

# Humanization of HR management of construction companies based on innovative management concepts

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**Abstract.** The article discusses the practical aspects of the implementation of the principles of humanization in a certain construction company, which, in opinion of the authors, is an opportunity for construction companies to organize efficient activities and increase their investment attractiveness with no significant expenses. The purpose of the study is to find the internal reserves of a construction company through the practical implementation of the Lean Construction principles in construction facilities, i.e., assembling a creative team within the staff that will promote the efficient functioning of the enterprise and will form the basis for the development of innovative solutions. For this purpose, the study carried out an analysis of the scientific works on the issues of economy humanization and socialization, changes in the team process, management of the labor potential of the company in order to identify problem issues and set specific objectives for the practical implementation of the Lean Construction principles by assembling a creative team at a construction company. In this view, the authors propose to organize a close relationship of operational control and the measures to attract workers to show creativity and initiative, to develop an effective mechanism for organizing a creative climate on the example of a construction company. Based on the needs identified at the enterprise through filling in the questionnaire, specific changes to the design of incentive measures are proposed for implementation. The system of personnel promotion, the motivational package composition, promoting not only material stimulation, but also climate change in the team, and the objectives of the motivation package are suggested. The authors emphasize creativity increase taking into account the specifics of the activities of a construction company and attempt to create initiative groups in the field environment. The work shows the connection of operational control, carried out at the enterprise on a regular basis, with the involvement of staff in solving the tasks of the enterprise. For this purpose, draft documents for carrying out the operational control, execution of construction works, taking into account the proposals of the workers, have been developed. In opinion of the authors, knowledge of the possibility of obtaining a positive assessment, or appropriate stimulation, a sense of involvement in the main objectives of the enterprise will enhance the identity, level of socialization and self-actualization of workers. The authors believe that the following LC suggestions may be successfully implemented in construction companies whose main goal is the complete use of internal reserves, minimization of losses of the enterprise. The task that needs further research should be to evaluate the practical value and effectiveness of the received suggestions and make a decision on their implementation.

## INTRODUCTION

At the heart of this concept of humanization is the creation of respect, care and reciprocity between management and employees to ensure a people-centered policy and the further innovative development of the enterprise [1]. Lean project management or lean construction is a modern innovative management concept enabling construction companies to organize efficient activities and providing the opportunity to increase their investment attractiveness

without significant expenses, as the attraction of investments in the construction business is currently a priority task for all managers of enterprises. In addition to the possible resistance of employees to changes, the complexity arises in the process of practical implementation of concepts. During the transformation of their operating model, these changes also occur in the values and culture of the organization. The practical aspects of assembling a creative climate is a complex issue that deserves special attention.

The purpose of the study is finding the internal reserves of the construction company through the practical implementation of Lean Construction principles, hereinafter – LC, at construction facilities, namely assembling a creative team within the staff that will contribute to efficient functioning and will form the basis for the development of innovative solutions.

Creativity organization, initiative enhancement and labor potential unlocking are addressed in the works of foreign and domestic scientists such as M. S. Doronina [2], C. Antony [3], A. Hirshi, V. K. Herrman [4], R. Waterman, T. Peters [5], O. Chupyr [6], S. YP Choi [7], K. V. Biletska [8], O.O. Romanovskyi [9], D. Zervas [10] etc. Thus, M. S. Doronina studied modern tendencies of humanization of labor and socialization of the economy and defined the notion of "socialization" as a triune process of social development of a person, collective, enterprise and the economic system of the country as a whole [2]. In the case of achieving a high level of socialization of the results of activity, the role of human increases, that is, there is a humanization of the management process. In a study by T. Peters and R. Waterman, one of the components of humanization of labor is the increase in the level of awareness of the team and the "transparency" of the internal organizational activities [5]. C. Antony considered mediation of changes in the team process and their diversity as important components of the company's innovation policy [3]. A. Hirshi and A. Herrman, when considering protean career orientation, professional identity and self-sufficiency, have established that it is preceded by changes in identity and self-realization, but not vice versa [4]. The model of scientifically grounded system of planning of social development of personnel was designed and proposed by O. Chupyr [6]. The authors emphasize the need to define social priorities and use the quantitative method of their determination. The systematization of literary sources confirms the growth of human's role in the management process and the need for changes in the team process and allows us to assert that these measures are carried out within the framework of innovative management concepts. One of these concepts is LC. The authors consider it necessary to pay more attention to the practical aspects of the implementation of the task of increasing the level of personnel socialization by way of creating united teams, groups and assessing their initiative by example of the construction enterprises.

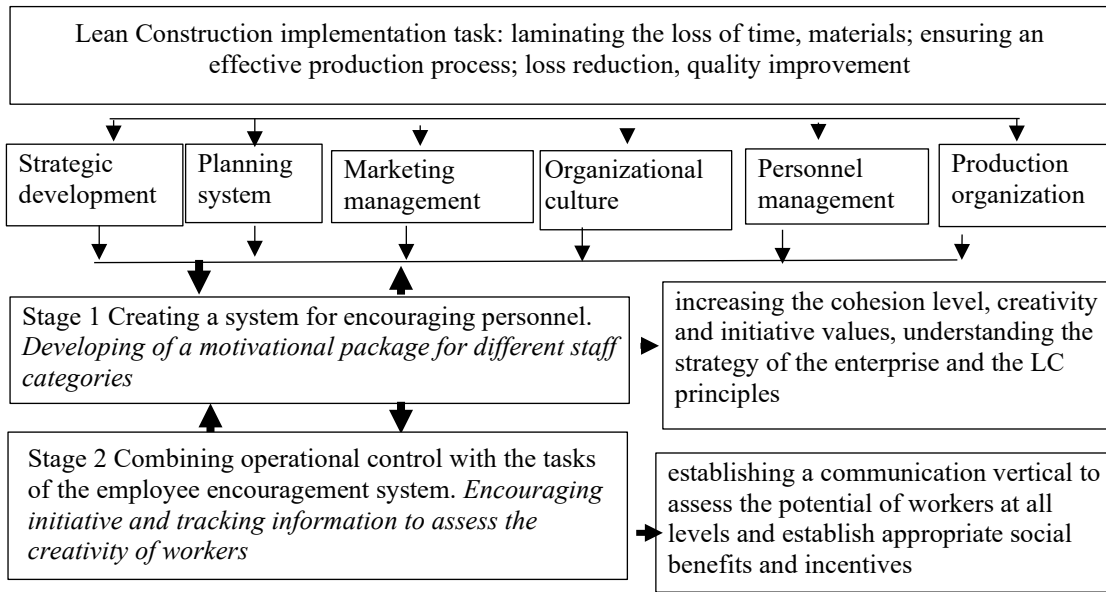
## **Main body**

As the environment is prone to change, construction companies need to respond quickly to such changes and adapt to new conditions. Construction companies find promotion of their own development more and more difficult, so they attempt to use survival strategies. One of the main tasks of Lean Construction is internal reserves management and minimization of losses. This necessitates the creation of mechanisms for managing the creative potential of the enterprise, as the human capital assets are currently the most important factor in improving efficiency.

Having established the strategic purpose of using LC to ensure survival of an enterprise, its manager faces problems of its implementation at all levels of management. The authors propose a plan of activities combining all levels of enterprise activities in order to increase creativity and initiative of workers on the example of a construction company. It necessary to clearly establish the place of the motivational mechanism in the implementation of the strategy and tasks for successful practical implementation (Fig.1).

First of all, it is necessary to create conditions that contribute to an increase in the values of creativity and initiative of the enterprise personnel.

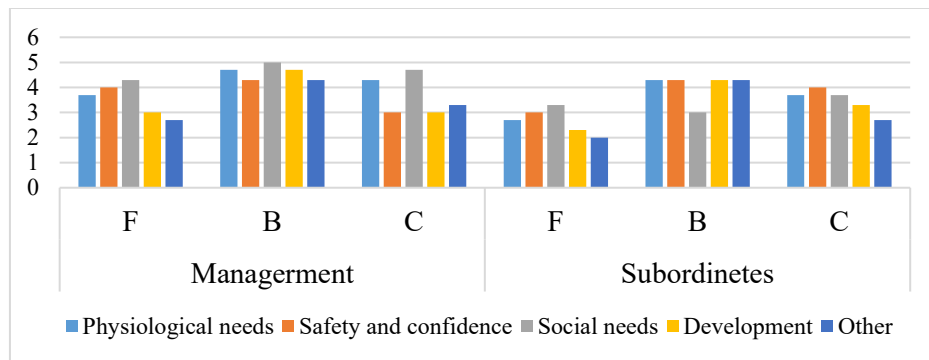
Secondly, it is necessary to create a system of incentives for personnel, therefore, the issue of developing a motivational package promoting not only the material stimulation to activity, but also the climate change in the team.



**Figure 1.** Interconnection of the Lean Construction implementation and the motivational mechanism tasks.

Thirdly, it is proposed to organize a close connection between operational control in construction and the involvement of workers in innovation activities, to encourage initiative.

Implementation of the tasks established in Stage 1 (Fig. 1) is based on conducting a questionnaire survey of employees at all levels of management in order to determine the needs of enterprise personnel, priorities, on data analysis and the development of a motivational package. 78 respondents, employees of two construction organizations took part in the survey. Among them, there are 13 managers, employees and builders, 25 people respectively. Based on the results of the survey conducted at the construction company (Fig.2), the following was established:



F\*- actual state assessment.

B\*- desired state assessment.

C\*- assessment of the possibilities to achieve the desired state.

**Figure 2.** Determination of personnel attitudes toward enterprise development by management levels

- subordinates give a worse assessment of the situation at the enterprise than managers;
- physiological needs and safety is the first thing important for subordinates;
- a group of developmental factors is more desirable for workers than for managers;
- management personnel pays more attention to the improvement of the social status;

- management staff does not have a high desire for career growth and development.

Demotivation of workers is seen, however, the questionnaire allows to identify needs and to encourage workers to look for creative approaches to improve the efficiency of the enterprise. In case of successful implementation of the initiative proposed by a worker of any category, this worker will receive a bonus. Based on the results of the study, components of the motivation package and the specific interests of various categories of personnel have been developed. The results are shown in Table 1.

**TABLE 1.** Composition of the Motivational Package Based on the Results of the Questionnaire.

Categories of workers	Components of the motivational package %						
	RC*	Bonuses	Food	Travel / car	Training	Loans	FR**
Top management	40,0	83,3	20,0	33,3	59,4	16,7	9,3
Mid-level management	50,0	73,3	20,0	26,7	52,3	56,7	9,3
Qualified specialists	70,0	63,3	10,0	24,2	55,3	13,3	9,3
Workers	70,0	40,0	20,0	26,7	76,5	43,3	9,3

\*RC – reimbursement, compensation of expenses for medical treatment

\*\*FR – financial aid for rest

Based on the needs identified by the company, it is proposed to introduce the following changes in approaches to the new management style:

- encourage team members to submit their proposals to address the issues of enterprise development at all levels of management;
- focus on the root of the problem. Solve not only urgent problems, but to allocate time to find the main symptom. At this stage, it is important to take a step back and expand the vision;
- provide time for "thinking" to resolve issues. If the manager gives their team time and space to think, this effectively affects the outcome and increases the level of team involvement [2];
- encourage experimenting. Innovation is an iterative process, focusing on improving the existing ones, it is possible to enhance professional identity and self-sufficiency [6].

It is clear that the implementation of these principles must be carried out in the field conditions (at a workplace), which causes complexity. Their implementation is closely related to control. Therefore, it is suggested for every enterprise to develop a specific document form and a plan for the control frequency and link them with measures to enhance creativity at workplaces [10]. Thus, at the enterprise under study, forms of daily, weekly, and monthly control of information on the construction progress at on construction sites are used. The results reflect the number of employed workers, the number and time periods of the machinery and equipment of the subcontractors used, and remarks of the foreman and the site chief engineer. Items of information: special cases, workers, labor protection, condition and equipment, decision on the construction site, decisions required from the management, work with subcontractors, other comments, as well as the proposals of employees to the head of the facility. Observations by the chief construction engineer on the points: site visitors, works performed, special events, days ahead of schedule (lag), architect's work, availability of customers, weather conditions, tasks requiring solution, site order placement, other comments, and propositions are submitted to Chief Engineer. Examples of documents are given in Tables 2-3.

**TABLE 2.** Weekly report on the progress of the construction schedule taking into account proposals.

No. of works under the schedule	Work code	Phase of work	Type of work	Participant of work	% readiness of work		Deviations from the schedule		Early work schedules		Actual work schedules	
					Under the	Actual	Lag	Ahead of schedule	Start	Finish	Start	Finish
27	24.10	Finished	Earth works	General contractor	100	100	-	-	14.02	30.02	13.02	30.02
Received propositions												

Foreman \_\_\_\_\_

**TABLE 3.** Daily report based on proposals.

Facility\_\_\_\_\_

Date\_\_\_\_\_

By own efforts of the enterprise			Through efforts and funds of subcontractors	Equipment of the enterprise being used	
Specialties	Qty		Subcontractors	Name	Qty
	Employees	Workers			
Chief Engineer	1		No	Not used	-
Foreman	1		No	Not used	-
Controller	1		No	Not used	-
Installers		14	No	Not used	-
Equipment operators		12	No	Not used	-
Concrete workers		3	No	Not used	-
Propositions					--

Head of the facility \_\_\_\_\_

The form of the documents may be different. Operational data on the daily value of works are submitted to the economic department (if it is a large enterprise, and to a specialist, depending on the size of the enterprise). The information on the initiatives of the personnel is submitted to the project manager or the head manager and in this way the communication vertical is formed. In the course of the works execution, and especially after their completion, the head must conduct an analysis of personnel activities, an assessment of creative capabilities of specific individuals to create the necessary conditions for access to the motivational elevator.

## CONCLUSION

The following should be emphasized from among the submitted results of the survey:

- low initiative, for example, 108 workers participate in finishing works, the duration of works is 168 days, and there are only 16 suggestions registered;

- the received suggestions concern not only the improvement, enhancement or reduction of certain types of construction works, but also the solution of problems in the field of labor protection, improvement of sanitary and hygienic conditions, of which problems the management has not yet been informed;

- the majority of initiatives relate to wages, logistics and work site arrangement.

From the survey results given, low initiative should be noted. This result is due to the specifics of construction works performed in accordance with the state construction standards and other standards and rules. The received proposals concerned not only the improvement or reduction of certain types of construction works, but improvement of sanitary and hygienic conditions, which was not communicated to the management before. The bulk of the initiatives concerned logistics issues and workplace organization, which in turn helped reduce losses in the enterprise.

Only after gaining knowledge about the future rewards, some employees have a desire to be involved in the process, but most of them have neglected them because of distrust. Problems in logistics and job organization define a range of tasks for management, the solution of which helps to reduce losses in the enterprise. There are divergences between ideological orientation and practical application, therefore special attention should be paid by the leadership for explanatory work with the personnel. The task that needs further research is evaluating the practical value and effectiveness of the proposals received and the decision to implement them. However, a manager needs to keep in mind that the LC implementation is a complex task and cannot yield high results when introducing changes only in certain functional areas.

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