

Evaluation of human resources potential in the Omsk region under digitalization condition

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Abstract — The article is devoted to the study of human resources potential in the Omsk region from the point of evaluative characteristics.

The purpose of the article is to systematize and clarify approaches to the assessment of human resources potential, reasoning the feasibility of a comprehensive study. We are considering not only the process of shaping human resources potential and the degree of its implementation, but also the environment (quality of working life), which has a significant impact on these processes.

Methods. The research was carried out using the following methods: economic and statistical (when substantiating the methods of assessing the formation of human resources potential in the Omsk Region), comparative and analytical (when analyzing the existing human resources potential in the Omsk), and comparative assessment with the regions of the Siberian Federal District and the Russian Federation.

Result. The main results of the research are focused on the specifics of the evaluation mechanism, which makes it possible to identify the main problems of shaping and using the human resources potential in the region. The article develops the theoretical and methodological principles related to the assessment of human resources potential in the region. The article gives an author's definition of human resources potential. The conducted research and the obtained results allow enlarging the scientific direction with the approach, which consists in the expanded and complex character of its assessment. This helps to reveal the main problems and to determine the directions of increasing the efficiency of the use of human resources in the region.

Keywords — *human resources potential, quality of working life, assessment of human resources potential, regional labor market, employment, unemployment, wages, working conditions, non-standard employment, professional qualification group, labor mobility, labor productivity*

I. INTRODUCTION

According to the «Strategy of social and economic development of the Omsk region 2025», the main reference points of the regional economy are the agro-industrial complex and high-technology industries. At the same time, many enterprises have an acute need for personnel, its rational

redistribution and use, which is a necessary condition for the development of production and increase its efficiency. Against the background of the reduction in the number of employees in the Omsk region there is a shortage of qualified and highly skilled professionals [5].

That is why the study of human resources potential of the region and enterprises identifies the potential for increasing the efficiency of its implementation.

On the one hand, the human resources potential is a part of the labor potential of the region, which possesses knowledge, skills, abilities, and skills implemented by employees in the process of labor activity. On the other hand, the human resources potential includes the reserve of labor force (located both within and outside the working age), which possesses the necessary knowledge, skills, abilities, and is involved in labor activity when creating the appropriate socio-economic conditions.

The works of V.Y. Afanasiev, B.M. Genkin, M.V. Grachev, A.N. Gimaeva, N.N. Egorova, A.Y. Kibanov, T.A. Kuttubaeva, N.L. Tarakanova and others are devoted to the problems of human resources potential. Numerous works of domestic scientists, aimed at the comprehensive study of human resources issues, contain theoretical and methodological research and empirical observations. Special attention is paid to the principles and factors of its formation, evaluation at the level of the enterprise, region.

The work of N.R. Balynskaya, N.V. Kuznetsova and O.N. Sinitsyna "Indicators of assessment of human resources potential of the enterprise" is based on the methods of quantitative assessment and calculations of the labor potential of the enterprise, argumentation of its difference with the human resources potential of the enterprise "Human resources potential is less than the labor potential of the enterprise by the value of the potential of unskilled and low-skilled workers, freelancers and part-time workers". As a criteria, the authors propose to assess the change in labor productivity depending on the level of qualification of employees, taking into account that the labor potential is also affected by the average duration

of labor activity during the year, the retention of personnel, the total number of personnel [1].

Methodological regulations on the assessment of human resources potential at the regional level are presented in the work of T.A. Kuttubaeva. The author proceeds from quantitative and qualitative characteristics, highlighting the assessment of the actual human resources potential and the assessment of the use of human resources potential. Quantitative indicators include the number of employed population in the economy with professional training, unemployed citizens, (students) graduates of professional educational institutions, migrants, released workers from enterprises with professional training, dismissed from the armed forces, with professional training and released from prison. Qualitative indicators reflect health and physical condition, level of qualification, level of education, level of professional experience, level of adaptability, level of territorial and professional mobility. To specify the indicators, the author suggests structuring the characteristics in the demographic (gender and age) and professional qualification sections, excluding the possibility of determining the integral characteristic [3].

A.N. Gimaeva and R.R. Lukyanova in the proposed method of assessment of human resources potential distinguish two groups of indicators - formation and use, among which the main focus is on the educational characteristic, which is taken into account in the indicators of population assessment, definition of training costs, employment [2]. Kulikova A.N., Gerasimov V.O., Sharafutdinov R.I., based on this methodology, offer its refinement taking into account innovation processes [4].

Human resources potential in the context of its reproduction, the impact of structural changes in the economy of the region, reflected in the imbalance of the sectoral and regional labor market, the problems of its management at the regional level are considered in the work of N.L. Tarakanova. The author shows the need to study the human resources potential in terms of professional qualification and territorial-administrative features [11].

II. RESULT

At the same time, many problems related to the assessment of the regional human resources potential formation require further research and practical solutions. In the process of transformation of the Russian economic system, approaches to the assessment of human resources potential have also changed, and it is no longer enough to determine its individual characteristics. In our opinion, it is reasonable to carry out a comprehensive assessment of the region's human resources potential, taking into account not only the state of the human resources potential and the degree of its implementation, but also the environment, which has a significant impact on these processes.

The key elements of the assessment include analysis of the state of human resources potential, determination of conditions for its implementation - the quality of working life in the region, analysis of the needs of employers in personnel, analysis of the degree of its implementation, and determination of development trends taking into account the strategy of innovative transformations in the economy of the region.

The analysis of the human resources potential is focused on the study of the demographic situation, the study of the demand and supply of the labor force, professional and qualification structure of the labor force, consideration of migration, including labor migration.

Demographic indicators are an important characteristic of the reproduction of labor resources in the region, in the dynamics they reflect the main trends in the formation of human resources potential. Over the period from 2000 to 2018, Omsk Oblast saw a reduction in the number of people and an aging population, a decrease in the number of people of working age, and the development of migration as a destabilizing factor in the labor market. The template is used to format your paper and style the text. All margins, column widths, line spaces, and text fonts are prescribed; please do not alter them. You may note peculiarities. For example, the head margin in this template measures proportionately more than is customary. This measurement and others are deliberate, using specifications that anticipate your paper as one part of the entire proceedings, and not as an independent document. Please do not revise any of the current designations.

TABLE I. THE MAIN COMPONENTS OF A COMPREHENSIVE ASSESSMENT OF PERSONNEL POTENTIALS

<i>Comprehensive assessment of human resources potential</i>				
<i>Comprehensive assessment of human resources potential</i>	<i>Investigating the conditions for the implementation of human resources potential</i>	<i>Analysis of employers' staffing needs</i>	<i>Analyzing the degree of realization of human resources potential</i>	<i>Determining the main areas of human resources development</i>
demographic situation employment vocational qualification structure and migration assessment of current and future needs for personnel	assessment of the quality of working life: wages, working conditions, social conditions organizational conditions	assessment of the level of professional training by educational institutions and the requirements of employers	assessment of the balance of the sectoral and regional labor market GRP, GVA indices Labor productivity growth index	Labor mobility regulation Standard and non-standard employment coverage Labor market demand forecast

The coefficient of the demographic burden on the able-bodied population is increasing: in 2000 it amounted to 315 people per 1 thousand people of working age, in 2016 - 414 people, in 2017 - 432 people, in 2018 - 451 people. [8]. The demographic situation in the Omsk region is also associated with the migration outflow of the population, and, first of all, the labor resources of young people; there is an increase in the negative migration balance.

Against the background of a decrease in the labor force and a decrease in the number of unemployed citizens for the period under review, the level of the employed population (the ratio of the employed population to the total population over the age of 15 years) has decreased.

A similar situation is observed in 2019. According to the Federal State Statistics Service on the results of a population

survey of the Omsk region on employment in April-June 2019 compared with the same period in 2018, a decrease in the total number of unemployed was accompanied by a decrease in the overall unemployment rate from 6.6% to 6.4% of the total labor force, which is higher than the average for the Russian Federation (4.6%), the employment rate decreased by 0.3 percentage points, amounting to 59.5%, remaining above the average for Russia Federation (59.2%) [10].

III. DISCUSSIONS

Vocational and qualification structure and structure by types of economic activity reflect the state of the labor market, the existing personnel potential. In the Omsk region, the vocational qualification level of employees remains low, the share of highly skilled workers over the past five years has not exceeded 28%. Structural changes in individual professional groups do not characterize a positive trend.

An analysis of employers' needs in personnel includes an assessment of the current and future needs for personnel and an assessment of the level conformity of professional training by educational institutions with the requirements of employers.

The need for personnel is considered both in the territorial aspect and by type of economic activity. In territorial context, the staffing needs of the municipal districts of the Omsk Region amounted to almost half of the total needs of the region due to the need to replenish retired workers.

Since 2012, on the territory of the Omsk region, an annual monitoring of the current and future needs for personnel is carried out. Based on the results of monitoring conducted by the Ministry of Labor and Social Development of the Omsk Region, the total staffing demand for the past five years exceeds 70 thousand people, which is associated, on the one hand, with the replacement of retiring workers (83%), and, on the other hand, with the creation or modernization of jobs (17%). Studies have shown that the region has a high need for personnel, especially agriculture and industry, and the demand for qualified and highly skilled workers is increasing in the vocational qualification structure.

Determining whether training institutions meet the requirements of employers is an important component in assessing staff potential. In accordance with the Federal Law of July 3, 2016 No. 238-ФЗ "On the Independent Assessment of Qualifications", within the framework of the national system of professional qualifications in the Omsk Region, work is being carried out on the functioning of industry centers for the assessment and certification of qualifications, a certain role is played by the Professional and Public accreditation. A kind of indicator of the quality of training by vocational education institutions is the employment of graduates, which is reflected in the results of monitoring systematically carried out by the Ministry of Education, the Ministry of Labor, and the General Directorate of Employment.

The study of the conditions for the realization of human potential includes, first of all, the study of the quality of working life (wages, working conditions, social conditions of work). An integral component of the study is the consideration of organizational conditions in the territorial and administrative aspect.

The concept of "Quality of working life", according to OA Platonov, expresses "... a set of practical conditions that determine the degree of effectiveness of the realization of the labor potential of society, enterprise, individual" [5, p.30]. The quality of working life has a significant impact on the productivity and efficiency of workers, determines the competitiveness of the economy and social stability of societies. The quality of a person working life is closely connected with the conditions in which he can most fully realize his intellectual and creative abilities, show spiritual and moral qualities.

The quality of working life as an environment for the realization of human potential includes elements of ensuring the employment of workers by creating jobs and lowering unemployment (this element of the study echoes the analysis of the state of human potential), wages as the dominant labor motivator, and creating safe and healthy working conditions as a factor maintaining the health of staff. In addition, it includes elements that create conditions for the fuller realization of human potential - social conditions for work, including optimal staff rotation within the framework of labor mobility, development of social services at enterprises, improvement of labor organization (including advanced training of workers), the development of non-standard forms of employment.

The main source of income for the working-age population is wages, which reflect the quality of working life and become the main factor affecting the attractiveness of the region. For five years (from 2013 to 2017), in the Omsk Region, a steady growth trend was observed in the average monthly nominal accrued wages of employees of organizations. Compared with 2013, in 2017 its size increased by 119.7% and reached 29,751 rubles, but, despite the growth rate, its absolute size is significantly lower than the average for the Russian Federation (39,167 rubles).

At the same time, a high degree of differentiation of wages by type of economic activity remains in the region. In 2017, its high level is typical for enterprises engaged in mining operations - 39,007.3 rubles. (i.e. 131.1% of the average value for the region), the production of chemicals and chemical products - 44859.7 rubles. (150.8%), production of coke and oil products - 65,279.0 rubles. (more than 2 times compared with the average for the region) and low - in agriculture 20,255.0 rubles. (68.1%), production of electrical equipment 21,893.8 rubles. (73.6%).

Over the past three years, the amount of overdue salary arrears has significantly decreased in the Omsk Region. According to this indicator, the Omsk region among the regions of the Siberian Federal District as of January 1, 2018 occupied the 4th rating place (the first place corresponds to the lowest value of the indicator) [9].

The creation of safe and healthy working conditions as a factor in maintaining the working capacity of personnel is an important component of KTZ and an important characteristic of the situation in the social and labor sphere of the region.

Ensuring the conditions and labor protection is in the field of close attention of the Ministry of Labor and Social Development of the Omsk Region. In June 2019, a meeting of the Public Council at the Ministry of Labor of the Omsk Region was held, where they considered the implementation of the Decree of the Government of the Omsk Region dated

May 31, 2017 No. 152-p “On approving the procedure for collecting and processing information on the state of labor conditions and labor protection for employers, operating in the Omsk region ”and the use of monitoring in the practical activities of the Ministry for the implementation of the main directions of state policy in the field of labor protection.

In recent years, in the field of labor protection, there has been a tendency to reduce occupational injuries, as of 01.01.2013, the frequency rate of injuries at work was 1.35 (per 1000 employees), as of 01.01.2016, it dropped to 1.22. The share of jobs at which certification was carried out on working conditions (a special assessment of working conditions) in the total number of jobs from 61.9% in 2013 to 76.3% in 2017 increased.

Over the past five years, the costs of Omsk employers for labor protection measures increased by more than 10%, in 2017 they exceeded 2.6 billion rubles, per one employee these costs in 2013 amounted to 2289.5 rubles ., in 2017 reached 10,500 rubles.

But, despite the positive dynamics in a number of indicators, the state of working conditions cannot be considered satisfactory - the proportion of workers employed in conditions that do not meet sanitary and hygienic standards in recent years has fluctuated within 24-26% of the total number of employees [8, 9].

The study of the human resources conditions for the implementation must be considered in the organizational aspect from the position of the territorial and administrative component. Organization of work to address issues related to the implementation of state policy in the field of labor and employment is carried out in the region by the Ministry of Labor and Social Development of the Omsk Region and the Main Directorate of the State Employment Service of the Omsk Region. Coordination work on the implementation of a unified personnel policy in the region is carried out by the Coordination Council on Personnel Policy, the Regional Commission on Personnel Policy. The Regional Methodological Center for the Development of Qualifications of the Omsk Region takes part in the formation of personnel policy. At the level of individual sectors, coordination of actions is carried out by branch executive bodies with the participation of associations of employers, representatives of educational institutions. The Omsk Regional Union of Trade Union Organizations “Federation of Omsk Trade Unions” and the Union “Omsk Regional Association of Employers” take an active part in solving the problems of developing human resources.

In order to determine the main directions of formation, the rational distribution of labor resources, and increase the efficiency of using human resources, the Decree of the Governor of the Omsk Region (August 30, 2013 No. 121) approved the Concept for the Development of Relations in the Sphere of Labor and Employment of the Population of the Omsk Region until 2020. Among the priority areas and related tasks for the implementation of the Concept are highlighted:

- providing the region’s economy with personnel in quantitative and qualitative (vocational qualification) terms;
- creating conditions for attracting and securing qualified labor resources in the Omsk region;

- creating a system of vocational guidance and psychological support for the population of the Omsk region to increase the motivation of young people to work in professions and specialties that are in demand in the economy of the region;

- improving the quality of working life (providing employment, raising wages, improving working conditions, promoting the protection of labor rights of workers).

The main mechanism for solving the tasks is to build an effective organization of interaction between the subjects of the personnel management system in the region.

The analysis includes the study of the realization degree of human resources. It includes the study of qualitative and quantitative indicators: assessment of the balance of sectoral and regional labor market, determination of the growth dynamics of gross regional product, gross value added, value added, net value added, labor productivity growth index. Assessment of the balance of the sectoral and regional labor market is based on the analysis of the state of human resources and the analysis of the needs of employers in personnel. The results of annual monitoring of the current and future demand of employers for personnel in the Omsk region are the main source of development of the forecast of the balance of labor resources and determination of the demand for personnel required to ensure the planned investment projects in the region. According to the Projected Workforce Balance of the Omsk Region for 2019-2021, in terms of the labor resources balance in the forecast period, it is expected that the labor resources deficit will amount to 20.4 thousand people in 2019, 20,600 people in 2020 and 20,600 in 2021.

Particular attention should be paid to the labor productivity indicator when analyzing the implementation of human resources potential. It is known that labor productivity is the most important indicator of economic development of the territories and the country as a whole. Decree of the President of the Russian Federation No. 204 of May 7, 2018 "On the national goals and strategic objectives of the development of the Russian Federation for the period up to 2024" defines annual growth rates of labor productivity in the amount of 5% starting from 2024. It was decided that the achievement of the goals set in 2019-2024 is based on the national project "Labor productivity and employment support".

To implement the national project, the Ministry of Economic Development, the All-Russian public organization "Business Russia" and the Federal Tax Service of Russia have developed a methodology for calculating operational indicators of labor productivity of an enterprise, industry, or a constituent entity of the Russian Federation, which is used to monitor the implementation and management of the project activities [7].

According to the OECD methodology, at the regional level, labor productivity is measured as Gross Regional Product (GRP) at constant prices or Gross Value Added - GVA per employee, per job or per hour worked.

According to the methodology proposed by the Ministry of Economic Development, when calculating labor productivity, the following features are distinguished: measurement object, section and levels of detail, efficiency. For objects of measurement, the calculation is made only for “visible”, recorded economic activity, by section and level of detail

possible up to enterprises, by efficiency - it is carried out within four months after the end of the reporting period. Moreover, labor productivity is measured as value added (DS) per unit of labor costs. Value added represents the amount of gross profit and remuneration (including taxes and insurance premiums), calculated on the basis of tax information and financial statements. In this case, depreciation is excluded from the DS, thus, the calculation is made at net added value (VDS), taking into account deflation, using value added deflators developed by Rosstat for economic activities [7].

At the same time, when solving the problem of ensuring the reliability of the determination of this indicator, it is advisable, along with the above-mentioned factors, to take into account the so-called junk costs that accompany the growth of GRP, but are not deducted from the volume of total production and thereby overstate the level of material well-being. Junk costs are costs associated with environmental pollution (air and water pollution, landfills, noise and other types of pollution). This problem is also characteristic of other countries [6].

The final element of a comprehensive assessment of the region's personnel potential is the determination of the main directions of its development, which are currently identified and outlined in the Regional Standard for Personnel Support for Industrial (Economic Growth) of the Omsk Region. The main tasks include improving the efficiency of staffing of the regional economy, attracting and securing human resources, and developing human resources.

The implementation of the standard is based on the implementation of activities in areas related to monitoring the staffing system, determining the need for personnel for promising and demanded professions in the region, introducing a practice-oriented (dual) model for training highly qualified workers and engineers for high-tech industries, and ensuring the need for personnel on the basis of retraining and advanced training, the organization of an independent assessment of the quality of training.

In this case, in our opinion, it is advisable to include measures to regulate labor mobility in the region in accordance with the needs of employers in addition to the areas outlined in the standard, to develop a staff rotation scheme for the future. In order to obtain more complete information on employment, increase its level, introduce non-standard employment (including its diverse forms) as a separate indicator, which is currently practically not taken into account.

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