

QUALITY IN A TRADITIONAL APPROACH TO PROJECT MANAGEMENT

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Abstract: Quality management is one of the basic components of the project, it refers to both the products and the actions taken which lead to the realization of the final product. The article presents the essence of quality management in projects in a traditional approach to a project management.

Keywords: quality management, project management, traditional approach to project management, quality

1 Introduction

The functioning of organizations in today's world is complex and variable, and the simple and routine operations do not bring the expected results. The importance of projects is constantly growing, and organizations adapt their approach from process to design to keep up with ever-changing environments [5]. Projects "(...) are unique projects of high complexity, indicated at the time of their execution - with spotlight beginning and end - requiring the involvement of significant but limited resources (material, human, financial, informational), carried out by a team of highly qualified contractors from different disciplines (interdisciplinary) in a relatively independent manner from repetitive activities associated with a high risk of technical, organizational and economic, and therefore require the use of special methods of their preparation and implementation" [14].

Quality management is one of the core components of the project, it refers both to the products and to the actions taken that lead to the completion of the final product [19]. Quality is a measure of the expected results formulated, delivered as a result of execution of the project. It increases the likelihood of successful completion of the project and customer satisfaction. Management through projects in organizations and the quality of processes and activities are elements that have a high value in the business environment and lead to a competitive advantage [8].

This article attempts to discuss the essence of quality in the traditional project management methodologies. The article aims to show how quality is perceived in the projects implemented on the basis of literature studies.

2 Quality management in the project - basic definitions

Quality in the project management can be productive, usable and productive. Product refers to the individual, key product properties, utility, determines the satisfaction of the subjective needs of the product, and the product refers to compliance with the specification of manufacturing requirements and minimization of deficiencies. The quality objective is to produce a specific end product that meets the key needs of its users while maintaining a certain efficiency [14]. Quality is one of the elementary objectives of project management and refers to the quality of the intended result obtained at the assumed cost and time [11].

One of them is the ISO standard granted by the International Organization for Standardization. Quality issue in the project was addressed in ISO 9000, ISO 9001, ISO 9004, ISO 10006 and ISO 21500 standards. The last ISO 21500 standard is dedicated to project management and sets its global standards [22]. Its guidelines can be applied to organizations of any type and to projects of varying lengths, complexity and size. The quality of the project should be considered in two perspectives, with regard to the quality of the final product and the quality of the project management processes [9]. Quality is also one of the basic parameters of the project. The rule for the basic parameters of the project as follows: "(...) to complete the project well (intended result at the appropriate level of quality), as a whole (range), cheap (costs) and fast (time)" [14]. In Figure 1 there are shown the basic parameters of the project and dependencies that arise between them.

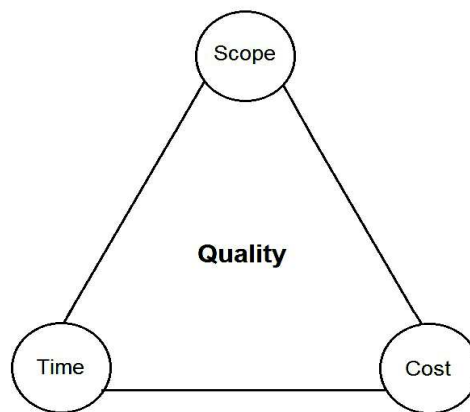


Fig. 1. Basic parameters of projects

Source: Own study based on [13]

3 Quality in the traditional approach to project management

Project management has evolved extensively over the years and therefore many industry standards have emerged that define how they are managed. The resulting methodology is a collection of good practices, standards, procedures, and processes that determine what needs to be done to achieve a successful project. Traditional project management methodologies are based on the life cycle of the project, which highlights the sequence of steps that should be taken to implement a particular project [16]. These methods are used in projects with clearly defined goals and the way to achieve them, low level of change of fixed range during the project [15]. Traditional project management methods include PRINCE2 and PMBOK and IPMA [12].

PRINCE2 is a standard in the UK where it was developed by the Office of Government Commerce, United Kingdom and is a project management method that is based on a process approach. As a part of this approach, the business justification of the project is created, the project

products are precisely defined and the stages and tasks are defined. Risk management, quality, change and configuration techniques are well developed within the PRINCE2 methodology [20]. According to the PRINCE2 methodology, quality is all the properties and characteristics attributed to the product. The terminology used by PRINCE2 comes mostly from ISO 9000 standards [16]. The PRINCE2 methodology has identified seven topics that influence project management: business justification, organization, quality, plans, risk, change, progress. Specified quality, the main purpose of which is to guarantee the quality of the project at all stages and to comply with the applicable environment, along with its standards and procedures. The PRINCE2 methodology is distinguished by the quality planning and quality control. Planning takes place at the beginning of the project in the initiation phase, and identifies all project products that you want to control, product descriptions, quality criteria, how they are evaluated, methods used, and responsibilities [14]. Quality planning is to provide and communicate the basic arrangements to the Steering Committee about the quality expectations of the product and the criteria contained therein, and to determine the rules for controlling them. Quality control implements, monitors and records established quality parameters [2]. Figure 2 shows the path of quality audit which consists of the processes related to planning and quality control.

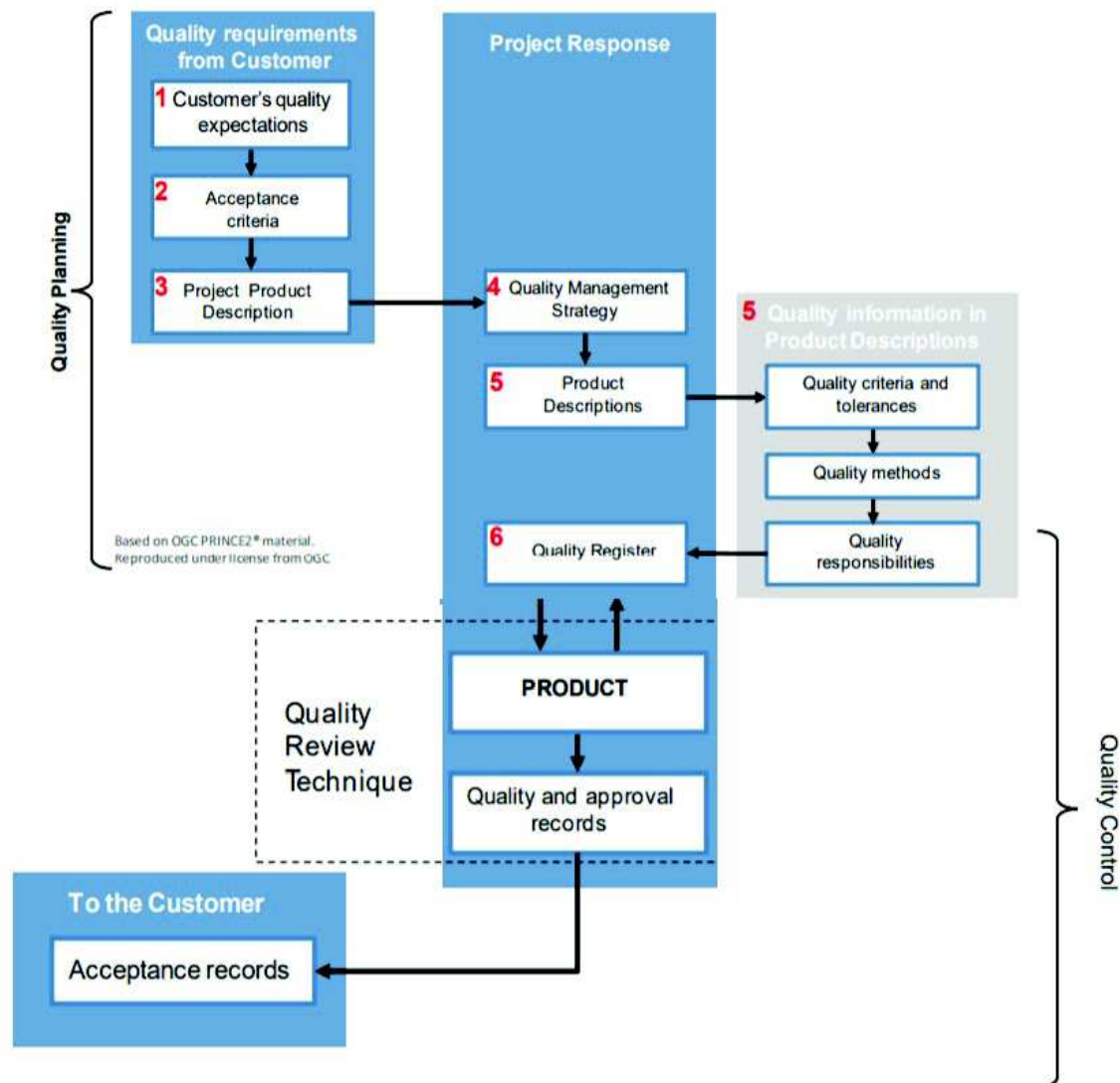


Fig. 2. Quality audit trail
Source: [2,3]

PMBOK is an American project management standard developed by the Project Management Institute, is a collection of processes, methods and techniques and covers all aspects of project management. It proposes the use of specific methods for individual processes. The methodology PMI quality management project is one of 10 areas of knowledge, in addition to management integration, scope, time, cost, human resources, communications, risk, procurement and stakeholders [1] "(...) to each of the areas there are assigned processes, which it is necessary to implement for the project management in this area to be effective" [10]. The model contained in the PMI methodology is universal, that is, you can freely choose the processes that you want to use in the implementation of projects of different types and sizes [4]. PMI project quality management processes include:

- Quality Planning - the process of identifying quality requirements, standards for the project and its achievements, and documenting how the project will demonstrate compliance with quality requirements or standards. The planning document is a quality management plan that outlines how the project will be implemented and the scope of the product.
- Quality Assurance - The process of transforming a quality management plan into quality activities takes into account the quality policy of the organization.
- Quality Control - the process of monitoring and recording the quality management results of activities to evaluate the results and ensure that the results of the project are complete, correct and meet customer expectations [1].

The area of the project quality management according to PMI methodology comprises incorporating the quality policy for the organization in planning, control and assurance requirements for design and product quality in order to meet the expectations of stakeholders [18]. Processes are intended to identify key quality standards for the design and methods of verification, use the quality of the planned activities, which will guarantee the fulfillment of the requirements, monitoring specific project results to determine whether they meet the quality standards and in case of unsatisfactory results remove or reduce the causes [1]. Figure 3 is a schematic diagram of major inputs, outputs and processes based on quality management in projects and informs about the fact that quality management processes involved in the management of quality throughout the project.

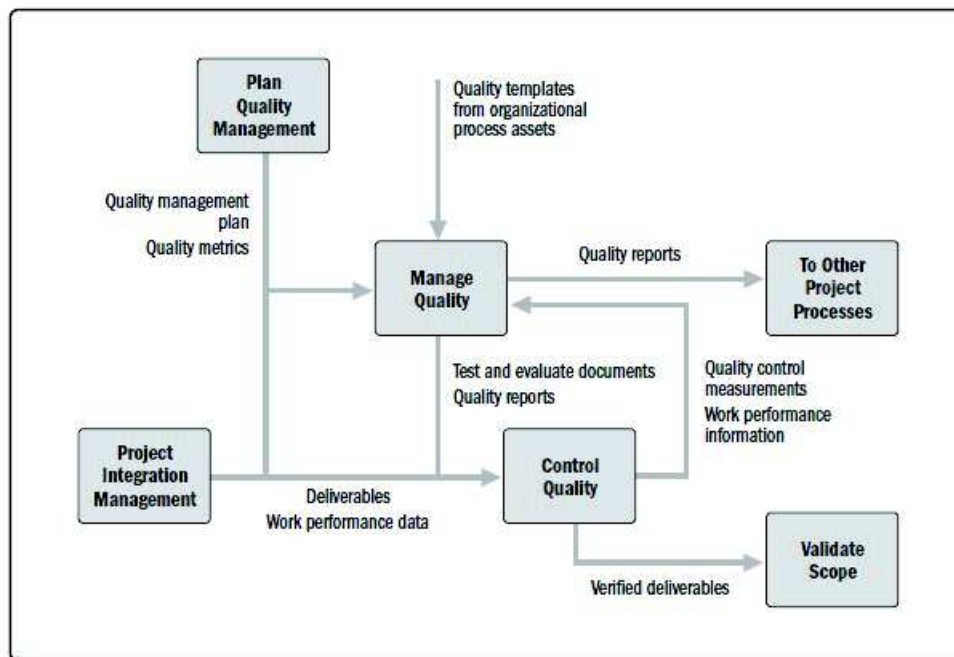


Figure 8-2. Major Project Quality Management Process Interrelations

Fig. 3. Major Project Quality Management Process Interrelations

Source: [1]

The International Project Management Association is an international, not-for-profit international organization of Project Managers and promotes project management ideas. This approach does not define the processes and techniques of management, but rather the 46 competences that the Project Manager should have. Competences are technical, contextual and behavioral. Technically they refer to the creation of project products. Contextually, to the ability to function in a design environment. Behaviors are related to skills such as leadership, commitment, motivation, or ethics. Quality is in the technical competence. Quality is within the technical competence and should be considered as the foundation of the project. "Project quality management encompasses all stages (phases) and parts of the project, from initial design through all the project processes, project team management, subprojects to a closure" [7]. The organization that implements the projects sets the policy for quality. , defines methods of quality implementation (planning, operational procedures, indicators). The recommended method is to test the product at its manufacturing stage so that the subsequent versions and eventually the end product are defect-free and do not absorb repair costs [7].

Conclusion

Quality management in a project is a project management field that includes processes that meet the needs of the customer that caused the project to start. Quality management in the project involves most approaches such as planning, carrying out quality assurance and controlling it [1]. The processes are designed to identify the key quality standards for the project and the methods for their verification, the use of scheduled quality activities to ensure compliance, the monitoring of a specific project outcomes to determine whether they meet the quality standards and if unsatisfactory results are removed or reduced. In traditional methods, the scope is fixed and the time and cost are changed [6, 21]. Effective quality management allows you to monitor the progress of a project,

determine whether the project is a good investment at every moment of its development. The project developer can make more efficient use of resources in the project by minimizing errors and losses and providing the recipient with a project that satisfies them. Modern approach to quality management is to minimize the deviation and to achieve specific results required by the stakeholders. Trends in project quality management include, but are not limited to: customer satisfaction, the pursuit of excellence through continuous improvement, management responsibility, mutual cooperation with suppliers [1].

Nevertheless, the presentation of different approaches to quality in project management gives us an insight into the possibilities of using and benefiting from the valuable solutions that are contained in the methodology.



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JAKOŚĆ W TRADYCYJNYM PODEJŚCIU DO ZARZĄDZANIA PROJEKTAMI

Streszczenie: Zarządzanie jakością jest jednym z podstawowych składowych projektu, odnosi się zarówno do produktów, jak i do podejmowanych działań, które prowadzą do zrealizowania produktu końcowego. W artykule przedstawiono istotę zarządzania jakością w projektach w tradycyjnym podejściu do zarządzania projektami.

Słowa kluczowe: zarządzanie jakością, zarządzanie projektami, tradycyjne metodyki zarządzania projektami, jakość.