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**FEATURES OF MANAGEMENT BY PROFESSIONAL AND PERSONAL  
DEVELOPMENT OF PERSONNEL: THE CASE OF UKRAINE**

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**Abstract**

The purpose of the article is to study the factors of influence and provide recommendations for improving the system of management of professional and personal development of personnel of the enterprise. It has been established that effective means of ensuring successful innovation development are effective personnel management through promotion of professional and personal development. At enterprises where serious attention is paid to this issue, the innovative component is essential, which ensures the appropriate success of the business entity in the real economic space. It has been found that despite the presence of a relatively large number of scientists and engineers, Ukraine has a low quality of research institutes and ability to innovate, which is confirmed not only by the lack of cooperation between universities and industry in research and development, the low cost of companies for research and development and public procurement of high-tech products, but also the actual inability to retain and attract talents for economic activity. It is substantiated that the definition of the boundary of the production load will not only establish an effective bonus system, but also increase the level of job satisfaction among subordinates. This will contribute to reducing staff turnover, reducing the level of waste and waste in the production of products, and the probability of injury in the workplace, etc. In order to objectively evaluate the achieved results, a methodical approach is proposed to determine the competence coefficient of experts involved in the assessment, taking into account their work experience, the magnitude of management activity, and the level of education.

The above will allow to maximize the effectiveness of the conducted rating assessment and coordinate efforts and resources of employees to improve the identified and relevant indicators for the enterprise.

**Keywords:** Professional and Personal Development, Institutions of Higher Education, Gross Domestic Product, Coefficient of Competence, Marginal Limit of Production Load.

**1. Introduction**

Modern business practice has proven that the success of the business entities of all forms of ownership directly depends on the effectiveness of personnel management. Considering that staff is the most valuable resource, the use and development of which depends on the effectiveness of the entire production process, the formation and implementation of an effective strategy for its use and development is a priority task for the management of enterprises, institutions and organizations of all forms of ownership. Continuous development of the personnel is able to provide the entity with long-term competitive advantages. An important component of personnel development is the formation of a mechanism for managing its professional career.

Research and solving contemporary problems hampering the development of professional career personnel is one of the most urgent tasks not only for management of business entities, but also for society as a whole. We agree with the authors of Derkach AA, Zazykyn VH, Markova AK (2000) that the current social situation in Ukraine not only radically changed ideas and values, but also gave rise to an uncertain, often unreasonable, attitude to many values and norms, including values career, personal development. Therefore, ensuring compatibility of career growth and personal self-realization is one of the key tasks for top management of enterprises. The combination of these lines of

professional and personal development is not explicit and not always harmoniously combined. This conflict of various components of self-realization is particularly clearly manifested in the objectification of the driving forces of this process and the criteria for its success. The criterion for the success of professional self-realization and the demand for the chosen profession can be career growth, which in one way or another allows us to assert that both the competence of a person and his satisfaction are the result of his professional activities. The criterion for the success of personal self-realization is the presence of a family, private personal life, hobbies, etc., which allows you to determine the level of happiness and the pleasure received from life.

The purpose of the article is to study the factors of influence and provide recommendations for improving the system of management of professional and personal development of the personnel of the enterprise.

## **2. Methodology**

The methodological basis of the study consisted of scientific works of domestic and foreign scientists and leading specialists, statistical and analytical materials of state authorities. As a method of data collection for the research was chosen a questionnaire. The questionnaire research was carried out in selected higher education institutions (Kherson State University), local authorities (Department of Economic Development and Trade of Kherson Regional State Administration; Main Department of the State Fiscal Service of Ukraine in Kherson region, Autonomous Republic of Crimea and Sevastopol), trade union organizations (Kherson regional inter-branch council of trade unions), leading enterprises of Kherson city ("Amalteya" LLC, "Leather Plant" Platan LTD "Ltd.) and public organizations (Business Association "MI-KHERSONTS"). The results are obtained through the use of such methods as: expert - to identify the impact of qualitative and quantitative indicators on the socio-economic development of Ukraine; economics and mathematics - to study the impact of the main indicators of activity and performance of institutions of higher education and purchasing power of the population on the total volume of gross domestic product; correlation-regression analysis - to find out the relationship between the productive factor and the identified factors; abstract-logical - for theoretical generalization and formulation of conclusions.

The study of the specifics of the training of labor resources was conducted using official statistical reporting on the activities of institutions of higher education in Ukraine.

In determining the optimal production load, the results of an empirical study on the specifics of the operation of the plant for technical and service maintenance of LLC "Avtoplanet Plus" (Kherson, Kherson region, Ukraine) were used.

## **3. Results and Discussions**

### **3.1 Investigating the Specifics of the Training of Labor Resources in Institutions of Higher Education of Ukraine**

The success of professional career growth depends to a large extent on the effectiveness of the first steps in learning and professional activities. Education and career choices are important for further life and professional development.

At the first stage of personal development young people are often assumed to have significant mistakes. For example, when studying in a particular profession, some people are convinced that one day will not work in a specialty, because it is not prestigious, unprofitable or hopeless (Makarenko S. M., Kaplina Y. O., Kazakova T. S., 2018). And this person is trained only because of the fact that in the specialty there was a place for a public order. The above leads to a low level of motivation among students for obtaining qualitative knowledge in the chosen profession and inappropriate use of budgetary funds for training specialists on a state-commissioned basis. This is confirmed by the materials published by the World Economic Forum on the World Economic Ranking by the Global Economic Competitiveness Index 2017-2018 (Economic Discussion Club 2018). Thus, despite the improvement of the position on four points, Ukraine ranked 81st among 137 countries of the world. Most was lost due to the "Labor Market Efficiency" component, which made Ukraine the 86th place,

having lost 13 points in comparison with 2016-2017 and 30 points in comparison with 2015-2016. There were also lost 2 points for the component, which characterizes higher education and professional training.

Despite the relatively high positions as part of "higher education and training" (35th place in 2017-2018 among 137 countries of the world), the quality of management schools in Ukraine is very low (88th place), as well as the level of personnel training at the training at the place of work (88th place). Ukraine also ranked 51st in terms of primary education. And this is despite the fact that Ukraine is 25th in the presence of scientists and engineers.

The above analysis shows that in spite of the relatively large number of scientists and engineers, the low quality of research institutes (60th place) and innovation ability (51st place) are observed in Ukraine, which is confirmed not only by the lack of cooperation between universities and industry in research and development (rank 73), low-cost research and development companies (76th place) and state-owned high-tech procurement (96th place), but also the inability to retain and attract talent in economic activities (respectively 129 and 106 places). That is, the knowledge acquired by the modern scientific community that has remained in Ukraine in most cases is theoretical and is not possible for the effective use of business in the current conditions of an unstable internal and external business environment.

For a more detailed analysis using the knowledge and experience of the leading experts of the educational branch, local authorities, budgeting enterprises and organizations of Kherson (Kherson region, Ukraine) in the scientific work Makarenko S.M., Oliinyk N.M., Kazakova T.S. (2018), the influence of the main indicators of activity and efficiency of institutions of higher education and purchasing power of the population on the total volume of gross domestic product.

According to the views of the respondents, it was found that the following indicators have the greatest impact on the total gross domestic product (Y):

- average number of economically active population aged 15-70 years ( $X_1$ );
- number of graduates from higher education institutions ( $X_2$ );
- number of graduates ( $X_3$ );
- number of people who have completed doctoral studies ( $X_4$ );
- real wage index ( $X_5$ ).

Using the formula for calculating the pair correlation coefficients and official materials of the State Statistics Service of Ukraine for the years 2010-2017, the following relationship was established between the indicators and the result factor:

–  $r_{yx1} = 0.9319$  – according to the scale of the relationship of variables, the relationship between Y and  $X_1$  is considered to be very high, and therefore the impact of this factor on the final result is significant;

–  $r_{yx2} = 0.839$  – the relationship between Y and  $X_2$  is considered high;

–  $r_{yx3} = 0.7648$  – the relationship between Y and  $X_3$  is considered above average;

–  $r_{yx4} = -0.5691$  – the relationship between Y and  $X_4$  is considered average;

–  $r_{yx5} = 0.4334$  – the relationship between Y and  $X_5$  is considered below average.

The calculations show that an increase in  $X_4$  (the number of people completing doctoral studies) has a negative impact on the overall Y (gross domestic product at constant 2010 prices). This can be argued that in the current conditions of development of science in Ukraine, the defense of the dissertation for the degree of Doctor of Sciences is in some cases theoretical in nature, without the possible implementation of the results obtained in the practice of domestic economic entities of all forms of ownership. As a consequence, the rate of increase in the level of remuneration of employees who successfully defended their dissertation far exceeds the rate of increase in their productivity and efficiency. In some cases, when the dissertation works on obtaining a doctorate of science highlight relevant issues for society and business and provide an effective mechanism for solving them, at the stage of preparation of the dissertation the doctoral students are attracted to foreign companies in order to ensure the further export of their intellectual potential border.

Given the low impact of  $X_5$  (the real wage index) on Y, it may be related to the conditions of domestic business. That is, the increase in the amount of labor costs may not be related to the increase in the quality of fulfilled functional duties, but be a consequence of the introduction at the state level

of mandatory programs for the protection of the socially vulnerable population (the availability of tax social benefits, the constant increase in the cost of living minimum and minimum wages, etc.).

The conducted researches show that there is a negative tendency towards the deterioration of the level of educational and scientific training of future employees of enterprises, institutions and organizations of all forms of ownership. In order to make full use of the work potential, the management and managers of economic entities, especially enterprises engaged in the sale and after-sales service of vehicles, must be provided not only with diplomas of higher education, scientific degrees, etc., but also with qualitative knowledge in strategic management of enterprise and staff, including business organization and planning, risk management, and more.

This is necessary for the development and formation of a sound strategy for improving the competitiveness of the enterprise in general and the use and development of personnel at the enterprise as the most important component in particular.

### **3.2 Substantiation of the Method for Determining the Optimal Production Load**

In recent years, in the context of a radically changed position in the labor market, the possibilities of attaining a professional career and understanding of it have changed. We agree with the author (Lozovetska V. T., 2015) that, before, career conditions were dictated by the internal labor market and assumed full long-term, guaranteed employment, regularity and predictability of promotion, dedication to the profession and organization, now conditions often determine the external market. It has become characteristic of temporary contracts, part-time employment, partial career changes, employment in several fields of activity and in several organizations, unpredictability of work transfers, self-management of a professional career.

Every company manager who wants to ensure efficient and cost-effective operation, not only in the short but also in the long term, must constantly implement measures related to maximizing profitability through continuous training of staff with and without separation from economic activity, and with the creation appropriate conditions and favorable workload for subordinate employees. Overtime, high intensity of work, working more than 12 hours per working day, 6 days a week, intensive distance learning, etc. - in the future will necessarily lead to increased staff turnover, even if a relatively high wage is set in the enterprise. The results of the studies (Makarenko S. M., Oliinyk N. M., Lushchik K. I., 2017) indicate that satisfaction with even a substantial increase in wages lasts about 8 months on average. As a rule, in the specified period of time a person satisfies the previously formed needs for certain foodstuffs, services of a higher level of quality, and for her the main task is finding free time resources for personal and relaxation. Also, according to some researchers (Maisiura O. M., 2010) flexible working hours, mobility, creative character of work and comparative independence of workers with no attachment to the workplace, etc., become more important for people than the level of income they receive. However, for a dishonest employee whose earnings are tied to hourly wages, the provision of these opportunities will likely lead to the delayed fulfillment of the established functional duties and the decrease in productivity due to the fact that he does not organize his own activities without constant control by management able. It is also necessary to take into account the fact that constant work activity and the fulfillment of the set tasks will promote self-assertion in the personality of the validity of the chosen life and production line of activity, eliminating negative thoughts, and increasing the level of satisfaction and happiness from the chosen type of activity. At the same time, the negative consequences of the above may be the pursuit of results without determining the validity and feasibility of obtaining them, which will allow to complete the task in time, but their performance may not bring the person closer to achieving the main mission of life.

For the leaders of modern business structures, permanent development and implementation of a set of measures to improve the management of time resources in production is one of the main directions of increasing the profitability of economic activity by increasing labor productivity, more efficient use of existing production funds and minimizing fixed costs per unit of output. (works performed, services rendered). Also, optimization of time load and determination of its limit for employees of the enterprise while ensuring compliance with production standards per hour will not only reduce the level of injury (social effect), shortage and waste in production (economic effect), but also help more



satisfaction with the work done, normalization of the psychological climate in the team, which, as a consequence, can lead to an increase in the level of productivity and personal development. ment staff outside of working hours.

In order to determine the optimal production load, the performance and remuneration of employees involved in the maintenance and service stations were analyzed using the example of a leading enterprise for the sale and after-sales service of vehicles of Autoplaneta Plus LLC (Kherson, Kherson region, Ukraine). , where there are significant fluctuations in both labor intensity and wages.

On the basis of data from December 2017 to April 2018, the marginal productivity of labor and the marginal cost of wages were determined on the example of the leading specialists of the station (Table 1).

The results of the study show that for a locksmith № 1 the monthly production load with simultaneous consideration of heavy work should not exceed 185.4 hours. The optimum load is about 165 hours per month, which also optimizes the cost of pay.

Considering the level of professionalism and the proportion of hard work in the daily work schedule for a locksmith № 2, the load should not exceed 305.2 hours work, the proportion of hard work - no more than 30% of the total amount of completed tasks. Maximization of labor productivity is achieved in the range from 174.1 to 228.2 hours, which indicates the minimum permissible level of the need for wages to meet physiological needs in the amount of 10 to 13 thousand UAH.

**Table 1. Determination of Optimal Load for Station Workers**

Month	Total Labor Productivity, UAH	Hours Worked	Marginal Productivity	Wages Accrued, UAH	Marginal Cost of pay
Locksmith № 1					
December 2017	43885	188.6	-	10895	-
January 2018	21307	87.9	224.21	4895	59.5829
February 2018	38165	164.7	219.51	9366	58.2161
March 2018	42813	185.4	224.54	10765	67.5845
April 2018	45213	197.3	201.68	11245	40.3361
Locksmith № 2					
December 2017	49399	228.2	-	13153	-
January 2018	36329	174.1	241.59	9806	61.8669
February 2018	53597	372.3	87.12	21531	59.1574
March 2018	50443	320.4	60.77	18262	62.9865
April 2018	48510	305.2	127.17	17396,4	56.9474
Electrician № 1					
December 2017	11300	49.8	-	4196	-
January 2018	23372	103.0	226.92	5938	32.7444
February 2018	19220	84.7	226.89	5088	46.4481
March 2018	21540	112.0	84.98	6832	63.8828
April 2018	23240	125.1	129.77	7506	51.4504
Disintegration № 1					
December 2017	33629	148.2	-	11644	-
January 2018	18811	82.9	226.92	6254	82.5421
February 2018	23349	102.9	226.9	7719	73.25
March 2018	28454	125.4	226.89	9447	76.8
April 2018	31567	142.7	179.94	10705	72.7168

For electrician № 1, labor productivity maximization is achieved in the workload range of 84.7 to 103 hours per month, the minimum allowable level of remuneration from 5 to 6 thousand UAH. Exceeding monthly production load up to 125.1 hours can lead to lower productivity and, as a consequence, longer fulfillment of responsibilities. This can significantly worsen the customer's level

of satisfaction with the services provided as a result of the longer execution of operations compared to similar works at competing companies.

For the worker №. 1, performing the functions of collapse, the optimal monthly load for maximizing productivity is the interval from 82.9 to 125.4 hours. In the specified interval, the minimization of labor costs is achieved with a monthly load of 102.9 to 125.4 hours. When the load is increased to 142.7 hours, there is a significant decrease in labor productivity, which also indicates a longer fulfillment of duties and a decrease in the level of customer satisfaction.

The proposed approach can also be used for all employees of the vehicle maintenance and service station of Avtoplanet Plus LLC, which will allow to determine the optimum production load and create the necessary time reserve for the proper relaxation and reproduction of employees at this production site. This will help increase the level of productivity and satisfaction not only among the employees of the enterprise, but also among the customers of the station.

### **3.3 Development of Proposals for Improvement of the Personnel Management System**

Among the main areas of improvement of the system of labor potential management of the station for maintenance and servicing of motor vehicles at LLC "Avtoplaneta Plus" is to bring the system of motivation to the level that provides the maximum self-motivation of employees to increase the efficiency of their activity, which, in turn, will lead to the improvement of the general indicators of economic activity of the enterprise. Taking into account that at the station there is a constant dissatisfaction among employees with the ratio of labor intensity and remuneration, the basis of the system of motivation should be based on the grading system - the scale of salaries (tariff grid) of the company, which is developed on the basis of expert estimates of positions for predetermined factors.

The following features must be at the heart of the grading system: the qualification required for the job; complexity of work performed; level of responsibility and independence; the need for guidance from other people; tensions and working conditions.

In developing the grading system, we propose to take the following steps: to create an appropriate working group consisting of management and representatives of all units of the station; determine the factors of job evaluation (determine the specific weight of factors); to develop a scale for the evaluation of positions by selected factors; to select basic (reference) positions for the first stage of evaluation; to estimate the basic positions, the level of fluctuation of the developed scales and the share of factors; to evaluate all positions of the company in relation to the already estimated basic ones; to divide the posts into levels (grade) agree and approve the final estimates; translate point scores into cash; implement developed grading systems.

Given that the greatest concern of the employees of the investigated enterprise is related to the possible subjectivism of the members of the expert group in the assessment of the results of their professional and personal development, the management of the enterprise should first of all put in place an effective objective model of estimation of the coefficients of the involved experts. Considering that each expert of the created working group has different level of education, experience and, as a consequence, occupies different positions, we suggest to calculate the competence coefficients of all members of the working group, using the following formula:

$$K = \frac{K_1 + K_2 + K_3 + \dots + K_n}{n}, \quad (1)$$

$K$  – expert competence factor;

$K_1$  – coefficient, which is assigned depending on the available level of education, scientific degree, academic rank;

$K_2$  – coefficient that is assigned depending on work experience (position);

$K_3$  – coefficient that is assigned depending on the scale of the managerial activity of the expert (number of subordinate employees);

$K_n$  – coefficient that is assigned depending on the n-factor;

$n$  – the number of factors by which the level of expertise is assessed.

The next step is to ensure that all qualitative components that characterize the level of expertise of experts are translated into quantitative indicators. Thus, in determining the quantitative indicator characterizing the existing level of education ( $K_1$ ), it is suggested to use the following scale of

assessment: persons with the lowest degree of higher education "bachelor" - get 1 point. For all other individuals, their grade points will increase depending on the interval of study. That is: for persons with higher education degree "specialist" - 2 points, "master" - 3 points, scientific degree "Candidate of Sciences (Doctor of Philosophy)" - 6 points, "Doctor of Sciences" - 8 points. For individuals with two or more undergraduate degrees, they are postgraduate or doctoral students - plus one additional point for each component.

The indicators characterizing the components of  $K_2$  (work experience) and  $K_3$  (scale of management activity) are reflected in quantitative indicators - respectively, in months of work in management positions and in the number of subordinate employees.

**Table2. An Example of the Calculation of Expert Competence Coefficients**

Expert	Education, points	$K_1$	Experience, month	$K_2$	Number of subordinate employees, persons	$K_3$	$\frac{\sum K}{3}$	$K_k$
№ 1	4	0.8	137	0.59	8	0.94	0.78	1.29
№ 2	4	0.8	55	0.88	6	0.98	0.89	1.13
№ 3	6	0.4	142	0.57	35	0.4	0.46	2.19
№ 4	8	0	23	1.0	9	0.92	0.64	1.56
№ 5	4	0.8	128	0.62	11	0.88	0.77	1.3
№ 6	5	0.6	228	0.26	55	0	0.29	3.49
№ 7	4	0.8	300	0.0	10	0.9	0.57	1.76
№ 8	3	1	61	0.86	5	1	0.95	1.05
	Max = 8		Max = 300		Max = 55			
	Min = 3		Min = 23		Min = 5			
Together								13.77

In order to determine the reasoned expert competence coefficient for each component, it is proposed to take into account the corresponding levels of fluctuation of expert qualifications within the working group using the following formula:

$$K_j = \frac{X_{\max} - X_{ij}}{X_{\max} - X_{\min}}, \tag{2}$$

$K_j$  – a specific expert's rating on each of the indicators that characterize a particular competent component;

$X_{ij}$  – the value of the  $i$ -th indicator of the  $j$ -th expert;

$X_{\max}$  – the maximum value of the  $i$ -th indicator;

$X_{\min}$  – the minimum value of the  $i$ -th indicator.

The best rated is the lowest rated rating. The arithmetic value of the sum of ratings of a particular expert on all indicators that characterize his level of competence, we suggest to determine by the formula:

$$K_{cpj} = \frac{K_j}{n}, \tag{3}$$

$K_{cpj}$  – the arithmetic average of the ratings of a particular expert on all indicators that characterize his level of competence;

$n$  – the number of indicators used to calculate.

It is suggested to translate the results obtained into coefficients that will characterize the level of competence of each individual expert within the designated working group using the following formula:

$$K_k = \frac{1}{K_{cpj}}, \tag{4}$$

$K_k$  – the coefficient of competence of the  $j$ -th expert.

Using the collected operational information on the level of education, work experience and average number of direct subordinate employees, Table 2 shows an example of calculating the competence ratios of the experts of the proposed working group for rating the activity of station workers.

The example of calculations presented in Table 2 will allow to consider the individual level of practical and scientific training of each of the respondents in determining the coefficients of competence of the experts involved and reduce the level of error when using the intuitive group of research methods.

#### **4. Conclusion and Recommendations**

Determining the limit of production load will not only establish a sound system of bonuses, but also increase the level of job satisfaction among subordinate employees. This will help to reduce staff turnover, reduce the level of scarcity and waste in the manufacture of products, and the likelihood of injury at work, etc. The incentive model being developed should stipulate that, if the planned professional and personal development goals are met or exceeded, employees will be provided with adequate financial compensation in the after-hours.

A methodological approach to determining the coefficient of competence of experts involved in the evaluation of experts, taking into account their work experience, scale of management activity, level of education, is proposed for a reasonable and objective evaluation of the achieved results. This will maximize the effectiveness of the rating and coordinate the efforts and resources of employees to improve defined and relevant for the company.

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