Staffing support management for regional economic growth in the context of global challenges

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Abstract. The article defines the formation conditions of regional development vectors on the basis of approved federal documents and the opinion of regional authorities on the expediency of applying efforts to certain sectors of the economy. The authors indicate the necessity of focusing on the development of the industrial sector of the economy. This is justified, first of all, by the high level of the added value of industrial products. The industrial sector is also pointed out as a factor of intellectualization of the consumer sphere and a driver of economic growth. At the same time, staff potential is highlighted as one of the most important resource components. The results of the study indicate the participants in the formation of labor resources and the problems of their interaction, the shortcomings of staffing support at modern industrial enterprises. The article contains the mechanisms that are necessary for managing the processes of staff potential development, including the ones that take into account the prospective needs in the conditions of industrial transformations and the young people's understanding of their purpose in economic activity. The emphasis is placed on the complexity and consistency of the actions taken. At the same time, the authors provide a list of the most significant professional skills and promising professions for both large manufacturers and small and medium-sized businesses.

1 Introduction

Modern approaches to strategic planning of regional development demonstrate an emphasis on industries characterized by a high level of added value, which are able to provide a significant increase in the domestic regional product. Such industries are the most attractive to investors, as they provide a quick return on investment. They are also interesting for the regional authorities, as they guarantee the stability of tax revenues, and for the economically active population, as they guarantee employment and a decent level of remuneration. In this regard, it becomes obvious that it is advisable to take into account the possibility of developing the industrial sector in those regions that traditionally have high performance of business entities in this sphere of economic activity.

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2 Relevance

Today, in a number of cases, there is a formation of regional strategic guidelines in accordance with the investment projects approved at the federal level. For example, the Bryansk region is characterized by a concentration of investment projects in the agro-industrial complex. This is due to the availability of federal funding for this area, as well as a large amount of agricultural land that is inefficiently used by former owners. However, economic growth in the region in this case is assumed due to the use of only a part of the resource opportunities, in particular, only land and human resources. Moreover, human resources are involved in the performance of medium- and low-skilled jobs. The extensive use of natural resources can eventually cause environmental problems, and the lack of the need to create high-paying jobs can strengthen the centrifugal migration trends of highly qualified personnel.

At the same time, the industrial sector, due to the specifics of the production process, the equipment used, and the need to comply with the global technological progress, has a steady need for intelligent human capital capable of mastering innovations and generating new knowledge. The educational level of population has a direct impact on economic development, since high-quality consumer demand is able to bring the economy to a new, higher level, being a continuation of the intellectual capital in the field of consumption.

There are also concerns about ensuring the progressive development of regions at the federal level. Thus, according to the Spatial Development Strategy of the Russian Federation [1], Bryansk should become a major center of economic growth, where it is planned to maintain the priority for the regional industry of the production of machinery and equipment, motor vehicles, other vehicles and equipment, finished metal products and electrical equipment. The importance of manufacturing rubber and plastic products, computers, electronic and optical products will increase. Metallurgical production will remain critically important for the economy of the Bryansk region as an important element of creating added value in key industries. Thus, the industrial sector can and should become a driver of the region's economic growth.

These strategic guidelines require appropriate resource content. First of all, this is due to the formation of an effective regional model of stuffing support, developed in the context of the "Regional Standard of Stuffing Support for Industrial Growth" [2].

3 Relevance

Industrial enterprises in the region, according to the survey conducted by the authors, are already experiencing an unmet need for highly qualified engineering and technical personnel, and are ready to cooperate with educational institutions to organize practice-oriented training and internships. At the same time, it is noted that the theoretical training of graduates meets their requirements, but employees accepted after studying at the university are often not able to solve problems in the full engineering cycle from the idea to the product disposal (Table 1 - survey results data of 26 industrial enterprises of the Bryansk region).

Table 1. Answers of the management of the enterprises of the Bryansk region about problems and prospects of interaction with higher education organizations.

Question	Number of businesses that responded		
	yes	partly	no
Compliance of theoretical training of graduates with the employers' requirements	18	8	-
Compliance of graduates' practical skills with the requirements of employers	2	8	16
The need for highly qualified personnel	21	5	-
Willingness of employers to work together on the content of educational programs	26	-	-
Willingness of employers to provide a place for internships	19	7	-

In addition to the demand for certain specialists in the labor market, the management of enterprises quite reasonably wants to receive university graduates who are fully ready for practical activities, the staff with the necessary professional and market competencies, leadership skills, i.e. the so-called SOFT SKILLS competencies (responsibility, discipline, self-management, communication, teamwork, emotional intellect, leadership, problem solving, critical thinking). [3, 4, 5]

We would also like to note that it is a clear shortage of such professionals as technology entrepreneurs, technology brokers, technology transfer specialists that is the bottleneck in the development of new domestic equipment and technologies, i.e. innovative activities in the technical sphere right now. These people should become the basic specialists of a modern small knowledge-intensive business.

The shortcomings in the work of young staff are complemented by an unsatisfactory age structure of labor resources as a whole. This is due to the fact that most of the employees of industrial enterprises (especially highly qualified engineering and technological personnel) are employees older than, sometimes significantly, 50 years [6]. Their departure from the profession within 10-15 years can lead to an irretrievable loss of the accumulated basic professional knowledge.

At the same time, realizing the current and worsening unfavorable situation, regional producers take the position of consumers rather than customers in relation to the system of interaction with the staff training system that has developed over many years: there is no qualitative description of the requirements for future graduates, which would allow universities to modify the content of educational disciplines and the specifics of practical training. The practice of forming project student groups to perform work and achieve specific results on the orders of enterprises and many other things are not sufficiently developed.

Higher educational institutions, in turn, train students for bachelor's degree programs on a massive scale. But the bachelor's degree programs are essentially reduced to four years specialty programs which were developed 10-20 years ago and used technologies for organizing the educational process that did not involve obtaining full-fledged production skills.

4 Theoretical part

The first step towards solving common problems can be the creation of mechanisms for informing the subjects of the education system in the region by the industrial partners about the vector of their strategic development, joint forecasting of the need for labor resources

by their number and qualification characteristics, taking into account changes in production processes and the need to replenish employees who are retiring. The creation of an information system for monitoring staffing requirements in the region will allow employers to form requests for the competence content of educational programs and, in general, will indicate the vector for achieving satisfaction of the needs for intellectual capital that can ensure the development of the economy and industry of the Bryansk region.

In addition to the staffing support, a significant direction of qualitative transformations in the interaction of regional education and industry is the joint planning of applied research activities that ensure the demand for university science and technological development of regional enterprises, the formation of their promising competitive advantages. The potential for the implementation of such interaction is determined by the following circumstances:

- the presence of intellectual and laboratory-technical potential in higher education, and the involvement of this potential in research and development work will not distract similar resources of industrial enterprises from solving current production tasks and will ensure the effectiveness of the result;
- the opportunities for subsequent participation of students, who have confirmed their knowledge and skills in the process of studying specialized disciplines at departments at enterprises, in solving the tasks of implementation of innovative projects of enterprises;
- the versatility and breadth of the tasks to be solved, which make it possible to effectively combine a narrow specialization with broad competencies required in the framework of project management;
- the existence of state programs to support cooperation between applied science and business;
- securing highly qualified personnel in the region.

At the same time, technological progress in general requires a qualitatively new organization of production, so there is an increase in demand for another format of interaction of universities and industrial enterprises – engineering services. Engineering companies currently operating in the region specialize in providing a wide range of services in construction. However, they do not provide engineering services for industrial enterprises. Universities, when they join the agenda of scientific and technical support for the economic growth of the region, will be able to work simultaneously in two directions: to meet the region's needs for research and development through the development of engineering services and applied science, as well as to form and develop a set of mechanisms for the breakthrough development. [7, 8, 9]

These directions will involve the following tasks:

1. Development of engineering services and applied science:

- development of scientific directions (services) for technological support of current and future production processes;
- development of measures to increase the productivity of large and medium-sized companies in the region;
- creating and updating services to help small businesses assess the potential for improving labor productivity at their enterprises; evaluate the effectiveness of implementing new technologies, purchasing new equipment, etc.;
- development of research teams that implement projects on process optimization and state management of the quality of life in the region (aimed at implementing current and future public proposals).

2. Development of supporting mechanisms for the breakthrough development of the regional economy:

- formation of a system that allows increasing the level of receptivity to the innovations created in the region and the results of scientific activities, applied research and development activities on the part of regional and municipal authorities, business;

- formation of a system of scientific and technical background for the development of new production directions in the branches of the regional economy;
- formation of a system of scientific communication of creative teams of higher educational institutions, enterprises and research institutes of the region with leading enterprises and scientific organizations of Russia and abroad.

5 Practical part

Increasing the degree of involvement of higher educational institutions in engineering activities at the regional level through the implementation of scientific and engineering projects, the development of practice-oriented educational programs of secondary special (SPE), higher (HE) and additional professional education (APE), the organization of infrastructure conditions for the development of the professional community and the interaction of the participants in the market of engineering services on the basis of universities will fill this market niche.

Having studied the normative documents and studies of other authors [2, 10, 11, 12], it can be concluded that, in general, the strategic objectives of staffing support management of the industrial sector of the region's economy are:

- implementation of a cross-cutting interdepartmental planning process for staffing support of the regional economy;
- organization of continuous multi-level processes of training and retraining of personnel for the economy of the region, including the ones that are in accordance with international standards and requirements of employers;
- systematization and replication of effective practices, mechanisms and tools for staff potential development;
- creating conditions for the development of scientific potential for technological support and the launch of new production facilities in various sectors of the regional economy.

Staffing support for the economic growth of the region provides for two main directions of effort: ensuring the current needs of the region in personnel and ensuring the future needs.

These directions should be implemented in the following sequence.

The first priority, of course, is to meet the current needs of the region. This will require forming a list of key partner enterprises, determining the needs for the number of professionals in accordance with the technological tasks of the enterprises. Next, you should specify the level of qualification of employees. Thus, the current order for specialists with secondary specialized education, higher education and the need for professional retraining or advanced training of employees available at the enterprises will be formed. The interaction in this format involves the possibility of representatives of enterprises to participate in the formation of educational programs, in the process of teaching specialized disciplines, as well as in the assessment of the quality of training of specialists.

Based on the analysis of the current practice, we will identify the most promising mechanisms for the work of enterprises with students. First of all, they should include institutes of research activities of students. An indispensable condition for conducting this activity is relevance, implying the focus on solving economic problems. In the case of well-organized research activities, the student develops an understanding of the importance of science for the national economy, and the theoretical aspects of the activity are applied in practice, although not yet at the implementation stage.

Developing the interest of students in the development of research competencies, in the case of a sufficiently qualified presentation of practical developments that demonstrate the ability to apply theory in practice, students can take part in the contractual activities of the

department, which is the next mechanism for working with talented young people. Performing paid work allows you to form an understanding of the demand and material value of the practical skills obtained in real life in accordance with the future specialty. This process also shows the ability to work in a team, to learn in the process of direct professional activity.

The next mechanism in case of close cooperation between higher educational institutions and enterprises of the real sector of the economy can be scientific and educational work with industrial partners. And the most promising activity is the project one. To ensure the mass nature of issuing practical tasks and contact with employers in the design process, as well as to remove geographical restrictions when working with the most interesting for students potential employers, you can create and use platform services, an example of which is the service of the joint project of the ANO "Russia – the land of opportunities" and the All-Russian Popular Front "Professional Internships 2.0".

Having determined the mechanisms for timely and high-quality provision of current needs, it will be necessary to develop mechanisms for ensuring future needs, which, however, should be identified or formed.

To do this, you will need to find out the list of key regional investment projects of economic entities in the region. At the same time, the best option for the region, higher educational institutions and business entities will be close cooperation in the processes of strategic planning of development prospects under the leadership of a coordinating regional body, which will allow determining future types of economic activities and forming lists of professions for specific needs. The agreements between the interested economic entities and the organizations of secondary vocational education, higher education, additional education and professional retraining in the region will provide for the formation of tasks for advanced targeted staff training and assessment of the quality of training.

The implementation of these measures will require the restructuring of the system of interdepartmental cooperation in the region [2]. Namely:

- involvement of all groups of the interested parties in decision-making – the advisory bodies on stuffing support at the regional level (Regional Governor) have been created, which include representatives of various blocks of regional executive power (industrial, social, investment blocks, etc.), as well as employers and associations;
- changing the role of the state employment service in terms of forming the current and forecasting the future needs of staffing the regional economy by industry and field of activity;
- coordination of the multi-position field of stuffing support and scientific and technical support of the region – the coordination mechanism in the form of a "single window" has been created, a regional coordinator of the stuffing support system in the region (or coordinators for industry segments of the economy) has been appointed;
- increasing the flexibility and adaptability of the regional scientific and educational system – regional strategies and staffing models have been revised, and relevant and promising competencies have been identified both for the region as a whole and for individual investment projects.

6 Conclusions

The objective reality of the modern economic system is the rapid obsolescence of the acquired knowledge and the rapid increase in the amount of new knowledge. In this regard, intellectual capital in the real sector of the economy needs constant development, an individual approach, and the availability of a wide range of educational programs available for various social and age categories.

In the current conditions of economic development, characterized by the rapid obsolescence of the acquired knowledge and the rapid increase in the amount of new knowledge, intellectual capital in the real sector of the economy needs constant development, individual approach, and lifelong learning. In this situation, the modern regional model of staffing support does not meet the requirements of the national agenda of technological breakthrough in the sectors of the Russian economy, which, in turn, requires an early change in the situation in view of the need to ensure the implementation of National Projects in terms of economic growth and labor productivity.

Based on this, the recommendations presented in the article regarding the restructuring of interdepartmental cooperation in the formation of the staffing policy of the region on the basis of the provisions of the Regional Standard of Stuffing Support for Industrial Growth is a well-founded and effective measure for the stable development of the industrial sector of the economy and improving the investment climate on a particular territory.

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