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**MANAGING THE DEVELOPMENT OF AN ENTERPRISE'S INNOVATION
ECOSYSTEM BASED ON THE INTERESTS OF STAKEHOLDERS**

SPECIALIZATION 5.2.6 – "MANAGEMENT"

Abstract

**Thesis for the degree
of candidate of economic sciences**

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Relevance of the research topic. In foreign and domestic studies, there is growing interest in a new economic method of analyzing social relations - the ecosystem approach.

Civilization is developing thanks to the innovation paradigm embedded in people. Updates are constantly coming and are constantly accelerating. Scientific and technological progress, the possibilities of technology, the requirements for improving production and living conditions, the need to respond to crisis anthropogenic and natural factors are steadily changing social and economic practices.

One of the most significant changes in the global economy in recent years has been the widespread and rapid development of socio-economic, innovative ecosystems, the evolution of traditional firms into this type of communities. At the same time, a serious problem arose - the theoretical and methodological apparatus of economic science (sufficiently developed theories of firms, networks, clusters) was unable to offer adequate tools for analyzing ecosystems. A systematic approach could offer universal principles for studying a new economic phenomenon. At the same time, within the framework of a systematic approach that inclines the researcher's attention to ordering in the dynamics of changes and the development of innovations, it is difficult to track turbulent changes in the external and internal environment.

The way out of these traps is possible in the development and application of tools of the ecosystem approach to the analysis of a new type of economic communities, as well as in the whole life of society in the conditions of digital transformation, mainly in the discourse of stakeholder interactions.

Ecosystem analysis should consider the ecosystem in the unity of its center and the pool of stakeholders. Thus, an urgent problem is the formation of analytical tools aimed at studying the influence of stakeholders on the core of the ecosystem.

The rapid digitalization of all aspects of life shows that the borrowing of foreign innovations, including models of economic activity and transactions, technologies, products remains a characteristic feature of the domestic economy. The development of one's own innovation environment, the cultivation of the value of

entrepreneurship as a constant search and implementation of new breakthrough ideas are possible with the use of the theory of innovative ecosystems in analytical and practical tools, with an emphasis on the stakeholder interactions that fill them.

Scientific research and business practice, including social entrepreneurship, indicate a high potential for the development of innovative ecosystems in the near future (both regional ones, where the authorities are the conditional center of orchestration, and entrepreneurial ones).

The new leaders of the modern economy, the most expensive companies in the world are ecosystems. Examples are the largest (by capitalization) corporations - Microsoft, Apple, Amazon, Alphabet (Google), Alibaba, Facebook (Meta). And these examples inspire other companies to transform and become ecosystems. In Russia, the flagships of ecosystem evolution are the companies SBER, Yandex, Tinkoff. Enterprises of state corporations ROSTEC, ROSCOSMOS, ROSATOM show interest in ecosystems. The ecosystem approach in the near future has every chance to change the concept of the firm as the main business configuration.

Socio-economic development is carried out through the interaction of organizations in the economy. Constant changes in the forms and scale, intensity of cooperation require the use of relevant methods for evaluating the effectiveness of partnership, inter-organizational relations.

The degree of scientific elaboration of the problem.

The analysis of domestic and foreign scientific sources showed the following most developed areas of study of the problem of management of the development of innovative ecosystems.

Theoretical approaches to the definition of the concept, essence, and features of innovative ecosystems as a new form of economic activity organization are presented in the works of R. Adner, T. Ali-Weimas, O. Granstrand, M.V. Evseeva, D.V. Lanskaya, D. Moore, R. Kapoor, L.G. Karanatova, E. Karayanis, G.B. Kleiner, P. Klimash, D. Nepelski, J. Pellicki, A.E. Plakhina, R. Rabelo, L.A. Ramenskaya, G. Itskovitz, L. Leidesdorff, M. Talmar, A.A. Ter-Grigoryants, I.N. Tkachenko, L. Thomas, T.S. Solovieva, G. Xu, L. Heiner, M. Jacobides, etc.

The works of the following authors are devoted to the problems of modeling, typologization of innovative ecosystems: K. Brito, I.O. Volkova, M.A. Golovchin,

A.N. Grozin , M.M. Zheleznov, M. Kohtamaki, S. Nunez, P.M. Pashkov, L. da Silva, G. Lyutnen, N.A. Serebryakova, Yu.V. Rozhkov, Yu.I. Seliverstov, D.V. Sidorov, M. Chiazullo, A. Hein and others .

Topical issues of assessing the effectiveness of relations in socio-economic communities are considered in the works of A.V. Aleshin, G. Asimakopoulos, B.A. Belyavsky, D. Dyer, L.N. Drobyshevskaya, A.M. Zhemchugova, O.O. Zorin, E.M. Mezentsev, N. Tran, M. Pervan, Yu.F. Popova, V.V. Radaev, N.V. Rubtsova, A.V. Sigarev, I.M. Stepnov, V.A. Fedorchenko, etc.

The researches of O. Valdez-de-Leon, E. Gianluca, A. Giovanini, I.V. Yelokhova, S.P. Zemtsov, I.V. Korchagina, I. Onea, S.V. Orekhova, Ya. Ormiston, A.A. Pushkarev, V.V. Sarajev, B.N. Chetverushkin are devoted to the search and analysis of factors influencing the existence and evolution of innovative ecosystems and others .

E. Autio, B. Bittencourt, H. Bryson, Z. Van Veldhoven, M. Gaim, S. Li, D. Kansheba, A. Nyamaka, Y.Y. Radyukova, L. Thomson, V. Paridaa, M. Soldak, G. Xu etc. made a significant contribution to the development of issues of formation and management of the processes of development of innovative ecosystems.

Separately, it is necessary to note one of the significant popularizers of the ecosystem approach in the professional community - Professor of practice at the Moscow School of Management "Skolkovo" P.O. Luksha.

Emphasizing the significant contribution of foreign and domestic authors to the consideration of the theoretical and methodological problems of managing the development of innovative ecosystems, it should be noted that a number of significant issues remain unresolved related to understanding the nature of the emergence and functioning, awareness of the role of innovative ecosystems in the economic space, assessment of factors affecting ecosystem dynamics, analysis of interactions within and outside the boundaries of innovative ecosystems, understanding the functions of relational contracting to ensure the progressive development of the type of socio-economic communities under consideration, developing appropriate complexity of the subject of management tools.

The relevance and timeliness of ecosystem topics, insufficient elaboration of theoretical issues, incomplete methodological validity, high practical significance of

the problems of managing the development of innovative ecosystems led to the choice of the topic, the definition of the object and subject of this study, the setting of goals and objectives.

The object of the dissertation research is the innovative ecosystem of the enterprise.

The subject of the study is the economic relations on the formation of the innovative ecosystem of the enterprise.

The purpose of the dissertation research is to form tools for managing the development of an enterprise's innovation ecosystem based on stakeholder interactions.

The stated purpose of the study predetermined the formulation and solution of the following tasks:

1. To identify the concept, signs, goals of creating innovative ecosystems, taking into account current trends in the field of economic interactions and management, focusing on the typology of innovative ecosystems and the identification of promising models of the phenomenon under consideration; in relation to the study of efficiency issues, to determine the features, types, goals, results of stakeholder interactions in the case of an ecosystem, in general, and innovation ecosystem, in particular;

2. To find and justify relevant methods of analyzing innovative ecosystems based on stakeholder interactions;

3. Based on the identification of factors influencing the development of innovative ecosystems, to develop a model of the innovative ecosystem of the enterprise;

4. To supplement methodological approaches to assessing the level of development and potential of the innovation ecosystem of the enterprise;

5. To develop a methodology for managing the development of the innovative ecosystem of the enterprise on the basis of stakeholder interactions, to reveal the applied results of testing methodological tools, as well as recommendations for solving the tasks of economic policy aimed at increasing the competitiveness and innovation activity of industrial enterprises;

6. Formulate proposals for improving technologies for managing the development of innovative ecosystems.

Methodology and methods of research. The dissertation research uses methods of system logical analysis and synthesis, systematization, simulation, graphical, factor modeling, abstraction, elements of the scientific and practical method of PEST analysis.

The information base of the study was federal and regional state databases (websites of the Government of Russia, the Ministry of Economic Development of the Russian Federation, the Federal State Statistics Service, the Government of the Sverdlovsk Region), an open server of the authorized agency "Interfax - Corporate Information Disclosure Center", international and foreign databases (UN platforms, Eurostat, Defense), Russian analytical systems SPARK-Interfax, Rusprofile, information provided by industrial enterprises, the results of empirical research conducted by the author.

The main practical grounds for the study were the innovative ecosystems of large industrial associations belonging to the Rostec Corporation, TMK, the Mechel Group.

Scientific novelty and provisions submitted for defense. In the dissertation research, the following significant scientific statements and results with novelty are submitted for defense:

1. The innovation ecosystem is presented as a new form of coordination of economic relations between stakeholders and the core of the ecosystem based on the principle of unity of the internal and external environment, which ensures the development of existing scientific research on the general features of ecosystems. In a new way, based on the research tree, a typology of models of innovative ecosystems is presented, characterized by the allocation of different types of ecosystems according to the parameters of the internal structure of the analyzed phenomenon. Taking into account the existing models of innovative ecosystems, the stakeholder model of the innovation ecosystem has been refined, which, in comparison with existing approaches, reveals the elemental composition of innovative ecosystems from the perspective of stakeholder interactions generating sustainable emergent effects. The system-forming ideas about the classification of

innovative ecosystems, about the types, goals, effectiveness of stakeholder interactions in various ecosystems and methods for evaluating the effectiveness of interactions have been expanded.

2. New method of ecosystem analysis is proposed, in which the analysis of stakeholders' interactions in the ecosystem, taking into account the interests of its stakeholders is carried out on the basis of the concept of unity of the environment of economic activity (to overcome the limitations associated with the opposition of internal and external environments in strategic management) in a seamless space, which develops common approaches to economic analysis of ecosystem activities.

3. A factor model of the innovative ecosystem of the enterprise has been developed, complementing the existing ideas by systematizing stakeholders and related factors (eco-factors) that significantly affect the development of the ecosystem (by grouping into consumer, entrepreneurial, regulatory, public, scientific and educational subsystems, with the allocation of one to seven factors belonging to the group of stakeholders).

4. Based on the factor model of the innovative ecosystem of the enterprise, a comprehensive analytical methodology for assessing the level of development and potential of the innovative ecosystem of the enterprise has been formed, which consists in calculating the integral indicator of the ecosystem and its graphical configuration by adding up the estimated components calculated on the basis of features, dynamics of key ecosystem factors.

The methodology, in contrast to the existing static approaches, allows us to focus on universal and at the same time the most indicative factors that can reflect the dynamics of ecosystem development and provide a comparison of the latter among themselves.

5. In the development of ideas about the system of management levels (Anthony's management triangle), it is proposed to additionally identify a new type of impact on socio-economic relations – ecosystem management as a key element of strategic management, capable of becoming an independent management technology, for which a methodology for managing the development of an enterprise's innovation ecosystem (ecosystem management cycle -EMC). EMC is

based on orchestration of factors of mutual influence of stakeholders and the core of the ecosystem, mapping of resources, value chains, strategies .

The theoretical significance of the obtained results lies in the development of the theoretical apparatus for describing, analyzing, evaluating innovative ecosystems, expanding the system-forming ideas about the possibilities of managing the development of innovative ecosystems.

The practical significance of the results obtained consists in the formation of applied tools for the analysis of innovative ecosystems, the methodology of their assessment in relation to specific ecosystems of the socio-economic environment, enterprises of the real sector of the economy, as well as in the formation of methods of ecosystem management.

The applicability of the developed approaches is shown on the example of large enterprises. Analytical evaluation concepts and management tools can be used in the activities of various economic entities, representatives of government and management, development institutions located both (conditionally) inside ecosystems and influencing their genesis from the outside, for analytical developments, control actions, design, description of various examples of the studied subject in the real sector of the economy.

The structure and scope of the dissertation research.

The dissertation consists of an introduction, the main part, a conclusion, a list of references from 224 sources. The study contains 32 tables, 28 figures, 7 appendices. The main content of the study is presented on 211 pages.