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ВИКОРИСТАННЯ БАЛЬНО-ФАКТОРНОГО МЕТОДУ ОЦІНЮВАННЯ ПОСАД ПРАЦІВНИКІВ ПІДПРИЄМСТВ

Досліджено сутність та розглянуто методи оцінювання посад працівників підприємства (бально-факторний метод, ранжирування, метод Хея, класифікацію посад, метод 360 градусів), визначено їх переваги (простоту використання, поступність результатів, точність оцінювання тощо) та недоліки (дороговартісність, високі затрати праці та часу, необхідність залучення кваліфікованих кадрів, суб'єктивність результатів оцінювання тощо). У результаті їх узагальнення, найефективнішим методом оцінювання посад визначено бально-факторний метод. Для підвищення результативності його застосування, наведено приклад практичного використання бально-факторного методу оцінювання посад працівників підприємств та деталізовано його етапи (визначення мети і цілей оцінювання; інформаційне забезпечення процесу оцінювання; установлення індикаторів (факторів), за якими здійснюється оцінка; формування бально-факторної шкали оцінювання та її перевірка; оцінювання посад бальним методом відповідно до розробленої шкали; визначення рівня отриманих результатів та прийняття відповідних управлінських рішень) із повним визначенням отриманих результатів на кожному із них.

Ключові слова: стимули, премії, оцінювання посад працівників, бально-факторний метод, використання.

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USING METHODOF POINT FACTOR EVALUATION OF THE POSITIONS OF EMPLOYEES OF ENTERPRISES

The article researches the essence and considers the methods of evaluation of employees' positions (point factor evaluation method, the ranking method, the Hay evaluation method, classification of positions, and method of 360-degree feedback), their advantages (simplicity, results availability, processing accuracy, etc.) and disadvantages (cost, high labor and time consumption, need to involve highly professional specialist, subjectivity of the results, etc.). Generalization and comparison of the above methods defined the point factor method as the most efficient. In order to enhance the efficiency of employment of the said method the article brings examples the practical application of point factor evaluation of the positions of the employees and specifies its stages (defining the goal and objectives of the evaluation; information support of the evaluation process; establishment of indices (factors) used in the evaluation; development of a point factor evaluation scale and its verification; evaluation of positions using point factor method according to the developed scale; determining the level of the received results and making according management decisions) supported with comprehensive establishment of results of each stage.

Key words: stimuli, bonuses, evaluations of employee position, point factor method, application.

Topicality of the problem and its relation to the important scientific and applied tasks. Motivation refers to the important functions of the enterprise management. It encourages employees and managers to meet both their own needs and the objectives of the enterprise. It forms the system of

incentive motivation, providing employee with benefits, bonuses, extra payments. For this, there is an objective need for evaluation of employees and the results of their work at a certain position.

In terms of innovative activity, for purpose we can apply a variety of evaluation methods of staff's posts: point factor method, the ranking method, the Hay evaluation method, classification of posts, method of 360-degree feedback, etc.

The ranking method lies in distributing the company's offices in descending order of their relative value/importance to the organization. Sometimes this method may consider such factors as the time needed to evaluate a particular position, level of involved education and experience. The advantage of such method is its simplicity –not requiring much time or money. However, this method can be very inaccurate due to the lack of specific criteria and sequence of distribution of posts in the company.

Classification of the positions (bits method) can be worded as follows. The work is segregated into a number of classes based on the complexity of performed work, each class being supported with according description. The following criteria are used for ranking of the classes: the complexity and variety of work, the degree of autonomy in performing the work, the need for decision-making, nature of communication, responsibility and knowledge. The advantage of this method is that it provides evaluation of the post with due regard to personal characteristics. The disadvantage is the complexity of definition and description of ranks (especially in large enterprises with many completely different positions). In addition, same as the previous method, the classification does not provide a quantitative assessment of work.

Method of 360 degrees lies in collection of information about the employee both from him personally, and from the entire staff. A method of 360 degrees allows to reduce the possibility of subjective evaluation of the employee, because the evaluation process involves not just one person, but the whole team in general. However, this method is time and work consuming, which is a clear disadvantage.

Hay method is based on three basic factors for assessment, such as: knowledge, creativity, responsibility. Among its advantages is the fact that it all of take into account the personal characteristics of the employee. However, the method is rather subjective which is its main disadvantage.

Although the point factor method is considered to be the most commonly used among all of the above it should be thoroughly investigated.

Analysis of the latest research on the study problems and determine issues not resolved. The use of point factor evaluation of employees' positions is thoroughly studied (the scope of application of point factor method and the methodology of its usage in determining the basic salary in enterprises with different economic activities (trading companies, banks, etc.) is described in detail) and described in the works of many foreign and domestic scientists [1–8]. Their findings are revealed in providing analysis and evaluation of the accuracy of the obtained results.

Nonetheless, researchers do not reveal the whole specifics of evaluation of the positions of employees using point factor method and the possibility of its use to promote certain aspects of the company's activity (e. g. its innovative development), not only during the formation of basic salary.

Purpose. According to the issue selected in the article there should be provided examples of evaluation of the positions of employees using point factor method in order to enhance the effectiveness of motivational activities in the enterprise, stimulate innovative activities of its employees.

Statement of main results of the author's scientific substantiation of the results. The point factor evaluation was performed in the following manner:
– defining the goals and objectives of the evaluation;
– information support of the evaluation process;
– establishment of indicators (factors) which are used during the evaluation;
– development of point factor evaluation scale and its verification;
– evaluation of positions using point factor method according to the developed scale;
– establishing the level of the received results and making appropriate management decisions.

The purpose of the point factor method of evaluation of the employees' positions is the establishment of their bonuses according to the results of the innovative activity of the enterprise.

The results of expert assessments depend on the number of experts (N_{ex}). Calculation of the number of experts was carried out as follows:

$$N_{ex} = \frac{3}{2} * \left(\frac{1}{E} + 1 \right) + 1, \tag{1}$$

where E –is an acceptable error.

Among the methods for peer reviews we selected brainstorming, which is an alternative to questionnaires, as it requires less cost and allows to achieve consistency of expert opinion (which may be subject to further verification by the coefficient of concordance). In the result of calculation, with an average error margin of 0.2 %, the number of experts was 10 people.

The expert group provided information, which took place on the stage of information provision about the personal qualities of workers, their roles and responsibilities, experience and the results of innovative**,** industrial and economic activities of the enterprise.

The next step was the establishment of evaluation indicators (evaluation factors) and development of point factor scale. For the purposes thereof, such members of the expert group as managers (personnel manager, production manager, etc.) and external consultants were involved. The expert assessment was conducted among the list of all factors that determine the results of the activities of the employee. The objectives of the expert assessment was to determine the most important factors, evaluate the significance of impact of those factors onto the target indicator, formation of a point factor scale which should be used during the evaluation of positions.

Discussion of the experts who were assessing the influencing factors on the activity of the workers allowed them to establish indicators of evaluation. The number of indicators is typically ranging from 3 to 21. In this case, the selected five indicators should not complicate the evaluation process.

After selecting indicators, they were evaluated by levels for subsequent inclusion into the point factor table. Each indicator had five levels of evaluation (possible value of the factors) that are listed in the Table. 1

Table 1

Evaluation indicators (factors) of the impact on innovation of employees of and their levels [1–8]

Evaluation indicators	Level	Description of the factor
1	1	The highest level
	2	High level
	3	Medium level
	4	Low level
	5	The lowest level
2	1	The highest level
	2	High level
	3	Medium level
	4	Low level
	5	The lowest level
3	1	The highest level
	2	High level
	3	Medium level
	4	Low level
	5	The lowest level
4	1	The highest level
	2	High level
	3	Medium level
	4	Low level
	5	The lowest level
5	1	The highest level
	2	High level
	3	Medium level
	4	Low level
	5	The lowest level

Taking into the consideration the evaluation indicators (factors) of the impact on activities of an employee who is on the relevant position, these indicators have different levels, which constitute the assessment of this position, should determine their validity. Based on the general rules of the formation of the weight of influence factors on the resulting index (the sum of the weight of all the factors must be equal to one) were formed weight distributions of evaluating indicators of the impact on activities of the enterprise workers (Table 2).

Table 2

The distribution of weighting factors that influence on innovative activity of enterprise [2]

Factors	Weight, %
1	15
2	20
3	20
4	15
5	30

According to the results of formation of evaluation levels of impact indicators on innovative activities of employees and the weight distribution of impact factors, was formed point factor scale of evaluation the positions of workers of enterprise that is listed in the Table. 3.

Table 3

**Point factor method of evaluation
of the employees' positions of enterprise [2]**

Factor	Weight of the factor, %	Levels				
		1	2	3	4	5
1	15	0, 15	0, 3	0, 45	0, 6	0, 75
2	20	0, 2	0, 4	0, 6	0, 8	1
3	20	0, 2	0, 4	0, 6	0, 8	1
4	15	0, 15	0, 3	0, 45	0, 6	0, 75
5	30	0, 3	0, 6	0, 9	1, 2	1, 5
Sum	100 %					

Point factor evaluation scale (Table 3) contains estimates that supposed to be assigned to certain positions in accordance with the received indicator's level (Table 1) and the significance of its impact on activities of the enterprise (Table 2).

There are possible different options of evaluation using these two parameters (level factor and its importance) but in the practice of business management is used their product. It allows simplifying the calculations during establishing grades (the value of 10 % interval of estimates for the levels using the weight of the first-level factor is used in the practice of business management).

In order to check the coverage factor of point factor scale of innovative activity, the company has arranged a representative selection of employees to evaluate their positions. According to the calculation, the selection was 10 % of employees of the enterprise. Test results prove the adequacy of the previously defined indicators of evaluation of the impact of the worker's position on innovative activity.

Evaluation of positions using point factor method, and determination of the positions level was carried out by a group of experts applying point factor table of the output of an integrated assessment of the summation. It is significant that the expert group evaluate positions, not employees, who hold it. The results of the evaluation of the employees' positions of enterprise are provided in Table 4. Obtained ranks of the positions are used for making management decisions.

Basing on the result of calculations it can be stated that point factor method of evaluation of the employees' positions can be consider accurate due to the use of expert techniques and a number of mathematical calculations.

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Table 4

The results of determination of level of employees' positions during the formation of workers bonuses based on the results of innovative activities

Positions	Level indicators / scores					The total level of positions Σ
	1	2	3	4	5	
1	5/0, 75	4/0, 8	5/1	4/0, 6	5/1, 5	4, 65
2	5/0, 75	4/0, 8	5/1	4/0, 6	4/1, 2	4, 35
3	5/0, 75	4/0, 8	5/1	4/0, 6	4/1, 2	4, 35
4	5/0, 75	4/0, 8	5/1	5/0, 75	5/1, 5	4. 8
5	5/0, 75	3/0, 6	4/0, 8	4/0, 6	5/1, 5	4, 25
6	5/0, 75	2/0, 4	4/0, 8	3/0, 45	4/1, 2	3, 6
7	4/0, 6	2/0, 4	2/0, 4	1/0, 15	1/0, 3	1, 85

The results of its application is characterized by a lower level of subjectivity compared to alternative methods of assessment. However, due to the implementation of the above steps data ware, formation indicators (factors) evaluation, and development point factor grading scale, etc., this method should be attributed to labor-intensive.

Considering the fact that employees of the company are evaluated by using point factor method, it is necessary to pay particular attention to compliance with the information requirements, which must be complete and accurate, at the stage of information provision process of the following sequence. The same time it suggests significant requirements for information support of the evaluation process and forms expensiveness of point factor method of evaluation of the employees' positions of enterprises.

Conclusions and recommendations for further research in this area. Mark – factor method involves evaluation of the employees' positions (in scores) based on a certain level characteristics (factors) with regard to their weight. Usage of this method was carried out with the purpose of development of innovative activities through its stimulation among employees: determining the goals and objectives of the research, information assurance, installation of evaluation indicators (factors), the formation of point factor assessment scale and its testing, valuating jobs using this method according to the scale, making appropriate management decisions.

1. Кузьмін О.Є. Основи менеджменту: підручник. – 2-ге вид., випр. і доп. / О. Є. Кузьмін, О. Г. Мельник – К.: Академвидав, 2007. – 464 с. 2. Ветлужских Е. Стратегическая карта, системный подход и КPI: Инструменты для руководителей / Е. Ветлужских. – М.: Альпина Бизнес Букс, 2008. – 204 с. 3.Милкович, Джордж Т. Система вознаграждений и методы стимулирования персонала / Джордж Т. Милкович, Джерри М. Ньюман; пер. с англ. [Л.И. Белоус и др.]. – М.: Вершина, 2005. –760 с. – Главы: 3–8. 4. Хендерсон, Р. Компенсационный менеджмент. – 8-е изд. / пер. с англ. под ред. Н.А. Горелова / Р. Хендерсон. – СПб.: Питер, 2004. – 880 с. – Главы : 6–11. 5. Новикова М. Компенсации и льготы [Текст] / С. Новикова // Путеводитель по кадровому менеджменту. – 2005. – Вып. 3. 6. Поварич И.П. Разработка и реализация компенсационной политики организации / И.П. Поварич, С.А. Бабин, С.И. Бабина. – М.: Издательский дом «Академия Естествознания», 2011. – 280 с. 7. Гончаренко А. Грейдуированная шкала // Бизнес. №49 (672). 5 декабря 2005 г. – С. 55–56. 8. Зеленова О.И. Мотивация персонала в мультинациональной организации: учеб. пособ. / О. И. Зеленова, Н. В. Севастьянова. – М.: Изд-во РУДН, 2008. – 235 с.