

# LEADERSHIP COMPETENCIES OF FLEXIBLE TEAMS OF INNOVATIVE PROJECTS OF ENTERPRISES

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**Abstract:** *Management of innovative projects of enterprises is carried out in conditions of high uncertainty and dynamism of environmental factors. Flexible management methodologies, which have been gaining popularity in recent years, are most suitable for such conditions. To ensure the flexibility of all project management, flexible teams are required, able to quickly adapt to changing situations and develop their competencies under new conditions. For flexible teams, new forms of leadership are particularly important, such as transformational, shared, team-based, and inspirational. However, there is a scientific and practical problem, which is the lack of scientifically based technologies of these forms of leadership and evidence of their impact on the quality of project activities. The purpose of the proposed study: to analyze the state and potential for the introduction of new forms of leadership in flexible teams, to show the relationship between the forms of leadership and the success of innovative projects of enterprises. The study was conducted using sociological and statistical methods, in particular, using a questionnaire and establishing the influence of leadership forms on the success indicators of the project. At the same time, the forms of leadership are studied as a set of different leadership competencies of project managers and project team members. Leadership competencies include: the ability to generate ideas and convince others of their usefulness, skills of involvement in teamwork, motivation to emotionally influence team members, and other competencies. The study proved that modern forms of leadership determine the success of innovative projects. They affect such indicators as effective use of project resources, the satisfaction of different groups of stakeholders, team development, achievement of project goals, and others. This conclusion, as well as the research methodology, can be attributed to the provisions that have scientific novelty and develop project management. The materials are of interest to researchers and specialists who study and develop issues of project team management in practice.*

**Keywords:** *Leadership, Project teams, Flexible project management, Competencies.*

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## 1. INTRODUCTION

Modern conditions are characterized by increased rates of changes in the internal and external environment of organizations, uncertainty and frequent situations of crisis, chaos and instability. In these conditions, flexible forms of management are of particular importance. Flexibility is especially in demand in project innovation activities. The innovation of projects is an additional factor of large-scale uncertainty and changes in the project itself, in the project team and the project environment.

Flexible forms of management require a special kind of project team. It should also become flexible, which implies the ability of the entire team and its individual participants to quickly and efficiently adapt to changing circumstances, to have signs of preadaptation, that is, to be ready to change even before the events that provoke any changes. A significant requirement is

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the ability of a flexible team to update its competencies, learn, integrate into innovations and changes, become their source and initiator, and act as agents of change.

Leadership plays a significant role in a flexible innovation project team. Not any leadership is required, but only specific forms of leadership that are as adequate as possible to the tasks of the flexible project team. For example, in such teams, individual leadership of a charismatic project manager or leadership based on authoritarian and bureaucratic methods of work will not give the necessary results. The most appropriate forms of leadership in innovative project teams are divided, team-based, transformational, and engaging. This is recognized by organizations that implement innovative projects with a flexible approach to their management. At the same time, organizations are experiencing a shortage of specific tools for implementing these forms of leadership, without answering the question of what competencies and what behaviors should be demonstrated by the carriers of these forms of leadership. It also requires proof that the use of these forms of leadership leads to indicators of the success of innovative projects. Our research is aimed at solving this urgent problem.

## **2. ANALYSIS OF AVAILABLE RESEARCH**

The basis for our research were publications that set out the approaches of different authors to the issues raised. Thus, the issues of leadership and its modern forms are the subject of study by many authors, for example, Redeker, de Vries and Rouckhout (2014), Teoman and Ulengin (2018).

Transformational leadership or leadership aimed at innovation and change is reflected in the works of Liu (2018), Srithongrung (2011), Yang and Yang (2019), Hawkes, Biggs and Hegerty (2017), Lodders and Meijers (2017). These authors write about the importance of leaders who initiate and support innovation, change people, their consciousness and thinking, for the most effective participation in innovation (Hawkes, Biggs and Hegerty (2017) and also Lodders and Meijers (2017)). Team and shared leadership is the subject of study by authors such as Wang, Jiang, Liu and Ma (2017), Ong, Koh and Lim W.S. (2020), Storm and Scheepers (2019). In the works of these authors, you can see ideas about the need to transfer part of the leadership functions from the head to subordinates, about the formation of leadership not of individual people, but entire teams. Many works are devoted to engaging and inspiring leadership, which is especially relevant in the context of crises, uncertainty and unpredictability, and increased stress factors. For example, in the works of the authors Rahmadani and Schaufeli (2020), one can see positions on the need for leadership, the tools of which are the involvement of employees in innovative processes.

The authors whose works are devoted to project management write about leadership as a significant competence of the project manager and the project team as a whole. For example, Böhm (2013) mentions leadership as a significant factor in the success of the project team.

The works of researchers Lee and Xia (2005), Van Den Eeckhout, Maenhout and Vanhoucke M. (2020) are devoted to flexible management and team work in conditions of flexibility. In these works, one can also find indirect evidence of the importance of team competencies, including those in the field of leadership and communication.

Thus, there is a lot of research on leadership and its role in project activities, in flexible teams. However, there are not enough studies that would reveal in detail such aspects as the implementation of modern forms of leadership in the context of flexible management of innovative pro-

jects, the required competencies for various forms of leadership, the relationship between forms of leadership and indicators of project success. Therefore, the scientific problem is relevant, which consists in the absence of detailed and well-founded answers on the indicated aspects with the help of empirical studies.

### 3. PURPOSE AND METHODS OF THE STUDY

The purpose of the proposed study is to analyze the state and potential for the introduction of new forms of leadership in flexible teams, to establish a link between the forms of leadership and the success of innovative projects of enterprises.

Research objectives:

- to identify the extent to which various forms of leadership are widespread in innovative projects with flexible management of companies;
- to establish the relevance and potential for the introduction of various forms of leadership in flexible teams of innovative projects of companies;
- to determine the list and significance of the required competencies for the implementation of new forms of leadership;
- to assess the links between different forms of leadership and indicators of success of innovative projects of enterprises.

The following forms of leadership were subject of the research.

- Team leadership – leadership not of individuals, but the entire project team, the ability of this team to lead other teams.
- Shared leadership – the performance of leadership functions by team members as a result of the delegation of some of these functions from the leader-leader to the leader-followers. There may be no obvious main leader in the team, and the leadership functions are performed by the core of the team.
- Transformational or transformative leadership – leadership aimed at developing followers in the process of innovation, organizational and project changes. A transformational leader is an innovator, a transformer, and his goal is not to change the world but to change the world through the development of his team.
- Engaging leadership – involving followers in the decision-making process that affects them, consulting subordinates on the implementation of project tasks. This leadership manifests itself in expressing confidence in the ability of followers to achieve difficult and interesting goals.
- Authoritarian-bureaucratic leadership – the leadership of the project manager, based on bureaucratic and one-man methods of work. This form of leadership was identified in our study and compared with other forms.

The first four forms of leadership are considered new, as the experience of their use in innovative projects of Russian companies is still insignificant. Authoritarian-bureaucratic leadership is a classic.

Forms of leadership are studied as a set of different leadership competencies of project managers and project team members. Leadership competencies include: the ability to generate ideas and convince others of their usefulness, skills of involvement in team work, motivation to emotionally influence team members, and other competencies.

To assess the relationship between the presence of certain forms of leadership and the success of flexible innovative projects, the following indicators of success were used: compliance with the project deadlines, implementation of the project budget plan, effective use of project resources, satisfaction of different groups of stakeholders, team development, and achievement of project goals.

The study was conducted using sociological and statistical methods, in particular, using a questionnaire survey and establishing the influence of leadership forms on the success indicators of the project.

The object of observation and data collection was project teams with flexible management of innovative projects, that is, using the Agile methodology to varying degrees. In total, 78 teams of 16 organizations from 4 regions of Russia were studied. The project teams consisted of an average of 10-22 people. Teams implement innovative projects. Organizations work in the areas of IT business, advertising, trade, and consulting.

Team members and their managers were asked questions about the forms of leadership used, the most preferred forms of leadership, and the competencies required for them. Indicators of the success of innovative projects were also taken from the reports and the analysis of the links between the forms of leadership and the indicators of the success of projects was carried out. To establish dependencies, the teams were divided into two groups – those who completed projects in 2020 with mostly high indicators and mostly low indicators. The implemented forms of leadership in these two groups of teams were recorded and conclusions were drawn about the presence of links between leadership and team success.

## **4. THE RESULTS OF THE STUDY**

### **4.1. Justification of the flexibility of project teams.**

First of all, it has been proven that the teams under study are flexible and use flexible project management methods. A question was asked about the presence or absence of certain characteristics of team flexibility and project management in this team. The following set of command characteristics is obtained:

- the team uses flexible project management tools – 94 % of respondents noted this characteristic as characteristic of the team;
- the team is involved in constant changes in the project (in content, terms, budget) – 87 % of respondents;
- the team is constantly involved in the processes of innovation and change-82 % of respondents;
- the team adapts to changing conditions, updates its competencies – 78 % of respondents;
- the team proactively develops the competencies that may be needed in different situations of changes in projects – 64 % of respondents.

### **4.2. The degree of distribution and demand for various forms of leadership in innovative projects with flexible management.**

Respondents were asked to evaluate which forms of leadership are currently used in teams and which forms they consider preferable from the point of view of the project tasks performed by the teams. The responses of the respondents are presented in Table 1. As can be seen, at the

moment, mainly modern forms of leadership are used. Engaging and shared leadership are particularly common. Respondents consider it important to develop new forms of leadership in the future, and preference is given to engaging and transformational leadership. Administrative and bureaucratic leadership is used, according to respondents, in about every third team, but its development in the future is considered by respondents to be impractical.

**Table 1.** Applied and preferred forms of leadership in flexible project teams of innovative projects (in % of the number of respondents).

Forms of leadership	Applicable forms	Preferred forms
Team leadership	42	58
Shared leadership	56	77
Transformational leadership	52	94
Engaging leadership	66	100
Administrative and bureaucratic leadership	28	14

**Source:** Compiled by the author.

In many project teams, new forms of leadership overlap and are applied simultaneously. For example, transformative leaders are also engaging leaders. They perform the following actions: increase the followers' understanding of the importance of the tasks they solve and the need to perform them at a high level; ensure that the followers strive for personal growth, professional improvement and achievements; motivate their followers to work for the benefit of the project and the organization, and not just solely for their own benefit; delegate some of the leadership functions in order to develop followers.

#### 4.3. Required competencies for implementing new forms of leadership.

To assess the demand for various competencies and behaviors characteristic of new forms of leadership, a rating scale was used. Respondents were asked to rank each of the competencies presented in the list and the corresponding behavioral indicators: from 1 – the most significant characteristic of leadership competence, to 12 – the least significant characteristic. The results are presented in Table 2.

**Table 2.** Necessary competencies and behavioral indicators for the implementation of leadership forms

Forms of leadership	Competencies	Behavioral indicators	Rating value
Command	The ability of a team to convince other teams of new ideas	The team demonstrates effective argumentation and involvement of others in innovative ideas	11
	The ability to lead other teams in innovation processes	The team has a controlling influence on other teams in the implementation of innovative processes	10
	Skills of team decisions and defending them at different levels in the context of team interaction	The team makes collective decisions and successfully translates them to the external environment	8
Divided	Engaging followers in team work	Leaders support collaborative actions and follower initiatives	5
	Ability to be part of a team	Leaders act as part of a team	4
	Effective leadership communication skills	Leaders conduct effective negotiations and agree among themselves on significant issues of the project	12

Transformational	Creative skills in non-standard situations	Leaders creatively solve problems in a crisis situation, in conditions of uncertainty	7
	Innovative thinking and ability to engage in innovation	Leaders generate new ideas and convince others of their usefulness	2
	Ability to self-develop and change others	Leaders transform their competencies and change the thinking and values of their followers	3
Engaging	Participative management skills	Leaders attract followers to management	6
	Emotional intelligence	Leaders have an emotional impact on team members	9
	Ability to manage engagement	Leaders create an engaging environment and increase the level of engagement of team members	1

**Source:** Compiled by the author.

Table 2 shows that competencies and their behavioral indicators from different forms of leadership were important for the respondents, which once again confirms our conclusion about the importance of all forms of leadership and the need for their joint use.

#### 4.4. Links between forms of leadership and indicators of success of innovative projects of enterprises.

To establish the relationship, two groups of project teams were identified: the first group of teams consistently demonstrated high project success rates in 2020, and the second group of teams consistently lagged behind in project success rates. Next, the diagnostics of the forms of leadership used in these teams was carried out. The following results were obtained, as presented in table 3.

**Table 3.** Relationship between leadership forms and project success indicators

Project success indicators	Number of project teams with a form of leadership (%):				
	command	divided	transformational	engaging	administrative
Meeting project deadlines	91	91	95	96	96
Implementation of the budget plan	91	86	95	94	100
Achieving project goals	88	91	95	92	72
Efficient use of project resources	100	73	90	90	63
Stakeholder satisfaction	82	84	85	98	54
Team development	94	99	87	100	28
Achieving individual KPIs by team members	76	95	78	100	46

**Source:** Compiled by the author.

The data in Table 3 clearly demonstrates that with new forms of leadership, the success of the project is higher by many indicators. This applies to such indicators as effective use of project resources, satisfaction of different groups of stakeholders, team development, achievement of individual KPIs by team members. Particularly high success rates are demonstrated by teams with an engaging form of leadership. In the administrative-bureaucratic form of leadership, high success rates are also achieved, but they relate only to meeting the budget, deadlines, and partially achieving the project goals.



## 5. DISCUSSION OF THE RESEARCH RESULTS

The results obtained develop such scientific directions and concepts as flexible project management and flexible project teams, leadership in the system of competencies of the project manager, forms of leadership in terms of the features and tasks of flexible project teams. In such logical relationships, the questions raised are investigated for the first time.

For example, the authors Teoman and Ulengin (2018), Liu (2018), Yang and Yang (2019) study different forms of leadership, but they do not analyze these forms in the context of the project activities of flexible teams. Our research shows the importance and relevance of shared, transformational, engaging, and team leadership for flexible teams of innovative projects. As a result, our research shows a new context for the implementation of these forms of leadership.

The authors' Lee and Xia (2005), Van Den Eeckhout, Maenhout and Vanhoucke (2020) write about flexible project management methodologies and emphasize the importance of team communication. Our research complements the existing research of scientists and shows the leadership in the communication system of flexible teams. In particular, we identified significant competencies for different forms of leadership. Such competencies as innovative thinking, emotional intelligence, follower engagement skills, leadership communication, and others help answer the question of what exactly to develop in team leaders, what behaviors should be formed in leaders of flexible teams of innovative projects. This aspect complements the existing developments in project management competencies.

A significant result of the study was the establishment of links between the forms of leadership and the indicators of project success. This expands the understanding of the factors that determine the success of the project. Leadership can also be considered as such a factor. We have proved with the help of data that, provided that new forms of leadership are used, project teams can achieve much higher stable project results.

## 6. CONCLUSION

Summing up the results of the research, it should be noted that in modern teams of innovative projects, new forms of leadership are of high importance. These include team leadership, shared leadership, transformational leadership, and engaging leadership. These forms of leadership have a high potential; they are able to lead the team to success. In particular, our analysis showed that teams with these forms of leadership consistently achieve higher project success rates in comparison with teams that have developed authoritarian and bureaucratic leadership. This is especially true for such indicators as team development, achievement of established key performance indicators by each team member, and satisfaction of project stakeholders.

In the future, significant aspects for future research are the search for relevant technologies and methods for implementing new forms of leadership. These forms should be implemented in such a way that leadership is highly consistent with the tasks of innovative projects, the requirements of flexible project management in a dynamic and difficult to predict environment.

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