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Халықаралық ғылыми-тәжірибелік конференциясының

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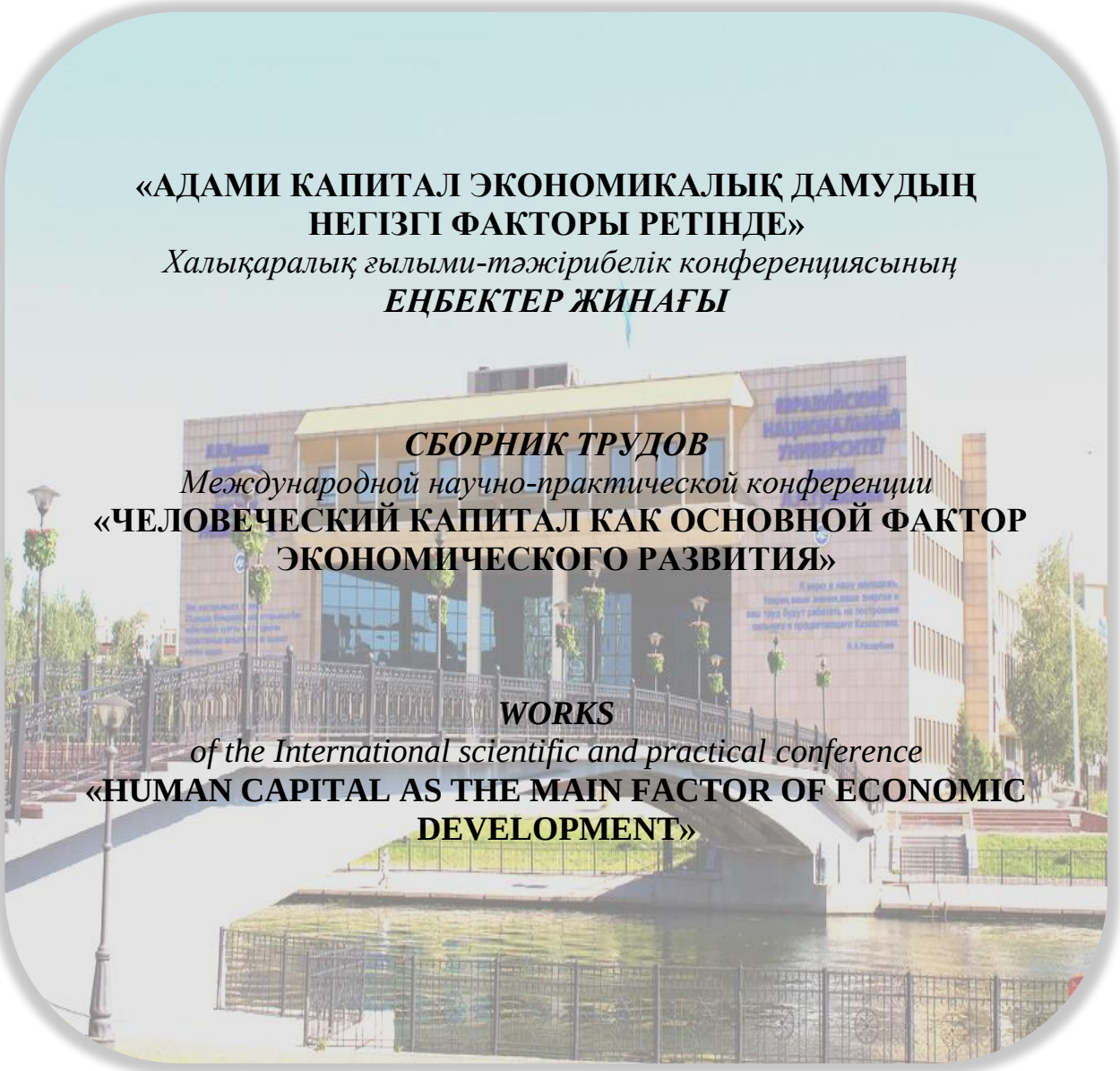

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RELEVANT ISSUES OF HUMAN CAPITAL ASSESSMENT

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The formation, implementation, and evaluation of human capital occur at all levels of the economy: from the micro (person and enterprise/organization) to the mega-level - human capital at the level of the international economy.

In this study, it is of interest to measure the human capital of an enterprise and investments by the employer aimed at maintaining, preserving, and developing the company's human capital.

Rishko Yu.B., Malakhova E.M. pays attention to several important points when analyzing the structure of human capital at the enterprise level:

- a type of activity, specifics (production, commerce, innovation, education, etc.). When calculating quantitative indicators of the human capital of an enterprise, this affects the "weight" of an asset characteristic of a particular industry. For example, in the organization of education, the most critical component of the human capital of employees is the availability of higher professional education;
- a regional affiliation of the enterprise. There are, for example, differences in life expectancy and other parameters between the southern and northern regions of the country [1].

The article presents methods of evaluation of industrial (Freeman I.M., Freeman E.M., Khudyakova E.G.), innovative (Chigoryaev K.N., Skopintseva N.A., Ulyashenko V.V., Tebekin A.V., Mitropolskaya-Rodionova N.V., Khoreva A.V.), commercial (Dobrovinsky A.P., Demyanenko Yu.V.) and methods of evaluation of "abstract" enterprises (Rishko Yu.B., Malakhova E.M.).

Researchers Rishko Yu.B. and Malakhova E.M. attach great importance to the initial stage of measuring the human capital of an organization – a time-consuming and time-consuming process. Which activities should be started with, and which indicators will be used to assess the effectiveness of each employee – an economic entity may have its algorithm.

In the work of Rishko Yu.B., Malakhova E.M., a scheme is proposed in which activities are planned in stages: at the very beginning of the process – immersion in the subject area, then it is necessary to bring human capital indicators and calculate weight coefficients, after that, it is necessary to make an assessment using quantitative and qualitative indicators identified using questionnaires in which positions are indicated and a description of the activities of employees, an expert review, qualitative characteristics of the employee. At the end of the questionnaire stage, information about the primary human capital of the organization is formed. Individual plans and working documents are drawn up, questionnaires are evaluated, in which average indicators are calculated, the coefficient of inconsistency is determined, colleagues are interviewed, and qualitative indicators are evaluated. Parallel to this stage is a large-scale survey with a hierarchical bias, which contains the employee's self-assessment, and surveys of the manager, colleagues, and subordinates. The scheme for the initial stage of assessing an organization's human capital is quite acceptable: concise and universal [1, p.73].

Freeman I.M., Freeman E.M. see the human capital of an industrial enterprise as the sum of the human capital of all categories of employees: industrial personnel (Q ip), specialists and employees (Rse), managers (S managers):

W = Q ip + R se + S managers (1).

The authors claim that the development of human capital increases the added value of the enterprise. In their article, they consider the assessment of the profitability of investments in the human capital of the PWC Saratoga Institute based on added value. The calculation is designed to assess the impact of the company's staff on its profitability. Human Capital Value Added Formula:

HCVA = CI – (CTE – LC)/FTEN (2),

where CI is the company's income; CTE is the company's total expenses (minus wages and compensation); LC is the cost of labor; FTEN is the number of full-time employees of the enterprise.

The authors criticized this method, which, in their opinion, should be applied only in the case of determining the added value of human capital at the end of a certain period: a quarter, six months, or a year. Using the method of the PWC Saratoga Institute, it is impossible to assess the dynamics of human capital when performing a certain operation and, accordingly, the contribution of each employee to the profitability and competitiveness of the enterprise.

Freeman I.M. and Freeman E.M. propose a formula for added value, taking into account, in their opinion, the disadvantages of the method proposed by the PWC Saratoga Institute.

The researchers propose to calculate the added value of the enterprise (DV) by subtracting from the sum of the volumes of permanently manufactured and marketed products ($Н^{п.т.п}$) and first-time manufactured and marketed products ($Н^{внв.т.п}$) the sum of direct costs in the manufacture of permanent products ($Z^{п.т.п}$) with direct costs in the manufacture of products manufactured and sold for the first time ($Z^{внв.т.п}$):

$DV = (Н^{п.т.п.} + Н^{внв.т.п.}) – (Z^{п.т.п.} + Z^{внв.т.п.})$ (3).

Researchers have shown the relationship between the human capital of an enterprise with an increase in its profitability and the level of competitiveness.

In their research, Freeman I.M., and Freeman E.M. presents a model for assessing the positive dynamics of the human capital of an enterprise as the main factor of its efficiency and competitiveness.

The evaluation includes indicators of effectiveness, efficiency, timeliness of the task, and the length of service of the employee.

This model is designed for one i-employee performing a specific production task – j.

The model is presented as the product of the ratio of the difference between the actual indicators (ф.) of the present (н.п.) and the previous periods (п.п.) to the difference in the planned indicators (п.) of the present and previous periods, multiplied by the difference in the values of the relative significance coefficient of the task performed (λ) in the present and previous periods and multiplied by the value of the employee's seniority coefficient (Q) in this enterprise:

$Wi = (Р_{ijф}^{н.п} – Р_{ijф}^{п.п})/ (Р_{ijп}^{н.п} – Р_{ijп}^{п.п}) \times (З_{ijф}^{н.п} – З_{ijф}^{п.п})/ (З_{ijп}^{н.п} – З_{ijп}^{п.п}) \times (Т_{ijф}^{н.п} – Т_{ijф}^{п.п})/(Т_{ijп}^{н.п} – Т_{ijп}^{п.п}) \times (\lambda_{ij}^{н.п} – \lambda_{ij}^{п.п}) \times Q$ (4).

The indicators in the model include: actual and planned results of activities (P), actual and planned costs (З), actual and planned time periods (T) required to complete this task, coefficients of the significance of the task performed (λ) in the present and previous periods, the seniority coefficient (Q).

The presented model gives management an idea of the quality of human capital and the feasibility of further investments in this employee and is also crucial when making other management decisions: creating teams to perform tasks of increased complexity, staff rotation, etc. [2].

A dynamic approach for assessing the effectiveness of human capital management of an organization in the context of the development of an innovative economy can be traced in the work of Tebekin A.V., Mitropolskaya-Rodionova N.V., and Khoreva A.V.:

$Q = К_{пчк} \times К_{фучк} \times К_{прчк} \times К_{дрчк} \times К_{сэичк} \times К_{пчк}$ (5).

The model of the organization's human capital assessment is represented by the product of coefficients that take into account the quality of work on the acquisition of human capital, the actual level of human capital, the potential and dynamics of human capital development, the synergetic effect and losses from the use of human capital [3].

In some works, when trying to evaluate human capital, a costly method is traced, based on the assumption that the price of human capital is equal to past investments in monetary terms or resources spent on its creation – the E. Engel method [4].

Thus, researcher E.G. Khudyakova evaluates the human capital of an industrial enterprise according to the formula:

$СЧК = И \times И_{ВЧКвИРП}$ (6),

where the value of human capital in units (СЧК) is equal to the product of the company's investment in the employee's human capital in units (И) and the index of the contribution of human capital to the innovative development of the enterprise ($И_{ВЧКвИРП}$).

The author believes that using the above formula, it is possible to assess the human capital of an enterprise, taking into account the impact on its innovative development [5].

In the work of Chigoryaev K.N., Skopintseva N.A., and Ulyashenko V.V., the human capital of an innovative enterprise (NC) is presented as the sum of the costs of the enterprise:

$HC = \beta_1 A + \beta_2 B + \beta_3 C$ (7),

where A is the payroll; B is the employer's investment in the intellectual capital of the company; C is the employee health care costs, β_1 is the wage fund return coefficient; β_2 is the return coefficient of investments in intellectual capital; β_3 is the return coefficient from the "capital health" [6].

Dobrovinsky A.P., Demyanenko Yu.V., assessing the human capital (HK) of a commercial organization, also use the summary method. The assessment of the organization's human capital consists of such assessments as:

- measurement of human capital based on tests in the business environment (the price of human capital through real tests in the business environment + assessment of the value of the HK based on the knowledge system on management, economics, and marketing);
- competitive valuation of the HK;
- prospective competitive valuation of the HK;
- direct calculation of personnel costs [7].

The author of this article also adheres to the costly method and considers the equation of the American economist Jacob Mincer to be a universal assessment of investments in human capital, in which the rates of return from each structural element of the human capital of one employee are summed up and, thus, his salary is calculated, which is the only assessment of human capital at the micro level [8]:

$\ln W = ß_0 + ß_1 \cdot SCH + ß_2 \cdot EXP + ß_3 \cdot EXP^2 + ß_4 \cdot TEN + ß_5 \cdot TEN^2 + e$ (8),

where SCH is secondary and higher education, EXP is work experience (calculated as the difference between age and years spent on acquiring secondary and higher education and minus preschool years), TEN is the experience acquired in this company; W is remuneration.

Coefficient β characterizes the rate of return from each variable of the equation: β_0, β_1, β_2, β_4 – positive coefficients; β_3 – negative.

J. Mincer did not take into account in his equation the rate of return on health capital, on which the state of human capital as a whole depends: the quantity and quality of education, labor productivity, entrepreneurial abilities, social mobility, etc.

Denisenko M. B., Sagradov A. A. expanded the model of J. Mincer of the missing variable:

$$\ln W = ß_0 + ß_1 \cdot SCH + ß_2 \cdot EXP + ß_3 \cdot EXP^2 + ß_4 \cdot TEN + ß_5 \cdot TEN^2 + ß_6 \cdot LMNP \quad (9),$$

where LMNP is the health score for the past month [9].

Another element needs to be introduced into the Mincer-Denisenko-Sagradov model:

$$\ln W = ß_0 + ß_1 \cdot SCH + ß_2 \cdot EXP + ß_3 \cdot EXP^2 + ß_4 \cdot TEN + ß_5 \cdot TEN^2 + ß_6 \cdot LMNP + ß_7 \cdot CUL + ß_8 \cdot CUL^2 + e \quad (10),$$

where CUL is the evaluation of investments in cultural capital.

This form of human capital, in modern terms, can also be monetized, since human capital, in addition to all of the above elements, also includes cultural properties of a person that are inseparable from his psychophysiological portrait and worldview.

High-quality cultural capital (knowledge of foreign languages, business etiquette, experienced use of PCs and various devices, the ability to communicate, mobility, diligence, stress resistance, etc.) helps its owner to successfully realize himself in the labor market, make a career, occupy a higher position and receive a high salary, work simultaneously in several projects / on several sites enterprises, receive income from entrepreneurial abilities (higher earnings from sales, income from securities transactions, etc.).

To assess the human capital of an enterprise, it is possible to transform the equation:

$$\ln W_E = (ß_0 + ß_1 \cdot SCH + ß_2 \cdot EXP + ß_3 \cdot EXP^2 + ß_4 \cdot TEN + ß_5 \cdot TEN^2 + ß_6 \cdot LMNP + ß_7 \cdot CUL + ß_8 \cdot CUL^2 + e) \cdot Ne \quad (11),$$

where Ne is the number of employees of the enterprise.

This equation for assessing the human capital of an enterprise is applicable only in the case of the same value of the human capital of employees, which, of course, is unlikely. In practice, the human capital of an enterprise is the sum of the human capital of all employees.

A comparative analysis of the methods of measuring the value of human capital of an enterprise has shown that there are similarities and differences in approaches to this complex and ambiguous issue. The continuity of traditions in solving the problem (a costly method dating back to the classics of political economy) and innovation (consideration of the structural elements of human capital in dynamics and specifics) are traced.

It is necessary to create a unified model for assessing human capital at the micro level, because, despite the existing objective differences of enterprises, there are also typical features that bring the content of production activities to a common denominator: innovation component, digitalization, remote work, etc.

Most companies today are focused on optimization, and management is making ever-increasing demands on employees, so the wage equation of J. Mincer will be supplemented with new elements.

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ВОПРОСЫ ГОСУДАРСТВЕННЫХ ПРОГРАММ СТРАХОВАНИЯ В АГРАРНОМ СЕКТОРЕ

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