Development of methodical instructions for assessment of effectiveness of personnel labour activity motivation managing system

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Abstract. The article deals with the essence of the motivation managing system and instructions for assessment of effectiveness of the personnel's labour activity motivation managing system, it provides with recommended parameters. Based on comparison of actual assessments with reference ones it is possible to uncover weak spots of personnel labour activity motivation managing system and to develop actions for its enhancement.

Introduction

Proper personnel motivation managing system is able to identify success or failure of an enterprise's activity, because the accuracy and timeliness of an enterprise's plans realization and goals achievement depends on personnel concernment, conscientious and responsible attitude to work. For successful enterprise's activity a manager should enhance periodically a personnel labour activity motivation managing system (PLAMMS) at the enterprise. [1].

Material and Research Methodology

Works of following scientists were used as theoretical and methodological base for this research: V.H. Vroom [2], B. Weiner [3, 4], J.H. Kerr [5], S.K. Parker [6], J. Bidee, T. Vantilborgh, R. Pepermans, G. Huybrechts, J. Willems, M. Jegers, & J. Hofmans [7], B.E. Wright, R.K. Christensen & S.K. Pandey [8], J. Ahluwalia [9].

According to the system analysis methodology PLAMMS could be presented as a complex multilevel managing system with allocated structural elements, subsystems, which allow achieving of goals: the managing subsystem, the managed subsystem, the target subsystem, the providing subsystem (fig. 1) [10].

The system's enter is caused by problems, which should be solved to achieve high level of the labour activity motivation managing system.

Managed variables in the system are rise in labour productivity, work satisfaction, personnel turnover, product quality guarantee (decrease in defecting goods).

According to the system approach theory motivation management include integrated elements inseparably linked with each other and constituting a whole: surrounding conditions (external and internal factors), the managing subsystem, the managed subsystem, the target subsystem, the providing subsystem, the subsystem of scientific rationale.

To solve any problems in any subsystem it is necessary to prove decision making process. That is why, from our point of view, the personnel motivation managing system should include the subsystem of scientific rationale Motivation management methodology assumes consideration of personnel motivation essence as an object of management, personnel behaviour forming process, relevant to the enterprise's goals and objectives, motivation management methods and principles.

## Research material and discussion

Inner feedback provides the quality of made decisions and is connected with dynamism of the enterprise's activity, which requires responsiveness to changes of external and internal environment.

The basis of this responsiveness is models and methods of solving specific practical problems, which allow enhancing effectiveness of labour activity motivation management.

We offer methodical recommendations, which allow comparing existing labour activity motivation managing system within its subsystems.

System assessment is performed by the expert method, top and middle managers or qualified specialists/consultants, taking direct part in the system development should be involved as experts.

Assessment is performed by filling the assessment sheet. It uses the rating scale from 0 to 3, whish characterize the quality (degree of manifestation) of the indicator's property (degree of complexity, etc.) [11].
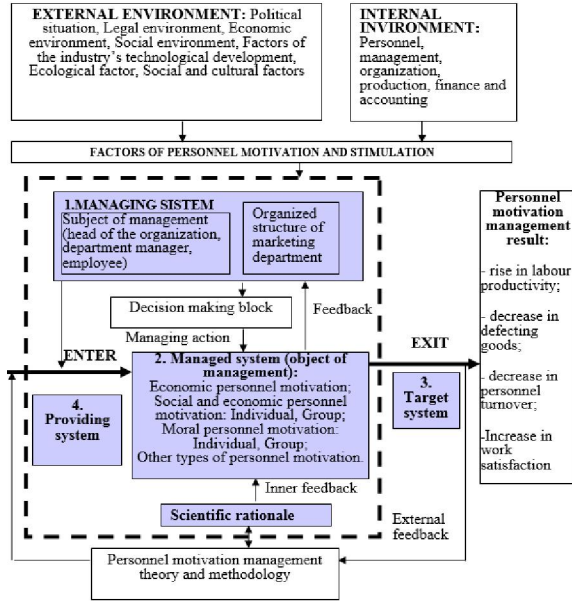
Fig. 1. Personnel labour activity motivation managing system

Assessment of single indictors, characterizing a subsystem development level, and calculation of group and integral indicators lies at the heart of this method. Then determination of a single indicators' importance coefficient of every enterprise's subsystem is performed (α_{mj}).

Following condition should be complied:

$$\sum_{j=1}^{n} \alpha_{mj} = 1,0 \qquad (1)$$

where: α_{mj} - the importance coefficient of j indicator of m subsystem;
n – number of single indicators in every subsystem of personnel labour activity motivation managing system at the enterprise.

Calculation of group (catch-all) indicators is performed according to the formula:

$$I_m = \sum_{j=1}^{n} E_{mj} * \alpha_{mj}, \qquad (2)$$

where: I_m – a catch-all indicator of m subsystem;

n – number of considered single indicators in the subsystem;

E_{mj} - assessment of j single indicator, characterizing m subsystem.

Calculation of an integral indicator is performed according to the formula:

$$I_{int} = \sum_{m=1}^{m} I_m * \beta_m \qquad (3)$$

where: β_m - the coefficient of influence importance of a catch-all indicator of m subsystem;
p – number of considered subsystems.

Following condition should be complied at establishing importance coefficients:

$$\sum_{m=1}^{m} \beta_m = 1,0 \qquad (4)$$

Ponderability coefficients α_{mj} and β_m are determined by the expert method.

Comparison standard is the system with greatest possible assessments of all indicators or the enterprise with greatest assessments among homogeneous entities in the industry or on the market.

Assessment of levels coverage of labour activity motivation and personal management department's organizational structure is performed within the managing subsystem. Levels coverage of personnel motivation management can be performed be the head of the enterprise (in this case the indicator will be assessed with 1 point because it characterizes inefficiency of the subsystem), or by the head of the enterprise and department managers (2 points). Besides, an employee of the enterprise can be the subject of internal motivation self-management; in this case levels coverage of motivation management is able at all levels (3 points).

Organizational structure of personnel management department has several functions [12], seven of which relate to direst personnel motivation management: education, social protection, medical service, personnel insurance, conflict management, labour safety and personnel assessment. If all seven functions are performed at the enterprise, the value of this indicator equals to 3 points. If only 4-5 functions are performed, the value of this indicator equals to 2 points, if 2-3 functions performed, the value is 1 point. Maximum possible value is 3 points if the components' importance is 0,5 (3x0,5+3x0,5) and the managing subsystem's importance is 0,3.

Within the managed subsystem economic, social and economic, moral and other forms of personnel motivation are assessed.

Direct economic personnel motivation includes mechanisms of basic payment for labour and mechanisms of extra bonuses (premiums and other payments). In this case, if the mechanism of basic and extra payment works at the enterprise, the indicator equals to 3 points. If only the mechanism of

basic payment for labour is developed, the indicator equals to 2 points.

Instruments of social and economic personnel motivation include individual and group support, the first one is for the most valuable personnel categories (recovery of expenses for personal transport, representational expenses, policy of voluntary medical insurance, recovery of utility and rental expenses, assistance in house acquisition, recovery of children's education expenses), the second one is for all personnel (financial support, keeping kindergartens and summer camps, recovery of public transport expenses, subsidized dining, subsidized touristic tours, privileges on consumer loans, sick pay, cultural events, paid gym membership, treatment in paid medical centers, paid short-term tours). In this case if individual support is fully performed (5-6 instruments), the value of the single indicator equals to 3 points. If 3-4 instruments are performed, the indicator equals to 2 points, if only 1-2, the indicator equals to 1 point. The indicator of group support gains 3 points if 9-12 instruments are performed, 2 points if 5-8 instruments are performed, 1 point if 1-4 instruments are performed.

Moral motivation also has two groups of typical instruments – individual (certificate of gratitude, "Veteran of the Enterprise" badge of honour, photos at the "Best specialists of the enterprise" board, training in foreign countries, HVE at the expense of the employer, promotion) and group (solemn distribution of prizes, collective photo with the head of the enterprise, appreciation letter to the personnel on behalf of the head of the enterprise). Highest points (3 points) are gained if the enterprise performs 6-7 instruments of individual motivation, 2 points in case of 4-5 instruments performed, and 1 point if 1-3 instruments performed.

Other types of motivation include the opportunity of personnel's horizontal movement to the position with more attractive duties, motivation in form of successful professional career opportunity and opportunity to enhance the level of education, professional competence and outlook. Performance of 3 instruments brings 3 points, 2 instruments – 2 points, 1 instrument – 1 point. Maximum possible value of the managed subsystem is 3 points if every component's ponderability is 0,25 (3x0,25+3x0,25+3x0,25+3x0,25) and the managed subsystem's ponderability is 0,5.

Assessment of the target subsystem effectiveness includes consideration of following components: attraction and keeping the enterprise's personnel, fair assessment of the personnel's labour contribution, labour productivity stimulation, effective enterprise development, optimum ratio of material stimulation expenses and social protection

expenses, economic return of motivation expenses. The authors offer to assess attraction and keeping the enterprise personnel and personnel's labour contribution by the level of personnel turnover. If personnel turnover coefficient (PTC) is lower than the average value in the industry, the single indicator gets 3 points, if PTC equals to the average value, the indicator gets 2 points, if higher – 1 point. Labour productivity stimulation should be assessed by rate of rise in labour productivity: positive rate brings 3 points, static rate brings 2 points and decline in labour productivity brings 1 point. Effective enterprise development indicator gets 3 points if dynamics of profitability is positive, 2 points if static, 1 point if profitability declines. Optimum ratio of material stimulation expenses and social protection expenses should be assessed by the percentage of the personnel's premiums. If premium depends on the enterprise's profitability, the indicator gets 3 points, if the enterprise has fixed premiums - 2 points. Maximum possible value of the target subsystem is 3 points if every component's ponderability is 0,25 (3x0,25+3x0,25+3x0,25+3x0,25) and the target subsystem's ponderability is 0,1.

The providing subsystem has following components: staff assistance, document support, information support, regulatory support and technical support [2, p. 59]. Authors offer to assess the providing system by three parameters. Presence/absence of specialists, forming and regulating the system of labour activity motivation is considered in staff assistance indicator. If the enterprise has a specialist, forming and regulating the system of labour activity motivation, the single indicator gets 3 points; if the department manager forms and regulates the system of labour activity motivation – 2 points, if the head of the enterprise forms and regulates the system of labour activity motivation – 1 point. Information support is characterized as of high importance if necessary information is structured according to departments (3 points), medium importance if the information is available as whole (2 points) and the information is available for duties performance (1 point). Regulatory support is realized through existence of the collective agreement and employment policies and procedures. If both documents exist at the enterprise the indicator gets 3 points, one of them – 2 points. Maximum possible value of the providing subsystem is 3 points (3x0,33+3x0,33+3x0,34). Ponderability of the providing subsystem is 0,1.

Recommended values for single and catch-all indicators are presented in the table 1.

Table 1. Recommended values for single and catch-all indicators and their importance

№	Indicator	Recommended value	Indicator's value, α_{mj}	Indicator's assessment considering its importance, $(E_{mj} * \alpha_{mj} = I_{mj})$
1	2	3	4	5
1	Assessment of the managing subsystem effectiveness	3	0,3	0,9
1.1.	Coverage of labour activity motivation management levels, E_{m_1}	3	0,5	1,5
1.1.1	The head of the enterprise, department manager, employee	3	1,0	3
1.2.	Organizational structure of a personnel management department, E_{m_2}	3	0,5	1,5
1.2.1	7 functions: 1-education, 2-social protection, 3-medical service, 4-personnel insurance, 5-conflict management, 6-labour safety, 7-personnel assessment	3	1,0	3
2	Assessment of the managed system effectiveness	3	0,5	1,5
2.1.	Economic motivation of personnel, $E_{m_{2.1}}$	3	0,25	0,75
2.1.1	Mechanisms of basic and extra payment for labour	3	1,0	
2.2.	Social and economic motivation of personnel, $E_{m_{2.2}}$	3	0,25	0,75
2.2.1	Individual support: 1-recovery of expenses for personal transport, 2-representational expenses, 3-policy of voluntary medical insurance, 4-recovery of utility and rental expenses, 5-assistance in house acquisition, 6-recovery of children's education expenses			
2.2.1.1	5-6 instruments performed (circle what exactly): 1, 2, 3, 4, 5, 6	3	0,5	1,5
2.2.2	Group support: 1-financial support, 2-keeping kindergartens, 3-keeping summer camps, 4-recovery of public transport expenses, 5-subsidized dining, 6-subsidized touristic tours, 7-privileges on consumer loans, 8-sick pay, 9-cultural events, 10-paid gym memberships, 11-treatment in paid medical centers, 12-paid short-term tours			
2.2.2.1	9-12 instruments performed (circle what exactly): 1, 2, 3, 4, 5, 6, 7,8 9, 10, 11, 12	3	0,5	1,5
2.3.	Moral motivation of personnel, $E_{m_{2.3}}$	3	0,25	0,75
2.3.1	individual: 1-certificate of gratitude, 2-public oral commendation, 3-"Veteran of the Enterprise" badge of honour, 4-photos at the "Best specialists of the enterprise" board, 5-training in foreign countries, 6-HVE at the expense of the employer, 7-promotion			
2.3.1.1	6-7 instruments performed (circle what exactly): 1, 2, 3, 4, 5, 6, 7	3	0,5	2,5
2.3.2	group: 1-solemn distribution of prizes, 2-collective			

№	Indicator	Recommended value	Indicator's value, α_{mj}	Indicator's assessment considering its importance, $(E_{mj} * \alpha_{mj} = I_{mj})$
1	2	3	4	5
	photo with the head of the enterprise, 3-appreciation letter to the personnel on behalf of the head of the enterprise			
2.3.2.1	Tree instruments performed: 1, 2, 3	3	0,5	1,5
2.4.	Other types of motivation: 1-opportunity of personnel's horizontal movement to the position with more attractive duties, 2-motivation in form of successful professional career opportunity, 3-opportunity to enhance the level of education, professional competence and outlook, $E_{m_{2.4}}$	3	0,25	0,75
2.4.1	Three types performed: 1, 2, 3	3	1,0	3
3.	Assessment of the target subsystem effectiveness	3	0,1	0,3
3.1	attraction and keeping the enterprise's personnel, fair assessment of personnel's labour contribution (by the personnel turnover level), $E_{m_{3.1}}$	3	0,25	0,75
3.1.1	Personnel turnover coefficient (PTC) is lower than the average value	3	1,0	3
3.2.	Labour productivity stimulation, $E_{m_{3.2}}$	3	0,25	0,75
3.2.1	Positive rate of rise in labour productivity	3	1,0	3
3.3.	Effective development of the enterprise, $E_{m_{3.3}}$	3	0,25	0,75

№	Indicator	Recommended value	Indicator's value, α_{mj}	Indicator's assessment considering its importance, $(E_{mj} * \alpha_{mj} = I_{mj})$
1	2	3	4	5
3.3.1	Positive dynamics of profitability	3	1,0	3
3.4.	Optimum ratio of material stimulation expenses and social protection expenses, $E_{m_{3.4}}$	3	0,25	0,75
3.4.1	The personnel's premiums depend on profitability	3	1,0	3
4.	Assessment of the providing subsystem effectiveness	3	0,1	0,3
4.1.	Staff assistance, $E_{m_{4.1}}$	3	0,33	0,99
4.1.1	There is a specialist forming and regulating the system of labour activity motivation (PLAMMS)	3	1,0	3
4.2.	Information support, $E_{m_{4.2}}$	3	0,33	0,99
4.2.1	Information is structured according to departments	3	1,0	3
4.3.	Regulatory support, $E_{m_{4.3}}$	3	0,34	1,02
4.3.1	There is a collective agreement and employment policies and procedures	3	1,0	3

Then calculation of integral indicator of effectiveness of the labour activity motivation managing system is performed according to the formula 3. Recommended indicator of effectiveness should equal to 3 or tends to it.

Conclusion

Therefore, using this method of assessment of effectiveness of the personnel labour activity motivation managing system, managers are able to assess existing practice of motivation management objectively and compare to recommended reference values and develop actions for correction of considering system to enhance its productivity and effectiveness of the enterprise.

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