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**ДОКЛАДЫ**

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**CREATING A HIGHLY EFFICIENT PROJECT TEAM  
AS A PLEDGE OF SUCCESS**

**Abstract.** In the conditions of existing competition in the market of innovative products, the requirements for personnel entrusted with the development of a new product or other type of activity are increasing. The need to have effective workers is dictated by the need to first bring a new product to the market, whereby the team working on a specific task must work efficiently, without loss of time. As a result, the question arises, how can a highly efficient team be formed? The article discusses the methods for determining the team interaction model, which in turn is the foundation for building an effective work of the project team. The authors considered the algorithm of using tools and methods of development of the project team, depending on the scale of the projects, which can contribute to the effective interaction of team members. Correct and competent formation of the team relationship with the definition of areas of responsibility contributes to the creation of an effective system of motivation and incentives for company employees - this is, to a greater extent, the key to successful implementation of any project ..

**Keywords:** teamwork, high-performance team, project, team.

**Introduction**

Today, in an era of strong global competition and the emergence and rise of new technologies, it is teamwork that plays a leading role in achieving tangible organizational results, supporting the competitive advantages of companies and their effectiveness. Modern organizations need employees who work on the terms of organizational change. In addition, in the modern environment of Kazakhstan business there are limited resources, budget cuts and the use of temporary assistance. Crisis periods and organizational success. It is under these conditions that a high performance team is created.

Despite the popularity and effectiveness of project management methods, according to statistics, more than 40% of projects turn into failure or do not complete at all. The reasons for the failures are less industrial-economic or technical in nature, and more so are associated with the culture of entrepreneurship in the formation of the project team. In many ways, the success of the project by 20% depends on coherence and focus, organizational culture, working conditions and coordination of the project team. Thus, the actual issue today is the effective management of the project team.

Certainly, the brightest dream of each project manager is to create a perfect project team, however, it is rather unattainable, at least if already involved team members are the only potential participants of a group. In any case, the project manager will be limited by the lack of time and current resources. At the same time, it should be remembered that the project team is essentially a temporary organization with the main task to work on a specific goal, that is, the implementation of this project.

That is why the formation of a highly efficient team is considered as a strategically important achievement of the project manager and his highest priority when implementing a product. Effectively developed working model of team interaction is the result of a successful motivation system and staff, and thus achieving the strategic goals of the company, its growth and development.

**Mainpart**

The main functional roles in the ideal group of the project include coordinator, technical expert, consulting analyst and performer. Participants of a highly efficient project team should:

- aspire to reach a common goal;

- make decisions and develop solutions;
- have a confidence in success of the project;
- take responsibility;
- perform several roles in the project;
- analyze emerging issues;
- focus on a result and a process of work;
- be complementary[1].

When implementing a common project, it is wrong to separate the work of the customer group and the contractor’s group. After all, both of them were created for the sake of the common goal - the completion of the project with maximum success and minimum costs. If problems arise both during the implementation process and after implementation, when the query management system is already functioning, experts from the executor should act as consultants and develop several optimal solutions, and the client, after analyzing all the proposals, should choose the most optimal option for him.

Preventing possible conflicts based on a preliminary risk assessment, tireless monitoring and control, as well as regular discussions on the situation of the persons responsible for the project help to achieve the best balance in the efficiency, the experience of the participants and the project changes to achieve a result that suits both interested parties.

Teams have existed for thousands years, revered in many countries and cultures, and are the subject of many books. Most people are confident that they know how teams work and what benefits they have. Many worked in teams themselves –periodically achieving results, and sometimes wasting time. But in the study of this phenomenon, it became obvious that the potential impact of individual teams, as well as the cumulative impact of many teams on the effectiveness of large organizations, remain absolutely unexplored subjects, despite the rapidly growing need for teamwork. Awareness of the paradox and its study helped us to draw a number of key conclusions about team effectiveness.

The team has common features with the group (history, future, etc.). However, the team has staff that are more permanent, a clearer distribution of roles, a clearer and more formalized aim. Team members have common norms with common goals; they say “we,” perceiving themselves as a whole unit.

The defining role of the team in ensuring the success of the project is noted by all authors of modern publications devoted to the disclosure of issues of project management, for example, R.M. Belbin, V.V. Bogdanov, M. Razu, I. Adizis and others.

There are a lot of definitions given by various researchers; we will examine the essence of the team from different positions (Table 1). The concept of a project team changes depending on the approach, but this does not make it clearer for practical use. In modern organizations, the following issues become more relevant: how to plan and take into account the resources used in the project, first of all - the workforce staff; it is crucial to define effective employees and ineffective ones [2].

Table 1 - Understanding the essence of the project team from the perspective of different approaches

Approach	The essence of the project team (PT)
System	PT – subject of management in relation to the processes and objects of management (subject-object relations) with all its tasks and functions
Project	PT – cross-cutting evolving technology element of the project
Psychological	PT – self-directed and self-developing subject
Personnelmanagementapproach	PT – a specific group requiring highly trained employees (unique professional competences, teamwork skills, working conditions stress, etc.)
Approach in terms of labor management resources	PT – autonomous structural entity with a finite cycle of work

Unfortunately, in the modern literature devoted to project management, there are terminological inconsistencies in the concept of “project team” even among the leading authors (Table 2). Due to the fact that the authors understand the essence of the project team so differently, methodological inconsistencies arise concerning almost all stages of a project team’s existence, ranging from team formation and management to evaluation of the team’s work and its contribution to obtaining project results. In our

opinion, the work of the project team requires special study and development of fundamentally different approaches both in the training of specialists and in the development of management methods and evaluation of the team's activities.

Table 2 - The definition of "project team" by various authors

Definition	Author
Project Team – all project team members, including the project management team, the project manager and, in some cases, the project sponsor. Project Management Team - members of a project team who are directly involved in managing its operations. In small projects, a project management team can include almost all project team members.	International standard PMBOOK
The project team is a cohesive effective unit capable of creatively and dynamically working to achieve goals in a rapidly changing external environment.	H. Webster
The project team is a group of employees who are directly involved in the implementation of the project and are subordinate to the head of the latter; the main element of its structure, since it is the team that ensures the implementation of its design. This group created for the period of the project and after its completion is dissolved.	I. Mazur V. Shapiro N. Olderogge
The project team is a phenomenon; self-directed and self-developing subject; end-to-end developing element of project implementation technology As part of project management, the team must self-develop, self-orient and self-motivate.	V. Mikheev

The main criterion for assigning a group to a team is the type of relationship between its members. In order to create a team, in addition to knowing its common features, the manager needs to be able to distinguish between types and forms of teams.

Teams can be divided according to the type:

- functional teams;
- cross-functional teams;
- business process teams;
- administrative teams;
- project teams;
- self-directing teams;
- efficiency teams;
- integrativeteamsandetc. [3].

Effective management implies the team leader needs to understand the roles that team members can perform. The first and most obvious of them is the professional role. It is based on the professional skills and practical experience that employees use when implementing a project or solving a problem.

Another role frequently overlooked in a team is based on personal data. Meredith Belbin explored the difference between these two roles and their implications for team and teamwork in 1981-1983. The results of his research for several years were tested in a number of enterprises, in particular in the British branch of IBM (IBM's Hursley Park Development Laboratory) near Winchester. It was found that 5-10% of people are unable to work effectively in a team, and other workers have to play at least one, two, and maybe even three or four team roles, which, however, are natural to them. Sometimes it happens that employees take on roles that are unusual for them, in which they feel uncomfortable and sometimes helpless [4].

After the conflict is resolved, the team's effective functioning begins. In an effective team, the leadership structure and ways of action are related to the goal.

M. Belbin identifies nine team roles (detailed characteristics are given in the table below). Equally important for effective teamwork, they can be considered only if they are applied at the right time and in the best possible way. For example, in the period when a team is just starting to consider a problem or to develop a project, innovative ideas are usually required (i.e., a "plant" is needed). Then it becomes necessary to assess how these ideas can be translated into practically achievable tasks (that is, a "implementer" is needed). Success is achieved on the condition that the team has a good coordinator ("coordinator") whose task is to ensure the full impact of the team members at the right time. The team gains the driving force and stimulus in the face of an energetic "shaper". The qualities possessed by the

“resource investigator” are most important, when the need to conduct complex negotiations with other groups arises. In order to restrain excessive manifestations of enthusiasm that distract from the main goal, the team needs the “monitor evaluator” (i.e., an “expert”). All sorts of friction and misunderstandings between team members are eliminated by the efforts of the "teamworker". The team has rarely encountered skills and knowledge that are occasionally necessary due to the presence of a “specialist”. The role of the “completer finisher” is not to overlook even the smallest details of the implementation of all the plans [5].

Table 2 - Types of team roles in projects

Types of team roles	Crucial personal qualities and contribution to the team	Acceptable weaknesses
Plant (idea producer)	Creativity, rich imagination, originality of thinking. The pursuit of innovation. Source of original ideas for the team.	The lack of experience in interpersonal communication. Psychological instability. May linger for a long time on the consideration of "interesting ideas."
Implementer	Implements ideas into action. Turns solutions into easy-to-do tasks. Keeps order in all the activities of the team.	Lack of flexibility. Dislike fantastic ideas. Dislike frequent changes to plans.
Completer finisher	Diligence and integrity. Ensures that tasks are fully completed. Tracks the deadline of assignments.	Excessive concern about the state of affairs. Tendency to inner experiences. Reluctance to transfer their duties. The rejection of the non-serious attitude towards his duties on the part of others.
Monitor evaluator	Performs an impartial critical analysis of the situation. Strategic approach and insight in assessments. The accuracy of judgments, the desire to consider all possible solutions.	Underestimation of the factors of stimulation and enthusiasm. Lack of inspiration and creative imagination. The ability to knock down others, suppressing their initiative.
Resource investigator	Mastering the art of negotiation, a variety of contacts. The talent of the improviser is exploring opportunities. Enthusiasm, sociability.	Loses interest as the extinction of enthusiasm. Jumps from one task to another. Needs increased external pressure.
Shaper	Constant focus on solving the problem; stimulates the work of the whole team. Promotes the implementation of decisions; encourages employees to work harder. Full of energy, strives for excellence and works with full dedication.	Easily becomes irritable. Impulsiveness and impatience. Intolerance to vague wording. Frequently indecisive behavior. Desires for the result - at any cost.
Teamworker	Contribution to the harmonization of relations in the team and the elimination of differences. Listens carefully to the interlocutor; relies on the opinions of others. Sensitivity, lack of overconfidence.	Indecisive in crisis situations. The desire to avoid exacerbation of situations. May prevent the commission of actions at a crucial moment.
Coordinator	Clearly formulates goals; performs well as a moderator during discussions. Promotes effective decision making. Has good communication skills; social leader.	May produce the impression of a person inclined to manipulation. The tendency to transpose their responsibilities to others. May ascribe to himself the merits of the whole team.
Specialist	Possesses rarely encountered skills and knowledge. Purposefulness and ability to concentrate efforts. Initiative and ability to fully devote to work.	Works well only in a narrow professional field. Often weak communication skills. Sometimes, figuratively speaking, "does not see the forest for the trees."

In order for the team to derive maximum benefit from the whole variety of team roles, each of its members must be aware of the peculiarities of the team roles of its colleagues. Only in this case, the team will be able to establish whether the number of nine roles includes those that do not belong to the natural strengths of the personality of each of the team members. If such a situation takes place, then those employees for whom the missing natural team roles are secondary will have to try to fill this gap. Obviously, it is easier to do this in an atmosphere of openness and trust, which is usually present in well-organized and manageable teams. Unfortunately, in teams with insufficiently high levels of mutual trust



and openness, there are people who can speak frankly about everything that relates to their functional role, but show particular shyness when it comes to their personal qualities. In such situations, the competent team leader should try to tactfully resolve the problem.

Ichak Adizes affirms that a team can only be effective if it is complementary. It is under this condition that the team members are in their places, performing different roles in type and character. [6].

He highlights the following roles of team members:

- P – Producer, focused on the result, works in short term;
- A – Administrator, effective in a short term work;
- E – Entrepreneur, works effectively in a long term;
- I – Integrator, long term oriented worker.

Adizes says that it is necessary to consider the possibility of conflicts between representatives of different roles:

For example, “P” and “A” cause conflict of result and efficiency while interacting.

Cooperative work of the “P” producer of the results and the “I” integrator can lead to the manufacturer's unequivocal results in decision making and, therefore, it is impossible for the integrator to weigh all the pros and cons, as well as hear the opinions of others.

As for the productive work of the “E” entrepreneur and the “A” administrator, for sure, the question of priorities will arise. An entrepreneur demanding change will face a power administrator. Depending on the hierarchy, there will be a feverish race for innovations and the solution of short-term tasks, or stagnation due to the impossibility of making quick and effective decisions by the administrator.

“E” entrepreneur and “I” integrator will collide with each other in the issue of speed and cardinal decisions. If an entrepreneur needs to take risks or sacrifices to achieve the goal, he will do it. The integrator, in turn, will be indecisive, weighing each step and analyzing the possible consequences.

“A” administrator and “I” integrator will not be able to work effectively due to different focuses in work. While the administrator performs the tasks accurately, taking the employees as tools in the work, the integrator will try to find an approach to each person.

When forming a team it is crucial to realize the importance of all the roles in the team and presence of each one of them.

The unique style of work of every employee is another necessary thing to take into consideration. You cannot give preference to individuals performing one role (“P000”, “0A00”, “00E0”, “000I”). Due to the difference in beliefs and priorities, the team consisting of such employees will always be on the verge of conflict or in its process.

An effective complementary team formula: “Paei” + “pAei” + “paEi” + “paeI”. In each style, all roles are present to a greater or lesser extent. In this case, each department / employee of the company will be heard.

Another version of the successful team “PaEi” + “pAeI”. Both styles have a “balance” of long-term and short-term work perspective.

When forming a team, it's useful to strive to balance the roles and styles, as well as properly distribute the long-term and short-term, subordination and form of subordination.

There are a number of problems in managing a project team, such as:

- formed programs for upgrading the project team;
- coherence and focus, lack of plans to encourage the team;
- conditions for effective work.

These problems can be avoided by solving the issue of continuous development of the project team.

According to the Project Management Body of Knowledge (PMBOK), the management of the project team includes the following organization processes aimed at the most efficient use of personnel [7]:

- Human resources planning.
- Recruitment of the project team.
- Development of the project team.
- The project team management.

The main task of the project manager is to develop such a development plan for the team, which would allow as soon as possible to enter the stage of operation [8]. There are traditional methods and

approaches to the formation of an effective team: systematic approach in which any system (object) is considered as a set of interrelated elements (components) that have an outlet (goal), input (resources), communication with the external environment and feedback. The essence of the method of analogies lies in the fact that the structure of an enterprise is created on the basis of direct or indirect analogies of this institution considered by a group of experts. According to the experimental-analytical approach, the team can be formed experimentally. This involves making changes and analyzing a formed team until its effectiveness improves. The parametric approach defines the parameters and characteristics that should correspond to the members of the group. Only after this team member can be selected. With the block approach, small groups are first created, which can be called “blocks”, and due to their combination the team is formed. The simulation method involves the formation of a team, based on the existing scientific economic model. The method of goals structuring determines the goals and objectives, based on which the teams can be formed. The experimental approach has many similarities with the experimental-analytical method - the only difference is that the assessment is given not by a group of experts, but by the head, based on the results of the activity. Thus, each approach has its own advantages and disadvantages. The main one of the latter is that the above approaches do not take into account the development of the project team and its individual members in the implementation of project activities. The development of a project team is one of the most important human resource management processes (see table). It is worth mentioning that not every project requires the use of all the listed approaches. When choosing an approach to business, the main benchmarks should be efficiency and results, and not just the desire to become a team. The most powerful engine for teams is a clear and inspiring task. Without focusing on efficiency there won't be a result. Just trying to “become a team,” that is, consciously or unknowingly pursue it as an end in itself, the most difficult way to achieve team efficiency. Teams are created primarily by discipline rather than unity[9].

In the course of research, the author developed an algorithm for using the tools and methods of team development depending on the scale of the project (Fig. 1)

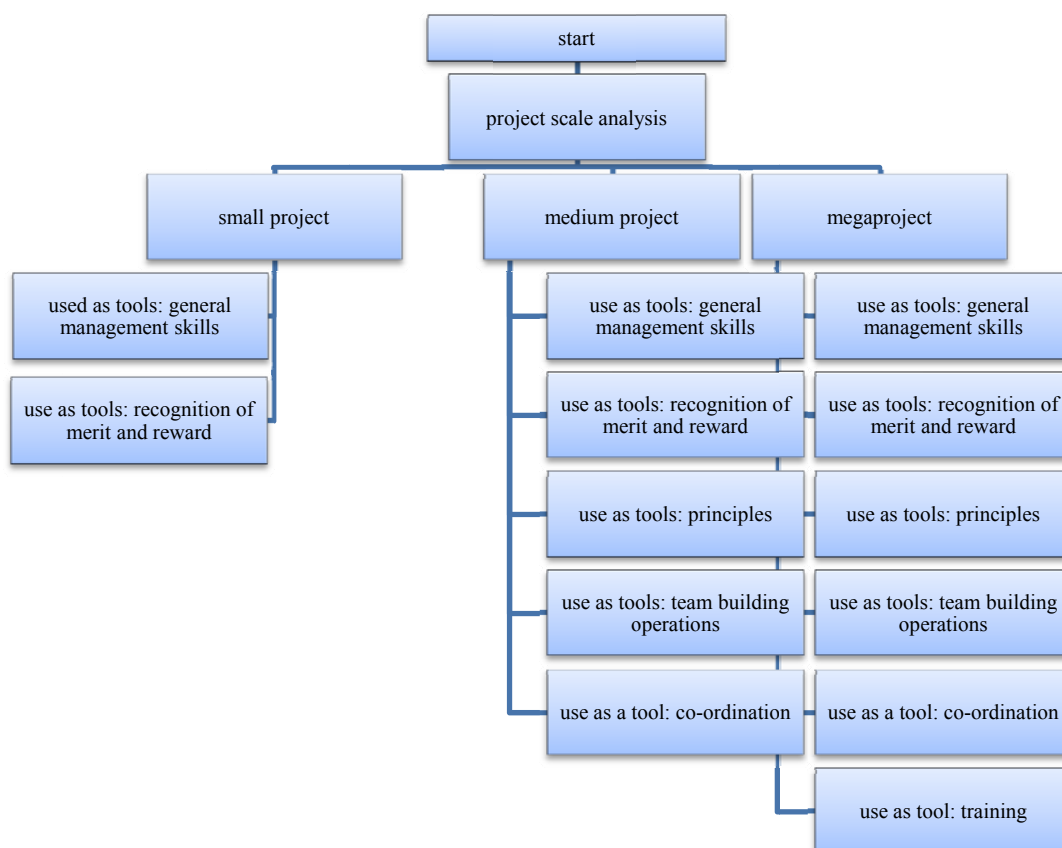


Figure 1 - Algorithm of using tools and methods of project team development

According to John Katzenbach and Douglas Smith, the 6 “basic elements of the team” determine the rules required to achieve team efficiency. These six elements remain unchanged. Only small groups (usually less than 12 people) are able to work effectively as a team. No team can succeed without additional knowledge. The team should have a common mission, a common set of specific goals and a coherent approach to business. Finally, team members must feel collective responsibility for the results. Other aspects of teamwork (such as openness and communication) are certainly important, but none of them are as important and manageable as these six basic elements [10].

A real team must develop an appropriate set of skills, i.e. all the complementary skills necessary to perform the work. They can be divided into three categories:

- Professional or operational skills.
- Problem solving and decision making skills.
- Personal interaction skills.

The team will not be able to function effectively in the absence of at least a minimum set of skills, especially professional and functional ones. And no team will be able to complete the task assigned to it without developing all the necessary skills. Therefore, the formation of teams solely on the basis of personal compatibility of people or their formal position in the organization will be ineffective.

#### **The obtained results (conclusions)**

In the future, teams will be the main structural elements in the organizations of the future. However, their formation will not be the main goal. Rather, existing efficiency ethics in companies (focusing on high results that balance the interests of clients, employees, shareholders and other stakeholders) will create tasks and conditions conducive to the birth of these highly effective teams. And they, in turn, will provide results capable of maintaining and developing corporate ethics of efficiency. It is this mutually reinforcing cycle of efficiency and teams that will be characteristic of tomorrow's winners.

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#### **СОЗДАНИЕ ВЫСОКОЭФФЕКТИВНОЙ КОМАНДЫ ПРОЕКТА КАК ЗАЛОГ УСПЕХА**

**Аннотация.** В условиях существующей конкуренции на рынке инновационных товаров требования к персоналу, которому доверяется разработка нового продукта или иной вид деятельности, повышаются. Необходимость иметь эффективных работников диктуется необходимостью первым вывести на рынок новый товар, в соответствии с чем, команда, работающая над определенным заданием должна работать эффективно, без потерь времени. Вследствие чего возникает вопрос, как можно сформировать высокоэффективную команду? В статье рассматриваются методы определения модели командного взаимодействия, которая в свою очередь является фундаментом для построения эффективной работы проектной команды. Авторами рассмотрены алгоритм использования инструментов и методов развития команды проекта в зависимости от масштабов проектов, которые могут способствовать эффективному взаимодействию членов команды. Правильное и грамотное формирование командной взаимосвязи с определением зон ответственности способствует созданию эффективной системы мотивации и стимулирования сотрудников компании – это и есть, в большей степени, залог успешной реализации любого проекта..

**Ключевые слова:** командное взаимодействие, высокоэффективная команда, проект, команда.

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**REFERENCES**

- [1] Nezhdanov D.V. Komandana million: sozdaem sistemuupravleniyapersonalom. SPb.:Piter, 2017. 256 p.
- [2] Kenneth P. De Meuse A Comparative Analysis of the Korn/Ferry T7 Model With Other Popular Team Models. 2009. URL: [https://www.kornferry.com/media/lominger\\_pdf/teamswhitepaper080409.pdf](https://www.kornferry.com/media/lominger_pdf/teamswhitepaper080409.pdf)
- [3] N.V. Startseva, A.S. Artyomov Effective model of teamwork - the foundation of the system of motivation and stimulation. Vestnik MIEP. 2014. № 4 (17). Pp. 85–97.
- [4] R. Meredith Belbin Management Teams. The secrets of success and the causes of failures / Trans. from English M.: HIPPO, 2003. 315.
- [5] Adizes I. K. Managing change. SP, Peter, 2008, 340s.
- [6] Verkhoglazenko V. Types of teams in the activity // Business-Academy, 2003. №7,8. <http://iteam.ru/publications/project>.
- [7] Galiyeva A.Kh., Toksanova A.N., Sadu Zh.N., Kulubekov M.T. Mechanisms of formation and management of financialindustrialgroups in Kazakhstan/News of the National Academy of Sciences of the Republic of Kazakhstan. Series of Social and Humanities. 2019 №1. p.107-117. ISSN 2224-5294 <https://doi.org/10.32014/2019.2224-5294.16>
- [8] Armstrong M. The practice of human resource management. 8th ed. SPb .: Peter, 2004. 825 p. / 10th ed. SPb .: Peter, 2004. 848 p.
- [9] [Gray, C.F., Larsoe, E.W. Project Management: A Practical Guide: Per. from English. M .: Business and Service, 2008. 528 p.
- [10] Katcenbah D., Smit D. Komandnyj podhod: sozdanie vysokoeffektivnoj organizacii / Dzhon Katcenbah, Duglas Smit; per. sangl.: [I. Evstigneeva]. – M.: AlpinaPabliher, 2013. P. 374.

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