Directions of Improvement of Management System of Competitiveness of Regional Economy

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Abstract—The mechanism of formation of synergetic effects in the integrated system of competitiveness management of the region's economy, which transforms into competitive advantages and competitiveness of the region's economy is designed.

Keywords—competitiveness of the regional economy, competitive advantages, synergetic effect, innovation, self-organization, interaction of economic subjects.

I. INTRODUCTION

Globalization of the global economy creates new competitive conditions for the activities of economic entities of the Russian Federation, which objectively affect all levels and spheres of their interaction with the environment. In this regard, the search for optimal approaches to the management of such a complex object as the competitiveness of the regional economy is becoming urgent.

Well-known domestic scientists-economists in their works touched upon various aspects of the formation of management systems of objects competitiveness at the meso-level, at which an algorithm for the formation of an effective management system of objects is proposed, as well as the concept of management of regional competitiveness is offered, which is based on the following strategic directions of the formation of the regional competitiveness: ensuring the management effectiveness of the regional economy; investment and innovation; activity of the competitive environment; human potential development [3, 6, 13, 16, 17].

The well-known Russian scientists and foreign researchers dealt with the issues of formation and function of management systems of objects competitiveness at the micro level [2, 4, 12, 18, 19, 20, 21, 22]. However, it should be noted that in many sources, the development of competitiveness management systems is considered mainly at the level of the organization, goods and services. A brief analysis of the work in the field of management systems for the objects competitiveness shows that, despite their significant number, this problem at the regional level remains unresolved and requires further study. It is known that the management system consists of the following four components: methodology, structure, process and management techniques. The management methodology includes: scientific approaches to management, competition laws, economic laws and principles of management, management functions and technology, management practice [1, 5, 7, 8, 9, 10, 11, 14].

II. MATERIALS AND METHODS

The developed model of the integrated system of competitiveness management of the regional economy (ISCMRE) includes three subsystems management: enterprise, bio-industry cluster and the region as a whole. They allow the maximum extent possible to take into account the reserves of competitive advantages in each level. In addition, ISCMRE allows to form synergetic effects from the interaction of elements each subsystem and between subsystems of each hierarchical level, transforming into new competitive advantages of the regional economy. The proposed integrated system of competitiveness management of the region's economy in the process of its functioning should be constantly improved in the efficiency of increasing the level of regional competitiveness on the basis of innovation, self-organization and interaction of economic entities [15].
III. RESULTS

In modern conditions of global competition and import substitution, the effectiveness of ISCMRE is largely determined by its ability to create, implement and use a wide range of economic, technological, organizational and managerial innovations in the management of competitiveness of the region’s economy. At the same time, the leading role is played by management innovations, which are directly related to successful innovations in the management subsystems at all its organizational levels: the region, territorial and sectoral clusters and enterprises. System approach to management of innovative activity in ISCMRE involves not only the unity of regulation at all levels of the organization, but a close relationship, consistency of management decisions. Thus, at the enterprise level, innovative management of competitiveness is manifested in the development of intra – enterprise entrepreneurship. Innovations at the enterprise level are an active form of manifestation of NTP, which contributes to the constant updating of the range of products, improving its quality and competitiveness. It better meets the needs of customers of both domestic and foreign markets. At the level of territorial and sectoral clusters, as one of the new organizational forms in ISCMRE, the activation of innovation activities is primarily aimed at improving their competitiveness by creating more effective network structures organized on the principles of competition and cooperation. At the regional level, innovation is the main competitive development of subjects.

The activation of an innovative sphere should be carried out in all types of state regulation. There are regulatory, economic, financial state regulations which are based on the forecasts and strategies of innovation policy. Therefore, activation of innovative sphere is one of the important sources of new competitive advantages at all organizational ISCAR levels. At the same time, the methodology for increasing innovative sphere should be based on the use of such modern management technologies as benchmarking, branding, rebranding, coaching, reengineering, outsourcing. At the same time, innovative technologies and management practices recommended for the innovative development of ISCMRE must maintain their focus and essential characteristics of the procedures and algorithms of actions and consider the peculiarities of increasing of economy competitiveness of the particular region.

Self-organization of ISCMRE is the second priority direction of development and it has an ability to restructure outdated organizational structures and methodology for managing the competitiveness of the region’s economy to find and use new ways to effectively adapt to changes in the external and internal environment. All these actions allow to achieve its strategic goals.

Properties for ISCMRE as a self-organizing system are:

- openness to external influences, the ability to perceive and recognize external signals, random effects and an adequate responding to them;
- certain freedom for internal changes and internal structural mobility of elements;
- ability to develop horizontal links at all three organized levels.

Innovative development of ISCMRE, its resource potential and other features create the preconditions for the effective improvement of the self-organization of its subsystems and the system as a whole. The main mechanism of self-organization in ISCMRE as a flexible and dynamic system is a nonlinear feedback, which allows it to actively respond to the nature and extent of internal and external changes in an adequate manner. These reactions are regulated by the control parameter, which is the level of subject competitiveness of the corresponding subsystem. At the same time, the principle of continuous improvement of competitive advantages of ISCMRE subjects is the main force of the search for new ways to manage the mechanism of self-organization. First of all, for further improvement of self-organization mechanisms of ISCMRE is necessary to realize its innovative development. New forms of self-organization will appear as a result of joint innovation activities and coordination of goals to improve the competitiveness of all subjects and the region as a whole. The third direction of ISCMRE is the interaction of its subsystems and elements which occur on three levels: regional, cluster, and business entity. Levels of management can be implemented in various forms:

- the cooperation is the interaction between the cluster and the authorities at the regional level; between regional clusters, between enterprises, suppliers of raw materials, materials and components at the cluster level; at the enterprise level it is interaction between its internal divisions which contribute to the achievement of the overall goal of the system; the partnership, it ensures the achievement of synergetic effect as a result of the coordinated activity of all subjects of ISCMRE interaction;
- the communication - consists in the exchange of information obtained with the help of modern communication management tools, in which one ISCMRE subsystem and its elements can affect the activities of other subsystems and their elements in order to make mutually beneficial decisions for improvement of competitiveness;
- coordination - the regulation of authority, relations within the ISCMRE subsystems and their elements at each hierarchical level and of the system as a whole;
- integration - allows one to interact between enterprises belonging to the cluster and clusters forming the economic complex of the region.

IV. DISCUSSIONS

The basis of the interaction of different-scale and multifunctional entities at all levels of ISCMRE are connections, which are a process of targeted impact caused by the relations emerging in the exchange of raw materials, components, innovations, information, distributors or generators of which they are. It is important to notice the links of the exchange process, its bilateral orientation. Each relationship is represented through a set of forward and backward linkages, the
form and content of which may be different. Thus, the direct and feedback are essential organizational components, but insufficient for the more efficient functioning of the mechanism of organizational-functional structure of ISCMRE because of the system approach and synergetic concept of management competitiveness of the regional economy help to organize the process of achieving their goals. At the same time, it is necessary to establish the composition of the components of synergetic relations, which make it possible to obtain additional utility in the form of competitive advantages and the additional competitiveness of the subjects. In ISCMRE as an open system, synergies are the most important links which are formed with horizontal management through various forms of interaction. Synergies between the elements in ISCMRE as a complex nonlinear system are competitive advantages, they make it possible to achieve the objectives of improving the competitiveness of the region's economy at a lower cost, both material and financial resources.

Therefore, to achieve the specified predictive indicators of competitiveness of the subsystems of ISCMRE it is important to search for sources of reserves of increase of competitiveness at all its hierarchical levels. In our opinion, synergy occupies a special place in the system of such sources.

In general synergy is the strengthening of the relationship between the elements in the system. It should be noted that the managerial synergies can occur at all levels. The synergy effect is due to the emergence of a new quality in management. It should be noted that not every association of subjects or elements of the system gives a synergetic effect. The main point is the way of interaction with the actors in the association. The source of synergy is the high organization of interaction of the system elements. A greater synergistic effect can be obtained by using several mutually complementary forms of interaction in the production management processes, as well as the integration of enterprises in the creation of final competitive products at a lower cost.

V. CONCLUSIONS

All of this information has allowed us to develop the mechanism of formation of synergetic effects ISCMRE which transform into competitive advantages and competitiveness of the regional economy (Fig. 1).

Thus, the study of the principles of the evolutionary theory of economic growth of socio-economic systems allowed one to make the conclusion that they form the prospects for improving the innovative development of ISCMRE, a high degree of self-organization and interaction of its subjects, creating the prerequisites for the transition of management of the competitiveness of the region's economy to a new higher quality level.

| External environment: global competition, financial instability of the world economy | Competitiveness of the regional economy | Tools for improving regional competitiveness: integration, localization, agglomeration |
|---|---|---|
| The creation and development of a wide range of forms of entities interaction at different hierarchical levels of ISCMRE that lead to the formation of their synergistic resources for obtaining additional competitive advantages |
| Formation of ISCMRE |
| Synergetic effects of interaction between public authorities and cluster structures of regional business | Synergetic effects of interaction of economic entities which form territorial and sectoral cluster | Synergetic effects of interaction of internal divisions of enterprises included in the territorial-industry cluster |
| The main results of the synergy: 1. Improving the investment climate and attracting large volumes of investment capital. 2. Increasing the activity of public-private partnership in the creation and expansion of infrastructure in the region |
| The main results of the synergy: 1. Increase in productivity growth rates 2. Improving the efficiency of use of tangible and intangible resources |
| Improving the competitiveness of the region's economy |

Fig.1 – The mechanism of formation of synergetic effects in ISCMRE
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