

Innovation potential of small-scale business: international experience

Potencial de innovación en empresas de pequeña escala: Experiencia internacional

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ABSTRACT:

The goal of this work is to analyse international experience of using innovation potential of small-scale business and possibility of Russian enterprises taking advantage of it. Under present-day conditions, innovations become one of the defining factors of economic growth. Small-scale business is an important component of this process. Translation of the companies' possibilities into action mostly depends on their innovation potential. An index system is used to evaluate innovation potential. Depending on the level, such potential may differ from industry to industry. Relatively low level of innovation activity among Russian enterprises makes them look at the experience of foreign companies. One of the key issues here is systemic approach presupposing interconnected use of internal and external factors. The results of innovation activity are directly connected with the nature of business process organisation. In this case, goal setting, evaluation of innovation potential and identification of the type of innovation activity are the key elements. Integration of small-scale business with large companies and research organisations presents great opportunities. The issue of human resources is

RESUMEN:

El objetivo de este trabajo es analizar la experiencia internacional de utilizar el potencial de innovación de las empresas en pequeña escala y la posibilidad de que la empresa rusa se aproveche de ella. En las condiciones actuales, las innovaciones se convierten en uno de los factores definitorios del crecimiento económico. El negocio en pequeña escala es un componente importante de este proceso. La traducción de las posibilidades de las empresas en acción depende sobre todo de su potencial de innovación. Se utiliza un sistema de índices para evaluar el potencial de innovación. Dependiendo del nivel, tal potencial puede diferir de la industria a la industria. Un nivel relativamente bajo de actividad de innovación entre las empresas rusas les hace ver la experiencia de las empresas extranjeras. Una de las cuestiones clave aquí es el enfoque sistémico que presupone el uso interconectado de factores internos y externos. Los resultados de la actividad de innovación están directamente relacionados con la naturaleza de la organización de procesos de negocio. En este caso, el establecimiento de metas, la evaluación del potencial de innovación y la identificación del tipo de actividad de

also significant for the development of innovation activity. The government acts as an active participant of innovation activity stimulation. A transition from commodity economy to industrial-innovation economy is required so that Russian enterprises could develop and actively use the innovation potential of small-scale business.

Key words: innovations, innovation potential, small-scale business, international experience.

innovación son los elementos clave. La integración de negocios en pequeña escala con grandes empresas y organizaciones de investigación presenta grandes oportunidades. La cuestión de los recursos humanos también es importante para el desarrollo de la actividad de innovación. El gobierno actúa como participante activo de la estimulación de la actividad innovadora. Se requiere una transición de la economía de los productos básicos a la economía de la innovación industrial para que las empresas rusas puedan desarrollar y utilizar activamente el potencial de innovación de los negocios en pequeña escala.

Palabras clave: innovaciones, potencial de innovación, negocios en pequeña escala, experiencia internacional.

1. Introduction

The ever-increasing influence of destabilising factors are typical for the development of modern economy. This may be considered naturally determined if we take into account the enhancement of competitive actions, contradictory trends, and limitations of resources. The search for new sources of growth is a topical task for many countries. The development does not depend much on the use of raw material resources anymore, although they are still important. (Sidorov and Shapkin 2008). Intellectual assets take centre stage. Transition to the economy based on knowledge and innovations is considered as a strategic line of development of the leading countries of the world. (Europa 2020. A strategy for smart, sustainable and inclusive growth, 2010). New ideas implemented in intellectual products are in great demand at all levels of economic management.

Innovation systems are comprehensive, they involve a large number of participants. (Lebedev 2011) Despite the leading role of large companies, this does not make small-scale and medium-sized enterprises less important, as confirmed by practice. For instance, in the USA companies with less than 1000 employees create 17 times more large technical innovations than companies with over 10 000 employees. (Ivanov 2013)

Looking for possibilities and forms of their development, small-business enterprises dealing with innovations form a special sector of economy – small-scale innovation business. Innovation activity includes all types of activity: research and scientific, technological, organisational, financial, etc., which directly or indirectly influence the generation and commercialisation of innovations. (Glossary of Statistical Terms OECD) Capabilities of small-scale enterprises depend on their innovation potential, which is determined by the company's ability to develop and use innovations in practice. (Korolev and Koroleva 2014)

Innovation potential is actively implemented in most Western countries, especially in Switzerland, Sweden, Great Britain, the Netherlands, and the USA. (INSEAD research) Innovations form the image of small-scale business more than ever. In developed and some developing countries (China, India) about 60% of all small-scale companies are innovative. The share of innovative small business in Russia is not that large and accounts for 1,4 to 3,5%. (Vostrova 2015). International experience can help with fuller implementation of innovation potential.

2. Methodology

What is innovation activity of a small-scale company based on? The experience of the most successful foreign companies shows that it is based on the organisation of business processes which can be divided into the following stages:

1. Goal setting. The goals are determined by the specifics of an enterprise and may be such as: competitive growth by means of launching new products and developing new technologies, entering new markets, improving business reputation, etc.

2. Evaluation of innovation potential of a company using an index system. Among the most important characteristics are: scientific and technical potential, commercialisation indices, specifics of innovation management system, cost-effectiveness of innovations. Another significant index of innovation potential evaluation in international practice is TAT (turn-around time) which was introduced by Japanese companies. This index determines the time from the moment of need or demand for a new product to the moment when it is shipped to markets in great numbers. (Shaimardanova and Yakovleva 2013).
 3. Identification of the type of innovation activity. It may be either based on the original design or acquired from a third party. In the case of former, a special group has to be created to deal with research and development, or a research innovation subdivision is created in the enterprise structure. In the case of latter, the enterprise organises strategic partnership with research organisations, which requires significant nonrecurring costs.
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3. Results

Forms and methods of innovation activity depend on the specifics of an enterprise. Among such forms, which have become widely spread and well-known in a number of countries, are venture (risk) enterprises. They are mostly found in the USA. Accumulated venture investments in this country accounted for \$ 22.2 bln while the share of other regions is significantly lower (\$ 9.5 bln in Asia, \$ 4.2 bln in Europe). (Pregin Special Report: Venture Capital, 2014) Venture enterprises are characterised by a small number of personnel and mostly deal with application and design and engineering projects. The capital invested in such enterprises is called risk capital as the profit of such kind of research is not known for sure beforehand. Such enterprises are usually financed by venture funds. There are two types of venture funds: independent risk enterprise and venture projects as part of a large company. They are usually headed by an engineer (responsible for the technical part of the project) and a manager with experience in business organisation. Corporate ventures are often short-term, in the USA they exist, on average, for 4-5 years. (Garvin and Levesque 2006).

Venture companies mostly operate in knowledge-intensive industries. Although the process of venture business development reminds of Brownian movement (such companies appear as quickly as they disappear), it is rather efficient. These companies develop fundamentally new products and technologies and they can also identify the most promising lines of development for innovations that encourage large companies in their innovation activity. For example, the contribution of Apple computer company which had appeared as a risk enterprise was not in creation and production of personal computers but in motivating IBM company to look for new technological solutions. (Venture (risk) innovation enterprises and science parks, 2013)

Small-scale companies operating in the field of innovations attach great importance to integration with large business. The interaction is based on mutual profit. The designs of small enterprises allow big companies to save time and money as well as enter new markets. The main risk in this case is carried by developers of innovations, but their potential losses are rather low. Small-scale business, in its turn, acquires new opportunities and resources. In particular, this contributes to their participation in international scientific and technical exchange. (In the USA about 50% of license export agreements concluded by American companies are accounted for by small business). (Free Small Business Advice). Small-scale business also uses integration mechanism in relation to research organisations (universities, laboratories). New ideas and designs developed in these organisations are often implemented through creation of small innovation companies.

Participation of small business in innovation clusters deserves special attention. These clusters are joined small enterprises with closely situated companies and research centres. The model of innovation clusters has become widespread in Scandinavia, the USA and in a number of countries of Southeast Asia. In Italy, for example, they are represented in the form of so-called "industrial districts which are about 200 in total and include over 1 mln small and medium-sized enterprises". (Mantaeva and Kurkudinova 2012). The cluster is significant for the implementation of innovation potential of small-scale business as it involves the whole chain of

innovation: from the generation of scientific knowledge to development of business ideas based on it and introduction of products on traditional and new markets.

An essential point of organisation of innovation activity is human resources. This aspect is, first of all, related to the level and quality of training of innovation managers. Development of innovation processes and their results mostly depend on the competence of innovation managers. Following the experience of small enterprises that ceased to exist, one can note that most of them did that within the first years of functioning. One of the main reasons for that was poor management. The aspect of human resources also includes the use of the experience of top-quality specialists (managers, engineers, scientists) which have already retired but are able to use their knowledge and experience. For that reason, in many developed countries there are special consulting centres with retired experts. In the USA, for instance, there are 389 consulting centres of this kind employing 11 400 retired specialists. (Free Small Business Advice). Similar structures function in the countries of the European Union providing consultations for enterprises on a call-out basis. This powerful intellectual source requires minimum of organisational and financial expenses. For example, city associations of designers and engineers from the Japanese organisation of assistance to industrial engineering operating in Tokyo help small and medium-sized businesses with technical documentation. (Nogin and Khomenko 2013).

4. Discussion

An important factor for the development of small-scale innovation business is state support. World experience shows that there are no prospects in this field without active participation of the government. Today in almost all developed as well as actively developing countries stimulation of the development of small-scale innovation business is considered as an important line of state policy. There are different views on whether the government should influence this process or not and what is understood as new economy. (In particular, K. Kelly and B.Z. Milner name the increasing role of knowledge, innovations, and information in economy and emergence of new enterprises producing information products as main determinants of such economy). (Kelly 1998; Milner 2008). The mechanisms of state support are different. They are implemented in two ways: stimulation of small-scale business as such and direct support of innovation enterprises.

Stimulation is implemented via administrative and economic mechanisms. A special place among them is given to tax tools. In industrialised countries different types of tax remissions are used in order to support innovative activity of small-scale business (tax holidays, tax extension, concessional taxation, etc.).

Apart from taxes, other tools of state stimulation of innovation activity are also used. There are different programmes implemented in various countries for that purpose (Table 1).

Table 1. Examples of state stimulation programmes for innovation activity in the field of small-scale and medium-sized business (Dechamps 2012).

Programmes	Countries
Special-purpose grants for scientific research projects	Almost in all developed countries
Reduced taxation for enterprises in the field of innovation	The USA, Great Britain, India, China, Japan
Direct financing (grants, loans) up to 50% of expenses on design and inventions	France, the USA and other countries
Special infrastructure supporting innovation	Japan

Being diverse, the programmes have a common goal, which is to create favourable innovation environment in the country. Previous forms of state support of small business are replaced by new approaches based on sustainable development and continuous introduction of innovations. (Troille and Barron 2001).

One of the issues of the development of small innovation entrepreneurship is lack of qualified specialists able to create innovations. Different approaches are offered and used in order to solve it. In particular, it is noted that distance education has to be developed. In Germany, for example, the government has adopted a special programme allowing all the people willing to study to do it online. (How companies approach innovation: A McKinsi Geobal Survey) On the whole, management understands how important innovation activity is. According to the research, over 70% of top managers in the USA said that innovations were among top three growth factors. (Smith 2012)

Among the discussed problems, there are restrictions existing in a number of industries which hold back the development of innovations and entrepreneurship on the whole (threshold quantity of trained workforce, innovation efficiency decrease effect and some others). However, instead of fighting the restrictions, business community usually tends to use the government for its own benefit, which forms a system of political influence. (*Kitova, Kolmakov, Dyakonova, Grishina, Danko and Sekerin 2016*)

A significant factor of state policy in respect to small-scale innovation business is creation of structures ensuring its development. A great number of state organisations deal with the process of development and implementation of innovations. In many economically developed countries national innovation system is managed at high, medium, and low state levels. Different structures regulate and stimulate innovation activity.

5. Conclusion

What conclusions for the development of innovation activity of Russian enterprises can be made on the basis of foreign experience?

As it was mentioned before, unlike most Western countries, in Russia the potential of innovation enterprises is poorly realised yet. One of the key lines of solution to this problem is the need for drastic changes in economic policy of the government. Many suggestions of required solutions related to the development of business in the country and small-scale innovation business in particular can be found in Russian economic literature and in the views of business representatives. Most of these suggestions are justified and noteworthy, but this is details. As classics note, if you start with the special issues without looking into general ones, you will find these general issues at every step. The existing model of economy oriented towards large-scale standard production in raw material industries is this general issue of Russian economy. (Favaro 2013). According to foreign experience, turning to the innovation model of economic development at the state level is especially topical within significant deterioration of economic situation. This forces the companies to use the most important trumps, such as knowledge, patents, technological processes, and human assets. (Dudin, Sekerin, Smirnova, Frolova and Sepiashvili 2014).

The macroeconomic aspect of the solution of innovation problem, although important, is not a goal in itself. It should be complemented with a set of solutions at other levels. As observations show, one of the biggest obstacles to small-scale innovation enterprises in Russian economy is low availability of financial resources. That said, the experience of other countries dealing with this problem can be useful, such as, for example, the development of venture financing, availability of bank loans at the initial stage of investing, the use of innovation vouchers, different types of concessional taxation. The practice of integration of small business with other participants of innovation process for joint solution of the most important tasks is also to be

taken into account. All these measures are to be used as a single mechanism where all decisions are interconnected and targeted.

Within the article it was possible to mention only several aspects of the issue. Its multisidedness requires further research in this field with particular attention to the most promising lines of development.

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