

Artículo de investigación

Innovative entrepreneurship: russian and international development features

Инновационное предпринимательство: российские и международные особенности развития

Emprendimiento innovador: características de desarrollo ruso e internacional

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https://elibrary.ru/author_profile.asp?id=552888**Abstract**

The article analyzes the importance of innovative entrepreneurship in the economic development of advanced countries, and studies the reasons causing innovative entrepreneurship emergence and formation. Special attention is paid to the support of innovative entrepreneurship by the state. The authors consider various organizational models of innovative entrepreneurship and give the characteristic of diverse forms of innovative business, which differ by sources of financing, the range of innovative activity, as well as the level and degree of interaction with large business. The article establishes the modern value and place of innovative entrepreneurship in the economies of different countries.

Аннотация

В статье рассматривается роль инновационной деятельности предпринимательства в экономике высокоразвитых стран. Исследуются причины возникновения и развития инновационного предпринимательства. Особое внимание обращается на государственную поддержку инновационного бизнеса. Проанализированы модели организации инновационного бизнеса. Рассмотрены различные организационно-экономические и институционально-правовые формы, которые приобретает инновационное предпринимательство в зависимости от масштабов научно-технической деятельности, источников ее финансирования, характера взаимодействия с бизнес-структурами крупного бизнеса. Определены современная роль и место

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Keywords: Innovative entrepreneurship, innovative business organization model, startup, internal venture, project teams, creative temporary teams, "market duplicator".

ИННОВАЦИОННЫХ КОМПАНИЙ В НАЦИОНАЛЬНЫХ ЭКОНОМИКАХ СТРАН.

Ключевые слова: инновационное предпринимательство, модель организации инновационного бизнеса, стартап, внутренний венчур, проектные бригады, временные творческие коллективы, «рыночный дублер».

Resumen

El artículo analiza la importancia del emprendimiento innovador en el desarrollo económico de los países avanzados, y estudia las razones que causan el surgimiento y la formación del emprendimiento innovador. Se presta especial atención al apoyo del emprendimiento innovador por parte del estado. Los autores consideran varios modelos organizacionales de emprendimiento innovador y dan la característica de diversas formas de negocios innovadores, que difieren según las fuentes de financiamiento, el rango de actividad innovadora, así como el nivel y grado de interacción con las grandes empresas. El artículo establece el valor moderno y el lugar del emprendimiento innovador en las economías de diferentes países.

Palabras clave: Emprendimiento innovador, modelo de organización empresarial innovador, startup, emprendimiento interno, equipos de proyecto, equipos creativos temporales, "duplicador de mercado".

Introduction

Modern scientific economic thought defines innovative entrepreneurship as follows:

- In a narrow sense, it is the activity of entrepreneurs towards implementing innovations. The researchers note: "If innovative work is primarily associated with the creation of innovations, innovative entrepreneurship is carried out with their commercialization" (Bedny, 2014, p. 42);
- In a broad sense, it is entrepreneurial activity at all stages and in all areas of the innovation process.

Revealing the essence of innovative entrepreneurship, L. Borisova conjoins existing approaches to its definition and believes that at the microeconomic level, this is the activity of a certain business entity towards using the research and development results or other scientific and technical achievements leading to the emergence of qualitatively new and better goods and services in terms of their properties, sold in the market, or technologies used in practice; at the macroeconomic level, this is a model of expanded economic reproduction based on the implementation of innovations in all areas of social life. In the political and economic sense, this is an economic relations' subsystem formed for the creation, implementation, and extended

reproduction of innovations (Borisova, Taran, Titenko, 2013, p. 14-15).

Based on the aforesaid, comprehensive development of innovative business, increasing its importance in the innovation process are the main factors of socio-economic intensification. This determines the relevance of this article because a detailed study of the role of innovative business in the global innovation processes allows creating the theoretical and empirical foundations that should be laid in the strategy of innovation and economic development of Russia. According to the sources of financing, the range of innovation activity, the level and degree of interaction with big business, innovative business is characterized by various organizational, economic, institutional, and legal forms. Analysis of international practices makes it possible to identify a number of organizational models of innovative entrepreneurship, which are most common and have already demonstrated the high performance of research activities.

In this regard, the purpose of the present article is to analyze the international features of innovative entrepreneurship development and the prospects for the use of best international practices in Russia.

Methods

To achieve this goal, the following theoretical methods were used: analysis and generalization of economic literature to characterize the development and organization peculiarities of innovative entrepreneurship. Besides, the method of expert survey was employed to determine the characteristics of different models of internationally used innovative entrepreneurship.

Eighteen experts (research economists, and business leaders) were involved in the expert

survey. The experts were asked a number of questions concerning the characteristics of the main models of the innovative entrepreneurship organization, and their prospective viability in the Russian environment.

Results

The conducted expert survey made it possible to identify the main models of the innovative entrepreneurship organization available in the world practice (Table 1), as well as their characteristics, distinctive features, and possible prospects for use in the Russian conditions.

Table 1. Models of innovative entrepreneurship organization

No	Characterization of the organizational model of investment entrepreneurship	Prospective viability for Russia (% of references)	Rank
1	Independent companies (startups)	94.4	1
2	Companies in large corporate structures (internal ventures)	72.2	2
3	Project teams	61.1	3
4	"Market duplicators"	50	4

Discussion

According to experts, the most acceptable in terms of the Russian conditions is the simplest organizational model of innovative entrepreneurship, which is an association based on independent innovative firms of enterprising creative teams of employees, who set themselves the goal of implementing joint scientific and technical developments and subsequent commercialization of the innovative product created. At that, the startup capital is either the personal funds of the team members, or the pool of capitals of a number of legal entities/individuals, or externally attracted funds

of large business and specialized investment banks operating in the field of risk investments.

This group of innovative companies includes, as a rule, startups specializing mainly in the creation of innovative products and services, and engaged in searching for the most promising business ideas and tools for their resource provision. At the same time, the number of "young" companies (the market age of fewer than five years, the so-called gazelles¹⁹) in the sectors of economies associated with high technologies that generate the maximum number of innovations is growing at a particularly accelerated pace.

¹⁹ According to the original technical definition, a gazelle company is a high-growth company that has been increasing

its revenues by at least 20% annually for four years or more, starting from a revenue base of at least \$100,000.

According to the Gazelles Innovation Panel, currently, gazelle companies in Europe are creating 75-80% of new jobs, although their proportion is less than 5% of the number of registered organizations (Autio, Hözl, 2007). Research of Kaufman Foundation (USA) has shown that the startups' concentration coefficient in the USA in 2017 (the number of companies operating less than one year per 100 thousand of the population) amounted to 130.6 (The Kauffman Index Startup Activity, 2017).

According to experts, this is evidence of significant dynamism of innovative business, because the gazelles usually show a high level of resistance to external factors due to the use of specific mechanisms to maintain the market position in times of economic crises, increased efficiency of modernization of production processes, a large potential to minimize transaction costs, changes in the product range, and mastering new market segments.

The next indicator, reflecting the current role of innovative entrepreneurship in the economies of developed countries, as believed by experts, is the proportion of startups in the total number of companies in the given sector. According to one of the experts, "the more is the number of such companies, the more likely is the emergence of enterprises which are able to make a breakthrough in the high-tech sector, create new jobs with high wages, mitigating thereby the existing problem of social inequality in society." Thus, the proportion of startups in the USA in the period from 1983 to 2013 was steadily equal to 40-60% (Sudakova, 2016, p. 96) that indicates a significant activity of innovative business and its real impact on the macroeconomic growth of the USA.

At the same time, along with the high rate of startups' formation, a significantly new means of influence of innovative business on the national economies, according to experts, is the acceleration of the liquidation processes of new companies. Thus, in the USA in 1978-2013, the proportion of the liquidated business organizations has been steadily equal to 8-11% (Barinova, Zemtsov, Sorokina, 2015). At the same time, experts believe that it is liquidation of a company that leads to the release of a significant amount of funds and their redirection to the organization of new, more competitive, high-performance enterprises which can more effectively respond to the ever-changing market requirements, vigorously implement innovative products and services to meet the strict demand of consumers.

The significant economic impact of startups is demonstrated by the fact that back in 1939, the famous California Silicon Valley was created on their basis. This company concentrated the divisions of the largest corporations in the electronics industry and the military-industrial complex. Being located close to leading US universities and metropolitan areas, Silicon Valley has become a launching pad for more than 3,000 innovative companies, which today account for 10% of the total number of US patents (Schroeck, Srinivasan, Sharan, 2016).

The second organizational model of innovative entrepreneurship is represented by enterprises operating as part of large corporations in the status of internal ventures. In the Russian context, according to experts, such companies should be created within Russian corporations such as Gazprom, Rosneft, etc.

Experts note that the creation and development of these companies are primarily associated with the allocation of part of profits derived from activities of large corporations into expansion and technological modernization of production processes (Lochan et al., 2015). It is for this reason that today large transnational corporations (TNC) are actively creating a large number of small and medium-sized innovative companies, which are a kind of centers of attraction of the most advanced ideas and developments necessary for the TNCs development in the long term (Bezpalov, 2017). In this way TNCs track the emergence of innovative products even at the initial stage. Next, they license them, forming their own patent portfolios, and blocking the research and development of competitors through blocking patenting and patent cover (Likhachev, 2014, p. 93). The implementation of these strategies leads to monopolization of the world market of innovations, aggravation of asymmetry of regional and country world development.

Experts believe that due to innovative entrepreneurship, an opportunity emerged to move to a kind of "socialization" of scientific research with a gradual modification of vertically integrated corporate management into elastic horizontally oriented production networks, which are currently the main drivers of clustering production in developed countries. Thus, General Electric, which produces and sells its products everywhere, cooperating with more than 30 thousand small innovative companies (producing components, parts, and assemblies) is a striking example of production cooperation between the innovative entrepreneurship and TNC. At the

same time, General Electric actively uses the scientific and technical potential of these companies and monitors their most advanced developments that can make a profit and consolidate world leadership in the field of innovation (Mian, Lamine, Fayolle, 2016).

Another example of cooperation between TNC and small businesses in innovation is demonstrated by Japanese TNCs (Gubaidulina, 2016, p. 85). In cooperation with small innovative enterprises and universities, Japanese TNCs have established incorporated research centers to carry out large-scale applied research in a wide variety of knowledge-intensive industries.

The third organizational model of innovative entrepreneurship, which, according to experts, deserves attention, is the so-called, project team. Being created on the basis of large corporations, project teams, according to experts, differ significantly from traditional corporate research laboratories due to their temporary status, focus on commercialization only of their own innovations (without interference of corporate management in creation of innovations) and functions that consist in the implementation of scientific research in accordance with specifically set goals.

Project teams are formed both from full-time employees of corporations and invited external researchers, depending on which the resource support of research works is carried out. Attracting own employees is based on the use of only internal corporate resources, otherwise, external resources may be involved.

As a rule, project teams involved from outside are defined as non-profitable, since they do not have the goal of achieving commercial profits (Dudin et al., 2014). This is their fundamental difference from other models of innovative entrepreneurship, whose representatives initially estimate the expected economic effect from the implementation of innovations that is a primary target of their activities. The main reasons for the establishment of non-profit innovative companies stem, first of all, from the prevalence in international practice of innovative entrepreneurship of mechanisms of program and project financial support of research, including that from budget funds. Thus, any subsidies or grants for R&D are a reason to create an innovative business.

Another organizational form of innovative entrepreneurship, which has acquired

particularly high development dynamics in the context of technological globalism, concerns innovative companies which can be attributed to the status of "market duplicators" of research laboratories and institutes, industrial companies, and transnational corporations. Their role in the global processes of innovation entrepreneurship is not only to conduct R&D, but also to serve innovation processes and to establish the production of knowledge-based products. Therefore, innovative companies of this type, according to experts, specializing in innovative entrepreneurship, focus mainly on the provision of advisory, expert and intermediary services in the field of commercialization of innovative developments and their market launch. Their role is becoming particularly important in countries with newly created markets having low development level of scientific and technical cooperation as well as of logistics and marketing communications among the innovation process actors.

In addition, the motive to create innovative companies with the status of "market duplicators" may be the provision by these companies of individual services to corporate entities, associated, for example, with the experimental verification of the scientific hypothesis, the solution to the scientific problem, conducting economic analysis, forecasting, etc. It is clear that to order such single one-time services in external research institutions is economically more profitable than creating them on the basis of corporate entities that will inevitably result in a significant increase in the level of transaction costs.

Conclusion

In modern context of technological globalism, the maximum effectiveness of scientific and technical research and subsequent commercialization of innovations can be achieved only through joint efforts and in cooperation of state, universities, and corporate entities with innovative entrepreneurship. The clear specialization of the above-mentioned actors of the innovation process at its different stages will provide an opportunity to achieve the necessary systemic economic effect based on scientific and technical cooperation.

Summarizing the above, it should be noted that a significant level of concentration of innovative resources within large corporations does not meet the requirements of sustainable growth of economic systems of most countries worldwide. To some extent, the solution to this problem can

be found in the creation of new organizational forms of innovation activities, of which the main form should be innovative entrepreneurship. The widespread creation and progressive development of innovative business today have become the foundation of international innovative entrepreneurship, which is becoming not only a leading producer of innovation, but also a tool to reduce the contradictions of scientific-and-technological advance, resulting from the concentration of innovative and financial resources in the large corporations.

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