ANALYSIS OF SUPPLY AND DEMAND IN THE LABOR MARKET OF UKRAINE: REGIONAL ASPECT

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ABSTRACT

This article is concerned with the analysis of supply and demand for labor in the regional labor market of Ukraine on the example of the Dnipropetrovsk region. The article presents the analyzes of such theoretical issues as determining the nature of the labor market, as well as supply and demand in the labor market. Particular attention is paid to the analysis of statistical data on employment and unemployment in the labor market of Dnipropetrovsk region, as well as a comparative analysis of the number of unemployed persons and the number of vacancies as the main indicators of supply and demand in the labor market of the region. Objectives: The purpose of this study is to analyze the current trends of supply and demand in the labor market of the Dnipropetrovsk region. Methods/Approach: The quantitative and qualitative methods were used to analyze statistical data posted on the website of the Office for National and Regional Statistics and Regional Employment Center. Results: The results of the investigation are presented in the form of diagrams, which clearly show the disproportion in the labor market of the region, and we can make a conclusion that the supply of labor far exceeds demand, almost twice. Conclusions: The conclusions to the study present proposals for improving the situation and establishing a balance in the labor market of the region under investigation.

Keywords: labor market, labor force, regions, employment, unemployment, supply, demand, job vacancies

JEL classification: J21, J2, J63

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INTRODUCTION

The development trends in the regional labor market are one of the key characteristics of economic development in the region. The successful performance of the labor market depends on the employment situation, which is determined by the equation of demand and supply of labor. The economic situation in the country, which has had changeable trends since the proclamation of Ukraine’s independence, the change in the structure of demand for professions caused by economic progress and the advanced means of
communication, as well as the COVID-19 pandemic, drastically changed the structure of supply and demand in the labor market of the country and each particular region.

The abovementioned reasons have led to a disproportion in the labor market, expansion in the number of unemployed persons, lessening of need for employees, increasing social tensions in different regions of the country and decline in the population living standards.

In this regard, the issues of research of supply and demand in the labor market as the key processes in the formation of the labor market are growing more urgent.

The issues of labor market development are covered in the research papers of such Ukrainian scientists as Horilyi (1999), Holovko, Pastukhov (1998), Tarshyna (2006), Teryanyk O. (2015) Herchanivska, Petrenko, Kachmar (2021), Karpiy, Kachmar (2021) and others. It should be noted that scientists conduct a generalized assessment of labor market development and fail to take proper care of certain developmental aspects of market transformations.

The purpose of this study is to analyze the current trends of supply and demand in the labor market of the Dnipropetrovsk region.

In the furtherance of this goal it is necessary to perform the following tasks:

- to analyze the theoretical approaches to defining the concept of labor market and related categories;
- to analyze the level of employment and unemployment in the labor market of the Dnipropetrovsk region;
- to determine the relation between supply and demand for labor in the region.

METHODOLOGY

The quantitative and qualitative methods were used to analyze statistical data. We considered the available information on supply and demand in the labor market of the Dnipropetrovsk region posted on the website of the Office for National and Regional Statistics and Regional Employment Center.

The article describes main theoretical information on labor market and the current situation in the labor market of the Dnepropetrovsk region. Consequently, the information displayed in the diagram is made according to the methods.

RESULTS AND DISCUSSION

The labor market refers to the form of economic ties between producers and consumers of goods and services, namely between employees and employers, where the product is manpower or labor force.

Different approaches to the definition of “labor market” are reported in the economic literature.

The first approach is based on the definition of the labor market through a system of relations in respect of the purchase and sale of labor force.
According to the Law of Ukraine “On Public Employment”, the labor market is recognized as a system of legal, social and labor, economic and organizational relations that arise between jobseekers, employees, trade unions, employers, employers’ organizations and public institutions in the field of satisfaction of needs of employees in the employment, and employers – in the recruitment of employees in accordance with the law (Law of Ukraine "On Employment", 2012).

A number of scientists, such as Herchanivska S., Petrenko N. and Kachmar O. accept this approach and define the labor market as a complex and dynamic system of social, economic and legal relations in respect of supply and demand for labor, as well as the forms and methods of conciliation of the interests of the market participants (Herchanivska, Petrenko, Kachmar, 2021).

Tarshyna (2006) believes that the labor market is a system of relations formed ad valorem basis between employers, i.e. the owners of means of production, and employees, i.e. the owners of labor force, in which employers provide the demand for labor as entrepreneurs, and employees satisfy needs in employment as the source of livelihood.

According to the second approach, the labor market should be considered as a sphere of turnover of merchandise represented by “labor force”. Horbunov V.O. demonstrates the essence of this approach and defines the labor market as a sphere of market economy that performs the function of mediation through the purchase and sale of labor force, by combining material and human factors of production and maintaining their balance in the settings of a variety of forms of ownership of the means of production and the preemptive right of citizens to dispose of their labor force and capabilities (Karpuy, Kachmar, 2021).

The third approach defines the labor market through the function of ensuring the balance of the supply and demand for labor.

The proponents of this approach argue that the labor market is an expression of certain social relations between supply and demand for labor, which provide work for employees and coordinate decisions in the field of employment (Holovko, Pastukhov, 1998, Horilyi, 1999).

In our opinion, the main content of the labor market is the formation of supply and demand for labor.

The demand for labor is a social need for labor force, which is a tool for manpower control and has a profile structure by specific types of professional experience.

The supply of labor is the totality of the employable population, which offers their capacity for work to the employer in exchange for the payment for work in order to obtain the prizes of life. The business and the country are the subjects of demand, and households are the subjects of supply in the labor market.

Thus, the status of development of the labor market is determined by the relation between supply and demand for labor. The disproportions between these two components, as any economic phenomenon, can affect the development of the labor market both negatively and positively. Therefore, the study of relevant indicators is an important task for regulating the balance of the labor market in the country and regions.

The labor market of the Dnipropetrovsk region has changed a lot in the last few years. Ten years ago, the Dnipropetrovsk region was one of the most stable structural units of the labor market in the country. The main
trends of labor development in the region were the growth in the number of employed citizens, the reduction of unemployment and the excess of labor demand over supply.

Let’s analyze the main indicators of the labor market of the Dnipropetrovsk region.

Within ten years, the structure of the labor market has changed significantly. The number of employed persons in 2011 was 1531.3 thousand, while in 2021 the corresponding figure decreased by 184.3 thousand persons and amounted to 1347.0 thousand persons (Figure 1).

Figure 1. Dynamics of employment and unemployment in the Dnipropetrovsk region during 2011-2021, thousand persons.

Source: Author’s illustration

During 2011-2013, the number of employed persons remained almost in the same range. The first significant decrease was observed in 2014. It should be noted that the main reasons for such changes, both on a nationwide and regional scale, were political changes in the country and violation of the territorial integrity of Ukraine. During 2014-2015, the average number of employed persons in the Dnipropetrovsk region was about 1470 thousand. Since 2016, the number of employed persons has been steadily declining with small fluctuations of indicator, and since the beginning of 2019 the situation has been exacerbated due to the Covid-19 pandemic.
With regard to the unemployment rates, the highest unemployment rates were observed in 2014 and 2020, which was caused by the crisis events in the economy. During 2010-2014, the unemployment rates were much lower than in the last five years and ranged from 106 to 117 thousand persons. After 2014, the unemployment rates fluctuated in the range of 120 thousand persons.

During 2020-2021, the labor market was under the influence of the aggravation of financial and economic situation due to both external and internal factors, including the introduction of restrictive measures oriented to prevent the spread of COVID-19.

For a more detailed assessment of the situation on the labor market of the Dnipropetrovsk region, it is necessary to analyze the supply and demand in the labor market of the region.

An analysis of supply and demand in the labor market of Ukraine was conducted according to the statistics from the Office for National Statistics and the Government Employment Services, and it was found that the number of unemployed persons in the region exceeds the number of job vacancies for employees, i.e. the demand exceeds supply (Figure 2).

![Figure 2. The relation between supply and demand for labor in the labor market of the Dnipropetrovsk region.](source: Author’s illustration)

The number of job vacancies announced by the employers in 2021 was 61.7 thousand units, while the number of unemployed persons was almost twice as high as the demand for employees. It should be noted that during 2016-2017 the demand for employees was far in excess of the supply of employees in the labor market of the region.
As of the end of 2019, there were the smallest differences in the indicators of supply and demand for labor, the number of vacancies was 89.9 thousand units, and the number of unemployed persons was 118.7 thousand.

With the beginning of restrictions due to the Covid-19 pandemic in 2020 and to this day, the demand for employees in the Dnipropetrovsk region is two times less than supply.

It should be noted that the disproportion in the labor market has developed a long time ago, and it was caused by oversaturation of the labor market by unclaimed occupations and low supply of vocational professions. The challenges today have changed the needs of both employers and employees, some professions have simply disappeared due to the transformation of the latter into new electronic or online forms, which require other skills from employees different from standard methods and technologies.

CONCLUSION

In the settings of the current labor market performance, the balance of the supply and demand in the labor market of the region remains a highly contentious issue, because the ratio of the abovementioned indicators constitutes grounds for the regulation of the labor market, employment and unemployment in the country and in the region.

It is necessary to apply a system of measures to establish a balance between the supply and demand for labor in quantitative and structural characteristics:

- creation and continuous updating of the job bank;
- close relationship of the regional employment service with enterprises, institutions, organizations, educational establishments of all levels;
- study of the long-term need for manpower by the vocational and qualification structure of the personnel;
- development and implementation of state vocational training programs for youth in accordance with the structural needs for manpower through the occupational guidance of youth;
- application of new forms of education for obtaining modern professions;
- increasing the number of public places for training of specialists, the shortage of which is most felt in the market;
- increase of the costs of education for specialties, with which the market is oversaturated;
- stimulation of wage increases in order to maintain an adequate level of manpower replenishment and prevent the labor outflows, particularly with regard to highly skilled workers;
- implementation of active and passive national policy and regional policy on labor market regulation.

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All authors have read and agreed to the published version of the manuscript.

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The data presented in this study are available on request from the corresponding author.

**Conflict of interests**

The authors declare no conflict of interest

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