The Identification of Regional Competitiveness Potentials

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DOI: http://dx.doi.org/10.13005/bbra/1684

(Received: 30 November 2014; accepted: 17 January 2015)

Formation of national competitiveness is impossible without increasing the competitiveness of regions, without creating the conditions for this, in particular, the development of competitive activity, informational ensuring of civilized and efficient market functioning with a social goals. In practical terms, increasing regional competitiveness is important for the national economy and for the interaction with external partners. Realization of competitive advantages at the regional level can be less costly and risky than at the federal level. In addition, the rate of "regional competitiveness" as a generalized description of the region has significant methodological sense, that allows to improve the existing and find new and effective management tools for development regions and territories: analysis and evaluation of the current and future state of the regional economic system; methods for better identification of their strengths and weaknesses, the profile of competitive advantages; development methods for different strategies of socio-economic policy, taking into consideration the features of regional conditions and their specific goals.

Key words: Regional competitiveness, Sources of regional competitiveness, The potentials of regional competitiveness, Regional innovation system.

Level of regional competitiveness (RC) as an integral component of development in the region allows a comprehensive look at the state of the regional socio - economic system. Individual elements of the analysis of regional competitiveness could be described by Paul Krugman (Krugman, 1996), in a particularly applications of the concept of competitiveness to regional competitiveness, and M. Porter (Porter, 1990). He established a clear link between

productivity and regional living standards, and

also he emphasized that the productivity of the most direct impact on the cost of living cost of doing business and wages in the region. According to the theory of marketing and strategic management, key success factors and competitive advantages are determined according to their importance for the consumer and (or) business partner. Authors dealing with this problem (V. G Versan (Versan, 2011), N. Isaev (Isaev, 2007), G. Hamel (Hamel and Prahalad, 1996)), agree with each other that RC determined by a combination of only those of its properties which has value (interest) for consumers to satisfy their needs and requests.

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Regional competitiveness is quite consistent with the principles of organization of scientific research of the problem and known methods of knowledge like, systematic, dynamic, dialectic, adequacy, feasibility, comparability, the possibility of more or less accurately calculate and use a broad statistical basis of the possibility of analysis, synthesis, comparison, abstraction etc. It is important that this index can be widely used in international statistics, and also allows you to track the dynamics of processes in comparison with competitors on a large scale. From our point of view, its use for assessing and managing strategic and balanced development of the country is especially important for a country such as Russia. This is associated with a complex state structure, the inhomogeneous development of individual regions and areas, sharp differences between climate zones and multinational diversity.

METHOD

Beginning in the late twentieth century, the world economic space substantially modified – it is formation of a new structure of regions as economic actors who have certain resources and advantages, as well as their specific strengths and weaknesses. The struggle for markets and investments carried at regional alliances, agreements and treats, major alliances and integration groups.

In this situation, the recent development has received a term such as the competitiveness of countries and regions. In many countries, there are tips on national and regional competitiveness, the EU carried out a coordinated policy of increasing the RC. Its provisions are being built today to the rank of the key objectives of the federal and regional priorities and functions of state regulation of the economy.

It should also be emphasized that regional competitiveness - the notion of a higher level compared to the competitiveness of regional producers of goods and competitiveness of enterprises, although, of course, depends largely on these two important characteristics.

RC concept reflects the hierarchical level at which it operates and competing economic entity. If the micro-level competitiveness is reflected in the goods and services provided by one or another manufacturer, and at the macro level we are talking about the entire national system, the regional competitiveness is a middle level.

RC factors also differ from factors of micro competitivness since they include also political, climatic, cultural and historical factors. In addition, there are objective difficulties in using the term "regional competitiveness" in practice, due to the uncertainty of the area of competition, the objective function of competition (for example, the rate of market share can't be used here), and the lack of direct competition between the regions as territories. In view of this assessment RC is insufficient application of traditional methods of economic and market analysis. It is requires a greater number of evaluation parameters and extensive amounts of information with the presence of appropriate institutional mechanisms for their handling and storage.

Further, since the countries are at different stages of development, and national and regional competitiveness depends significantly on the degree of development of the factors that determine the levels of (Gukasyan, 2003):

- a) Pre-industrial societies or traditional economy with a predominance of "primary" areas of economic activity such as agricultural, mining, etc.;
- b) Industrial society with the dominance of the "secondary" sectors of the economy, industry with a predominance of handling and processing of raw materials:
- c) Post-industrial society with a predominance of "third generation technologies", intellectual and informational activities, which are the core values, knowledge and discovery.

Accordingly, sources of regional competitiveness are in the field of the gradation and identify the leading factors of a particular era in the development of society. In the first stage competitiveness depends on the availability of natural and mineral resources, population density, the climate, terrain and other geographical features, as well as on the ability to mobilize these factors and assign a profitable, but not high in comparison with competitors export price.

In the second stage competition takes place at the investment policy, its effectiveness relative to the industry and its growth. Everything is determined by the power of the leading industries, their export-oriented clusters and points of growth, stability, integration, new forms of work organization and production, the rapid development of technology, often on the basis of their simulations.

In the third stage the country is moving from technology imports to their creation, and competitiveness is directly correlated with high levels of education, intelligence, nation, creative spirit, and, consequently, ability to generate innovation and perception. This requires such premise competitiveness as modern experimental design basis, the experimental structure, innovative small and medium business incubators, technology parks, etc.

Interestingly, that M. Porter (Porter, 2002) singled fourth stage – compete by wealth. We are talking about countries with high per capita income due to redistribution of national wealth and windfall profits. Here there is the socialization of the economy, relaxing acting on entrepreneurial activity. However, in this case social capital is increasing.

One of the most important issues for the research of the notion of "regional competitiveness" and on this basis to develop mechanisms for its management - is to establish the factors determining it, in other words, the forces that generate economic benefits - absolute or relative. The study reveals the existence of several methodological approaches to identify such factors (Slabinskaya et al., 2014).

It should be remembered that the RC is a complex and multi-factorial concept, which means that no one is the enlarged figure may not fully reflect it as an integral characteristic activities and development of the region.

Note that regional competitiveness can be absolute and relative, potential and actual. Absolute RC manifested in the characteristics of the regional economy, or, more precisely, the conditions for its functioning - physical and geographical, social and market. Relative RC suggests a ranking of the regional economy in a number of the same administrative level.

Potential regional competitiveness reflects the ability of a regional system of self-development in a sustainable and stable basis, the ability to create a competitive product - quality and price, with acceptable losses for natural

systems and populations. As for the RC, it is estimated based on the results actually obtained through the effective use of internal and external factors, the available benefits and strengths. Specificity of real regional competitiveness that it must have in minds the dynamics of social and economic status, not just static or leveling value. This differs RC from currently accepted methods to assess the overall economic condition of Russian regions, in particular by the Council for the Study of Productive Forces (Stryabkova and Kupriyanov, 2007), (Stolarova and Mamatova, 2013).

RESULTS

Selecting indicators for assessing regional competitiveness depends on the theoretical and methodological paradigms and concepts that are placed in its foundation. From the analysis of assessment methods RC that the most helpful and seems justified based approach accounting for different potentials forming the aggregate capacity of the region, and thereby constituting its potential competitiveness. It is, as noted above, is an integral feature of the subject, or generalizing, with resources of different quality and belonging to different spheres of economic activity - to work as implementation of labor, land use, field of science, etc. In other words, in this context, private potentials can be considered as a factor of regional competitiveness.

Potential, as it is known, reflects the ability of a system:

- A) To have available and the necessary elements in the complex;
- B) To keep the items in working condition and to ensure coordination between them;
- C) To bring them into action by mobilizing, motivation and goal-setting total.

First of all, it is the human potential. It refers to the ability of people in the region comply with the global competitive economy through the development of certain qualitative characteristics, knowledge and skills. These are qualities that affect the performance and source of income - personal, collective, public. If we consider a methodology for the human development index (HDI), developed within the framework of the UN, such qualities include:

- a) Age and physical characteristics, generally expressed in life expectancy of a particular region;
- b) Education or educational potential of the population;
- c) The volume of gross domestic product per capita.

These three parameters are calculated based on the indexes. Thus, the educational potential includes two factors - the coefficient of the adult literacy rate and enrollment.

Further, also should be noted this factor like the institutional capacity, development of state and public structures that generate and provide efficient flow of rational economic processes in the region. Institutions should set the "rules of the game", to regulate and supervise their implementation. The importance of this potential is difficult to overestimate. Their tasks include: community involvement and its activation in economic terms, the development of new forms of business, reduction of risks and barriers to the movement of the regional capital, the interaction between the participants of the regional market, the development of innovative sphere, etc. Protection of property rights - is also one of the most important institutional prerogatives. Their development worldwide is not accidental - they are designed to regulate the relationship between the state and the market, to be the catalysts of activity and necessity for this freedom, eliminate unnecessary barriers to business, giving the reliability of entrepreneurship, especially small and start their life cycle, replace the rigid administrative intervention authorities milder measures indicative planning and counseling (Glagolev and Schetinina, 2012), (Kazanova et al., 2013).

Institutions serve as a buffer between the various participants in economic activities, including research and marketing. They are obliged to find the "sweet place" in a combination of different interests. This is especially important when dealing with foreign, external partners for the region, as too high discriminatory measures can ruin relations with foreign counterparts, and are too low - not fulfill its protective role for protectionist regional producer.

Evaluation of institutions methodologically not yet sufficiently developed. As part of the new institutional theory suggests

some approaches to determine their effectiveness, in particular, barriers to entry for new businesses (high, medium, low), the dynamics of the number of projects implemented through institutions, the level of attracting investment per worker in such structures, the level of corruption and etc.

Development of this type of potential can make influence on many others, in particular export. It reflects the level of competitiveness of regional producers in foreign markets, and the efficiency of foreign trade transactions concluded. Typically, this potential was assessed by two parameters:

- a) Volume (specific gravity) of export products;
- b) The level of import substitution.

They specify using qualitative assessment of the export structure (type of product, the degree of processing it, if this raw material, the size of the value added, etc.). It should also take into account the relationship between growth of exports and the number of jobs in the region, structural changes, income participants of economic relations, changing environmental conditions, etc. The growth of exports from the region has no direct dependence with positivity occurring processes in general.

One of the most important for regional competitiveness potential acts is private investment. It creates a sustainable competitive advantage in the region, enabling the construction or reconstruction, businesses or infrastructure upgrade like production, the introduction of high technology and innovation, employment growth, the level of education and modern work organization (Romanovich and Rudychev, 2011). Investments cannot be achieved without the development of diversification and improvement of standards of quality and also service products of regional manufacturers, tourism or recreation services.

Investment attractiveness of regions of the Russian Federation is subject to evaluation for quite some time, for example, is known rating agency "Expert" (since 1996), use parameters such as investment risk and investment potential. The first reflects the probability of loss of investments and income from them in seven types of risk. As a result, the region's rank is calculated deviation from the average (Doroshenko and Buhonova, 2014).

The second parameter takes into account

such factors as the intensity of the regional territory of the factors of production - labor, natural resources already existing facilities and investment in previous periods, the demand of the population in terms of money.

Further isolate such potential as infrastructure. That infrastructure creates conditions of competition with new means and ways, stimulates activity of subjects, provides them with necessary information, links between different markets, including those from other regions, and contributes to the mobility of labor and financial resources (Troshin, 2011). Transport and its quality also play a major role in organizing the sales / delivery resources and goods safely, on time and without loss.

Innovative potential is a basic framework for competition in the twenty-first century. It has the character of a structure- core in the overall regional competitiveness and advantages created on it, have a long-term, strategic prospects. It is proved that in the next 10-15 years, any revenue growth will be achieved only through technological innovation. It's not just about the technology of production, but on technology management, accounting, commerce. communication, and environmental impact, the audience, opinion, etc. At the government level it is emphasized that Russian economy will develop in the direction of innovation only if effective national innovation system is established. Under the innovative system means the totality of the subjects and objects of innovation, interacting in the creation and implementation of innovative products and services and carrying out their activities as part of the state policy in the field of innovation system development (Ryapukhina and Shevtsova, 2012), (Evtushenko and Ryapukhina, 2013).

Thus, an important element in the effective functioning of the innovation system is not only the quantity and quality of its components, but also the nature of the relationship between them. Innovative networks create a special type of economic culture, which is in collaboration between developers and innovation of high-tech products and their customers. As a result of long-term interaction all subjects of innovative market reduce transaction costs, because during long time they have been able to learn all the requirements

of each other and have adapted to them. Most innovative products can achieve the greatest effect when they are used in a certain regional complex, as they adapted to the specific natural, cultural, historical and socio-economic conditions (Doroshenko and Buhonova, 2005).

Regional and territorial marketing innovation is an important mean to strengthen and development of this potential. It makes timely adaptation of regional policy to changing conditions of the external environment, identifying values and needs of individuals and society in the process of its transformation. This includes the positioning and branding of the regions in the Russian Federation.

We should distinguish regional innovation system (RIS) and innovative potential. Regional innovation system is a set of enterprises located within a certain territory, they create, distribute and commercialize of innovations (Kuprijanov and Shevtsova, 2011). In addition, an important element of the regional innovation system is a collection of innovative infrastructure enterprises and government agencies to facilitate the implementation of priority programs of national innovative development from a regional perspective.

DISCUSSION

Innovative potential of the region consists of innovative potentials of individual economic entities in the region. So its assessment begins with an assessment of innovative potential of individual subjects. Innovative potential is a collection of scientific, technical, technological, infrastructural, financial, legal, social, cultural and other opportunities to provide the perception and implementation of innovations, getting innovation (Lisin, 2002).

One more important potential is social. It can be also called social (public) capital. It reflects the situation in the region with the level of social security, people's loyalty to the government and producers in the region, the level of their culture, to a certain extent, the quality of life, as well as the orientation of mass media. In assessing social capital accounted for opportunistic forces, political parties, public organizations. As a result of this potential characterizes the level of national

harmony and unity in the region, as well as the strength of social influences on all the economic and political processes.

The concept underlying the assessment of social capabilities developed in industrialized countries since the 1970 's. - So-called "new cultural politics", which is used in the process of social integration of planning and forms of leisure, volunteerism and philanthropy, administration and culture of entrepreneurship. It takes the form of projects instrumental cultural policies and bottomup initiatives, with funding grants, awards and rewards for the most productive social projects. Social capital involves trust, civic participation and interest in the creation of strategies and initiatives in the region, it includes network institutions that strengthen solidarity, including in terms of "producer-consumer". All this increases the productivity of other factors of the economy, has facilitated the spread of new ideas, and accelerates progress and thus the competitiveness of the region.

Marketing and communicative potential is associated primarily with the formation of demand for GRP. It includes features such as regional brand manufacturers and fame of the first persons, reputation as a partner and territories with normal and better working and living conditions, and service in all areas of innovation, promotion of regional markets - stock, commodity, service, tourism, etc. This marketing communications, quality promotional products, information materials about the region and progressive forms of marketing and news alerts about regional life in connection with the business relationship and strategy.

CONCLUSION

Based on all the above, we should suggest the following definition of the regional competitiveness: the ability of the regional socioeconomic system to accumulate and implement certain advantages, above all, the innovative nature of the establishment of this amount and composition of benefits that allow the region's population steadily rising standards of living. Thus, based on this definition, we are interested in the competitive advantages that meet the innovative type of development; they are different

in nature from the sources of growth, arising from the first and second approaches. It benefits such as the possibility of raising the factors of regional development, with innovative type of growth infrastructure, training and involvement of personnel in the region by creating an attractive environment, a favorable investment climate, etc.

Ensuring the appropriate level of regional competitiveness and competitive advantages, management is a highly complex task, multi-level and multi-parameter, which operates a complex volumetric resource, technical and technological, informational, social, and other characteristics, parameters and indicators, the relationship which should be considered at all stages of management. Therefore invaluable importance for theoretical and methodological problem of studying, describing and identifying the relationships between components of regional competitiveness, its key factors and their conditions may find the way of its better realization.

Analysis and synthesis of scientific literature, as well as existing approaches to the problem of regional competitiveness revealed that sources and background factors that determine the level of regional competitiveness, are very heterogeneous: macro factors: economic, political, national, as well as factors of middle level: natural , technological, and social - demographic information and intellectual, organizational, management, etc. Among the most relevant components of regional competitiveness is particularly important place belongs to the innovative potential that serves as a central unifying core for business, government, communities and other forces of development. But to achieve it requires specific institutions designed to address several problems to stimulate and activate innovative investment activity and maximally assist the participants.

ACKNOWLEDGMENTS

The article was published with the support of Ministry of Education of Russia within the framework of project the strategic development Belgorod State Technological University named after V.G. Shukhov for 2012 - 2016 years (#2011 - PR-146).

REFERENCES

- Doroshenko, Y.A., Buhonova, S.M., Selecting a method of financing innovation in conditions of limited financial resources. *Innovations*, 2005; 6: 113-116.
- Doroshenko, Y.A., Buhonova, S.M., Theoretical aspects of investment attraction of the economic systems. *Belgorod economic vestnik*, 2014; 2(74): (3-7).
- 3. Evtushenko, E.I., Ryapukhina, V.N., Evaluation of innovation potential of Belgorod region based on complex method. *World Applied Sciences Journal*. 2013; **25**(1): 148-155.
- Glagolev, S.N., Shchetinina, E.D., Modernization as a kind of competitive strategy of industrial enterprises. Bulletin of Belgorod University of Cooperation, Economics and Law, 2012; 1: 43-47.
- Gukasyan, G.M., Economic Theory: Problems of the "new economy." St. Petersburg: Peter, 2003.
- Hamel, G., Prahalad, C.K., Competing for the Future. *Harvard Business School Press*. 1996; 358 p.
- 7. Isaev, N.S., Management potential competitiveness of the chemical industry on the basis of the additive approach (Candidate of economic sciences dissertation). Kazan, Russian Federation, 2007.
- 8. Kazanova E.Y., Davidenko T.A., Chizova E.N., Human capital in innovation economy. *Social* and humanities knowledge, 2013; **12**: 111-120.
- 9. Krugman, P., Competitiveness: a dangerous obsession. Myths and realities of US competitiveness. In Pop Internationalism. Cambridge, MA: MIT Press, 1996.
- Kuprijanov, S.V., Shevtsova, S.N., Regional innovative system as the main part of the national innovative system. ALFA University Faculty for education of the executives 2nd International conference Law, Economy and Management in

- Modern Ambience LEMiMA, Proceedings, Vol. 3. Editor Zivota Radoslavljevic, Belgrade Serbia 2011; **12-15**: 210-217.
- 11. Lisin, B.K., Fridiyanov V.N., Innovations in CIS. *Innovations*, 2002; 7.
- Porter, M., The Competitive Advantage of Nations. Harvard Business Review. 1990; 73 -93
- 13. Porter, M., Regional foundations of competitiveness and implications for government policy Paper presented at the Department of Trade and Industry Workshop on Regional Competitiveness. London: DTI, 2002.
- Romanovich, M.A., Rudychev A.A., Venture investment in innovative enterprises abroad and in Russia. Vestnik Belgorod State Technological University. VG Shuhova, 2011; 4: 124-127.
- Ryapukhina, V. N., Shevtsova, S.N., The national innovation system in Russia: conditions of functioning. Casopis PRIMUS, broj 4, Izdavac: Visoka skola PRIMUS Gradiska. Godina izdavanja: 2012. UDK broj: UDK 005.591.6 (47) DOI broj: DOI 10.7251/PRI1204186R.
- Slabinskaya, I.A., Benderskaya, O.B., Slabinskiy, D.V., Analytical instruments of entity solvency management. World Applied Sciences Journal, 2014; 30(12): 1859-1862.
- 17. Stolarova, V.A., Mamatova, V.V., Theoretical aspects of formation and development of international territorial units. *Social and humanities knowledge*, 2013; **8**: 326-331.
- Stryabkova, E.A., Kupriyanov, S.V., The evolution of ideas about the competitiveness of countries and region. *Vestnik of Belgorod State Technological University V.G. Shukhov*, 2007; 2: 95-99
- Troshin, A.S., Infrastructure component of the investment potential of economic entities. *Innovation and investment*, 2011; 3: 158-160.
- Versan, V.G., Market. Supervision and certification. Security. Certification, 2011; 3.