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FORMATION OF THE PERSONNEL POTENTIAL OF INNOVATIVE ENTERPRISE BY IMPROVEMENT OF LABOR MARKET INFRASTRUCTURE

ФОРМУВАННЯ КАДРОВОГО ПОТЕНЦІАЛУ ІННОВАЦІЙНОГО ПІДПРИЄМНИЦТВА ШЛЯХОМ УДОСКОНАЛЕННЯ ІНФРАСТРУКТУРИ РИНКУ ПРАЦІ

The article deals with scientific approaches to the definition of "innovation", highlights its main features. There was explored the essence of innovation entrepreneurship. An assessment of the current state of Ukraine's labor market infrastructure is carried out according to the indicators distributed in three areas: labor mediation, career guidance, social justice. There were proposed the recommendations on improving the labor market infrastructure in the part of increasing the partnership interaction between state and non-state infrastructure elements for further providing of innovative enterprises with high-quality personnel.

Key words: innovation, innovative entrepreneurship, innovation activity, labor market, labor market infrastructure, personnel potential.

В статье рассмотрены научные подходы к определению понятия «инновация», выделены его основные признаки. Исследована сущность инновационного предпринимательства. Осуществлено оценивание современного состояния инфраструктуры рынка труда по показателям, разделенным на три сферы: трудовое посредничество, профориентационная помощь, социальная справедливость. Предложены рекомендации по усовершенствованию инфраструктуры рынка труда в контексте повышения партнерского взаимодействия государственных и негосударственных инфраструктурных элементов для дальнейшего обеспечения на их основе инновационных предприятий качественным кадровым составом.

Ключевые слова: инновация, инновационное предпринимательство, инновационная деятельность, рынок труда, инфраструктура рынка труда, кадровый потенциал.

Підвищення конкурентоспроможності економіки будь-якої країни залежить від ефективності та швидкості перетворення результатів наукових досліджень у ринковий товар. Саме тому, розвиток і стабільне функціонування інноваційного підприємництва є одним із найважливіших системних факторів стійкого економічного зростання, формування конкурентних переваг країни, а також забезпечення національної безпеки у цілому. В умовах ринкової економіки інноваційне підприємство покликане вирішити класичні питання інноваційного розвитку на бізнесовій основі. Статтю

присвячено проблемі забезпечення інноваційних підприємств кадрами з відповідним рівнем кваліфікації та навичок, здатних до розробки та реалізації інновацій. Під час проведення дослідження розглянуто наукові підходи до визначення поняття «інновація», виділено його основні ознаки. Досліджено сутність інноваційного підприємництва, сформульовано визначення цього поняття. Авторами встановлено, що постачальником необхідного персоналу для інноваційних підприємств є ринок праці, гармонійне функціонування якого повинна забезпечити його інфраструктура. Здійснено оцінювання сучасного стану інфраструктури ринку праці України за показниками, розподіленими за трьома сферами: трудове посередництво, профорієнтаційна допомога, соціальна справедливість. За результатами проведеного оцінювання встановлено низький рівень показника ефективності функціонування інфраструктури в системі трудового партнерства та достатній рівень її роботи у системі професійної допомоги та соціальної справедливості. Запропоновано рекомендації щодо удосконалення інфраструктури ринку праці. Серед основних напрямів удосконалення, необхідних для забезпечення на основі інфраструктурних елементів ринку праці інноваційних підприємств якісним кадровим складом, виділено наступні: підвищення взаємодії державних та недержавних інфраструктурних елементів; розвиток мережі альтернативних (недержавних) служб працевлаштування; удосконалення трудового законодавства та технологій роботи державних служб зайнятості.

Ключові слова: інновація, інноваційне підприємництво, інноваційна діяльність, ринок праці, інфраструктура ринку праці, кадровий потенціал.

Problem statement. Increasing the competitiveness of any country's economy depends on the efficiency and speed of converting the results of research into market goods. That is why the development and stable functioning of innovation entrepreneurship is one of the most important systemic factors of sustainable economic growth, the formation of competitive advantages of the country, and ensuring the national security. At the same time, the provision of the personnel with the appropriate level of qualification and skills, which are capable of development and implementation of innovations, is essential for the effective work of innovative enterprises. The supplier of such personnel for enterprises is the labor market, whose harmonious functioning must provide the elements of its infrastructure. In this regard, the assessment of the effectiveness of the labor market infrastructure functioning and the identification of measures to improve it for maximizing the provision of innovative enterprises by the necessary personnel acquires particular importance.

Analysis of recent research and publications. The research of the theory of innovative entrepreneurship is devoted to the scientific work of such scholars as F. Agjoin, B. Burkinisky, L. Walras, V. Zyanko, G. Kassel, J. Keynes, I. Kuksa, S. Ilyenkova, O. Kazantseva, R. Cooper, J. Lauderdale, K. Marx, O. Prigozhina, P. Proudhon, C. Sismond, I. Fischer, M. Friedman, E. Hansen, J. Schumpeter and other scholars. The most significant fundamental studies of the specifics of the labor market functioning and its infrastructural support should include the works of V. Bobrov, V. Vasilchenko, V. Gerasimchuk, F. Edgeworth, E. Zhulin, G. Zavinovskaya, G. Zbyshko, N. Ivanova, V. Ishchyn, V. Kamenetsky, G. Kupalov, A. Laffer, O. Melnychuk, V. Patrikiewa, V. Petyukha, A. Pigou, J. Sey,

A. Smith, A. Topilina, J. Tokar, E. Phelps, E. Cherniavskaya and other scientists.

The purpose of the article is to formulate the recommendations for improving the labor market infrastructure for the further provision of the innovative enterprises on its basis with personnel with the appropriate qualifications and skills.

Presentation of the main research material. In the conditions of market economy, the search for and implementation of new ideas are an integral part of the entrepreneurial activity. The complexity of this task lies not only in the ability to think creatively and find new solutions, but also to understand the disassembly of forces operating in those or other circumstances. That is why there appeared such kind of activity as an innovative enterprise, which is intended to solve the classic issues of innovative development on a business basis.

In our opinion, the formulation of the essence of innovation entrepreneurship is impossible without clarifying the content of the concept of "innovation", because there is a large number of its definitions (Table 1).

The analysis of scientific approaches to the definition of the innovation essence allows to distinguish its main features: innovation is the ultimate result of developing and introducing current changes; innovations are implemented as a new or improved product (process), a new approach to social services; innovations should be introduced on the market or used in practice, which emphasizes the application value of innovation in contrast to scientific discoveries; the main purpose of innovation is to obtain an economic, social, environmental, scientific and technical or other effect.

Taking into account the foregoing it can be concluded that innovative entrepreneurship is an initiative risk activity aimed at obtaining income

Table 1

Scientific approaches to the definition of "innovation"

Author	Definition of the concept
B. Twis	Innovation is a process in which an invention or idea obtains economical content [1].
B. Santo	Innovation is a socio-technical and economic process which due to the practical use of ideas and inventions leads to the creation of the products and technologies with better qualities, and in case if the innovation is oriented towards economic interest (profit), its appearance on the market can bring additional income [2].
J. Schumpeter	Innovation is a new scientific and organizational combination of production factors, motivated by entrepreneurial spirit [3].
P. Zavlin, A. Kazantsev, L. Mindel	Innovation is the use of the results of intellectual (scientific and technical) activities in one or another field of society aimed at improving the process of activity or its results [4].
I. Balabanov	Innovation is a materialized result derived from investing capital in the new technique or technology as well as in the new forms of organization of production, labor, service and management, including new forms of control, accounting, planning methods, analysis techniques, etc [5].
V. Zyan'ko	Innovation is the result of the embodiment or materialization of an innovative idea in a certain subject matter – a product, technology, means of human activity or service for which new consumer qualities are inherent, and its implementation involves a change in the established, habitual means of activity, the creation of a new or diversified old demand for the purpose of obtaining economic, social, environmental or other effects [6].
O. Lapko	Innovation is an integrated process that involves the creation, development, commercialization and distribution of a new technical or other solution that meets a certain need [7].

as a result of the development and implementation of innovations carried out as a new or improved product introduced in the market, a new or improved process used in practice, a new approach to social services in order to obtain an economic, social, environmental, scientific and technical or other effect.

In our opinion, an innovative entrepreneurship is a special innovative process, based on a constant search for new opportunities, an orientation towards innovation. The above-noted entrepreneurship is related to the readiness of the entrepreneur to assume full risk concerning the implementing a new project or improving the existing one, as well as financial, moral and social responsibility that arise during this. In the general meaning, an innovation entrepreneurship can be defined as a public technical and economic process, leading to the creation of goods (services) and technologies which are the best in their properties through the practical use of innovations.

The most important function of innovation entrepreneurship is the implementation of a mediating role between the scientific and technical and production spheres, ensuring automatic economic exchange between them without any disruptions in competitive conditions. Thus, innovative enterprises arise as a consequence of the social need to reduce the costs incurred in the process of transformation of a product created in the scientific and technical field into a product

created in the economic sphere. Such enterprises allow to eliminate some of the costs (production costs), that is, they act as an institutional form that ensures effective interaction of scientific and technical institutions and private economic entities in the framework of market relations.

Special attention should be paid to the fact that, in order to fulfill the above-mentioned functions, primarily the innovative enterprises must have a high-quality personnel structure that will meet the basic requirements – competence, purposefulness and efficiency. At the same time, the formation of personnel is impossible without a stable labor market, for which the availability of infrastructure elements is one of the most important conditions for harmonious functioning. In this regard, it is relevant to study the essence of the labor market infrastructure and its assessment with a view to further developing the necessary measures aimed at its improvement.

The infrastructure of the modern labor market is an integral part of the nation-wide economic infrastructure, including commercial and private employment promotion structures, human resources services of enterprises and firms, public organizations, as well as their regulatory, financial and information environment, ensuring the stable functioning of the labor market and promotes the most effective interaction between demand and labor supply. The labor market infrastructure has a robust system of rules, principles, norms, guide-

lines and mechanisms that determine the behavior of entities in this market segment. It forms the boundaries, sets the system of restrictions that are obligatory for the entities of the labor market, standardizes the behavior of the entities which makes it being foreseen.

In order for the labor market infrastructure to function effectively in the modern economy and to support the provision of innovative enterprises with the necessary qualifications, it needs to adapt and timely respond to the external and internal environment, and its structure must be in line with the processes and trends taking place in the world and national labor markets. The complexity of adaptation is that the labor market infrastructure is a multifunctional system that has a complex structure with a large number of participants (institutions) whose activities are to provide the most favorable conditions for the functioning of the labor market [8]. Therefore, each of the institutions of the labor market infrastructure must provide its own adaptation strategy in order to complement each other in a harmonious way.

In our opinion, the existing labor market infrastructure is apt to be portrayed as a two-tier model with state and non-state institutions. The state component of this infrastructure is a single system of power bodies and specialized institutions with vertical hierarchical subordination. First of all, the state authorities that should increase their influence on the labor market should include the executive body, which carries out the law-enforcement functions in the field of labor and employment, the State Service of Ukraine on Labor (hereinafter – the SSUL). The SSUL carries out its activities directly through its territorial bodies in cooperation with other bodies of executive power, representatives of local self-government, public associations and other organizations [9]. Another state level body which is not less important represents itself the State Employment Service of Ukraine (hereinafter – the SESU), which is one of the main institutes designed to ensure the practical implementation of state policy in the field of social and labor relations, employment and social support of the population [10]. These are activities of the SSUL and the SESU as representatives of the main infrastructure elements of the labor market that should be improved above all others.

The particular place in the labor market infrastructure is set by the non-governmental organizations among which the private employment agencies (recruiting centers, HR consulting firms, etc.) are particularly popular. The main difference in the activities of the civil service employment agencies and private agencies for the employment of the unemployed is that, according to the

legislation, the civil service activities are aimed at solving social problems: assistance to unemployed citizens in employment, providing them with material support, and a special emphasis in this activity is laid on individuals belonging to the category of socially unprotected, first and foremost, the category of women. Private structures are intended to generate income from activities related to the provision of services for the employment of citizens or recruitment. The agencies are required to have highly qualified and trained staff. They are not entitled to employ or hire people for work involving unacceptable risks or dangers to life and health, or for work with such conditions where workers can become victims of abuses or discrimination [11, p. 12].

Taking into account the foregoing, in order to assess the current state of the labor market infrastructure, its efficiency will be determined by means of indicators distributed in three areas:

1. Labor partnership (the quantity of infrastructural elements that carry out mediation in the labor market; the proportion of the unemployed who used the services of the state employment service out of the total number of unemployed; the proportion of the employed citizens from the total number of persons who applied for help at employment centers; the proportion of operatively employed citizens, before granting them the status of the unemployed; the proportion of citizens employed by providing employment mediation services; the quantity of employers who cooperated with employment centers; average duration of unemployment; the proportion of the citizens employed to new jobs with compensation of expenses to the employer in the amount of UST (Unified Social Tax) of the total number of unemployed).

2. Career guidance (the quantity of career guidance services; the proportion of individuals who received career guidance services out of the total quantity of individuals who applied for employment assistance; the proportion of the unemployed who received professional training and received vocational guidance services out of the total quantity of individuals; the quantity of professions which the career training and retraining were carried out in; the proportion of licensed professions in the total number of professions; the quantity of course subjects for advanced training; the proportion of unemployed individuals who were involved in the organization of social works of a temporary nature out of the total quantity of individuals; the quantity of vouchers issued for studying).

3. Social justice (the proportion of the employed young people out of the total quantity of young people who applied for employ-

ment assistance; the proportion of employed individuals with disabilities out of the total quantity of individual with disabilities who applied for employment assistance; the proportion of employed internally displaced individuals out of the total quantity of internally displaced individuals who applied for employment assistance; the proportion of employed women out of the total quantity of women who applied for employment assistance; the proportion of employed rural residents out of the total number of rural residents who applied for employment assistance; the proportion of employed ATO participants out of the total quantity of ATO participants who applied for employment assistance).

There will be calculated the change for each proposed indicator in its actual value relative to the previous one:

$$T_i = \frac{F_i^p}{F_i^b} * 100, \quad (1)$$

where T_i – change of the i -th indicator in the reporting period, %;

F_i^p – absolute value of the i -th indicator in the reporting period;

F_i^b – absolute value of the i -th indicator in the base period.

At the same time, although T_i characterizes the level of the indicator change, it does not reflect the positive or negative direction of the change. Therefore, it is necessary to determine the adjusted values of the indicators for the main input of the function of stimulating their change in the desired direction:

$$Y_i = f(T_i), \quad (2)$$

where Y_i – the value of the adjusted i -th indicator, %;

$f(T_i)$ – the mathematical function of stimulating the change of the i -th indicator in the desired direction.

The use of two stimulus features is suggested:

a) stimulation in the “linear ascending line” ($Y = T$), when the increase in the indicator is encouraged;

b) stimulation by “linear descending line” ($Y = 200 - X$), when it is desirable to reduce the value of the indicator.

Distribution coefficients (Y_i) are selected expertly by means of ranking of indicators and assigning them the share in the proportions of units. That is, indicators of the efficiency of the labor market infrastructure are calculated by the formula:

$$F_i^s = Y_i * B_i, \quad (3)$$

where F_i^s – the value of the i -th indicator, calculated for the integrated evaluation, points;

B_i – distribution coefficient of the i -th indicator.

Complex indicator of the efficiency of the functioning of the labor market infrastructure:

$$F^s = \sum_{i=1}^n F_i^s, \quad (4)$$

where n – the quantity of the indicators.

The evaluation of the effectiveness of the labor market infrastructure depends on the numerical value of a complex indicator: with a value less than 95 points – efficiency is low; in the range from 95 to 100 points – satisfactory; from 100 to 105 points – high enough; more than 105 points – high.

Based on the above methodology, there will be evaluated the efficiency of the functioning of the labor market infrastructure in Ukraine (Table 2).

The data in table 2 demonstrate a low level of efficiency of the infrastructure functioning in the system of labor partnership. In this regard, the main efforts of the mediators on the labor market of Ukraine should be aimed at more active interaction between state and non-state institutions as well as the interaction of the employers with these institutions in order to increase the number and quality of service delivery.

Positive impact on the functioning of the labor market infrastructure was affected by the subsystem of professional assistance and social justice, which demonstrates a powerful existing system of providing high-quality professional orientation, a variety of career guidance services, a high pro-

Table 2

The overall effectiveness of the functioning of the labor market infrastructure

Efficiency of labor partnership									
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
94	93	92	90	91	92	94	96	92	93
Efficiency of career guidance									
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
101	104	104	105	103	102	102	102	104	103
Efficiency of social justice									
2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
101	100	99	99	105	104	103	104	103	106

Source: calculated by the author

portion of individuals who have completed career guidance and received licensed professions. The social component of the subsystem of social justice is evidence of an effective state strategy for social protection of vulnerable sections of the population (disabled people, women, IDP (Internally Displaced Person), youth, etc.).

The results of the complex assessment of the current state of the labor market infrastructure have allowed to determine the directions of its further improvement in order to provide innovative enterprises with high-quality personnel. It is necessary to allocate the following directions among the mentioned ones:

1. Increasing of the interaction of state and non-state infrastructure elements through the creation of the "Unique Integrated Employment Assistance Complex".

2. Development of a network of alternative (non-state) employment services through the creation of private agencies for temporary employment and employment of vacant workers.

3. Improvement of labor legislation through the formulation of legal framework for effective partnership of labor market entities; legislative determination of the principles of labor demand regulation, including determination of criteria for recruitment and employer's responsibility for their compliance; creation of legal norms for regulating the activities of non-governmental organizations promoting employment and recruiting staff of the vacant workers.

4. Improving the working practices of public employment services by ensuring coordination between the selection of a suitable workplace and the payment of assistance; between mediation in job search and active vocational training programs; between the units involved in the payment of assistance and the units that send the unemployed individuals to participate in active programs; by the application of the policy of active intervention during the period of unemployment in order to reduce its duration.

Conclusion. While the study implementation it was determined that the main precondition for the development of an effective employment policy which is necessary to provide innovative entrepreneurship with appropriately qualified personnel is the joint responsibility of all structures, public and private ones, operating in the field of employment. A real step towards achieving this goal can be the formation of partnerships between entrepreneurs-innovators, state and commercial structures that promote employment, based on the coherence of action and segmentation of the labor market, taking into account the peculiarities of job seekers and the formed vacancy structure. That is, the formation of an institutional labor market regulatory infrastructure that would facilitate the formation of the necessary personnel in the innovative enterprises requires close consolidation of the efforts of state and non-state structures, the connection of public institutions, the interaction of which creates a synergistic effect from their activities.

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