be considered in this vein an important step in the study of diffusion of innovations that have become the studies of the well-known geographer from Lund University, Hagerstrand (1965). Thanks to his research "Diffusion of innovations as a Spatial Process", space and time have been considered as the main elements that influence the process of diffusion of innovations. It is obvious that the process of spreading the novelties is activated by knowledge about the appearance and usefulness of innovation, so the diffusion process begins with the concentration of cluster of innovation adopters. According to Hagerstrand, expansion of this cluster takes place so that the probability of accepting an innovation for those who are closest to the earlier adopters more than those who are further is explained from his observations over migration and telephone connections of population. He found that, for the average person, a number of communication links with expansion of the distances

reduced. Hagerstr and described this observation in terms of the anisotropic diffusion of innovations and introduced the concept of geographical boundaries, preventing the diffusion of innovations. These are insurmountable or difficult insurmountable geographic objects (mountains, swamps, forests, lakes), as well as the obstacles arising from the uneven development of transport infrastructure which can affect the habits of people in the installation of communications (Hagerstrand, 1965).

Similarly, there is observed the affect of the barriers of social nature, slowing down and in some cases, completely stopping the concentration of the first adopters of innovation, without which the continued diffusion of innovation is impossible, so, for example, the growth of global xenophobia and serious intercommunal clashes destructively impact on communication channels and lead to instability in society, which, in addition, to all other tragic outcomes and economic damage including slowing down the processes of generation and diffusion of innovations.

CONCLUSION

To solve the existing problems of development, particularly in accelerating the generation and diffusion of innovations, modern societies need to create a more efficient decision-making system which, in addition to economic factors, take into account the traditions and historical experience of society, particularly focusing on the preservation of social and cultural stability, prevent or minimize the destructive conflicts. An important step in solving this problem is exarticulation of a resource component of innovative potential, each of which has a specific functionality: material and technical, informational, educational, financial, human and the other elements. Dissolution of the social capital leads to the disintegration of the coordinated actions, undertaken by the society which in the long run leads to the establishment of relationships, reducing the effectiveness of physical infrastructure and, as a consequence, to the loss of public efforts, aimed at its development. On this account, we think it necessary to consider the social capital as a leading tendency to diversify innovative efforts, contributing to the acceleration of innovation processes in the country.

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