SYSTEM OF INDICATORS FOR ASSESSING THE EFFICIENCY OF USING THE NEWEST TECHNOLOGIES IN HUMAN CAPITAL MANAGEMENT

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Abstract

The purpose of this work is the theoretical and practical substantiation of the system of indicators for evaluating the effectiveness of human capital and HRM processes at the enterprise. Within the framework of the proposed system, the result of evaluating the effectiveness of human capital and HRM processes at enterprises can be visualized in order to improve management.

Key words: *human capital, HRM processes, HRM technologies, effectiveness, indicators of effectiveness.*

The study of existing approaches and methods of evaluating human capital and HRM processes, which are based on the calculation of indicators (groups of indicators, coefficients) characterizing the human and technological potential of management and its components prove that scientists usually use indicators that cover the assessment of personnel and technical technological potential of the enterprise, but do not fully reflect the capabilities and reserves of the latest HRM technologies.

To analyze the effectiveness of HRM processes at domestic enterprises, the authors developed a system for evaluating the effectiveness of human capital and HRM processes using a number of relative indicators that characterize the level of technological activity of the enterprise and are divided into the following two groups:

Table 1

**A system of indicators for evaluating the effectiveness
of human capital and HRM processes at the enterprise**

№	Indicator's name	Calculation formula	Conventional designations in the formula for calculation
1	**2**	**3**	**4**
1. Indicators of the effectiveness of the use of personnel and operational control of HR functions		
1.1. Indicators of efficiency / profitability of human capital		
1	Profitability of human capital	$Phc = I /Asb$	I – income of the enterprise (minus operating expenses and expenses for salaries and bonuses), UAH.; Asb – the total amount of salaries and bonuses that the company pays to its employees,UAH.
2	Return on investment in a qualified employee	$ROI = Aii / Iqe$	Aii – annual increase in income, UAH; Iqe – investments in qualified employees,UAH;
1.2. Performance indicators of personnel selection		
1	Coefficient Staffing completeness	$Csc =Nac / Ns$	Nac – the actual number of employees, persons; Ns – the number of employees according to staff list, persons.
2	Personnel selection ratio	$Rps = Ncs / Nc$	Ncs – the number of candidates selected from the number persons willing to work; Nc – the number of candidates for the position, persons.
1.3. Indicators of the effectiveness of material motivation of personnel		
1	The share of the variable component in wages	$S vc = Sv / Sa$	Sv – variable salary at the enterprise,UAH; Sa – average salary at the enterprise, UAH;
2	Salary motivation Coefficient	$Csm = Sqee/Sqec$	Sqee – the average salary of a qualified employee at the enterprise,UAH; Sqec – the maximum salary of employees of the corresponding qualification from competitors,UAH

1	2	3	4
1.4. Indicators of assessment of the management of activity efficiency		
1	Efficiency management coverage ratio	R em = Nrhr / Na	Nrhr – the number of employees who directly report to the HR manager; Na – the average number of employees, persons.
2	Employee engagement rate	Ree = Nea / Na	Nea – the number of employees who agree to recommend the company, persons. Na – the average number of employees, persons
1.5. Indicators of training and development effectiveness		
1	Coefficient of professional level of employees	Cpl = Nhq / Na	Nhq – the number of highly qualified employees, persons; Na – the average number of employees, persons
2	Percentage of employees who have completed training	P ct = Ng / Na	Ng – the number of workers who have graduated; Na – the average number of employees, persons.
1.6. Indicators of staff turnover and permanence		
1	Staff turnover rate	Rst = Nd / Na	Nd – the number of employees, dismissed for all reasons; Na – the average number of employees, persons.
2	Staff retention rate	Rr = Ne / Na	Ne – the number of permanent employees with more than 3 years of experience, persons; Na – the average number of employees, persons.
1.7. Career and succession indicators		
1	Employee promotion rate	R ep = Ni / Na	Ni – the total number of increases; Na – the average number of employees, persons.
2	Part of the personnel reserve	Ppr =Nvcr / Nvc	Nvcr – the number of vacancies closed due to promotion and rotation of the personnel reserve within the enterprise; Nvc – the number of closed vacancies at the enterprise.

1	2	3	4
2. Indicators of the level and efficiency of personnel management automation through the use of HRM systems			
1	The amount of additional income associated with the implementation of the HRM system	$AIs = Ibs - Ias$	Ibs – the amount of income before the implementation of the HRM system, UAH; Ias – the amount of income after the implementation of the HRM system, UAH.
2	Reducing the labor intensity of business processes due to the HRM system	$Li = Lcb / Lca$	Lcb – labor costs for specific tasks before the implementation of the HRM-system man-hours; Lca – labor costs for specific tasks after the implementation of the HRM system, man-hours.
3	Satisfaction of HRM system users	$Su = Bi / Bmax$	Bi – a score given by the users of the HRM system, points; $Bmax$ – the maximum score, 10 points.
4	Reduction of the duration of work at the expense of the HRM system	$Rdw = Dwb / Dwa$	Dwb – the duration of work before the implementation of the HRM system, hours; Dwa – the duration of work after the implementation of the HRM system, hours.

Note. Built on the basis of materials of author's research and summarization of sources [1–6]

1) indicators of the effectiveness of the use of personnel and operational control of HR functions (indicators of the effectiveness and profitability of human capital; indicators of the effectiveness of personnel selection; indicators of the effectiveness of the material motivation of personnel; indicators of the evaluation of the management of the effectiveness of activities; indicators of the effectiveness of training and development; indicators of staff turnover and permanency; indicators of kar' eras and successions);

2) indicators of the level and efficiency of personnel management automation through the use of HRM systems.

The procedure for calculating the integral coefficient of efficiency of human capital and the integral coefficient of efficiency of HRM processes at the enterprise according to our proposed system of indicators consists of the following three stages:

1. Calculation of relative indicators for each individual group and subgroup based on enterprise data.

2. Calculation of integral efficiency coefficients of human capital and HRM processes at the enterprise for each group and subgroup.

3. Calculation of the total integral efficiency coefficients of human capital and HRM processes at the enterprise, which are defined as the total value of the normalized integral efficiency coefficients separately for the first and second groups.

We note the following main advantages of the given system of indicators:

− it is based on the careful selection and development of indicators (subgroups are selected in the main groups of indicators);

− it built on the relative values of indicators that can be quantitatively measured;

− it is inextricably linked with both quantitative and qualitative analysis and takes into account such components as administrative and economic criteria, staffing criteria, social orientation criteria, technological efficiency criteria;

− it built on the basis of statistical analysis and standardized and measurable indicators;

− both general economic and unique indicators are taken into account in the system;

− does not contain specific parameters, which makes it possible to compare enterprises that differ in size, number of employees and level of development;

− provides consideration in the analysis of the strategic direction of management, which makes it possible to identify real prospects for the use of the latest technologies;

− does not require significant time for evaluation, and the calculation of parameters can be automated.

Within the framework of the proposed system, the result of evaluating the effectiveness of human capital and HRM processes at enterprises can be visualized by constructing a structural comparative diagram.

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