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# COMPARATIVE ANALYSIS OF APPROACHES TO DEFINING PROJECT MANAGEMENT

#### Maruf Khasanov

Joint international educational program
Tashkent State University of Economics and
National Research Nuclear University
Moscow Engineering Physics Institute

**Abstract:** The article considers project management as a special type of management activity, analyzes the definition of basic concepts in international and national standards, textbooks and teaching aids, as well as in scientific publications. The formation of a single terminological space is noted, along with the development of highly specialized methods for achieving results.

Keywords: Project management, PMBoK, ISO 21500, PRINCE2, P2M.

The concept of "project management" has become firmly established not only in scientific use, but also in everyday life. Renovating an apartment, digging up a vegetable garden, fighting traffic jams, building a Crimean bridge, hosting the World Cup - in all these cases, project management is used. What is this universal activity? In this work, we set the task of defining the features of project management as a special type of management.

Let's start by looking at a few approaches. First, standards.

Europe-based International Project Management Standard ISO 21500: 2012. "The project consists of a unique set of processes, including coordinated and controlled operations with start and end dates, undertaken to achieve the goal ... Despite the similarity of many projects, each project is unique" [8].

Russian "GOST R 54869–2011. Project management. Requirements for project management "defines a project as" a set of interrelated activities aimed at creating a unique product or service in conditions of time and resource constraints "[4].

The American project management method is described in PMBoK. "A project is a temporary venture aimed at creating a unique product, service or result ... Ongoing activities are usually a repetitive process that is carried out in accordance with existing organizational procedures. And, conversely, due to the unique nature of the projects, there may be uncertainties or differences in relation to the products, services or results created during the project" [1, p. 5].

The British method of project management PRINCE2 [10] considers projects as a way of making changes, therefore, they are unique in nature, that is, two identical projects are impossible. A project is a temporary organization created for the purpose of supplying one or more business products in accordance with an approved business case.

We can say that standards, each in their own way, play up such characteristics as uniqueness, temporality and result (product, service). Classic project "triangle". The British method is unusual, since the project connects with changes, removing the question of uniqueness. It should be noted that PRINCE2 is actively entering the Russian market. However,

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in 2019, the Japanese national standard P2M (Program & Project Management for Enterprise Innovation) is likely to compete with it.

When defining a project, P2M focuses on business value. "A project refers to a value creation undertaking based on a specific mission, which is completed in a given or agreed timeframe and under constraints, including resources and external circumstances" [7]. The project aims to create value within the company's mission and constraints. This approach causes indignation among adherents of the American and European standards, but it is understandable for business.

Thus, the process methods of project management show high development at this stage of their development, which explains the similarity in the basic interpretations of concepts. However, in our opinion, the stage of formation should be followed by the stage of personalization or specialization. The market requires simple tools for managers, such as AGILE technics - they concentrate on the product, its creation, therefore they are called the product approach. The standards are supplemented by new tools ("frameworks"). Agile (agile methodologies) is interested in how to organize work efficiently, so the concept of a project as such is not understood. Examples of agile methodologies are SCRUM, Kanban, Lean, 6 sigm. There are also attempts to combine the process and product approaches - p3express [6].

Secondly, we will consider educational and scientific literature. It is more extensive, examines both theoretical and practical aspects of project management. each author seeks to offer his own definition of the project: it is an enterprise with established goals, the achievement of which determines the completion of the project; and an event that has certain goals, including requirements for time, resources, quality of the results achieved.

Grashina M.N. and Duncan W.R. Fundamentals of Project Management is practitioner oriented. Pay attention to the use of PMBOK for project management, but it is the first version, since further editions, on the one hand, do not differ much in content from the original source, and on the other hand, contain a number of gross errors.

In fact, any process of managing / organizing something can be called a project, for example, the construction of the Egyptian pyramids in antiquity, planning the offensive of armies during the war years, etc. However, this activity cannot be called project management, otherwise the early farmers would be considered agronomists, and people who lived in caves environmentalists. It was not until the 1950s that project management as a science began to be distinguished from project management as a process. There is still no uniform terminology in this area due to the variety of projects in terms of complexity, scale, budget and processes involved. This paper offers a qualitative definition of project management - "it is an ordered approach to a disordered environment" [5, p. 21]. A disordered environment refers to the project itself, and an ordered approach refers to a rational and organized approach.

Pounds V.N. notes that in Russian practice, the "project" is interpreted, as a rule, in four variations [11, p. 45]:

- "A project (design) is a set of design documents, so-called design and estimate documentation (DED), used for the further creation of any physical object, product, process, business (building construction project, working draft of a new product, etc.).). This is how a large number of Russian managers understand the project";
- "A draft is a draft, a version of something, a sketch, preliminary documents (draft decision, draft order or anthem. Draft business plan)";

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- "A project (direction, business-unit, start up, TV show, program) is a created and constantly operating division of the company, a line of business";
  - "A project is a time- and resource-limited, purposeful action to create something."

In practice, project management is often reduced to the creation of the project product itself, while omitting the administrative factor of managing the "creation" process. To the questions: who and how forms the team, how the management is carried out, who organizes the tender, who is responsible for organizing the workflow, the project executors respond with perplexed views, they say, and so it is understandable.

The penetration and use of design methodology in Russia began mainly with the engineering, defense industry, partly science and capital construction, and network methods became widespread in Russia only by the beginning of the 1970s, although there were separate publications even earlier. "It was the construction industry that gave a powerful impetus to the development of the theory and practice of project management in Russia. And until now, answering the question: "Where is project management applied?", First of all, they remember construction "[11, p. eight].

Anisimov S.N. notes that "it is undoubtedly a mistake to believe that project activities emerged at the end of the twentieth century, as absolutely new, having no historical roots" [2, p. five]. The authors paid special attention to the historical development of project management:

- 1. "From the beginning of the century to the 1950s. During this period, large-scale projects were implemented, but there were no generally accepted or clearly developed project management methods. Management of project activities was carried out spontaneously and relied on the ability of specific leaders to work in extreme conditions. Reflection of activities, generalization of project management experience was not carried out, the difference between standard activities and projects in management was clearly not realized. "Until the 1950s, both small and large projects were carried out: new products appeared, new structures were built, etc. However, there was no question of any systematics, principles, approaches, methods of "project management" at that time. In those days, the success or failure of any project was attributed to the individual characteristics and talents of the leader and the specifics of the field.
- 2. 1950s In the United States, the so-called quantitative management methods have been developed for the implementation of large projects. Their essence boiled down mainly to the choice based on calculations of the "one best way" for the implementation of activities. After the middle of the last century, the first formal methods began to form, designed for large and complex projects, which were carried out in an environment of high uncertainty and risk. The so-called critical path method (CPA) was developed by the Du Pont concern "to schedule the closure of its production facilities for the period of preventive maintenance" [2, p. 10-11], etc.
- 3.190s It was at this time that a flexible, dynamic approach to project management emerged, based on taking into account possible conditions and constraints, based on the development of an activity strategy.

In the textbook Voropaev V.I. and Sekletova G.I. project management is understood as "creative activity, which is aimed at coordinating the efforts of all project participants with the help of modern scientific and technical achievements, computer technologies in order to achieve certain results in the shortest possible time, with minimal costs and with obtaining the required quality with high efficiency" [3, c. 13]. This definition is the most imprecise of those considered, since it does not clearly distinguish project management from all other types of management.

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Tsogoev M.M. identifies two main approaches to defining a project: systemic and activity-based. The systems approach defines a project as a system of temporary actions, which is aimed at achieving a unique but definite result. The activity approach defines the project as the activity of the subject to transfer the object to the state of the desired result, which fully corresponds to the ideas. In the first case, the activity is systematic, in the second it is creative. Careful and thoughtful management is essential for a project to be successful.

According to the author of the article, Tsogoev M.M. project management is "a methodology of organization, planning, leadership, coordination of labor, financial, material and technical resources throughout the entire project cycle, aimed at achieving its goals through the use of modern methods, techniques and management technology to obtain the results defined in the project in terms of composition and the volume of work, cost, time, quality and satisfaction of the project participants "[12].

Thus, project management is a kind of application of knowledge, skills, tools and methods to a project to satisfy it.

In the article "Analysis of definitions, features and properties of project management" Sharipov F.F. and Rodionov A.N. the term project management is disclosed as follows - it is "a time-limited purposeful change of a separate system with established requirements for the quality of results, a possible framework for the expenditure of funds and resources and a specific organization" [13]. The inclusion of a separate system and its purposeful change in the definition of concepts indicates not only the integrity of the project and its differentiation with other enterprises, but also emphasizes the uniqueness of the project, which means its uniqueness or uniqueness.

Thus, analyzing the presented definitions, the following main features can be distinguished: the presence of a specific goal; effectiveness; temporality (there is a start date and an end date of the activity); uniqueness (innovativeness) of the result, product, service; limited resources (labor, material, financial, etc.); riskiness (influence of uncertainty factors). One can agree with MN Grashina that the peasant and the agronomist should be different. This difference can be found by considering the conditions for applying project management. It was formed in the middle of the twentieth century, when classical management achieved outstanding results in the field of mass production. However, these successes have led to the need for piece goods. The construction of space objects was carried out at many enterprises specializing in specific activities. The same can be applied to the construction of unique buildings and structures. Scheduling and network planning made it possible to coordinate many disparate enterprises with each other and created an effective control tool, which we know today as project management. There is no need to multiply organizations to solve cross-sectoral tasks, if there is a tool to control and coordinate their activities. It turns out that project management emerges from the contradictory nature of the development of mass production and the need for a unique product.

Management has come a long way in manufacturing process control. The division of labor was first perfected by Henry Ford. Then Frederick Taylor formalized the work of each employee, etc. The improvement of technology had a limit, then the experiments of Elton Mayo showed that human relationships allowed to increase productivity even more. However, all this solved the problem of continuous production. And so, the solution of one problem posed a new task - the improvement of the production of unique products. Indeed, the Egyptian pyramids, majestic

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churches and cathedrals, castles are all unique, but their creation is not related to project management.

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