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**QUALITY OF STAFF AS AN IMPERATIVE TO THE DEVELOPMENT OF INDUSTRIAL ENTERPRISES**<http://orcid.org/0000-0002-6016-3608>

**Olena Tarasevich** - Acting Head of the Department of Economical and Legal Problems of Town-Lending Institute of the Institute of Economic and Legal Studies of the National Academy of Sciences of Ukraine, Candidate of Science (Economics), Associate Professor, [gglaw@ukr.net](mailto:gglaw@ukr.net)

**Тарасевич Олена Вікторівна** – в. о. завідувача відділом економіко-правових проблем містознавства Інституту економіко-правових досліджень НАН України, кандидат економічних наук, доцент

***O. Tarasevich. Quality of staff as an imperative to the development of industrial enterprises.***

*The article shows the necessity of carrying out scientific researches for the assessment of the quality of the personnel of industrial enterprises as an imperative of its development. The importance of evaluating the professional quality of the personnel of industrial enterprises is confirmed by the fact that its results should be the basis for the adoption of appropriate management decisions on the organization of individual vocational training procedures, the selection of the most cost-effective and methodologically effective external providers of training programs, the calculation of the planned need for a particular type of vocational training, and determining its optimal duration, adjusting volumes and directions of directing investment flows for the purpose the intensification of the processes of accumulation of human capital, the rationale for the loyalty of staff appointments, the formation of a personnel reserve at industrial enterprises. The paper proposes a methodology for assessing the quality of the personnel of enterprises. It is concluded that the industrial enterprises should pay more attention to improving such qualitative characteristics of the process of professional development of the personnel as availability, practical orientation, progressiveness and effectiveness of the curricula, their compatibility with production needs, the degree of motivated students to achieve high results during training. It is proved that on the basis of raising the quality of the personnel, the enterprise will be able to receive simultaneously two positive effects - personnel development, and increase of indicators of the results of production and economic activity.*

***Тарасевич О. В. Якість персоналу як імператив розвитку промислових підприємств.***

*У статті доведено необхідність проведення наукових розробок для оцінки якості персоналу промислових підприємств як імперативу його розвитку. Важливість оцінки професійної якості персоналу промислових підприємств підтверджується тим, що її результати мають бути покладені в основу прийняття відповідних управлінських рішень щодо організації окремих процедур професійного навчання, вибору найбільш економічно ефективних і методологічно результативних зовнішніх провайдерів навчальних програм, розрахунку планової потреби у певному виді професійного навчання та визначення його оптимальної тривалості, коригування обсягів і напрямів спрямування інвестиційних потоків із метою інтенсифікації процесів нагромадження людського капіталу, обґрунтування вірності кадрових призначень, формування кадрового резерву на промислових підприємствах. У роботі запропоновано методику оцінки якості персоналу підприємств. Зроблено висновок, що промисловим підприємствам варто приділяти більше уваги підвищенню таких якісних характеристик процесу професійного розвитку персоналу, як доступність, практична спрямованість, прогресивність і результативність навчальних програм, їх узгодженість із виробничими потребами, ступінь вмотивованості слухачів на досягнення високих результатів під час навчання. Доведено, що на основі підвищення якості персоналу підприємство зможе отримати одночасно два позитивні ефекти – розвиток персоналу та підвищення показників результатів виробничо-господарської діяльності.*

***Тарасевич Е. В. Качество персонала как императив развития промышленных предприятий.***

*В статье доказана необходимость проведения научных разработок для оценки качества персонала промышленных предприятий как императива его развития. Важность оценки профессионального качества персонала промышленных предприятий подтверждается тем, что ее результаты должны быть положены в основу принятия соответствующих управленческих решений по организации отдельных процедур профессионального обучения, выбора наиболее экономически эффективных и методологически результативных внешних провайдеров учебных программ, расчета*

*плановой потребности в определенном виде профессионального обучения и определение оптимальной продолжительности, корректировка объемов и направлений направления инвестиционных потоков с целью интенсификации процессов накопления человеческого капитала, обоснование верности кадровых назначений, формирования кадрового резерва на промышленных предприятиях. В работе предложена методика оценки качества персонала предприятий. Сделан вывод, что промышленным предприятиям следует уделять больше внимания повышению таких качественных характеристик процесса профессионального развития персонала, как доступность, практическая направленность, прогрессивность и результативность учебных программ, их согласованность с производственными потребностями, степень мотивированности слушателей на достижение высоких результатов во время учебы. Доказано, что на основе повышения качества персонала предприятие сможет получить одновременно два положительных эффекта - развитие персонала и повышение показателей результатов производственно-хозяйственной деятельности.*

**Introduction.** Under the current conditions of functioning of the Ukrainian economy, the quality and effectiveness of the professional development of personnel of industrial enterprises, which, in the absence of sufficient volume and intensity of investment for the purpose of material and technical and technological upgrading, modernization and re-equipment of production, are key factors in implementing the strategy of achieving the efficiency of production activity, quality assurance and competitiveness of products and growth of final financial and economic main results of an effective link in ensuring the stability of the economy - industry. The long-term character and synergetic property of productive returns from the qualitative process of professional development of personnel should ensure gradual increase of labor productivity of personnel, the volume of manufactured and sold products, profitability of the enterprise, which, in turn, should be accompanied by a social component of the efficiency of investment in human capital - an increase in the average wage pay and labor motivation.

**Analysis of recent research and publications.** The following scientists, such as Grishnov O. A., Zakleta-Barestovenko O. S., Derev'yanenko T. A., Kalinina S. P., Kybanov A.Ya., paid considerable attention to the research and solution of problems of increasing the professional quality of the personnel of industrial enterprises, Savchenko V. A., Stutman P. L., Lukina T. O., Merenkova V. I., Pavlovskaya O. V., Zakharova O. V., Patrusova A.M., Pankov V., Efimchuk I. P., Oleinik I. N., Kucherenko A. A. [1-17]

However, in conditions of the current economic crisis in the state, there is a need to carry out a diagnosis of the quality and effectiveness of the professional development of personnel of industrial enterprises, which will establish the real state of the existing system of professional training and advanced training and the possibility of its intensification, which determines the relevance of this study

**The purpose of the article** is to justify and develop a methodology for assessing the quality of professional development of personnel as an imperative for the development of industrial enterprises.

**Research results.** The importance of evaluating the professional quality of the personnel of industrial enterprises is confirmed by the fact that its results should be the basis for the adoption of appropriate management decisions on the organization of individual vocational training procedures, the selection of the most cost-effective and methodologically effective external providers of training programs, the calculation of the planned need for a particular type of vocational training, and determining its optimal duration, adjusting volumes and directions of directing investment flows for the purpose the intensification of the processes of accumulation of human capital, the justification of the loyalty of staff appointments, the formation of a staff reserve at industrial enterprises, etc.

Modern approaches to assessing the effectiveness and quality of professional development of staff are based on a set of evaluation indicators that include aspects of the personal level, the institution and enterprise. Yes as Grishnow turns to such an analysis of how cost-benefit analysis, and in accordance with this method, suggests the identification of costs and benefits, taking into account the time factor, and comparing the size of the benefits

obtained through professional training with cost and implementation [1, p. 42-45]. O. S. Zaklekt-Berestovenko substantiated the existence of a correlation between the size of profits of the investigated enterprises and the cost of training employees on the basis of the use of statistical methods of research. The method of comparing parallel rows and the Fechner coefficient was used to determine its strength and direction, and the regressive dependence of the influence of the trained personnel in the total number of employees on the volume of gross profits per worker was constructed [2]. And Derevyanko investigated the impact of the costs of training and staff development on the size of the indicators of financial and operational activities of the enterprise. The study of cross-correlation functions on an extremum determined the time lag, which shares the forward-looking costs of training and development of personnel, and the indicator of late activity of the enterprise and its financial condition. The maximum values of the coefficients of the pair correlation (numerator) and the corresponding values of the time lag (denominator) between the estimations of the costs of training and personnel development and indicators of operational activity (volume of sales, working capital, fixed assets, profit) and financial condition of the enterprise [3].

According to A.Ya. Kibanov, the assessment of the quality of personnel training should be made by drawing up a scheme of income and expenses of the enterprise, determining the cash flow balance, calculating net discounted income in accordance with the established norm of discount and further calculation of net present value, average profitability and payback period of project costs personnel training. The authors are also invited to assess the impact of additional training of workers on the level of productivity of their work [5]. V. A. Savchenko defined a system of indicators for assessing the socio-economic efficiency of vocational training of staff and provided guidance on determining the impact of changes in the competence of employees and the general results of the activities of business entities [6, p. 131-144].

Thus, we can state that current research in the field of evaluation of various aspects of the effectiveness of professional development of personnel is characterized by a fairly wide range of use of the economic and mathematical apparatus, which allows not only to diagnose the current state of the operation of this process, but also to predict the trends of changes in the indicators of enterprise performance in the future. subject to the use of initial conditions. However, the use of all these and other approaches to evaluation does not allow for a comprehensive analysis of the quality of the process of professional development of personnel due to a significant number of limitations, both personal and informational and methodological [6, p. 120; 6, p. 34; 7, p. 22-23; 8]. For example, even if a professional trainee will be involved in the vocational training program and that he will not be able to find a common language with the students, the investments made by the enterprise in this development program will not bring the expected return, and therefore the overall quality of the completed vocational training procedure will be fairly low. In conditions where the organization of the process of vocational training is carried out at a rather low level, when the justification of the planned need for training is not used, and the new knowledge and skills acquired during the classes received by the students do not find practical use in the further work of the enterprise, expect high quality of programs of professional development is also inappropriate and unreasonable. The lack of well-established information support for each of the processes of professional development of staff and effective methodical apparatus for evaluating their effectiveness will serve as a restraining factor in achieving the socio-economic recovery of funds invested in human capital in the near future.

To assess the quality of an individual employee, it is necessary to determine the share of personal results of each employee. In addition, it is not possible to establish such a share in all subdivisions. For example, it is rather difficult to quantitatively determine which fraction of the decrease in the coefficient of fluctuation occurred at the expense of the worker A, and which at the expense of the employee B. Similar situation in the planning and economic

department, the resultant indicator for it is the general level and the enterprise) the interest of staff as completed work.

We propose to evaluate the individual contribution of the employee to these units as the average for half a year the level of implementation of the personal plan aimed at improving the value of the result.

For the staffing it is:

- The average half-year's level of implementation of the personal plan to reduce staff turnover.
- Average for half a year the level of implementation of the personal plan for training or professional development of employees of the organization.
- The average half-year's level of performance of the personal plan to raise the overall level of staff quality of the organization.

For planning and economic department:

- Average for half a year the level of execution of the personal plan to increase the overall level (by the company) the interest of the staff as the work performed.

Simpler, the case with the assessment of the personal contribution of the staff of the supply department, in which responsibility can be divided by employees according to the types of materials, customers, suppliers, etc., and, accordingly, the proportion of claims,% of the total volume of delivery, drawn up by the concrete employee, can be determined.

Also, responsibility can be divided between employees of the production and technical department by type of works, objects, and executive departments. Accordingly, the share of the cost of work on elimination of deficiencies from the total volume of work, %, in the area of responsibility is determined.

The easiest thing to do with the workers, because it provides for the accounting of the personal scope of work.

A map for assessing the quality of a staff officer to ensure the quality of work is presented in Table 1.

Column 1 of the table shows the characteristics of employees subjective and objective, and indicators for assessing the level of individual performance.

Column 2 presents a linguistic change that describes the possible variants of the qualitative state of the characteristic, and the possible numerical values of the indicators. In column 3 it is counterbalanced by the corresponding scale in points, in column 4, the weight of a specific characteristic in the overall assessment. Column 5 shows, in fact, an estimate.

The rating is put by the expert. Moreover, the value of the characteristics of subjective and objective is determined by the expert, by choosing the linguistic variable that most closely matches his particular characteristic in his opinion. In the case of scorecards is put by an expert, but in fact he does not carry out an "assessment". He simply chooses the value of the indicator that represents the real one value of impression.

**Table 1**

**Card for assessing the quality of an industrial employee of a management company of an industrial enterprise**

Characteristics of the employee, indicator	Linguistic change, value of the indicator	Scoring score in points	Weight	Rating
1	2	3	4	5
1. General for all unit employees				
Category $k_1$	Engineer	1	0,05	
	Engineer II categories	2		
	Engineer I categories	3		
	Leading engineer	4		
Work experience $k_2$	0 years	0	0,025	
	1-3 years	1		
	4-5 years	2		
	10 years	3		
	10-20 years	4		

	more than 20 years	5		
Experience similar work k <sub>3</sub>	0 years 1-3 years 4-5 years 6-10 years 10-20 years more than 20years	0 1 2 3 4 5	0,1	
Degree k <sub>4</sub>	Does not have PhD PHD	0 1 2	0,05	
The share of the hospital k <sub>5</sub>	Hospitals are absent 1-2 week on the river 3-4 week on the river 5-8 week on the river more than 8 weeks	4 3 2 1 0	0,05	
Share of unproductively used time k <sub>6</sub>	0-5% 6-10% 11-20% 21-50% More 50%	4 3 2 1 0	0,025	
Interests in quality work k <sub>7</sub>	Missing Low Average High	0 1 3 5	0,1	
Honesty k <sub>8</sub>	Unnoticed by dishonesty He was noted for petty dishonesty 1-2 times It has been marked by petty dishonesty more than 2 times He was marked by a great deal of dishonesty once Systematically unfair	5 4 3 2 0	0,04	
Stress resistance k <sub>9</sub>	Absolutely able to work under stress Can work productively in a state of stress periodically Can work productively in a state of systematic stress	0 3 5	0,2	
Striving for development k <sub>10</sub>	Missing (referred by his level of development) Occurs from time to time Manifests itself systematically	0 3 5	0,04	
		∑	0,5	
Communication k <sub>11</sub>	Missing Low Average High	0 1 3 5	0,1	
Organizational abilities k <sub>12</sub>	Able to organize a large number of people to work in due time. All participants in the process, organized by the intelligence, understand their task and the ability to perform it Capable of organizing a small number of people to work in a timely manner. All participants in the process, organized in a clear understanding of their task and able to perform it Capable of organizing a small number of people. The work can be performed with a slight delay from the set deadline. Not all participants in the process organized by the intelligence unit understand their task and are	5 4	0,1	



Table 3

**Evaluation of personnel of the personnel service, fate. Unit**

	K <sub>1</sub>	k <sub>2</sub>	k <sub>3</sub>	k <sub>4</sub>	k <sub>5</sub>	k <sub>6</sub>	k <sub>7</sub>	k <sub>8</sub>	k <sub>9</sub>	k <sub>10</sub>	k <sub>11</sub>	k <sub>12</sub>	k <sub>13</sub>	k <sub>14</sub>	k <sub>15</sub>	k <sub>16</sub>	k <sub>17</sub>
a <sub>1</sub>	1	0,6	0,6	0	1	1	0,6	1	0	0,6	0,6	0,6	0,6	0,6	0,8	0,4	0,8
a <sub>2</sub>	0,75	0,6	0,6	0	0,75	0,75	0,6	0,6	0,6	0	0,6	0,6	0,6	0,6	0,8	0,4	0,8
a <sub>3</sub>	0,5	0,4	0,4	0	1	0,75	0,2	1	0	0,6	1	0,8	0,6	0,6	0,8	0,4	0,8
a <sub>4</sub>	0,25	0,2	0,2	0	1	0,5	0,6	1	0,6	0,6	0,6	0,4	0,4	0,2	0,8	0,4	0,8
a <sub>5</sub>	1	1	0,5	1	1	1	1	1	1	1	1	1	1	1	0,8	0,4	0,8

The function of membership of the generalized criterion K, which characterizes the quality of each staff member of the service, is determined by multiplying each estimate expressed in units of a person (Table 4) by weight of the criterion.

Table 4

**Function of belonging to the generalized criterion K, which characterizes the quality of each of the personnel of the service**

	k <sub>2</sub>		k <sub>1</sub>	k <sub>2</sub>	k <sub>3</sub>	k <sub>4</sub>	k <sub>5</sub>	k <sub>6</sub>	k <sub>7</sub>	k <sub>8</sub>	k <sub>9</sub>	k <sub>10</sub>
a <sub>1</sub>	0,02	a <sub>1</sub>	0,05	0,02	0,06	0	0,05	0,03	0,06	0,04	0	0,02
a <sub>2</sub>	0,02	a <sub>2</sub>	0,04	0,02	0,06	0	0,04	0,02	0,06	0,03	0,01	0
a <sub>3</sub>	0,01	a <sub>3</sub>	0,03	0,01	0,04	0	0,05	0,02	0,02	0,04	0	0,02
a <sub>4</sub>	0,01	a <sub>4</sub>	0,01	0,01	0,02	0	0,05	0,01	0,06	0,04	0,01	0,02
a <sub>5</sub>	0,03	a <sub>5</sub>	0,05	0,03	0,1	0,03	0,05	0,03	0,01	0,04	0,02	0,04

In our view, the transition from assessing the quality of an individual employee to the quality of the staff of the unit is possible in two ways:

1. Determination of the average arithmetic for all employees of the unit. In our example, this estimate is 0.65 (Table 4).

2. Evaluation of the unit as a whole for the averaged values of characteristics, similarly to how the quality of each employee was assessed separately.

The averaged values of the characteristics for assessing the quality of the unit's staff are as follows:

1. Category structure of the staff of the department by category number of employees (in %) having a category engineer who has category engineer Category P', having category engineer Category I; who have a category a leading engineer.

2. Work experience structure of employees for work experience.

3. The experience of similar work is the structure of employees on the experience of similar work.

4. Scientific level of the structure of employees in the presence of scientific degree.

5. The proportion of hospitalized weeks spent on average by hospital staff in the unit.

6. Share of unproductively consumed time average unit by share of unproductively used time,

7. The interest in the qualitative performance of the work is the average of the unit's level of interest.

8. Honesty is the average unit level of honesty,

9. Stress resistance, average unit stress level 10. Desire to develop a middle-level unit of desire for development

11. Communicability average unit level of communication 12. Organizational abilities average unit level of organizational ability

13. Knowledge of normative base of labor is the average unit level of knowledge of normative base

14. Possession of the methodology of the assessment of the average unit by the level of possession of assessment methods

15. Fluxiness of personnel O-1es from the total number of employees; 2-zv of the total number of employees; 4 - 10% of the total number of employees is more than 10% of the total number of employees

16. The share of employees who have completed training or advanced training- O ': from the total number of employees; 5% of the total number of employees; 10th of the total number of employees; 15% of the total number of employees; 20th of the total number of employees

17. The general level of the quality of the personnel of the organization - 0.1% for each 1 quality, as much as possible estimate to express 100%.

**Chestnuts.** Consequently, we can conclude that the company should pay more attention to improving such qualitative characteristics of the process of professional development of personnel as availability, practical orientation, progressiveness and effectiveness of curricula, their coherence with production needs, the degree of motivated students to achieve high results during training. Such measures will significantly increase the level of assimilation of new knowledge and skills of the students, which gradually, due to the established system of continuity of best practices, will create conditions for the socio-economic efficiency of measures for professionally qualified personnel development at the enterprise. The maximum full implementation of this condition will allow simultaneously somewhat reduce the intensity of measures for professional development with irreplaceable, or even greater socio-economic and impact. That is, an enterprise will be able to receive simultaneously two positive effects - personnel development, and increase of indicators of results of production and economic activity. At the same time timely diagnosis of imbalances will help prevent mistakes in managerial decisions on the organization of processes of professional development of personnel, and, consequently, increase the effectiveness of training programs and financially economic-efficiency of the enterprise.

The findings, derived from the results of the assessment of the quality of professional development personnel, should be the basis for the development or adjustment of the strategy of personnel management of the enterprise. At the same time, when forming a portfolio of professional development programs for staff and justifying the number of people who have to undergo a certain type of training or advanced training, the priority directions and activities of the enterprise must be taken into account first of all. Execution of these conditions will allow the company to bring the moment of obtaining socio-economic payback from funds aimed at the accumulation of human capital.

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**Ключевые слова:** качество; персонал; промышленное предприятие; развитие; оценка; методика.

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**Рецензент:** С.П. Калініна, професор кафедри управління персоналом та економіки праці, Інститут підготовки кадрів Державної служби зайнятості України, м. Київ, професор, д. е. н.