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# The Main Factors of the Formation and Development of Innovative Types of Employment Under Conditions of Transformational Changes in Ukraine

## Abstract

Strengthening of the role of innovative factors in the provision of competitiveness growth of countries under globalization conditions significantly affected on the development of employment sphere. The main consequences of specific impact of innovations could be observed in the nearest future, concerning with widening of modern patterns of employment, widespread of outsourcing practice, on one hand, and weakening of social security of hired employees, from other hand.

The proposed paper deals with study of factors of development of innovative types of employment in the conditions of transformational changes caused by globalization process' influence. Also the main ways of the realization of the resource potential for innovation development of employment sphere were proposed based on the analysis of the impact of the innovative behavior and readiness of country for the perception of innovations.

**Key words:** innovative types of employment, employment sphere, competitiveness, labour market.

## INTRODUCTION

Under the conditions of globalization, the implementation of the basic factors for ensuring the competitiveness of the countries envisages, first of all, macroeconomic stabilization, promotion of infrastructure development, provision of institutional foundations of sustainable economic development, improvement of the quality of life of the population. At the same time, strengthening the

innovative dimensions of increasing the competitiveness of the country depends on the development of innovative types of employment, transformational changes in the quality of workplaces and the content of social and labor relations. This implies the urgency of the study of factors of development of innovative types of employment in the conditions of transformational changes, strengthening of innovative dimension of employment development.

## ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

The problems of the impact of intellectualization of labor on the development of innovative types of employment were studied by such foreign scientists as P. Draker, R. Floryda, A. Toffler. Also, a significant contribution to the study of innovative factors in the development of employment has made domestic scientists V. Geitz, L. Emelyanenko, L. Illych, A. Kolot, E. Libanova, V. Onikienko, I. Petrova, M. Semikina, V. Semynozhenko.

R. Florida (2003) notes that informatization, intellectualization and creativity of labor contributed to the emergence of a new class in the social-labor system, so-called “creative class” [2]. V. Heyets and V. Semynozhenko (2006) noted that the competitive advantages of a person are obtained at the expense of knowledge that requires their accumulation to enhance their own competitiveness. However, the demand for competitive labor is determined by the level of intellectualization of the types of activities inherent in the economy of each country [2, p. 17].

The need to take into account the impact of intellectualization of labor; the provision of the sectorial restructuring of employment, raising the educational and qualification level of the workforce; updating of the list of professions, the strengthening of the labor market flexibility on the development of the field of employment emphasizes E. Libanova (2008), defining it as an important prerequisite for transformational change [5, 56].

First of all, while investigating the problems of introducing innovations; domestic scientists focus on the gradual transformation of the nature of labor under the influence of automation and informatization processes. In particular, I. Petrova (2010) notes that the development of the content of labor determines the transformation of social and labor relations, the emergence of new features of the nature of work – first of all, the strengthening of the creative component, greater freedom of the employee in fulfilling their work tasks [8, 15]. At the same time, L. Illyich (2015), analyzing the essence of innovative employment, notes the need to differentiate between different vectors of innovation transformations, in particular, technological and informational innovations, economic, social and cultural innovations [4].

However, until now the impact of innovative factors on transformational changes in employment sphere remain insufficiently studied. It necessitates the definition of the specific features of innovative factors’ influence on the development of employment under conditions of transformation.

## THE MAIN PURPOSE OF THE ARTICLE

is to define the specific factors which significantly affect the development of innovative types of employment under conditions of transformational changes, to propose the main ways of the realization of the resource potential for innovation development of employment sphere.

The globalization of the world economic environment stipulates the development of innovative activities: it can stimulate or disincentive the spread of innovative types of employment. Priority is given to demographic, economic, scientific and technical, social, institutional, and territorial factors contributing to the development of innovative types of employment. The need to define the preconditions for the development of innovative types of employment is primarily due to the formation of the resource potential of innovation development, the activation of the innovative behavior of the subjects of this process, and increased readiness for the perception of innovations. At the same time, the opportunities for the development of innovative types of employment depend not only on demographic factors, but also on economic, institutional and organizational-technical, techno-technological, social and territorial factors.

Demographic factors (fertility, life expectancy), population health (the influence of the population's casualties as a result of infectious diseases) are influenced significantly by the possibilities of innovative development of countries. In particular, opportunities for the development of innovative types of employment may increase depending on the state of health of the population. Demographic preconditions, first of all, determine the possibilities for sustainable development (taking into account the existing sex-age structure of the population, its health, and spread of health-saving behavioral population strategies and the effectiveness of public policy regarding public health).

But demographic characteristics of the population have significantly influenced economic processes, primarily in the field of employment, and the social situation in society. Health and longevity are a prerequisite for ensuring the economic activity of the population and in the aging of the population and labor force the role of qualitative factors in labor force potential formation and growth becomes even more important.

On the other hand, the economic situation, the state of development of the scientific and technical sphere, the efficiency and effectiveness of social policy directly affect the demographic situation.

Factors of efficiency related to the development of the system of higher education and vocational training, the labor market, ensuring technological readiness for innovation, and the development of financial markets are influenced substantially by the formation of innovative trends in country's development. Factors of development that will directly affect the strengthening of innovation activity in the economy deserve the specific attention. In particular, this concerns the provision of technological basis for the formation of innovative development's model. It concerns the availability of modern technologies, the level of firm's technology development, the attraction of foreign direct investment and technological transfers. Equally important for providing innovative development is the attraction of venture capital, access to loans, and increased motivation to invest.

The effectiveness of the process of forming an innovation model which involves the technical re-equipment of production and realization of development factors of innovative types of employment related to the strengthening of innovative activity of enterprises and organizations depends on the possibilities of the development of innovation.

The legislative basis for the development of innovation activity in Ukraine is the Law of Ukraine “On Innovation Activity”, which defines the basic principles of state regulation of innovation activity in country, main forms of stimulation of innovative processes by the state [6]. Strategy for the Development of the Information Society in Ukraine, adopted in 2013, defines the strategic goals of innovative development [9]. Until now the potential of ICTs development in Ukraine remains significant. However, possibilities for its realization in Ukraine are substantially limited due to insufficient rates of IT-modernization of domestic enterprises, low solvency of domestic consumers, poor innovation infrastructure and weak mechanisms for commercialization of scientific and technical developments.

The index of innovations calculated in accordance with the Methodology for calculating of the total index of innovations, indicates an increase of its value in the production of computers, electronic and optical products (from 32.6% in 2010-2012 to 36.7% in 2012-2014 .), production of motor vehicles, trailers and semi-trailers and other vehicles (from 34.8% to 46.5%). Instead, the innovation activity decreased significantly in metallurgical production, production of finished metal products (from 16.8% to 12.1%), coke production and oil refining products (from 53.3% to 45.1%), production of chemicals and chemical products (From 33.1% to 24.9%); Water supply, sewage, waste management (from 17.0% to 8.9%), etc.

The distribution of services provided by innovative enterprises in the service sector indicates a tendency of service providers to non-technological innovations (Table 1). According to the results of surveys, radical (especially technological) innovations occur in the service sector much less often than in the industry.

At the same time, it should be borne in mind that sustainable economic growth is characterized by a twofold process: an increase in the technological level of certain sectors of the economy (types of economic activity), on the one hand, and a gradual “pull-up” of sectors of the economy of a lower level of development, on the other hand. This will ensure the achievement of the state of technological equilibrium, as the dynamic growth is impossible under the conditions of considerable uneven development of various sectors of the economy (types of economic activity).

Even in the case of prioritizing the development of certain sectors of the economy (types of economic activity), more technologically backward sectors will not be able to provide the necessary resource support for the spread of macro-innovations that can change the structure of the economy and promote its reconstruction on a modern basis.

It will also greatly complicate the process of developing and implementing technological innovations that will increase the productivity of factors of production and / or reduce production costs. Also, the technological backwardness of other sectors of the economy can significantly restrict the market of sales of sector (economic activity) – a technological leader.

According to point of view of V. Onikienko (2006), the multiplicity of simultaneously existing different quality technological stages prevents their institutionalization, as institutions of lower technological stages that are stored as rudiments, are combined and interwoven with top institutions which causes the heterogeneity of the institutional environment [7, 185]. Accordingly, among factors influencing the development of innovative types of employment should be noted, first of all, scientific and technological factors related to the creation of technological basis of innovation development. So, technological opportunities of the increasing of labour productivity in traditional production processes form the basis for the implementation of new service opportunities in industrial activities.

**Table 1.** Innovative activity of enterprises and organizations of Ukraine, 2012-2014

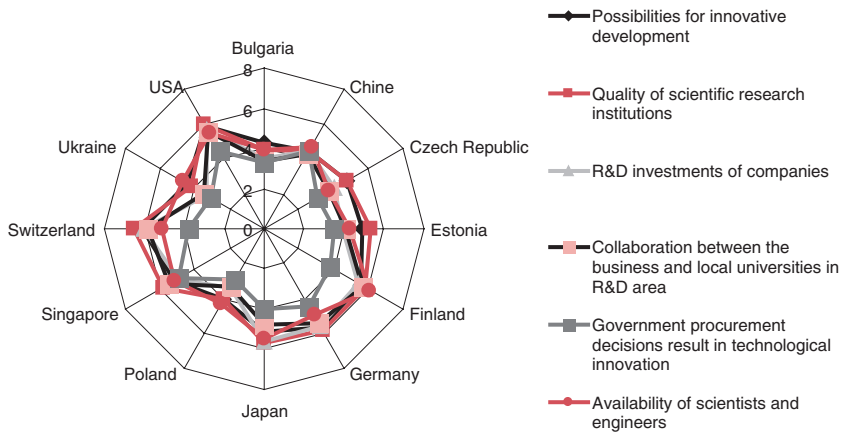
	Surveyed enterprises – total	from them – innovative active	including, introducing		
			Technological innovation	Technological and non-technological innovations	Non-technological innovations
Total	100	14,6	6	3,5	5,1
B. Mining and quarrying	100	11,9	7,3	1,9	2,7
C. Manufacturing	100	19,5	9,3	5,4	4,8
D. Electricity, gas, steam and air conditioning supply	100	18,6	12,6	3	3
E. Water supply; sewerage, waste management and remediation activities	100	10,2	6,4	1,3	2,5
G. Wholesale and retail trade; repair of motor vehicles and motorcycles	100	11,2	2,1	2	7,1
H. Transportation and storage	100	7,3	2,9	1,5	2,9
J. Information and communication	100	16,3	5,2	5,4	5,7
Activity in the spheres of architecture and engineering; technical testing and research	100	12,8	5,3	2,9	4,6

**Source:** Express-information "Survey of innovation activity in the Ukrainian economy for the period 2012–2014" від 05.10.2015р. № 295/0/05.Звн-15, //http://www.ukrstat.gov.ua/express

Mobilization of the innovative factors of competitiveness is one of the most important directions of implementation of innovation scenario of development (Fig. 1). This concerns the provision of opportunities for innovative development, which involves improving the quality of research institutions, establishing cooperation between educational institutions and firms in conducting research, the effectiveness of state procurement of high-tech products.

Sufficiently important to ensure innovative progress in the economy and stimulate the development of innovative types of employment are access to special research programs and development of the system of firms' vocational training. The positions of Ukraine, in comparison with the leaders in the competitiveness rating, remain insufficiently high: 4.2 points – for access to special research programs (compared with 6.6 points in Switzerland, 6.0 points in Germany), and 3.7 points for the development of vocational training (compared with 5.7 points in Switzerland) [3].

**Figure 1.** Indicators of Competitiveness Growth (in the context of innovation development)



**Source:** The Global Competitiveness Report 2016–2017. // <https://www.weforum.org/reports/the-global-competitiveness-report-2016-2017-1> [3]

According to these indicators, Ukraine's position in the context of implementing innovative development factors remains insufficiently high. Innovation development opportunities in Ukraine are substantially limited due to the insufficient company's expenditures on innovation activity (3.3 points compared to 6 points in Switzerland), availability of scientists and engineers (4.7 points compared to 6.1 points in Finland). Limited capacity of innovative development significantly complicates the spread of innovative types of employment in Ukraine.

The need to distinguish the preconditions for the development of innovative types of employment, primarily related to the formation of the resource potential of innovation development, the activation of innovative behavior of subjects of this process, increased readiness for the perception of innovation.

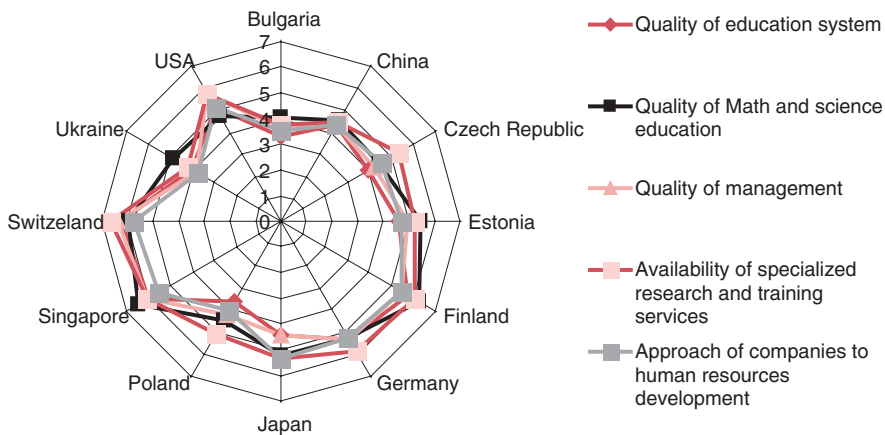
Respectively, the shift in the structure of production leads to the formation of a fundamentally new model of employment – innovation model characterized by a change in the social nature of labor, social and labor relations, types and forms of employment, transformation of its structure, etc. The gradual technologizing of society promotes job creation through using of communication systems, where

employers and employees are long-distance, but linked in a single process through information networks and high technologies. The growth of demand for highly skilled professionals who not only has specialized training but also successfully master entrepreneurial and managerial skills, is a natural for high-tech sectors of the economy.

Systemic prerequisites for the development of innovative employment model are transformation of objects, means and results of labor into more intellectual and informational. This will ensure the growth of labor productivity, the possibility of generating innovations in the labor process. Also important is the transformation of creative activity, innovative practices into the main factor of progress; ensuring of the development of innovative behavior, enhancement of the value of reproduction of intellectual potential.

An equally important direction in ensuring innovation development is the improvement of the quality of human potential. First of all, this concerns the improvement of the quality of education, the development of the training system (figure 2).

**Figure2.** Indicators of Competitiveness Growth (in the context of realization of educational factors of the development)



**Source:** The Global Competitiveness Report 2016–2017. //https://www.weforum.org/reports/the-global-competitiveness-report-2016-2017-1

The position of Ukraine in the country’s competitiveness rating in the context of human potential development, which forms the basis for strengthening of innovative development trends, is determined primarily by the quite high quality of the educational system. In particular, Ukraine’s position on the quality of mathematical education is rather stable (4.8 points, compared with 5.9 points for innovators from Switzerland, Germany, the USA), while Ukraine is lagging behind the leaders (3.8 points) compared to 6.3 points in Switzerland).

Correspondingly, the strengthening of the impact of demographic, economic, scientific and technical, social, institutional, and territorial factors on the development of innovative types of employment foresees the realization of the resource potential of innovation development, the activation of the innovative behavior of the subjects of this process, and increase of the readiness for the perception of innovations. Also the development of innovative employment should also take into account the modern requirements of the decentralization processes that take place today, both at the national and global levels.

## CONCLUSIONS

Thus, the provision of the gradual modification of the nature of the interaction of employers and employees through the use of high technology and the dissemination of information networks, as well as the transformation of social relations is essential. That is why it is necessary to identify the preconditions for the development of innovative types of employment, primarily related to the formation of the resource potential of innovation development, the activation of the innovative behaviour of the subjects of this process, increased readiness for the perception of innovation. In the context of carrying out large-scale reforms in Ukraine, it is necessary to develop and implement a strategy for the formation and use of innovative employment.

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