

## **BRIEF ANNOTATION**

**to the dissertation Tuleibayeva A.S. on the theme: "Development of the international labor market in the conditions of modern technological transformation", submitted for the degree of doctor of philosophy (PhD) in the specialty " 051300-World economy»**

The study of the impact of technological transformation on the development of the international labor market in the context of global reality reflects the dynamic processes not only in the technological order and the world economic system, but also affects the most important area of socio-economic relations.

The international labor market is an important component of the global economy. Social and political stability in the world, the dynamics of economic growth and the level of well-being of the population depend on its condition. The development of the international labor market in the context of technological transformation is a complex socio-economic process of forming a high-quality labor market, the globalization of social and labor relations.

The processes of globalization and technological transformation affect the structural changes in the world economy and, consequently, the increase in demand for new professions, knowledge, and skills. The definition of a promising professional structure in the international labor market is necessary in the digital economy to modernize the education system and train in-demand specialists, implement an effective employment and labor migration policy, and create high-quality jobs with a high level of qualifications and salaries.

The international labor market is influenced by such structural changes as changes in the professional and qualification structure of the working-age population, an increase and expansion of labor migration flows, increased competition for highly qualified and intelligent specialists, an increase in the share of specialists ("smart brains") from Eurasian and Asian countries, the development of new technologies, a shortage of specialists in new professions, etc.

The process of globalization, characterized by the shift of center of gravity in the area of information processes and technologies from the sphere of material production, accompanied by the transition of the labour market to the post-industrial - informational - society, where there is a change in the character and content of labour relations in the social division of labor through information technology (it). It is obvious that one of the problems of the modern international labor market in the field of IT distribution is the lack of highly qualified and competent personnel.

The introduction of new information technologies has influenced the nature of professional activity, increased labor productivity, increased social tension due to frequent adjustments to the criteria of professional competence, methods of labor organization, financial and legal relations, which is manifested in the active use of flexible forms of employment (remote, etc.), changes in the content and quality of labor, due to the reduction of routine and low-skilled labor and increased creative and highly professional labor, computerization and robotization of many types of activities, the release of a contingent of workers who have not adapted to

technological changes, changes in the means of labor (ICT, software and devices), the emergence of a new socio-professional group (IT specialists), a decrease in the share of workers in the structure of MRI while increasing the share of employees, the creation of temporary jobs and the development of remote employment-telecommuting, the desire of people to be independent, etc.

Modern trends in the international labor market, ensure employment of population under the influence of technological transformation are growth of number of employed population and the number of unemployed, development of non-standard forms of employment, distribution of informal employment, the development of "online jobs", a transition to distance education, the introduction of new technologies, robotization and digitalization of the functions of labor, formation of new competencies and skills, disappearance of professions that provide low-skilled, standardized services with low wages and their robotization. Megatrends of MRI development are manifested in technological and demographic shifts, urbanization, new trends in the development of the global economy and resource scarcity and climate change.

The need for a comprehensive study of the above problems and the effectiveness of their solution determines the relevance of the presented topic of the dissertation research.

*The aim of this work* is to study the theoretical foundations and modern trends of development of international labour market and the development prospects of the Kazakhstan labor market in terms of technological transformation. To achieve this goal, the following *tasks* were set:

1) to identify the essence of the concept of the labor market, to determine the features of the international labor market and its segmentation;

2) identify the main principles and factors of the international labor market development, show the impact of technological transformation on its development;

3) analyze global structural shifts that generate new trends in the international labor market;

4) assess the new quality of development of the international labor market and identify the socio-economic consequences of international labor migration;

5) based on the analysis of the process of integration of Kazakhstan into the international labor market, develop recommendations for projecting the experience of foreign countries on the domestic labor market.

*The object of the study* is the international labor market as a set of global labor resources.

*The subject of the study* is the system of socio-economic relations in the international labor market in the context of modern technological transformation.

*The scientific novelty* of the dissertation is presented in the development of theoretical provisions and scientifically based recommendations for the development of the Kazakh labor market and its integration into the world economy in the context of modern technological transformation. The new results obtained allow us to propose new comprehensive approaches to the study of the international labor market and the assessment of the impact of modern technological transformation on its development, the development of state policy

in the field of labor relations, contributing to overcoming labor market imbalances and development in new directions.

In *the first chapter*, the dissertation studied the theoretical foundations of the development of the international labor market, including:

- theoretical approaches to the study of the international labor market, which is a system of economic mechanisms, including self-regulation, tools and standards that ensure a balance between the needs of labor resources and the possibilities of their use through the interaction of supply and demand for labor at the interstate level, are studied;

- the factors and principles of development of the international labor market are determined and the impact of technological transformation on its development is determined.

*The second chapter* identifies trends in the development of the international labor market, ensuring employment in the context of technological transformation, including:

- identified megatrends of MRI development, which are systematized and grouped into five blocks: technological shifts, demographic shifts, urbanization, new trends in the development of the global economy, resource scarcity and climate change;

- analysis of the European labor market, the structure of employment and unemployment, the development of labor migration;

- an assessment of the impact of the introduction of new technologies, automation and robotization on the development of the international labor market, the emergence of modern business models, the creation of decent jobs, the organization of labor relations, improving the competitiveness and quality of the workforce through training specialists in promising professions of the digital age;

- the influence of spatial mobility of migrant workers in the development of international labour market, defined the role of labour migration and labour mobility in addressing imbalances of supply and demand in the European labour market, reducing the impact of the demographic challenges, explored promising Programs for attracting highly skilled foreign labour migrants and mechanisms for their implementation, the policies in the field of international labour migration, focused on highly qualified professionals with competencies for the digital economy and talented young people.

*The third chapter* defines the prospects for the development of the Kazakh labor market, including:

- the analysis of the structure of employment, unemployment, self-employed, revealed problems of development of the Kazakhstan labor market, marked by the consequences of the pandemic on employment;

- priorities of development of the labor market of Kazakhstan in the conditions of technological transformation and integration processes are defined.

*The theoretical significance* of the thesis is justified by the fact that the results of the study are important for the development of theoretical and methodological foundations for the development of the international labor market. New knowledge was obtained about the features of the international labor market in the context of

modern technological transformation. The results of the dissertation work can be useful in setting new research tasks.

*The practical significance* of the thesis is justified by the fact that the results of the research can be used in educational programs on the world economy, in teaching academic disciplines for undergraduates: "Integration processes in the regions of the world", "International labor market". The materials of the dissertation research were used in 2 developed special courses: "Socio-economic conditions and prospects for international integration of the Kazakh market" and "Technological transformation as a foundation for improvement in the economic system", which are registered in the state register of rights to objects protected by copyright. Supporting Certificates of the Ministry of Justice of the Republic of Kazakhstan are attached.

#### *Brief conclusions*

1) The international (international) labor market is characterized as a new qualitative development of the labor market, the formation of which occurs through labor migration and the creation of a "common labor market".

The world labor market is a system of economic mechanisms, including self-regulation, tools and standards that ensure a balance between the needs of labor resources and the possibilities of their use through the interaction of supply and demand for labor at the interstate level. MRI performs various functions (social, political, educational, etc.).

The development of the labor market is influenced by changes in the structure of the economy.

2) MRI is a multi-faceted social mechanism that covers various spheres of life, social groups and social classes. Factors influencing the development of MRI include the quality of the workforce, demographics, female employment, business transnationalization, global regulatory instruments, and international trade.

3) Technological transformation is a sequential process of replacing each other with different generations of equipment, technologies, management and organizational methods. The basis of transformation is information, scientific knowledge and technology.

Further development of technologies will contribute to cross-border remote employment and the leveling of migration barriers. And an important role in these processes is played by the state, which takes on the role of an investor, which determines the key, priority and most promising areas of financing, including in education and retraining of personnel.

4) modern trends in the international labor market, ensure employment of population under the influence of technological transformation can be attributed to the increase in the number of employed population and unemployment, the development of non-standard forms of employment, distribution of informal employment, the development of "online jobs", a transition to distance education, the introduction of new technologies, robotics, and digitization functions of labor, the formation of new competencies and skills. Megatrends of MRI development are manifested in technological and demographic shifts, urbanization, new trends

in the development of the global economy and resource scarcity and climate change.

Different levels of economic development of countries, the consequences of the global economic crisis of 2008, the pandemic of 2020, migration processes, technological transformation, the formation of the digital economy complicate the solution of problems in the international labor market, which are acute all over the world.

The restructuring of the international labour market and employment from the perspective of the professions in terms of the technological transformation associated with the restructuring of the economy, the emergence of new industries and restructuring of the old in the direction of automation, digitization, information technology. Development of mechanisms of adaptation of international job market towards sustainable development involves forecasting the impact of digital transformation of the global economy on the structure of the labour market, the disappearance of old and appearance of new occupations, demand and supply of labour, the development of non-standard forms of work, implementation of social policy.

5) The development of automation, AI, robotics, breakthrough technologies can lead to new challenges, threats and risks on MRI, in particular to job cuts and increased unemployment. However, technological transformation opens up great opportunities for the organization of new business models, activities and the creation of decent jobs, will allow participants to effectively interact in the development, production and consumption of goods and services, and improve the quality of life of the population. The modification of production processes associated with digitalization will lead to a change in labor relations, blurring the line between official and informal employment, precarization of employment, the development of non-standard forms of employment (non-permanent, incomplete, underemployment, overemployment, informal, etc.), the use of new methods of attracting workers, etc.

According to the new technological standards, the demand for medium-skilled workers is decreasing and the need for highly qualified universal professionals is increasing. New principles of the organization of labor relations allow you to quickly form a highly qualified and highly paid team from different countries on the basis of remote work for the implementation of a complex project, increase labor productivity and business efficiency. In the future, the workplace as a physical location will not be the same, freelance work and freelancing have already been widely developed.

It is predicted that in the conditions of technological transformation, new professions will be in demand on MRI (big data analysts, robotics engineers, organizers of online platforms, professional digital marketers, developers of cyber-physical systems and industrial 3D printers, etc.). The demand for highly qualified specialists in the field of mathematics, physics, IT, education, healthcare, law, etc. has already increased.

A key priority for the development of the international labor market is to increase the competitiveness and quality of the labor force by training specialists in

promising professions of the digital age. Among the main skills in demand by the market are digital, emotional and communicative literacy, creativity, creative and eco-friendly thinking, cross-culture and the ability to retrain.

6) Under the influence of technological and social transformation and new trends in MRI, international labor migration is developing. At the same time, the majority of international migrants live in developed countries.

The expansion and development of international migration directions is uneven: migration flows from North to SOUTH are increasing, Asia is the largest region for receiving migrants, the main contingent of labor migrants is highly qualified specialists, the attractiveness of a mobile lifestyle is increasing, etc. There has been a continuous increase in the influx of students to the OECD countries.

Changing approaches to the reform of migration policy in the field of external labor migration are associated with current trends in MRI. In many countries, the development of new policies in the field of international labor migration is focused on specific types of migrants, mainly highly qualified specialists with competencies for the digital economy and talented young people.

7) The modern labor market of Kazakhstan is characterized by the following features (key factors): low rate of employment growth, high share of self-employed and imperfect accounting of their number, low unemployment rate, high percentage of informal and hidden employment, strong regional imbalance, weak social security of the unemployed, an increase in the share of employed citizens not in their specialty, low level of qualification of certain groups of employees, low wages, low mobility of labor resources, etc. The Kazakhstan labor market is influenced by many factors, including demographics, real wages, labor migration, government regulation, etc.

Kazakhstan's market was negatively affected by the consequences of the pandemic. According to data for the first half of 2020, the number of unemployed increased by 2.8% and amounted to 454 thousand people, while the unemployment rate did not exceed 5%. The number of employed people was 8.7 million, which decreased slightly (-0.7%). In order to mitigate the consequences of the pandemic, a set of urgent anti-crisis measures to ensure employment was adopted, covering more than 1.2 million people ("Enbek", Employment Roadmap, etc.).

8) The formation of the Eurasian labor market is a complex and multi-stage process with a long formation of both the market itself and its individual segments. The main development of the labor market is aimed at increasing labor productivity, reducing unemployment among the population, improving the quality and standard of living of the population. Kazakhstan's entry into the Eurasian economic space means for the republic a transition to a new model of integration processes, thanks to which the labor force moves freely without issuing work patents; illegal migration is reduced; social tensions are reduced; investment attractiveness in the local market is increased, etc. Therefore, the Government of the Republic of Kazakhstan is interested in continuing cooperation within the framework of the EAEU with the hope of maintaining a mutually beneficial partnership. It is aimed at developing and creating new future plans that will

improve the state of the national market and strengthen political relations between the EAEU member states.

In order to develop the Kazakh labor market and integrate Kazakhstan into the world economy in the context of technological transformation, the following is proposed: development of higher education and formation of a new attitude to work (development of new educational programs for the formation of popular knowledge and skills markets), promotion of productive employment, reduction of informal employment, increasing the transparency of the labor market and development of its infrastructure, strengthening the work on personnel renewal and attracting low-skilled foreign workers and improving the conditions of employment, application of new methods in the field of employment, the development of online showcase portal "Work in Kazakhstan" and e-HR workflow, conduct activities to enhance coordination between public and private institutions.

The priority direction of development of the labor market of Kazakhstan in the conditions of technological transformation is its integration into the world economy, in particular within the framework of the CIS and the EAEU. Within the framework of the EAEU, in order to improve the situation on the labor market of Kazakhstan and other countries of this integration, a number of measures are proposed: the creation of a single educational program within the EAEU, the development and implementation of a single information database on employment and the availability of free jobs with regular updating of information, the creation of various professional free programs for labor mobility, the constant monitoring of key labor indicators of the Union countries, the optimization of migration flows, investments in education and science, etc.

The structure of the dissertation is represented by a list of notations and abbreviations, an introduction, three sections, a conclusion, and a list of sources used. The volume of the dissertation is 123 pages, contains 17 tables, 19 figures and 122 sources of literature.