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METHODOLOGICAL APPROACHES TO THE DEFINITION OF INDICATORS FOR ASSESSING THE COMPETITIVENESS OF REGIONS, TAKING INTO ACCOUNT THE ECOLOGIC AND ECONOMIC ASPECTS

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Abstract. The article discusses methodological approaches to the definition of indicators for assessing the competitiveness of regions, taking into account ecologic and economic aspects, a model of regional competitiveness is developed.

Key words. Region, competitiveness, strategy, development, competitive advantages, factors of competitiveness, cluster, cluster policy, ecologic and economic assessment.

Introduction.

One of the fundamental tasks facing independent Uzbekistan is the formation of a competitive economy and sustainable economic growth. Therefore, in the context of further modernization of society, issues of competitiveness and sustainability of economic development occupy a priority place in the theory and practice of national economy.

The systemic methodological approach, based on the recognition of competitiveness as an obligatory factor in the functioning of different-level economic systems in a market environment, makes it possible to design an integral system of modernization of the national economy. [1].

At the same time, it is important to take into account the regional aspect of this problem, since a stably developing economy implies dynamic development and optimal placement of productive forces in the country.

The economic situation in which Uzbekistan found itself in the first years of independence showed that the regions of the country, having different objective

regional prerequisites (geographical location, resource, innovation and educational potential, regional structure of the economy, infrastructure, etc.) and the starting conditions for entering the market, accordingly, they had different degrees and rates of adaptation to market conditions, which predetermined their current level of socio-economic development.

Literature overview

One of the key characteristics of modern effective public administration is taking into account not only the current interests and needs of society, but also long-term development goals.

The competitiveness of regional economies has a significant impact on the competitiveness of the national economy and interacts with the competitiveness of industries, enterprises and goods. That determines the key role in the characteristics of the integrated development of the region, assessing its competitiveness [2].

Assessing the competitiveness of a region allows, on the one hand, to actively act in the direction of ensuring, maintaining and increasing the competitive advantages of the territory and, on the other hand, to neutralize weaknesses or turn them into strengths.

Research methodology

In the study monographic, economic analysis, comparison, logical analysis, abstraction, induction, deduction, SWOT- analysis was used. So, methods for assessing competitiveness can be built on the basis of statistical indicators, expert assessments, and ranks.

Analysis and results

In practical terms, the competitiveness of a region is manifested in its ability to ensure the production of competitive goods and services in the conditions of effective use of existing factors of production (economic potential), in the use of existing and creation of new competitive advantages, in raising the standard of living in compliance with international environmental standards among competing regions. The competitive advantages of individual regions are classified as following:

- absolute, which are associated with the availability of unique resources and production capabilities, and relative, which are due to better opportunities or conditions for the production and sale of products or the provision of services compared to other regions.

- production and innovation - investment (in terms of volume, structure, innovation activity, investment attractiveness and efficiency of use of all resources);

- quantitative (market share) and qualitative characteristics of the functions of the region, goods or services;

- cultural and historical: actual (realized) and potential (not currently used).

Competitiveness refers to the estimated indicators, and this concept can be specified in various aspects, depending on the tasks to be solved.

The initial stage is the selection of a set of characteristics by which a comparative assessment of the regions of the republic will be carried out. The conceptual basis in defining the characteristics and approaches to assessing competitiveness is the understanding that the regional economy is a combination of efficient use of regional resources (factors of production), regional production (generating supply), regional consumption (demand), regional infrastructure and management of these processes.

Based on this, the aggregate includes all the factors that determine the competitiveness of the regional economy. These factors are grouped into three blocks of indicators characterizing the type of competitive advantage:

- resource - allowing to produce goods and services of better quality than competitors, at a lower price;

- operational - a set of organizational, economic, scientific and technological factors that allow the subject of competitiveness to achieve high efficiency in using the resources at his disposal and on this basis to reduce costs and prices, increasing the competitiveness of their goods [3,4];

- strategic - a set of strategic decisions and development programs adopted on their basis, which make it possible to optimally combine the resource base, historical,

cultural and economic-organizational features to form a unique development path, which makes the subject of competitiveness inaccessible to global competitors.¹

Important methodological aspects are the following provisions:

- competitiveness is carried out by identifying the place of the region in the national economy for each group of indicators;
- the indicators used to rank regions in terms of competitiveness should not depend on the size of the regions and the size of the population living in them. Therefore, they should be relative values - soul, share;
- ensuring comparability of indicators that are inherently positive with indicators that are negative.

To carry out a comparative assessment of territories in terms of regional competitiveness, the most important characteristics are highlighted, according to which a comparative assessment of regions within the framework of the national economy will be carried out. This set includes groups of indicators characterizing basic factors, efficiency factors and innovative factors.

The basic factors are made up of resource, environmental factors and human potential, efficiency factors characterize the efficiency of using this potential, innovative factors, reflect the level of development of the "knowledge economy", the introduction of modern technologies and the quality of innovative solutions [5].

The structural model of regional competitiveness is as follows (Fig. 1).

¹ Competitiveness is also formed from three groups of factors in the model of the World Economic Forum (WEF)

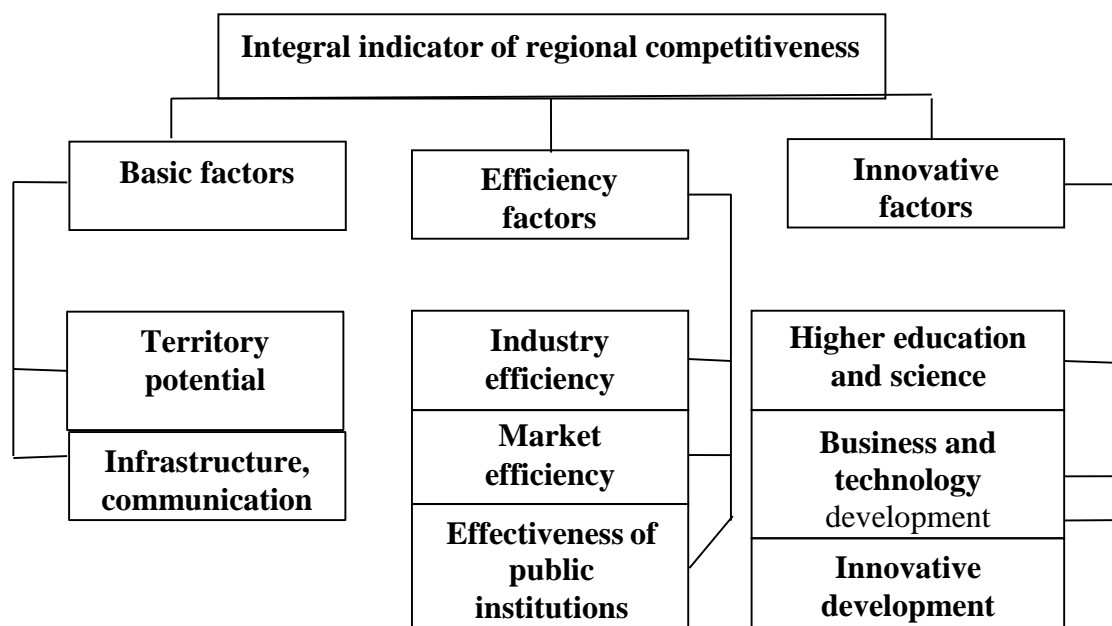


Figure 1. Regional competitiveness model

The purpose of analyzing the degree of competitiveness of the regional economy involves identifying:

- the ability of regions to ensure sustainable growth rates of socio-economic development, solving the main task of regional authorities - increasing the level of well-being of the population and attracting investment to the region in the face of tougher competition at the global level and within the country;
- provision of the necessary regional factors for the development of existing and creation of new competitive advantages. The existence of conditions that ensure the openness of the economy and facilitate the involvement of regions in international economic relations;
- availability and opportunities for creating new highly efficient competitive industries and industries in the region.

Analysis of the main factors of increasing the competitiveness of regions provides for an assessment of the specific conditions for the functioning of economic complexes that determine the competitive advantages of the regions in the following areas:

- demographic situation and labor;
- local natural resources and environmental protection;
- foreign economic activity (openness of the economy);

- innovation and investment activity (public administration);
- infrastructural support (industrial and social infrastructure);
- institutional transformations (institutions) and local budget;
- SWOT analysis of the specifics of the socio-economic situation, the potential for growth and development of starting conditions for developing a regional strategy;
- analysis of key growth points and possible centers of cluster formation;
 - assessment of the competitive potential of the region.

Taking into account the specifics of the branches of the regional economy, the main attention in the analysis should be focused on:

- dynamics, structure and efficiency of production of branches of the regional economy;
- development of scientific, technical and production potential and its compliance with the advanced achievements of science and technology;
- assessment of consumer qualities and price characteristics of manufactured products in comparison with the world level;
- evaluating the sales of finished products in the domestic and foreign markets, as well as the general state of marketing activities;
- the degree of provision of the branches of the regional economy with the main types of resources and the efficiency of their use;
- the state of management, marketing, the presence of a strategy of behavior in conditions of external competition.

The analysis of innovation and investment activities in the region involves the assessment of the investment resources used by the main sources of financing. At the same time, the dynamics and efficiency of the use of own, budgetary and borrowed funds, private investments, bank loans of investors (investment and insurance companies, non-state pension funds, etc.) and funds of the population are analyzed.

The analysis of infrastructural support should be aimed at identifying the infrastructural advantages of the region and, first of all, at the development of regional transport and communication facilities, as well as assessing the formation of market

infrastructures, which would allow a wider use of market mechanisms to ensure the necessary dynamism of the reproduction process in the region.

The most important analytical indicators that make it possible to judge institutional transformations are indicators reflecting changes in the ownership structure, trends in the formation of market institutions, the creation of a competitive environment for markets for goods and services, financial resources, and labor. In the course of the analysis, indicators of the development of the state and non-state sectors of the economy are highlighted, they are compared in terms of the structure of the economy, the number of economic entities and the cost of fixed assets, the number of employees, the amount of income received, and the impact on the formation of local budgets.

Financial support for the socio-economic development of regions is determined on the basis of an analysis of local budget funds by sources of income and main items of expenditure, their ratio. The dynamics of income and expenditure items, their ratio, structure by main sources and items of expenditure, budgetary provision for general social expenditures per one inhabitant of the region, expenditures on the most important items of social costs (education, health care, etc.) per one inhabitant of the region are studied.

It is advisable to analyze the competitive potential of the region according to its following components: natural resource, production and technological, infrastructural, socio-demographic, financial and economic, foreign economic, organizational, innovation and investment, living standards and incomes of the population and environmental.

Assessment of the competitiveness of the economy of the administrative region involves identifying:

- the ability of districts to ensure sustainable growth rates of socio-economic development, solving the main task of local authorities - increasing the level of well-being of the population and attracting investments to the region in conditions of tougher competition at the global level and within the country;

- provision of the necessary factors for the development of existing and creation of new competitive advantages at the district level. The existence of conditions that ensure the openness of the economy and facilitate the involvement of regions in international economic relations;

- availability and possibilities of creating new highly efficient competitive industries and industries in the region.

SWOT - analysis of the specifics of the socio-economic situation, the potential for growth and development, starting conditions for developing a regional strategy is an effective, affordable way to assess the problematic and managerial situation in the industry, city, district, region. It is seen as an important business technology for assessing baseline, untapped resources and threats to operations to fill information gaps and complement “traditional” analysis.

The analysis and assessment of the competitiveness of the regions should contain information on the trends in the production, economic and financial and economic activities of the main sectors and spheres of the economy, highlighting the competitive advantages, as well as shortcomings and bottlenecks.

Since the efficiency of resources (one of the most important indicators of competitiveness) is characterized by indicators of profitability, then, as a first approximation, the intra-national competitiveness of regions can be determined by the profitability of products sold and the profitability of assets of enterprises and organizations by region.

Since the main goal of the development of the region is a constant increase in the well-being of the population, the achievement of which is ensured through sustainable socio-economic development of the region on the basis of increasing the efficiency of the real sector of the economy, among the development priorities should be highlighted:

- increasing the level of competitiveness of the branches of the regional economy based on the technological re-equipment of production facilities, the introduction of science-intensive and resource-saving technologies;
- creation and development of clusters;

- stimulating the development of export and import-substituting industries;
- activation of innovation and investment activities through the introduction of effective investment mechanisms in the sectors of the economy.

The implementation of these priorities for the development of regions should be reflected in the regional industrial policy, which involves the improvement of the sectoral structure of the industrial complex on the basis of: implementation of projects of science-intensive, high-tech orientation in regions with high scientific and technical potential, priority development of industries and industries operating on local raw materials, acceleration the pace of modernization, the introduction of energy and resource-saving technologies in the regions.

An important issue is the deployment of clusters [6,7,8,9,10]. The purpose of the cluster policy is to promote the formation of economic clusters as one of the tools to increase the competitiveness of the region. The founder of the cluster approach to increasing regional competitiveness M. Porter gave three extended explanations of the influence of clusters on competitiveness [1]:

- increasing competitiveness by opening access to specialized contributions and specialist workers, increasing access to information, institutions and public goods, and encouraging complementary business activities;

- increasing the innovative potential of the firm through a more rapid diffusion of technological knowledge and innovation. Competitive pressure within each cluster increases the motivation of companies to innovate;

- stimulation of high rates of creation of new enterprises through the creation of employees of the company of their own enterprises through separation.

A typical example is Finland's economic policy based on clustering. Over the past 10 years, the country has taken first place (out of 102 countries under consideration) in the rating of promising competitiveness, overtaking such leading countries as the United States, Germany and Japan. Thanks to clusters with high productivity, supported by innovative structures, Finland, having only 0.5% of the world's forest resources, provides 10% of world exports of wood products and 25% of paper. In the

telecommunications market, it provides 30% of world exports of mobile communications equipment and 40% of mobile phones.

In China, special zones for the development of high-tech industries have been created. In these zones, the Ministry of Science and Technology and regional authorities are jointly involved in the creation and development of clusters in these zones. By 2002, there were 53 special zones in China with 28,388 firms with 3.49 million employees and \$ 1 trillion in sales. yuan. In China, the process of creating and developing clusters involves three levels of government: the central government, the government of municipalities and developed zones. With the approval of the central government, the municipality government can create a high-tech industry development zone on its territory. The central government also selects firms worthy of particular privileged measures. In 1985. the first special high-tech zone was created - the high-tech industrial park in Shenzhen. In 1988, the Beijing Industrial Zone was established. By 1991. the Torch Program incubator development program has created 26 such zones. In 2002. China signed a contract with Singapore in order to enhance cooperation in four areas - information technology, microelectronics, new materials and biological sciences (biology, biochemistry, immunology, genetics, physiology, ecology, etc.).

Cluster structuring of the economy has a significant impact on the general economic policy of the state. First of all, this is due to the support of science, risky innovations, export activities, the creation of the necessary infrastructure and education. An economic policy based on the development of clusters leads to an increase in the competitiveness of states. The cluster approach to economic development is used by the governments of the USA, Great Britain, Canada, France, Sweden, South Korea, Japan, and Kazakhstan. In fact, a cluster is a geographic, spatial aspect of the combination of production. Its efficiency is explained by a decrease in the costs of all factors of production (raw materials, energy, labor, capital costs, transport and other distribution costs), which is explained by the complementary effects of intra-industry and intersectoral economies of scale associated with the geographical convergence of firms that supply products and services to each other. and also having a single labor market.

The biggest savings are achieved here:

- by reducing transport costs;

- by improving the quality and reducing the price of specialized services, for example, for repair, advertising, training of personnel, the possibility of opening specialized research centers - since the demand for these services increases in the event of the formation of a cluster;

- due to the presence of a single labor market.

A special role in the implementation of this process belongs to regional authorities, which first need to make a decision on which industry is most profitable to create a cluster, i.e. assess the potential for clustering industries, then take on the initial stage of creating a cluster.

Clustering potential is the presence of competitive advantages in industries, enterprises and infrastructure organizations located in the region, the possibility of combining these advantages and their use to increase the competitiveness of the region.

The work on determining the level of the clustering potential of industries includes the following stages:

- determination of the levels of clustering potential (high, medium, low) and their characteristics;

- selection of factors for analysis;

- expert determination of the threshold values of the selected factors, taking into account the corresponding levels of clustering potential;

- assignment of a point characteristic to each factor;

- determination of the minimum and maximum values of the point scale within the used group of indicators;

- assessment of the level of clustering potential.

A quantitative assessment of the ecological and economic situation, which is an important tool in making management decisions, is of great importance in analyzing the competitiveness of a region.

In Uzbekistan, the purposeful use of environmental indicators in environmental protection activities began in 2005, after the State Committee of the Republic of Uzbekistan for Nature Protection, together with the United Nations Development

Program and with the involvement of the main ministries exercising control over the state of the natural environment, began to implement the project "Environmental indicators for monitoring the state of the environment in Uzbekistan".

The introduction of national environmental indicators into the practice of environmental protection activities is carried out in Uzbekistan in accordance with the Law "On nature protection" (Article 28), Resolutions of the Cabinet of Ministers of the Republic of Uzbekistan No111 of 03.04.02 "On approval of the Regulation on state monitoring of the environment in the Republic Uzbekistan", No16 of 13.01.03 "On approval of the Program for monitoring the environment of the Republic of Uzbekistan for 2003-2005" and No.48 of 16.03.06 "On the approval of the Program for monitoring the environment of the Republic of Uzbekistan for 2006-2010".

The Republic of Uzbekistan is a member of the United Nations Economic Commission for Europe (UNECE) Program "Environment for Europe". Therefore, when choosing the indicators, mainly the criteria used by the experts from the UNECE and the European Environment Agency (EEA) were applied.

Out of more than 300 monitored indicators, 91 indicators and a number of subindicators were recommended for use, characterizing the state of the atmosphere, water and land resources, problems of waste disposal and recycling, the state of biodiversity, public health and the environmental situation in the Aral Sea region. The environmental indicators recommended for use correspond to generally recognized international approaches, and, at the same time, reflect the most important environmental priorities of Uzbekistan.

Taking into account these approaches, a complex system of indicators is proposed for the integral assessment of the competitiveness of the region (Table 1).

Table 1. The system of indicators for assessing the integral level of the region's competitiveness²

№	Indicators	Level assessment		
		Low	Medium	High

² Source: compiled by the author

I	Economic			
	- gross regional product			
	- share of industrial production			
	- share of agricultural production			
	- share of unprofitable enterprises			
	- the number of small businesses and private entrepreneurship per capita			
	- growth of retail turnover			
	- product export			
II	Social			
	- standard of living			
	- housing provision			
	- volume of paid services			
	- the level of education			
	- sickness rate			
	- unemployment rate			
III	Innovative:			
	- number of organizations including research projects			
	- volume of completed scientific and technical work			
	- number of specialist researchers			
	- costs of innovation			
	- number of new technologies being created			
IV	Natural and geographical:			
	- demographic			
	- share of urban population			
	- geographical location (expert assesment)			
	- per capita availability of irrigated land			

	- provision of water resources			
	- mineral resources			
V	Cultural and historical			
	- the presence of cultural monuments (expert assessment)			
	- number of tourists			
	- recreational areas			
VI	Ecological			
	- greenhouse gas emissions			
	- waste emissions			
	- salinity of drinking water			
	- salinity of land resources			
Total	Points			

Conclusions

Thus, based on the analysis of the presented characteristics, the following questions should be answered:

- what is the impact of the existing structure of the region's economy on individual components of the quality of life of the population, what trends are observed in this area;

- how does the existing structure of the region's economy affect the ecological situation, what trends are observed in this area;

- to what extent the existing structure of the economy allows solving the main problems of regional development.

References

- [1] Porter M. International competition. - Moscow: International Relations, 2005. - 859 p.
- [2] Porter M. Competitive strategy: methods for analyzing industries and competitors. M. Alpina Business Books, 2005, p. 375.

- [3] OECD, Innovation and Effectiveness in Territorial Development Policy. OECD website, 2004.
- [4] Entrepreneurship and Local Economic Development Policy. OECD Publication Service, Paris, 2003.
- [5] Problems of the Aral Sea basin: research, projects, proposals. Collection of articles. T.: Goskompriroda RUz and USAID (USA). 1998
- [6] Rosenfeld S. A guide to clusters strategies in less favored regions. European Commission website, 2002.
- [7] Ruzmetov B. Collective monograph. Cross-industry clusters.
- [8] Pashennykh F. The role and place of the ecological component in assessing the socio-economic state of the northern regions. Moscow: Regional Economy and Theory. 2007, No. 5, p. 17-18
- [9] Kadyrov AM, Sevlikyants SG, Formation of the ICT cluster in Uzbekistan // Market, money, credit. - Tashkent, 2005. - No. 8. - P. 29.
- [10] Soldatova S.S., Volodin V.M. Cluster development strategy as a tool for increasing the competitiveness of the region's industry // Economics and Management. Actual problems of improving the efficiency of economic management - Penza State University, 2005. - p. 34-39.