

PERFECTION OF MECHANISM OF ESTIMATION AND MANAGEMENT LABOUR POTENTIAL IN THE CONDITIONS OF ADAPTATION TO REQUIREMENTS OF INTERNATIONAL INTEGRATION

Problem formulation. The main mission of successfully operating enterprise is an effective implementation of the generated production capacity, increase of its scale in the future on the basis of innovative development. Among the many criteria of activity the level of production competitiveness and the index of profitability of the enterprise especially is to highlight. In the context of globalization of all processes including the economic ones, taking into account the tough competitive environment the need for intellectual approach associated with the tasks to improve these indicators is objectively formed.

European Union's place in the world economy is determined by new conditions of competition, providing constant formation and perfection of scientific-technical and labour potential, non-stop transformation of scientific knowledge into innovative products realized in the market. For this purpose national management institutions of the EU and national governments form legal, organizational and economic conditions and mechanisms for creation of information system, they carry out active educational, scientific-technical and innovative policy.

In the development strategy of EU countries adopted in Lisbon in 2000 the task of creating in Europe the most dynamic and competitive economy based on knowledge was set. The foundation of this economy is labour potential with high level of profitableness.

The elaboration and carrying out common for the EU countries effective and innovative policy assume the reduction of differentiation between the member-countries in social-economic development level and intellect potential, formation of common educational and scientific space.

In the realization contest of this policy the Cabinet of Ministers of Ukraine following its decree of July, 22, 2009 № 851-p adopted the conception of state special purpose social program of conservation and development of Ukrainian labour potential for the period till 2017. It is noted there that nowadays the most urgent problem is discrepancy of the labour potential to the modern requirements of Ukraine's economic and social development, and the government should take system measures for maintenance, renewal and development of labour potential in condition of finance crisis on the economy stabilization stage.

The aim of this program is to provide maintenance, renewal and development of labour potential, to re-cre-

ate qualified work force and to raise competitiveness in accordance with modern requirements of economic and social development, to work out measures for improvement of the labour potential management system and its estimation set of instruments.

In global economy crisis conditions and especially for the countries with transformative way of house holding the greatest urgency has optimum formation of such element of enterprise economic potential as labour potential. The urgency of the problem is also caused by the fact that the labour potential is the basic factor and the catalyct of such non-material assets as goodwill of the firm.

The labour potential is existing and predicted employment opportunities which are defined by quantitative and qualitative professional and creative characteristics of the industrial staff of the enterprise [3, 5].

The result of balanced staff potential, its quantitative and qualitative structure adequacy to scale requirements and competitive level of modern production is the series of the firm activity indices (revenues from sales, labor productivity, capital-labor ratio, return on assets, the staff dynamics). Their analyses gives the characteristics of labour resources use efficiency [1, 7], but such indices as market value of labour potential and its creativity are not taken in account. However, these characteristics are of particular relevance in the market economy, but not because of determining the cost of its creation, rather in the aspect of the formation of a competitive labor potential, establishing the impact of its use, and ultimately improving the company's market value and goodwill.

Finding the right combination of these parameters represents perspective method of forming a high competitive level of the labor potential.

Analysis of recent research. Many foreign and domestic scientists and analysts argue that the competitive image of the enterprise in the first place is based on the optimum formation of personnel potential, its implementation and development strategy. The main criteria are usually indicators of production and economic activity.

These theoretical and methodological approaches studied and developed V. Alaverdyan [1], V. Antonyuk [2], B. Bachevskiy [3], I. Zablodskaya [3], Jürgen Weber [4], V. Gavva [5], E. Bozhko [5], A. Eskov [7], O. Kendyuhov [8], M. Korzh [9], E. Dobykina [9], Nils-Goran Olwe [10], Paul R. Niven [11], Robert S. Kaplan

[12], O. Fedonin [13], Fridag R. Herwig [14], O. Kamenskaya [17].

Currently, however, for the implementation of these aspects the three parameters are of the most pressing issues. They are a value indicator of the employment potential creation, the calculation of its market value and creativity of human resources, which are so far not considered.

The aim is to develop recommendations for the improvement of labor potential management mechanism based on scientific approaches to the choice of methods and means of deliberate action on the process of improving the formation of labor potential and improve the competitive image of the company as a whole.

The main part. For successful solution of this task a three dimensional model of competitive space of the labour potential is suggested. It is characterized by value quantity indices of labour potential, its market value and creativity of its staff resources. When taken in this space, the enterprise labour potential will promote realization of the main formula for successful business.

$$\text{Success} = f(\text{Interrelations with customers; Value}).$$

On fig. 1 the competitive space model of labour potential is presented. In practice, the form and location of

the polygon will be defined by the character of competition in the market where the enterprise functions and by potential investors' interests.

This space defines the potential range of the labor potential parameters of a particular enterprise, carried out under the strategy of formation, implementation and development of the labour potential developed by each company.

It is proposed the following procedure of working with the competitive space (for one specific object):

Stage 1. Defining of the object analysis parameters.

The creating value of the labour potential (Cv) can be determined by using expense methods of estimation, taking into account the expenditure on the formation of the personnel potential, salaries, wages, staff training, retraining and professional development.

The creativity level of the labour potential (Cl) can be determined by a number of parameters: science intensively index (SRECW cost to the annual sales volume), invention quantity, invention radicalism, ecological safety.

The estimation of the labour potential market value (Mv) should be made using gainful approach by the method of discount money flows. This method is given below.

Thus, the point with the coordinates Cv, Cl, Mv is got.

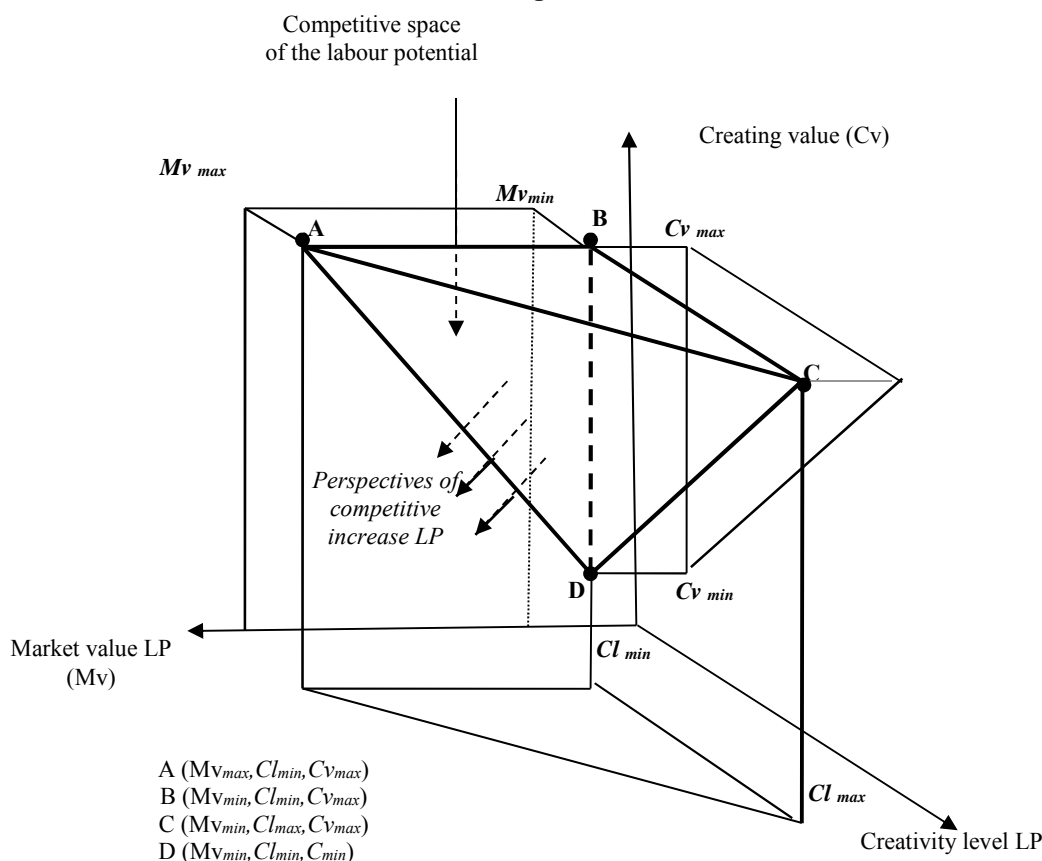


Fig.1. Competitive space of the labour potential (LP)

Stage 2. Defining of the competitive space parameters (LP).

By means of examination using engineering calculation and marketing research the values of Cv_{max} , Cv_{min} , Cl_{max} , Cl_{min} , Mv_{max} , Mv_{min} . As a result, we get the coordinates of the space points: $A(Mv_{max}, Cl_{min}, Cv_{max})$, $B(Mv_{min}, Cl_{min}, Cv_{max})$, $C(Mv_{min}, Cl_{max}, Cv_{max})$, $D(Mv_{min}, Cl_{min}, Cv_{min})$.

Stage 3. Characteristics of the competitive space.

Let us consider the special case where the competitive space is limited by four planes as it is shown in fig. 2. One of these planes is parallel to the plane Mv, Cv (ABD plane), the second one is parallel to the plane Cv, Cl (BCD plane), the third plane is parallel to the plane Mv, Cl (ABC plane), the fourth one is set at an angle (ACD plane).

Stage 4. Defining of the object position, relative to the analysis of the competitive space.

Stage 5. Implementation of the change of the object of analysis parameters, depending on the results obtained in stage 4, as well as the objectives and the current situation in the market.

The competitive space parameters may be changed in three directions and thus they create 27 possible combinations, 8 of which are not worth to be considered because they do not provide a competitive object entering

the space. Accordingly, the object has 19 management options that lead to the creation of competitive advantage of the labour potential.

If the company manages to achieve that its labour potential moves into the area, "perspectives of competitive increase", it means the shift of parameters of the existing space in the direction of ensuring a higher market value and the level of creativity at lower costs to create the employment potential.

It is possible that a number of enterprises would be competing outside the competitive space that will provide a certain competitive advantage to the enterprise, to form a new competitive space.

At the same time, the vector competitiveness increase should be defined this way:

$$\vec{a} = (Mv, Cl, Cv), \text{ where } Mv_{min} < Mv < \infty, Cl_{min} < Cl < \infty, 0 < Cv < Cv_{max}. \quad (1)$$

As a result, $Mv \rightarrow \infty$, $Cl \rightarrow \infty$, $Cv \rightarrow \min$ in case when the market value and the level of creativity increase while reducing costs on the formation of the labour potential.

An important advantage of the method is its versatility – it is possible to use it in industrial enterprises of different branches.

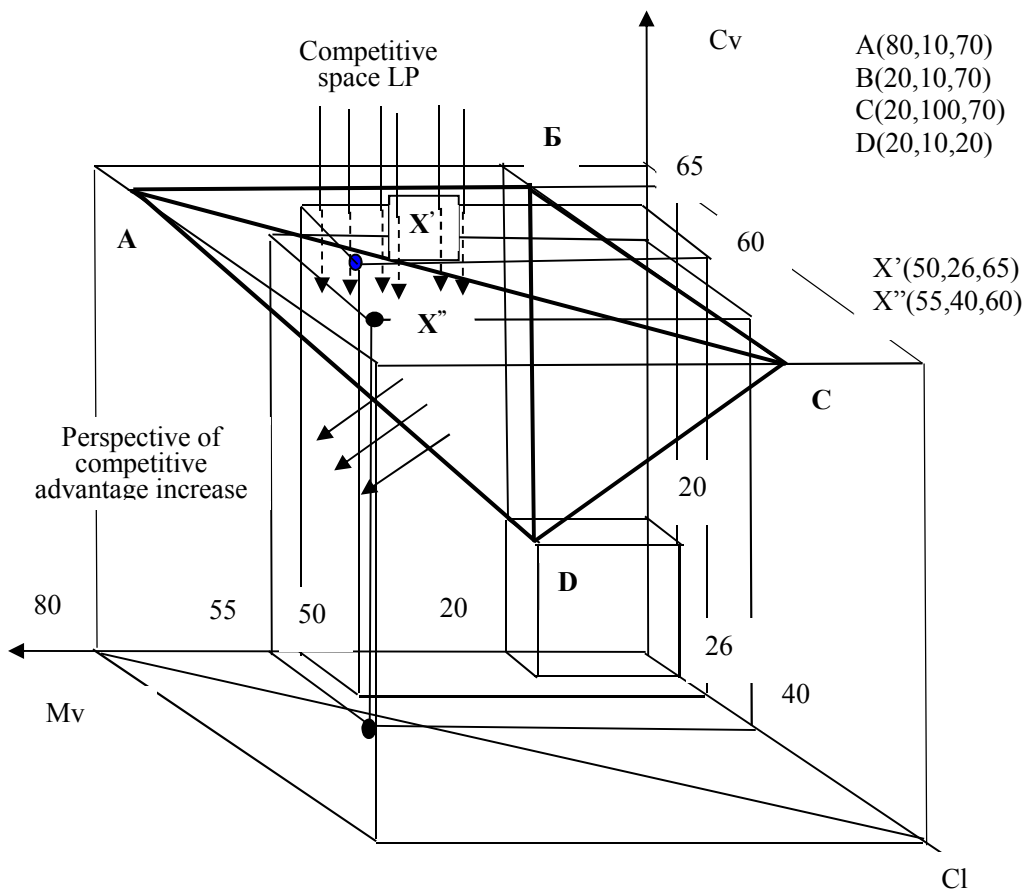


Fig. 2. Object positioning regarding the competitive space

Fig. 2 shows a hypothetical model of the positioning of the labour potential in relation to the competitive space and its displacement as a result of optimization of its formation costs that increases market value and the level of creativity.

Competitive space is limited by the space points A (80,10,70), B (20,10,70), C (20,100,70) and D (20,10,20). Point X' (50,26,65) corresponds to the position of the evaluated potential before the measures to optimize the costs on the formation of the labour potential and increasing creativity parameters, point X'' (55,40,60) – after these measures. As can be seen, in the first embodiment the object is in the zone of the competitive space.

The result of the optimization of the potential formation costs, increasing the market value and the level of creativity was the object motion on the vector in direction of improving the competitiveness potential, and thus a competitive advantage is obtained.

Special attention should be paid to determining the market value of the labour potential. To solve this problem the method of discounted cash flows is suggested [6]. In the income approach according to this method the present value of an enterprise (business) is defined as the sum of the present value of forecasted income flows and present value reversion (object sale value in the post-forecast period):

$$PV = \sum \frac{MF}{(1+i)^n} + PVr, \quad (2)$$

where

i – discount rate, which can be accepted in this case at the level of the labour potential implementation ratio, ie $i = 0.3$ [5];

n – given period of reduction or duration of the forecast period, ie 3-5 years;

MF – forecasted money flows;

PVr – present value of the possible sales of the object in the post-forecast period (present value of reversion).

The value of the second component may be determined using Gordon model that allows to calculate the costs of business-largest income in the first year of the post-forecast period which is also reduced to the quantity of the present value:

$$PVr = \frac{Rpp}{i - \alpha} \times \frac{1}{(1+i)^n}, \quad (3)$$

where

Rpp – enterprise income in post-forecast period;

α – the rate of income flow growth, %.

In order to highlight the value of the labour potential cost of the total income flow it is logically to multiply the business value ratio on the staff profitability ratio:

$$PVs = PV \times Pn = \left(\sum \frac{PP}{(1+i)^n} + PVp \right) \times Pn, \quad (4)$$

where

$$Pn = Pms + Plp = Spm \times Pn + Slp + Pn, \quad (5)$$

Spm and Slp – accordingly, the share of profitability of the management and technological personnel in the total personnel cost-effectiveness. The share of profitability may be determined as a percentage of payroll, respectively corresponding category in the total wage fund.

It should be noted that the definition of profitability of the management and technological personnel with this method, i.e. as the ratio of profits to wages fund of the corresponding category, is not entirely appropriated in this case since for the correct definition of the profitability of each category it is necessary in the total amount of income to distinguish the part that is directly generated either by management personnel or technological one, but such differentiation is often difficult or impossible.

To assess the implementation of the labour potential from the point of the income approach as an analogy can be used the ratio of the present value of the project. Then the efficiency ratio of the labour potential can be defined as the difference between the total wages and salaries fund of all staff for the forecast period which is considered as an investment and the present value of the labour potential:

$$NPPwp = - \sum \frac{WSF}{(1+i)^n} + PVn, \quad (6)$$

If this ratio is positive and significantly exceeds zero, then we can say that the employment potential is used effectively.

The following relationships can be used as indicators of the relative potential and effectively realization of the labour potential:

$$R_{pp\ wp} = \frac{PVn}{WSF \times n}, \quad (7)$$

$$R_{er\ wp} = \frac{WSF \times n}{PVn}, \quad (8)$$

As it was mentioned, the labor potential is the dominant factor in shaping the company's goodwill. The qualitative aspect of goodwill is defined as the value of the company's goodwill. The quantitative aspect of goodwill is determined using the method of excess profits as the capitalized value of excess returns:

$$Pex = NVA \times iab, \quad (9)$$

$$Pex = NNP - Pex, \quad (10)$$

$$Vr = Vpex = \frac{PS}{R}, \quad (11)$$

where

NVA – net value of the company's assets, UAH;

iab – average branch profitability assets, UAH;

P_{ex} – expected profit, UAH;

PS – excess profit, UAH;

NNP – normalized net business income (excess profits), UAH;

R – rate of capitalization for the enterprise (business).

To highlight the value of the goodwill that was generated by the employment potential, it is logical to use the following formula:

$$V^{wn}g = \frac{P_{ex} \times Pp}{i} \quad (12)$$

and in details:

$$V^{wp}g = \frac{P_{ex} \times Pp}{i} = \frac{P_{ex} \times (Pms + Plp)}{i} \quad (13)$$

Conclusions. Thus, the proposed approach allows:

1) to determine the value of the labour potential in value terms;

2) to allocate the contribution to the formation of the market value of the enterprise (business) as a whole element such as the labour potential and certain categories of human resources (managerial and technological personnel);

3) to determine the cost value of that part of goodwill which is formed directly by human resources;

4) to evaluate the efficiency (NPV_{lp}), the level of the labor potential realization (Rer_{lp}), as well as the existing potential ($R_{pp_{lp}}$) by means of appropriate indicators;

5) in order to improve the employment potential control system it is proposed the analysis of the competitive space of labour potential, which will systematically evaluate all its characteristics and trajectory in the competitive space in order to create goodwill of the company and, finally, to increase the market value.

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Добыкина О. К. Вдосконалення механізму оцінки та управління трудовим потенціалом в умовах адаптації до вимог міжнародної інтеграції

У статті акцентовано, що в кризових умовах світової економіки і, зокрема для країн з трансформаційним характером господарювання, особливу актуальність набуває оптимальне формування такого елементу економічного потенціалу підприємства як трудовий потенціал. Ця актуальність обумовлена ще і тим, що останній є основоположним

чинником, свого роду каталізатором, такого нематеріального активу як гудвіл фірми. Розглянуто підходи вартісної оцінки трудового потенціалу. В цілях удосконалення системи управління трудовим потенціалом пропонується аналіз конкурентного простору трудового потенціалу, що дозволить системно оцінити всі його характеристики, і траєкторію руху в конкурентному просторі з метою формування гудвілу фірми і, зрештою, підвищення ринкової вартості.

Ключові слова: міжнародна інтеграція, трудовий потенціал, гудвіл, конкурентний простір, прибутковий підхід, вартісна оцінка.

Добыкина Е. К. Совершенствование механизма оценки и управления трудовым потенциалом в условиях адаптации к требованиям международной интеграции

В статье акцентировано, что в кризисных условиях мировой экономики и, особенно для стран с трансформационным характером хозяйствования, особую актуальность приобретает оптимальное формирование такого элемента экономического потенциала предприятия как трудовой потенциал. Эта актуальность обусловлена еще и тем, что последний является основополагающим фактором, своего рода каталізатором, такого нематеріального активу як гудвіл фірми. Рассмотрены подходы стоимостной оценки трудового потенциала. В целях совершенствования системы управления трудовым потенциалом предлагается анализ конкурентного простран-

ства трудового потенциала, что позволит системно оценить все его характеристики, и траекторию движения в конкурентном пространстве с целью формирования гудвила фирмы и, в конечном итоге, повышения рыночной стоимости.

Ключевые слова: международная интеграция, трудовой потенциал, гудвилл, конкурентное пространство, доходный подход, стоимостная оценка.

Dobykina Y. Perfection of mechanism of estimation and management labour potential in the conditions of adaptation to requirements of international integration

In this article it is accented that in the crisis of the world economy and, especially for countries with transformational nature of management, of particular relevance is optimal formation of such an element of the economic potential of the enterprise as the labour potential. This urgency is due to the fact that this factor is fundamental as a catalyst of such an intangible asset of the company as goodwill. The approaches of valuation of labour potential are considered. In order to improve the employment potential of the control system an analysis of the labour potential competitive space is proposed, that allows to evaluate systematically all its characteristics. The trajectory in the competitive space for the purpose of company goodwill formation and, finally, for the market value increase is suggested as well

Keywords: international integration, labour potential, goodwill, competitive space, income approach, valuation.

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