

PROJECT MANAGEMENT – A NECESSITY FOR SUCCESSFUL REALIZATION OF PROJECTS

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Abstract: *Project management* is necessary for many companies that expand their product assortment in their own country and abroad. The advantages, the new approach to the implementation of projects brings, are: short time of realization, fast and easy adaptation to a changing environment, able to manage multiple activities, better focus the problems of customers, easy identification of responsibilities for activities, innovations in organizational structure, better coordination and others.

Project management is performed through a series of processes, which are presented as separate elements with defined interconnections. Project management defines five most widely used groups, Initiation, Planning, Realization, Monitoring and Control and Closing. An analysis of the processes, of their subprocesses and of their interdependence is needed to successfully realize the purpose of the project. Of special interest is the project scope management and the means to define the WBS diagram (Work Brakedown Structure Diagram).

Successful project management depends on the chosen methodology of project management, which describes the way to explore things. The following methodologies have been considered: *Project management* – (basic principles of planning, deployment and work control); *Quality Management* – (a process which should ensure that the end result meets the expectations of consumers in terms of quality); *Parallel realization* – (process of parallel execution of works for the purpose of realization of activities in the short term, without inclusion of additional risks); *Change management* – process of control of the end result in order to provide additional value for the user; *Risk management* – process of identification, assessment and response to possible project risks, without affecting the purpose of the project.

Reviewed and analyzed are the characteristics of each methodology and chosen is the best methodology. Characteristics of a good methodology (based on the integration of processes) are: optimal level of detail, standardized technique of planning, easy understanding and monitoring by the user, deployment and control of costs, possible use in all projects, opportunity for advancement, acceptability by the whole company, and using standardized phases of the life cycle of the project, based on good work ethics.

According to Kerzner, the projects do not manage the methodologies, but what one methodology makes it a more successful one is the organizational culture, which creates confidence in the methodology.

Keywords: project, project management, project management methodology, risk management, quality management, project scope.

Introduction

During the forties of the last century, project managers transfer the tasks to other employees, so that managers are exempted from all responsibilities related to the project.

The main problem with this management approach is that the end user has no single point where he can be informed and ask specific questions. So filtering out certain information took a lot of time for the user and project developers, especially for larger and more complex projects.

During World War II, leading world powers and the rest of the world embarked on an arms race. So, it has been shown that the traditional management methods cannot achieve the desired results of large projects.

In addition, investors wanted the project manager to manage the project, not only understand the technological process. This requires that the project manager (besides the specialist and technological knowledge acquired) possess certain management skills.

One of the first organizations in the world which introduce the concept of project management in all its activities is the American National Aeronautical Administration (NASA).

Until the end of the last century, companies have seen that project management is a more necessity than a choice. According to Kerzner, the industries that have achieved the best results in applying the concept of project management are: Space Research, War and Construction Industry, Auto Industry, Marketing and Sales, Public Administration [4].

Six driving forces are defined that guide the manager to recognizing the need for project management [4]:

- Capital projects – head quickly recognizes financial costs and gaps in planning time that can produce a stoppage.
 - Expectations of customers – get quality solution for their requirements with acceptable costs.
 - Competitiveness – It appears as a driving force.
 - Understanding of managers – understanding by management especially in companies that have a rigid traditional structure, based on routine and activities that are repeated.
 - Development of new products – a driving force especially in companies that invest in research and development.
 - Efficiency – as a driving force appears in conjunction with any of the above driving forces.
- But one joint connection between all driving forces is **survival**.

Project management processes

Project management processes are usually presented as separate elements with defined interrelationships. The project manager and the project team are responsible for the selection of management processes, human resources and the degree of precision of execution of those processes. It is for the fulfillment of the required purpose.

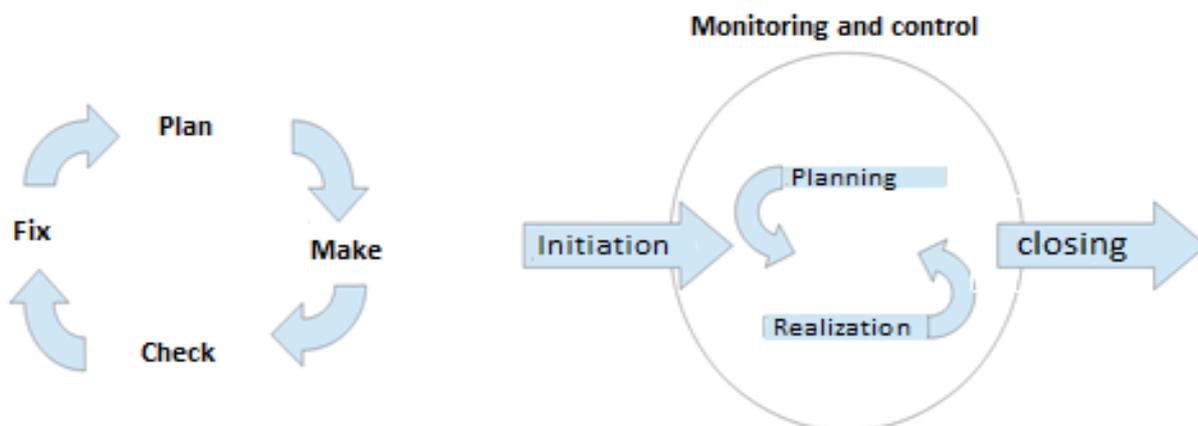


Fig. 1. Deming cycle and groups of processes for project management

The basic interaction between management processes is represented by the Deming cycle. It is a plan – make – check – fix (correct), where the output of one part of the cycle is the input of the next. This is also the basis for showing the relationship between and within a group of processes.

There are five groups of processes used to manage [2]:

– **Initiation process** – consists of processes that allow formal approval at the beginning of the project or at certain stages of the project. These processes are important for large or complex projects that can be divided into phases.

– **Process Planning** – helps collection informations of different importance and precision from different sources. It contains the following sub processes: Making a plan for project management, planning the scope of the project, gathering requirements for the project, defining the scope, making the WBS diagram, planning time management, defining activities, order and duration of activities, determine the timetable, cost management planning, risk management planning analysis and identification, etc.

– **Realization process** – this group of processes involves coordination of human and other resources, as well as integration and execution of project activities in accordance with the project management plan.

It contains the following implementation processes: Project Knowledge Management, Quality, Resource Engagement, Project Team Development, Communication, Conducting Procurement and Risk Response Implementation.

– **Monitoring and control process** – covers processes that control and monitor project implementation. It is about timely identifying potential problems and taking corrective action.

It contains the following processes: monitoring and control of implementation, integrated change control, control of the results, volume, timing plane, control of cost, resources, communication, risk and procurement control.

– **Closure processes** – include processes used to formally complete all project activities or part of it, transfer the final project to another subject, or close the terminated project.

In order to close the project in an appropriate and proper manner, it is necessary in the closing process to verify that all processes of the other groups have been completed.

Characteristics of project management processes

A group of project management processes is not a single process that is performed only once in the life of the project. It is iterative and can be repeated during the project several times.. Also, the set of project management processes is related to the purposes and results. The output of one process is the input to the next or final product of the project.

These are activities that overlapped throughout the project life cycle, as in Fig. 2.

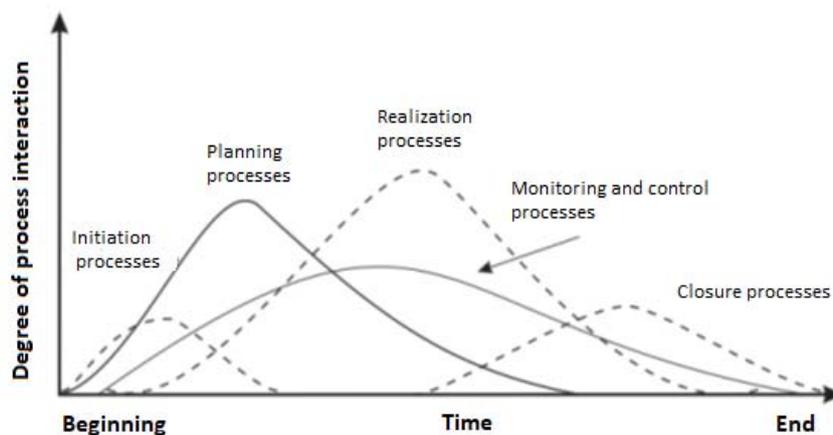


Fig. 2. Overlap groups of project management processes

Project Management Methodology

The success of project management and the maturity of a project are quickly attained by the use of a repetitive process that can be applied to each individual project. This repetitive process is called *methodology of project management*.

The methodology describes how things should be performed, and different companies have different approaches to the same problem. The project management methodology is a set of management and control processes, which together form a single functional unit. Managing unique methodology enables reduction of costs, reduction of requirements in terms of resources, reduction of paperwork to a minimum and eliminate duplication of work activities.

During the nineties of the last century, the following processes were integrated into a single methodology [3]:

- **Project management** – basic principles of planning, deployment and control work;
- **Quality management** – a process that should ensure that the end result meets the expectations of consumers in terms of quality;
- **Parallel realization** – a process of parallel execution of activities for realization of activities in a short period of time, without including additional risks;
- **Change management** – the process of controlling the end result to provide added value to the user;
- **Risk management** – the process of identifying, evaluating and responding to potential project risks, without affecting the project objectives.

Characteristics of a good methodology based on process integration are: optimal level of detail; template usage; standardized cost planning; deployment and cost control; standardized reporting format inside and outside the company; flexible application in all projects; flexibility to execute; easy understanding and monitoring by users; acceptance by the whole company; use of standardized stages of the life cycle; based on leaders rather than politics and procedures; based on good work ethics.

Kerzner [3] underlines to projects not managed methodology, but the people. The organizational culture makes one methodology successful. The top management must create a working environment and organizational culture that supports project management and spreads belief in methodology. If this is successfully implemented, the following benefits can be expected:

- Quick exit to the market, based on better control of project scope;
- Reduction of the risk within the overall project;
- Quality way of making a decision;
- Greater customer satisfaction;
- More time to create new values.

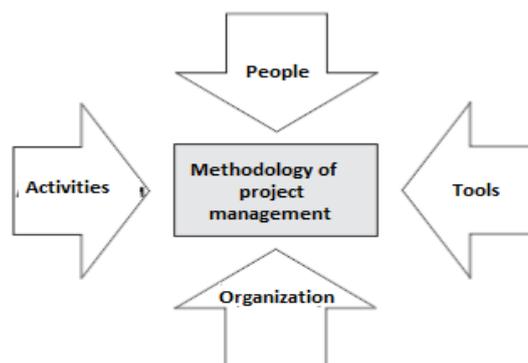


Fig. 3. Inputs in the project management methodology

Conclusion

Project management is the application of knowledge, skills, tools and techniques in the realization of project activities. It is for fulfilling project requirements.

For the successful realization of the project, the project team is necessary:

- To select appropriate processes within each group of processes of project management, necessary for achieving the project purpose;
- To choose a certain way of product specification and plans to meet project and production requirements;
- To align the requirements according to the need and expectations;
- To achieve a balance in terms of scope, time, cost, quality, resources and risk, necessary to achieve quality results.

Project management is an integration process, which requires that certain project and production processes are interconnected to facilitate their coordination.

Successful project management involves actively managing the relationships and requirements of the investor, user and project team.

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