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## TYPOLOGICAL FEATURES OF UKRAINIAN LABOR MARKET IN GLOBAL CYBER-SPACE: MIGRATION ASPECT

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## ТИПОЛОГІЧНІ ОСОБЛИВОСТІ РИНКУ ПРАЦІ УКРАЇНИ У ЄДИНОМУ СВІТОВОМУ КІБЕР-ПРОСТОРІ: МІГРАЦІЙНИЙ АСПЕКТ

The article discusses the impact of informatization of society on the components of the development of the international and national labor market, the main typological features of Ukrainian labor market are highlighted. Dynamic of employment and unemployment during 2010-2018 years is analyzed. The problems of labor and educational migration, their influence on national economic are discussed. The ascent on appearance of new forms and types of employment, their functioning and development in modern conditions are made, and the advantages and disadvantages of new forms and types of employment are discussed. The ways of conversion to an innovation model of society development in the aspect of employment like development of new branches of economy inherent to post-industrial and information period, investment in the development of education during whole life, scientific researches and knowledge economics with regard to information support and analysis of structural changes in the labor market in order to predict the processes and trends of employment in countries of economic integration and offered with Ukraine.

**Keywords:** labor market, employment, information society, atypical forms of employment, knowledge economy, unemployment, globalization, labor outflow, emigration.

Tabl.:1.Il. 2. Bibl.9.

JEL Classification: J08; J2; J6.

У статті розглянуто вплив інформатизації суспільства на складові розвитку міжнародного та вітчизняного ринку праці, виділено основні типологічні особливості ринку праці України. Проаналізовано динаміку зайнятості та безробіття протягом 2010-2018 рр. Розглянуто проблему трудової та освітньої міграції, їх вплив на національну економіку. Зроблено акцент на появі нових форм та видів зайнятості, їх функціонування та розвиток в сучасних умовах, розглянуто переваги та недоліки, які мають нові форми та види зайнятості. Запропоновано шляхи переходу до інноваційної моделі розвитку економіки у аспекті зайнятості, серед яких: розвиток нових галузей економіки, притаманних постіндустріальному та інформаційному періоду, інвестування у розвиток освіти впродовж життя, наукові дослідження та економіку знань щодо інформаційного забезпечення та аналізу структурних зрушень на ринку праці з метою прогнозування процесів та тенденцій зайнятості країн в економічній інтеграції з Україною.

**Ключові слова:** ринок праці, зайнятість, інформаційне суспільство, атипові форми зайнятості, економіка знань, безробіття, глобалізація, відтік робочої сили, еміграція.

Табл.: 4. Рис. 2. Бібл.: 9.

**Problem statement.** Modern researches of radical changes on labor market discuss global area of labor that includes labor law, structure and condition of workforce, organization, motivation and stimulation of labor resources productivity and pay system, international division of labor and the effects of the globalization of the labor market that due to conversion to network global economy and creation of global labor market from one side and introduction of innovations that determinate competitiveness of national economics from the other side. Obviously that progressive development and improvement of production process (changing of technological process) can't be made without raise of the level of development of human capital, raise of potential and qualification of specialists. These changes mostly depend of factors of scientific and technological progress, demand and dynamics of development of labor market. Taking into account these factors provides

an opportunity to achieve competitiveness of the domestic economy. This is especially true of the modern period when technology changes and the transition to innovative technologies is taking place. In our view, modern economic reforms in the country do not allow to realize the main task of development of labor resources – to provide conditions for self-determination and self-realization of the individual in society and to realize their own competencies. On the one hand, this problem is related to the heterogeneity of the sectoral structure of the country's economy and the socioeconomic development of its regions, on the other – with the risks of migration of human resources, which together create trends and affect the state of the labor market of Ukraine.

Analysis of recent research and publications. Labor market functionally and organically related to other elements of market in general, relationships that take place on labor market have expressed socio-economic character. These factors explain scientific concern to its study and analysis among a number of foreign and Ukrainian scientists, namely: J. Akerloff, V. Besusova, D. Bell, B. Genkin, J. Hobson, E. M. Libanova, S. Moherenny, A. Ouken, V. Petyuch, P. Samuelson, P. Solou, E. Sukhariev, A. Filips, F. Hafner.

Allocation of the unsolved earlier parts of the overall problem. Despite large scientific concern and significance of global tendentious, that influence on structure and quality of labor market, a number of the problems like: inadequate to the needs and challenges of the labor market, the state of the labor force development, the imperfection of labor legislation, the lack of state regulation of atypical types of employment, a significant (first of all, qualitative) imbalance of supply and demand in the labor market, negative migration processes for the national economy, point to the need for further and more detailed study of this issue.

The purpose of the paper is to reveal typological features, that take place on labor market in terms of development of information society as: qualitative inconsistency of supply and demand in the labor market, the rapid emergence of new professions and specialties, accompanied by a constant shortage of skilled personnel, changes in the organization of the activities of enterprises and organizations, the destruction of borders between states promoted by the development of a single cyberspace, the development of atypical and informal employment; their influence on the development and functioning of the labor market in particular and of the national economy as a whole; the main problems and threats caused by the development of new forms and types of employment, the search for solutions to them.

The main results of the study. Formation of information society began in 70<sup>th</sup> years of XX century and was conditioned by acceleration of scientific and technological progress, in particular, rapid development of information technologies. This influenced on most branches of the economy directly and changed structure of employment of population. Structure of employment of population is characterized by an increase in the number of employed in the service sector and, accordingly, a decrease in the share of employed in industry and agriculture. Globalization processes and development of single cyberspace influence on the sphere of employment and structure of economic of the developing countries as well as developed ones.

Influence of scientific and technological progress on labor market consists in increase of a number of unemployed also because requirements to the quality of labor force and structure of economic also change. Unemployment has mostly structural character. Automation and robotics of production causes the impossibility of full employment, the development of technological unemployment, the reduction of the number of jobs in industry and their increase in the service sector; development of single cyberspace causes qualitative changes in such spheres of economic as: trading, information technologies, engineering, design, provision of services; promotes the emergence of new professions and specialties, as well as new forms and types of employment.

At the present stage of development, the national labor market is characterized by such tendencies as:

- qualitative inconsistency of demand and supply in the labor market;
- the rapid emergence of new professions and specialties, which is accompanied by a constant shortage of skilled personnel;
- changes in the organization of the activities of enterprises and organizations, the destruction of borders between states, which promotes by the development of a single cyberspace;
  - development of atypical and informal employment;
  - insufficient investment activity and outdated fixed assets;
- predominance of raw material production: export of raw materials and/or products that came through primary processing and have insignificant part of added value; and import of the finished products with significant added value;
  - restructuring of enterprises, reduction of the public sector, growth of services;
  - reduction of number of enterprises because of military actions in the East part of Ukraine;
  - growth of long-term unemployment;
- an increase in the actual level of employment and a significant lag in its productivity compared to other European countries;
  - lower wages compared to European countries, lower living standards of the population;
- high level of employment in the personal auxiliary economy, a significant proportion of manual labor;
- decline of economic activity of the population as a result of migration of human capital with a high level of educational potential and reduction of natural population growth.

Indicators of employment on the Ukrainian labor market during 2010-2018 years have undergone some changes (table 1). Thus, the number of employed people aged 15-70 years declined from 19 314,2 thousand people in 2013 to 15 718,6 thousand people in 2018 year. It was caused by development of informal employment (the transition of a significant number of able-bodied population from official to new forms of employment that usually are not recognized and are not regulated by law; as a result, they are not indicated by official statistic), the annexation of the Crimea, military actions in the East of Ukraine, an increase in the number of migrant workers, which is facilitated by the flexible migration policy of neighboring countries.

Slight decrease in the number of unemployed in the age of 15-70 years alongside with decrease in number of officially employed population allows to declare about transition from official employment to informal, reluctance of an economically active population to register at employment centers, results of imposition of fines for employers which allow for the work of unregistered workers, etc.

Labor migration during last year's becomes more widespread. So, according to expert assessments about 4 millions of Ukrainians are labor migrants, 2,5 millions of them are abroad at the same time [2].

The main countries-recipients of Ukrainian labor force are Poland (38,9%), Russian Federation (26,3%), Italy (11,3%), Czech Republic (9,4%). Other countries where significant flows of labor migration from Ukraine are directed to are United States of America (1,8%), Belarus (1,7%), Portugal (1,6%), Hungary (1,3%), Israel (1,1%), Finland (1,0%) and Germany (0,8%). Women work in Poland (42,6% vs 37,3%) and in Italy (27,0 vs 4,7%) more often than men, and men – in Russia (31,0% vs 15,1%). In general migration activity of men is higher than women's (7,0% vs 2,7% aged 20-64 years) [5].

Table 1

The main indicators of the labor market (2010-2018)

Economically active population		
Years	Employed population aged 15-70 years, thousands people	Unemployed population aged 15-70 years (according to methodology of ILO), thousands people
2010	19 180,2	1 713,9
2011	19 231,1	1 661,9
2012	19 261,4	1 589,8
2013	19 314,2	1 510,4
2014	18 073,3	1 847,6
2015	16 443,2	1 654,7
2016	16 276,9	1 678,2
2017	16 156,4	1 698,0
2018	16 630,9	1 578,6

Source: formed on the basis [1].

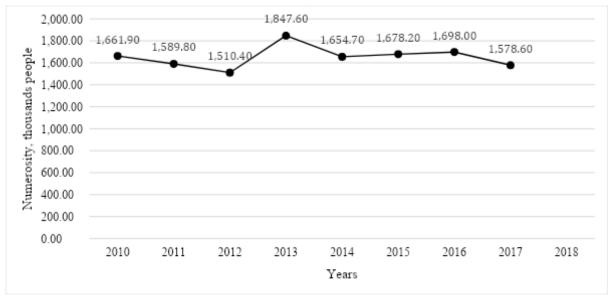


Fig. 1 – Unemployed population aged 15-70 years (according to methodology of ILO), thousands people

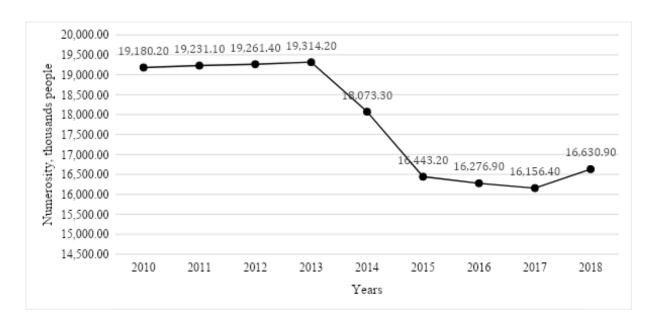


Fig. 2. Employed population aged 15-70 years, thousands people

Ukraine is quite attractive county-supplier of labor force because of a number of reasons. Among them are:

- low living standards that force population to agree with harder work and get the same or even lower than market payment for it. A striking example of this is the development of labor migration to Poland, the Czech Republic, and the Baltic States. At the same time not only low-skilled workers agree on low wages but also highly qualified engineers, programmers, etc., who work actively on the conditions of distance employment and provide their services to foreign companies;
- high indicators of education of the population: 100% of the population of Ukraine obtain primary education, our country is in the first 10 at the level of secondary education. At the same time for many even such developed countries as US and EU member states insufficient level of writing and other basic educational skills is a serious problem. Current high indicators of human capital development further increase the responsibility for implementing reforms in the education system since the erroneous steps in this area are associated with the risk of losing one of the greatest benefits that Ukraine has [3];
- favorable geopolitical location of Ukraine and quite high mobility of the population allow to arrive to work place abroad very quickly and from time to time. Workers neglect receiving of official permission to work very often as a result they do not have proper social and legal protection. Also a significant amount of labor migrants that constantly go to work abroad eventually stay there for permanent residence.

We also consider it necessary to emphasize educational migration. During the last years, departure of young people to Poland, the Czech Republic and other EU countries has become much widespread. These working, as a rule, no longer plan to return to Ukraine, stay abroad for permanent residence, create families there. This phenomenon is particularly threatening to the national economy. It leads to such negative phenomenon as: loss of young able-bodied population, reduction of natural population growth, reduction of supply in the labor market, etc.

Using of flexible forms of employment – outstaffing, outsourcing, freelance, crowdsourcing, crowdfunding and distance job – are getting more common in Ukraine.

The widespread of the Internet and the creation of a single cyber space promotes the development of freelance and distance employment. Website development, games, graphic design,

consulting, translation, 3D-modeling, engineering are top most demanded top services for using distance job. According to the employment experts in 2020, every second company will hire employees around the world through the Internet; 10% of all work will be made remotely. Today, 24% of freelancers hire other freelancers; 42% plan to do this in the future. Ukraine ranks first in the ranking of countries by volume of freelancers' incomes. Ukrainian freelancers are mostly in demand in the US, UK, Australia, Canada, Germany.

They are development of professional skills through constant change of tasks, flexibility in the execution of tasks (it is necessary to complete the task in time, and not in the determined working hours), the ability to work anywhere in the world, lack (or even absence) of state regulation of atypical forms of employment as a result social and legal insecurity, absence of quality assurance and due diligence for both employers and performers.

The development of the information society results in qualitative changes not only in the requirements of employers to employees but also changing the attitude of the employees themselves towards the work they perform. An employee of the information age is interested in constant increasing his/her educational and qualification level, receiving interesting, creative job, is motivated by the possibility of development, rather than obtaining economic benefits from work. To adapt the social and labor sphere to the new conditions for the social development of the post-industrial system, it is necessary to ensure the formation of a qualitative component of the workforce through changes in legislation, education, culture, etc.

Low tempos of structure alteration of economics, limited investment opportunities, the destruction of the conditions for the functioning of small and medium businesses, weak motivation of employees complicate process of creating effective workplaces, that should contribute to increasing the competitiveness of labor force in Ukraine.

Forming of labor market in Ukraine is based on legal regulation which is characterized by rising wages in the budget sphere of the economy, improving working conditions and at the same time leading to crowding out of the market for less skilled workers. Elderly and yang specialists, inexperienced employees or people who were unemployed during long period of time do not meet the stringent requirements for the productivity of professional competence. Another aspect of regulation consists in financing of a developed social security system that requires raising taxes. This also prevents creation of new workplaces. The advantages of state regulation are aligning the level of pay and working conditions, reducing the number of "unfunded" jobs lead to a reduction in the total number of jobs and the growth of the social security system. It is obvious that regulation of the labor market is something that is necessary to understand the processes that reflect the trends of economic development, which need to be taken into account in the country's development strategy.

**Conclusions and suggestions.** Prompt development of scientific and technical progress, appearance of completely new technologies characteristic for information type of society development change character of employment, demands of employers to employees and also attitude of employees to the job they do.

Two interrelated features of the labor market pay attention. The first is long trend of worsening of demographic situation. These dangers the serious problem of lack of specialists. The second is step by step liberalization of labor migrants that presents in sectors of economics in Ukraine and in the whole world. Alongside with it long term results of such liberalization are not only calculated forward by state politics of employment but even harmful for supply of labor service because migrants do not wish to assimilate but guess it's better to create stand-alone communities. The third is increase of role of knowledge technologies. It is accompanied by increase of mobility and liquidity of financial capital, weakening of legal regulations of large sectors of economics that grows quickly on international market especially financial, virtual, innovation, labor

of consulting business services and industry of information, beauty, etc. Distance between businesses entities in new communication are cut down. It step by step removes limits and national boards and creates knowledge-rich global production system. Fourth is appearance of global knowledge economy created a system with wide the spectrum of geographically dispersed economic functions that provide creation of added value to components of activities at global corporation all over the world. Labor resource, capital, goods and services are becoming high mobil supply on the global market. Powerful decentralization trends are present in such economics. Decentralization and denationalization radically change organization of business processes, ideas, organization of producing of goods/services, attracts labor resource with different geography, creates and spreads different types of firms, production culture and social environment, prepares specialists, experts for mobile transnational movement of labor force.

The new nature of labor is associated with its individualization; narrow specialization and narrow professionalism are no longer a competitive advantage in the labor market, and further education and continuous training, a combination of different functions and responsibilities, and creativity is the key to success in the information society.

The growth of the pace of development of new technologies (in the field of genetic engineering, biotechnology and nanotechnology, robotics) causes acceleration of the processes of changing the forms, types and volumes of employment of the able-bodied population. Meanwhile, political, social, economic, financial institutions, social and economic relations are based on the fact that labor resources continue to sell their labor as a product on the market. The speed of changes that are taking place indicates the need for rapid decision-making on reforming the state employment policy and labor market development.

The socioeconomic situation in Ukraine maintains a number of significant systemic risks that impede the effective dissemination of positive social effects of economic development. Preserving the industrial structure of employment in Ukraine, in contrast to the innovative, characteristic of economically developed countries, complicates the possibility of transition to an innovative model of development. This can be done by:

- creating of a strategy for economic development in cooperation with employers and educational institutions;
- development of new branches of industry, inherent in the information period, instead of "saving" the old ones;
  - investing in the development of education, research;
  - changes in the system of mass education, its individualization and decentralization;
  - development of the education system throughout life;
- improvement of the information support for the analysis of the labor market, and the improvement of the statistical accounting system;
- development of methodological principles of long-term forecasting of the needs of the economy in the labor force by types of economic activity and occupations;
- retraining of workers who have lost their jobs due to the "elimination" of industries in the industrial age.

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