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Innovation resistance: the main factors and ways to overcome them

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Abstract

The paper shows the importance of innovation with regard to the economic well-being. The paper reflects the definition of the innovation resistance and the role of inertia in the innovation process. The innovation process is considered not only in terms of technical or technological changes, but also from the position of institutional transformations. The types and levels of innovation resistance are specified on the basis of the earlier studied literature. In addition, endogenous and exogenous factors of innovative resistance from the perspective of organization are determined. A general complex of approaches to overcoming the resistance to innovation changes is considered. The paper represents reasoning about the role of economic culture in the context of institutional changes. Finally, the author gives the arguments in favor of the fact that overcoming resistance to innovation changes for conducting economic transformations and improvement in the economic well-being is a must.

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Keywords: economic well-being, innovation; innovation resistance; inertia; institutional changes; endogenous and exogenous factors; economic culture; overcoming resistance to innovation changes.

1. Introduction

Innovation has a cumulative effect and an impact on the economic well-being. The extension of new technologies results in a sharp rise in productivity, GDP growth and consumer satisfaction.

Innovation is a purposeful change, within the framework of which a created practical innovation extends up to the point when the demand for it is wholly met. The innovation process is a complex of related phenomena from the birth of a scientific idea to its commercialization. An object of management is characterized by uncertainty and diversity and is essentially a stochastic process.

It should be recognized that many foreign countries, trying to move the economy back on the lines of innovation development, focus on the support of separate factors (in particular, enhance education to a higher level, stimulate entrepreneurial activity, make funding resources and innovation infrastructure available, provide the necessary level of diversity in the human resources market, openness to new ideas, talents and capital, ensure macroeconomic stability and protection of property rights), but all undertaken, often very large-scale efforts do not lead to the

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expected success. These factors are necessary, but not sufficient condition for the qualitative transformation of the economic system, as they can be deactivated under the influence of institutional inertia. It appears from this that the current system of institutions may block the formation of high-quality links between potential participants of the innovative process. It is clear that institutions determine the preference function of actors and create the prerequisites both to the changes and to retaining the status quo of the latter.

It is worthy of noting that innovation has a positive effect on conditions only in the circumstances of a low level of innovation resistance on the part of organizations and the economic system. The innovation resistance is possible due to a negative feedback in the economic system. Social groups as well as any other systems are characterized by negation of innovation changes. The adaptation of social groups to new ideas and innovation takes quite a long period. It is significant to note that there are negative psychological and social reactions, which slow down the diffusion of innovations. Individuals, social groups and organizations are unlikely to stop technological progress but they can create significant difficulties in the case of slow or inadequate institutional changes.

Organizational environment often actively resists the adoption of innovations. An effective systemic innovation process should be developed and maintained by appropriate conditions for its existence. In order to create the acceptable conditions it is necessary to examine the factors and methods for overcoming innovation resistance.

An organizational culture plays a significant role in innovation changes. In innovation settings the culture is represented by the social and cognitive environment, shared views of reality, collective belief and value system reflected in the consistent behavioral patterns of the participants of the innovation process (Jassawalla A.R., 2002).

The innovation resistance can result in the blockage of realization of business events concerning the initial stages of the innovation process in the economic system. That is why there are time lags between the discoveries or inventions emergence and their wide practical application.

In a wider context the resistance to innovation changes can be reinterpreted as a defense mechanism against the possible chaotic consequences of disruptions in the structure of a traditional society (Mokyr J.A., 1998).

2. Main part

It is important to note that the economic systems resist to innovation changes due to the inertial nature of their development. The inertia affects the rate and subsequence of the innovation development. The inertia manifestations are connected with the specific character of economic system and the institutional environment.

The institutional theory considers the sustainable conservation of the inefficient technologies and standards as a manifestation of the dependency on the preceding development (a path-dependent process). The existence of dynamic increasing return implies that a path once chosen has a tendency to become entrenched in the economic system (Cowan R., 1996). This is possible due to the fact that it is dominating institutions that cause the inertia of innovation development. Institutions are people's habitual modes of thinking which tend to overcome their own existence over some indefinite period of time. It is significant to mention that institutions have different inertia. In scientific papers, it is noted that informal institutions can be changed only evolutionarily. So the evolutionary nature of informal institutions is caused by the inertia of institutional and innovation changes.

It is important to emphasize that social norms may become obsolete as well as capital equipment. But they are much harder to change in comparison with capital equipment. Personality formation is completed in adolescence, and in subsequent years the adaptation to changing conditions rarely alters qualitatively the norms, values, attitudes and habits, acquired during one's youth. Durability of "social capital» is higher than the durability of capital equipment as the average lifespan of people exceeds the lifetime of the equipment. The latter explanation is due to the uneven growth of return. The fact is that when different technologies or institutions compete, initially a rapid increase of marginal utility can demonstrate one embodiment, and later – another one. However, victory in the initial stages of the competition makes it impossible to demonstrate the benefits of an alternative.

One of the factors of the innovation resistance can be transaction costs. The escalation of transaction costs leads to a low efficiency in the resource exploitation and slowdown of the innovation process.

Neoinstitutionalists distinguish the following types of transaction costs, which incur in the process of:

- 1. information search;
- 2. measurements;

- negotiating and bargaining;
 specification and property rights protection;
- 5. opportunistic behavior.

Transaction costs may also include the expenditures on research, development and technological works, purchase of licenses, equipment modernization. Attracting investments in the innovations is always accompanied by the abundance of organizational problems. In the process of implementation of the investment project the incurred transaction costs can be connected with

- searching of innovation ideas;
- finding partners for the innovation project;
- securing and protecting the rights for intellectual property (rights separation between the project participants having access to intellectual property scientists, entrepreneurs, research institutions and government);
- opportunistic behavior, related to the asymmetry of information (providing false information about the characteristics of the invention, the exaggeration of its merits);
- specification of the product characteristics;
- promotion of innovative products.

The equilibrium state of the organization within the context of the innovation process should be provided by the system's ability to actively change in response to external influences and processes. This is a combination of qualities of stability, sensitivity to changes on the one hand, and active volitional creativity on the other hand. Conflict and contradictions are potentially laid in any coherent system.

In the framework of the innovative enterprise contradictions are the factors of explicit and implicit resistance of the personnel that will ultimately affect the active introduction of innovation. The personnel can demonstrate low innovative susceptibility.

The innovative process creates contradictions in the organization, so that:

- it disturbs the system of relations from equilibrium state;
- it accounts for the phenomena of derivatives and far-reaching economic consequences;
- it creates an uncertainty;
- it conflicts with the institutional environment;
- it generates implicit and explicit resistance to changes.

In the narrow sense, the innovation resistance implies a set of contradictions, arising within the framework of a separate firm. The innovation contradictions are the factors of workers' innovation resistance. It is necessary to notice the causes of workers' innovation resistance:

- 1. Proposed innovations reduce the satisfaction of specific needs;
- 2. The employee is forced to risk;
- 3. The low level of moral and psychological atmosphere;
- 4. The low level of skill-training;
- 5. The employee's goals do not answer the firm's development goals.

It is important to note that resistance to innovation is a complex process, which requires much time and high cost for its study, but at the same time, understanding this process may be vital to an organization (Cornescu V., 2013).

- There are different intensity levels of the innovation resistance:
- Lack of resistance (a perfect condition for implementation of innovation process);
- Distrust (ignorance of innovative technology);
- Non-participation (misunderstanding and ignoring the effects of innovation);
- Hostility (misunderstanding and ignoring innovation goals);
- Sabotage (full denial of innovation).

The overcoming innovation resistance is embedded in the principles of any firm, such as life-long educational, regulation of organizational stability, risk assessment, management of innovation resistance. In addition, there are such measures for overcoming innovation resistance as:

1. organization of preventive measures;

- 2. informing employees about the consequences of corporate sabotage;
- 3. convergence of innovation goals with employees' goals;
- 4. improvement of working conditions;
- 5. demonstrating innovation benefits for employees at all levels of management;
- 6. organization of staff training in the new technological environment in order to increase trust and level of involvement in the innovation process.

It is important to remember that managing human factors, connected with resistance, is as important as focusing the attention on the energy and technical aspects, with the purpose of stimulating the innovation process (Bovey WH., 2001).

It is worthy of noting that the innovative resistance of the organization is of endogenous nature. that is, aroused due to internal factors (economic, social, psychological and institutional ones). Nevertheless, it should be noted that the organization functions in the external environment where exogenous factors can influence it. The exogenous factors impact the legal, political, social, cultural, industrial and institutional systems.

Reasoning from the above-mentioned information we can assume that innovation resistance is an aggregate of limiting endogenous and exogenous factors, preventing individuals and organizations from the adoption of innovation.

In addition, one of the most important exogenous factors of the innovation resistance is fragmentariness of formation of the technological modes and existing institutional heterogeneity in this connection in the economic systems.

A technological mode is a set of technologies specific to a certain level of production. The technological mode is an organizational-economic mechanism of regulation. The core of the technological mode is defined by a set of basic processes. Every technological mode is the result of new fundamental knowledge embodied in the basic technological innovation. Today most countries have several technological modes. Some of them represent different stages of a single technological mode of production (industrial) while others relate to different methods (agrarian, industrial, informational). In this multicultural nature it is necessary to distinguish the leading technological mode that stimulates the bulk of innovation.

When technological modes change, both the technological structure of economics and its institutional system transform. Institutions of the obsolete technological modes can neutralize the effectiveness of new institutions in the mixed economy. It leads to the formation of the heterogeneous institutional environment and the unpredictability of economic entities' behavior. It is significant that the change of technological structures in the economic system triggers the stabilization mechanism that can neutralize the incentives to innovation.

It is important to note that the transformation processes of the economic system are determined by economic cultures. Economic cultures are divided into the following types:

- 1. Ascetic economic culture is a culture wherein the economic behavior has the ascetic feature as rejection of a significant proportion of current consumption.
- 2. Hedonistic economic culture is a culture wherein the economic behavior has the hedonistic specificity and requires maximizing current consumption.

The above-listed types of economic cultures have positive and negative influences on the innovation processes. The hedonistic economic culture predetermines economic agent's rejection of long-term investments in innovation projects in favor of investments in surrogate means of hoarding (antiques, precious metals, foreign financial assets, etc.). In addition, it leads to the rejection of human capital accumulation.

Human capital investment is one of the most important conditions for overcoming innovation resistance in the economic system. But the domination of the hedonistic culture reduces the volume of investment in human capital and slows down innovation changes. On the contrary, the domination of the ascetic economic culture promotes long-term investments, which are funded by one's own resources.

3. Conclusion

Within the framework of this paper we wanted to point out that the innovation process is characterized both in terms of technological and institutional changes. The antagonism between the dynamism of the innovation process and the prevailing institutional environment causes resistance to innovation changes. It is important to note that overcoming endogenous and exogenous factors of innovation resistance can improve the compatibility of innovation with values and ideals of individuals and organizations.

In this paper we identify the resistance to innovation changes as one of the basic problems the firm management faces. The head of a firm should create conditions to ensure the employees' change readiness.

It is worthy of noting that overcoming external factors of innovation resistance should be provided by creation of effective legal institutions for reduction of transaction costs of specification and protection of intellectual property rights. In addition to the above mentioned it is necessary to form a supportive economic culture, which will determine the preferences of economic agents with consideration of informal institutions. This requires the creation of institutions and organizations that are able to change the hedonistic behavior of economic agents.

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