

# INFLUENCE OF TEAM PERSONNEL INVOLVEMENT ON INDICATORS OF SUCCESS OF INNOVATIVE PROJECTS OF ENTERPRISES

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## Abstract

An urgent problem is the search and implementation of ways to ensure the success of innovative projects of enterprises. One of the most important success factors is the state of the project team and the involvement of the staff in the project activities. The purpose of our research is to assess the level of people's involvement in project activities and to determine the impact of this level on the success rates of innovative projects of enterprises. To achieve the goal, the following tasks were set and solved: the author's methodology for assessing the level of involvement, was developed; groups of project success indicators are identified; a study was conducted to determine the relationship between the level of staff involvement and project success indicators. The study was conducted at 132 enterprises in Russia. The research methods were sociological surveys and statistical methods of data analysis. The scientific novelty is the methodology for assessing the level of staff involvement and its impact on success indicators, as well as the conclusions obtained, which demonstrate that different levels of staff involvement have both negative and positive effects on the success of projects.

**Key words:** employee involvement, project, the success of the project

**JEL Code:** M12, M54, O15

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## Introduction

The project format of organizing activities is becoming more and more popular in organizations. It gives a special positive effect in the implementation of innovative activities. However, many projects do not reach the planned success rates. The reasons for the failure of projects are diverse, among them the state of the project team plays a significant role. The motivation of project team members, the involvement of employees in the project are key factors in achieving the project goals and indicators of its success. For this reason, project managers are concerned about building an engaged project team staff.

However, the scientific and practical problem is the lack of research confirming the fact that there is a link between the level of staff involvement and the success rates of an

innovation project. Another problem is the lack of specific answers to questions about how to measure the level of engagement and how to increase it. Without answers to these questions, it is difficult to organize the practice of managing the involvement of project team personnel. The proposed study provides answers to these questions.

## **1 Literature review**

Our research is based on the approaches of different authors to the concepts of motivation and involvement of personnel, assessment of the level of involvement, the role of personnel in achieving project success, and human resource management of enterprise projects.

In particular, the works on employee motivation and engagement by the following authors are significant for us Maja Rožman, Tjaša Štrukelj, David Casey, Sebastian Sieber (Rožman, Štrukelj, 2020; Casey, Sieber, 2016). Based on these works, in our research, we determine the essence of engagement and its relationship to motivation. So, by the involvement of the project team members, we mean a stable positive attitude to the project activities, which is expressed in a stable activity on the project implementation, a positive attitude to the project and to work as part of the project team. This interpretation is consistent with the approach of the Galop Institute, which explores various aspects of engagement. We have taken as a basis the approach of this institute to the assessment of engagement.

According to the position of such authors as J. Arrowsmith, J. Parker motivation is expressed in the presence of an internal desire to participate in the activities of the team of this project (Arrowsmith, Parker, 2013). At the same time, motivation is a step on the way to a state of engagement. Employee engagement, as opposed to motivation, is not just a desire to voluntarily participate in the work of the project team. In addition, involvement is expressed in the following signs of its presence: high level of initiative, constant support of the project and the project team members, the desire to make efforts and invest resources in achieving the project results and other attributes. In this aspect, the authors write about the role of employee engagement and motivation Neil M. Boyd, Branda Nowell (Boyd, Nowell, 2020).

The works of the authors are also important for our research Fahimeh Rahmanniyay, Andrew Junfang Yu, Alexey Pak, Lila L. Carden, Jamison V. Kovach, Munira Amidkhonova (Rahmanniyay, Yu, 2019; Pak, Carden, Kovach, 2016; Amidkhonova, 2018). In their publications, you can find a description of the importance of project personnel in achieving the success of project activities. For example, the authors Ehsan Samimi, Jörg Sydow, say that the state of the project team members, their competencies and a positive attitude to work in

the project can have a significant impact on the project results (Samimi, Sydow, 2021). In the works of the authors Nancy L., Martin, J. Michael Pearson, Kimberly Furumo, J. Kent Crawford, Sevilay Demirkesen, Beliz Ozorhon, dedicated to project management, they also talk about the importance of the human factor in ensuring the success of the project (Martin, Pearson, Furumo, 2007; Crawford, 2006; Demirkesen, Ozorhon, 2017).

However, scientific publications do not sufficiently disclose questions about how to assess the level of involvement of the project team, how to increase this level, and there are no supporting facts about the relationship between the involvement of team members and the success rates of projects. This unsolved problem determines the relevance of our research.

## **2 The methodology of the study**

The purpose of our research is to assess the level of staff involvement in project activities and to determine the impact of involvement on the success rates of innovative projects of enterprises.

To achieve this goal, the following tasks were set and solved:

- develop and test the author's methodology for assessing the level of engagement, based on the provisions of the Galop Institute;
- identify groups of project success indicators;
- establish a link between the level of staff involvement and project success rates.

The study was conducted using sociological and statistical methods, in particular, using a questionnaire survey and establishing a link between the level of involvement and the success rate of the project.

The object of observation and data collection was the project teams of innovative projects. In total, 224 teams of 132 enterprises from 6 regions of Russia were examined. The project teams consisted of an average of 10-18 people. The companies operate in the fields of mechanical engineering, oil production and refining, construction, IT business, advertising, trade, and consulting.

Team members were offered online questionnaire questions that related to their level of engagement. Our methodology involves evaluating the level of engagement of an individual member of the project team, and then evaluating the average level of engagement of the entire project team as a whole. A score scale was used to assess engagement: from 1 point – low level of engagement, to 5 points - high level of engagement. Involvement was diagnosed according to the following indicators:

- the presence of a pronounced positive attitude to the goals of the project;
- the presence of a stable positive attitude to the content of the project activities;
- having a stable, positive attitude towards your project role;
- the presence of a stable positive attitude to the project team and to work in this team;
- the frequency of voluntary use of their energy and their resources to achieve the goals of the project due to the presence of non-monetary motives;
- frequency of initiation and support of innovative ideas in the project;
- frequency of voluntary support of project team members, assistance and participation in project management.

The selected indicators correspond to the generally accepted understanding of engagement. Thus, involvement is interpreted as a stable attitude, which is expressed in a stable and strongly expressed positive emotionally colored attitude to the project goals, to the content of project activities and their project role, and is embodied in the active behavior of the employee to achieve the project goals and ensure its success.

Based on the methodology of the American Institute of Public Opinion, we have added questions to the online questionnaire to assess the factors that determine employee engagement.

Indicators of the success of innovative projects were also taken from the reports and the analysis of the relationship between the level of involvement and the indicators of the success of projects was carried out. To establish dependencies, the teams were divided into three groups – with high, medium, and low levels of engagement. The indicators of project activity success in these three groups of teams achieved during 2020 were recorded, and conclusions were drawn about the presence of links between the involvement and the success of the teams. The indicators of project success include: compliance with project deadlines, implementation of the budget plan, achievement of project goals, effective use of project resources, satisfaction of stakeholders, team development, achievement of individual KPIs by team members.

### **3 The results results and discussion of the study.**

First of all, we identified the level of involvement in the teams of innovative projects of the studied enterprises. Table 1 shows the average score for individual indicators and the integral indicator of the level of engagement. We conducted an analysis on project managers and on ordinary members of project teams.

The results indicate that the teams have an average level of engagement. At the same time, the emotional component of involvement, that is, a pronounced and stable positive attitude to the project goals, to project activities and their project role, prevails over the behavioral manifestation of involvement. At the same time, according to many authors, as well as in our opinion, the manifestation of involvement in behavior is more significant for this state in comparison with its manifestation in the feelings of the staff. Consequently, the study showed reserves for the development of engagement.

The level of involvement of project managers is higher than that of ordinary team employees. It is especially higher in three indicators: the presence of a pronounced positive attitude towards the project goals; the frequency of voluntary use of their energy and resources to achieve the project goals due to non-monetary motives; the frequency of voluntary support of project team members, assistance and participation in project management. On the contrary, employees have a higher engagement rate: having a stable positive attitude to the project team and to work in this team.

**Tab. 1: The level of involvement of the personnel of the innovation project teams (from 1 - low level to 5 - high level of involvement)**

Engagement indicators	Average score for team	Average score for project team managers	Average score for ordinary project employees
- the presence of a pronounced positive attitude to the goals of the project	2,8	3,3	2,3
- the presence of a stable positive attitude to the content of the project activities	3,2	3,3	3,1
- having a stable, positive attitude towards your project role	3,2	3,4	3,0
- the presence of a stable positive attitude to the project team and to work in this team	3,3	3,0	3,6
- the frequency of voluntary use of their energy and their resources to achieve the goals of the project due to the presence of non-monetary motives	2,1	2,5	1,7
- frequency of initiation and support of innovative ideas in the project	1,8	1,9	1,7
- frequency of voluntary support of project team	2,2	2,5	1,9

members, assistance and participation in project management			
- integral indicator of the level of engagement	2,7	2,9	2,5

Source: compiled by the author.

At the next stage, we have established links between the level of engagement and the success rate of the project. To do this, we divided the teams into three groups: teams with a high (70 teams), medium (82 teams) and low (72 teams) level of involvement. Next, we looked at the success rates that these teams achieved in their projects during 2020. We studied how many percentages of teams in each of the three groups achieved the planned values or high values in terms of project success rates. Statistically significant results clearly support the conclusion that teams with high and medium engagement are more likely to achieve the planned success rates and their high level. Moreover, this is most pronounced in terms of: stakeholder satisfaction, team development and achievement of individual KPIs by team members. This conclusion also applies to the indicator of effective use of project resources. As for the indicators of achieving the project goals, meeting the project deadlines and implementing the budget plan, there was no statistically significant relationship between the level of engagement and these indicators. The obtained conclusions are proved on the basis of the evaluation of the F-criterion.

**Tab. 2: The relationship between the level of involvement of team personnel and the success rates of innovative projects**

Project success indicators	The number of teams with a low level of engagement (from 1.0 to 1.9) in %	The number of teams with an average level of engagement (from 2.0 to 2.9) in %	The number of teams with a high level of engagement (from 3.0 to 5.0) in %	F-criterion	Significance (p)
Meeting project deadlines	86	85	83	2,066	,132
Implementation of the budget plan	82	84	86	2,033	,128
Achieving project goals	90	89	90	2,066	,132
Efficient use of project resources	45	78	83	15,273	0,000
Stakeholder	25	73	80	27,507	,000

satisfaction					
Team Development	23	79	90	37,078	,000
Achieving individual KPIs by team members	38	71	81	8,136	,001

Source: compiled by the author.

Note: based on percentages, points were calculated, where "high level" - 2 points, "medium level" - 1 point, "low level" - 0 points. The presence of statistically significant differences according to the Fisher criterion was checked using the formula:

$$F - criterion = \frac{\text{intergroup average square}}{\text{intra - group average square}} \quad (1)$$

Next, we identified the factors that affect employee engagement. For example, respondents identified the following factors as significant for their engagement:

- project manager's management style-87 % of respondents noted this factor;
- values and ideals that position the company's top management and project managers-82%;
- getting confirmations about your value to the project and a specific team -77%;
- project motivation system -75%;
- ability to perform desired tasks and project roles -62%;
- finding balance and harmony of personal and team goals-54%;
- opportunities for development and training -54%;
- possibility of self-realization-47%;
- organization of project activities and conditions for the implementation of the project-34%;
- project reputation in the external environment -22%;
- the state of the team, its psychological climate – 22%.

As we can see, the factors related to the management style, values and norms of management were extremely significant. Project motivation is also a crucial factor of engagement. Factors of personal growth and self-realization, as well as the performance of project roles that correspond to the abilities of team members are also important for engagement.

The study provided clear evidence that the involvement of team members determines the success of projects. Thus, the number of teams with high and medium engagement is much higher in the group of successful teams selected for research.

Also, an additional result was the conclusion that there are certain signs of involvement of project team personnel. Signs of staff involvement in project activities are:

1. Engagement manifests itself in behavior. The involvement of members of project teams has an activity manifestation, it is usually associated with the actual behavior of the staff.

2. Engagement manifests itself in emotions. Engagement is characterized by a strong positive emotional attitude to the goals, values, norms, innovation processes, and so on in project activities.

2. In the presence of involvement, there is a formation of an attitude to the voluntary use of energy due to the presence of non-monetary motives. Engagement is characterized by the amount of physical and psychological energy that employees additionally devote to working in a project that is not caused by rational prerequisites.

3. Involvement causes long-lasting and strong effects in the form of pronounced active behavior of the employee for a long time.

4. Involvement in relation to the project form of organization of activities is significant both at the level of individual members of the project team and at the level of the entire team. It is important that the entire team of the project team experiences a state of involvement in the project.

## **Conclusion**

Thus, the involvement of personnel can be recognized as a significant factor determining the success rates of innovative projects. Engagement has a particularly pronounced impact on the indicators of stakeholder satisfaction, team development, achievement of individual KPIs by team members, and effective use of project resources. It is these indicators that are most difficult to achieve and, as a rule, their achievement is associated with non-material factors, such as high staff loyalty, engagement, motivation and job satisfaction in the project.

To increase the level of engagement, project managers should pay attention to significant factors. Our research allowed us to identify relevant factors that determine the involvement of members of innovative project teams. Managers should pay attention to their own management style, creating such norms and values in the project that would meet the needs of team members. It is also important to form project motivation that would involve team members in project activities as much as possible. Significant factors that should be consciously regulated are factors of self-realization and development of personnel, opportunities for performing those project functions and roles that would help to reveal the



talents and abilities of the participants of the innovative project teams. That is, the management of human resources involvement should be included in the agenda of priority tasks of project management.

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