The Importance of Planning in Project Management - Theoretical Approach

Katarzyna Szopik-Depczyńska
University of Szczecin, Poland
Faculty of Economics and Management, Poland

Giuseppe Lanfranchi
Marketing Manager at REAGO S.r.L., Italy

Abstract
Planning is one of the elements of management, next to organizing, motivating and control. The objective of the project plan is to describe, in the most detailed manner, the potential of the project, prior to its organization and implementation. The basic aim of the article is to preset the importance of the planning process in project management. It draws attention to the determinants and characteristics of the planning part and its particular importance in the project management process.

Keywords: Project Management; Theoretical Approach

Introduction
Looking for a way to stay ahead of the pack in today’s competitive and chaotic global economy, companies are turning to project management to consistently deliver business results. Project management is, in fact, shorthand for project, program and portfolio management. And more companies are clearly seeing the payoff from investing time, money and resources to build organisational project management expertise: lower costs, greater efficiencies, improved customer
and stakeholder satisfaction, and greater competitive advantage\(^1\). An Economist Intelligence report showed that 80 percent of global executives believed having project management as a core competency helped them remain competitive during the recession\(^2\).

One of the critical factors for project success is having a well-developed project plan. This is a first, very important step of all projects. Creating a project plan is the first thing you should do when undertaking any project. Often project planning is ignored in favour of getting on with the work. However, many people fail to realise the value of a project plan for saving time, money and many problems. This article looks at a simple, practical approach to project planning.

**Basic principles of planning in project management**

Planning is one of the elements of management, next to organising, motivating and control. It involves decision-making and action that will lead to the achievement of specific phenomena or objectives, the occurrence of which could not be spontaneous. Ackoff, assumes that „planning is the design of the future, which we want, and effective means of implementation”\(^3\). The planning process and its effect should therefore be predetermined and thoughtful set of elements that make up the decision-making process, which as a result should lead to the realisation of the goals with optimal decisions concerning the selection of appropriate methods and resources to make this possible.

The main purpose is to plan time, cost and resources adequately to estimate the work needed and to effectively manage risk during project execution. As with the Initiation process group, a failure to adequately plan greatly reduces the project’s chances of successfully accomplishing its goals. Project planning generally consists of\(^4\):

- determining how to plan (e.g. by level of detail or Rolling Wave planning);
- developing the scope statement;
- selecting the planning team;
- identifying deliverables and creating the work breakdown structure;
- identifying the activities needed to complete those deliverables and networking the activities in their logical sequence;
- estimating the resource requirements for the activities;
- estimating time and cost for activities;
- developing the schedule;

---


\(^2\) Closing the gap: The link between project management excellence and long-term success, Economist Intelligence Unit, October 2009

\(^3\) Ackoff R.L., Zasady planowania w korporacjach, PWE, Warszawa 1993, s.35.

\(^4\) https://en.wikipedia.org/wiki/Project_management#Planning (1.12.2016)
• developing the budget;
• risk planning;
• gaining formal approval to begin work.

The plan, however, is a „description of a possible future selection and arrangement of activities united by a common purpose or possible future selection and arrangement of components of the product of steps so united”5. The objective of the project plan is to describe, in the most detailed manner, the potential of the project, prior to its organisation and implementation. Such a plan makes it easier to consolidate design and familiarise yourself with its various components by contractors and other involved persons. It also allows applying the necessary corrections before proceeding with its implementation6. Planning for fully specified functions?:

1. Warning - by recognising risk in advance and related problems in the implementation of the project;
2. The creative - through the development of creative proposals for action in the future;
3. Orientation - optimisation by identifying the best possible action in the future;
4. Coordination - taking into account a number depending on all levels;
5. Moderation - identifying and solving conflicts.
6. In addition, prepared and suitably modified plan for the project, has a different, a triple function:
7. Is a map of the entire project;
8. It is the basis for communicating project stakeholders;
9. Is the frame of reference for all measurements.

There are many criteria of classification plans. And so, according to the planning horizon (within the time), this is the end of the period for which the plan is drawn up. This criterion allows the identification of several types of plans. They are therefore operative plans - short-term, up to 1 year; tactical plans - Medium-term 1-3 years; strategic plans - long-term, over 3 years. By subject planning we distinguish structural plans, including the structure of the objectives, tasks, activities, facilities, etc ..; time plans, showing the achievement of objectives over time; Resource plans, or distribution of resources between the objectives in time and space; spatial plans, thus achieving the objectives and plans of the organisation on shared goals, objectives, activities, facilities and resources between the performers. Another criterion for classification criterion type of planned activity, in which we distinguish investment plans, R & D, production, sales, financial, etc ..

6 N. Mingus, Zarządzanie projektami, Helion, Gliwice 2002, s. 41.
7 W. Mag, Planung und Kontrolle [w:] Vahlens Kompendium der Betriebswirtschaftslehre, Bd. 2, Verlag Vahlen, Munchen 1999, s. 6.
There is also a criterion for distinguishing plans in terms of repeatability: plans repeatable and unique and detail - plans for initial rough plans and detailed plans\(^8\).

At the initial stage of the planning work should determine the needs, objectives and project requirements. Usually they come out of the principal originators or research, if they relate to research activities. This information, flowing to the contractor, sometimes provided in a concise, should be the basis for the preparation of the project plan.

In the first place usually it takes into account the needs of the customer. They should be described by a customer at a later stage but specifically formulated\(^9\). For example, if the customer is a company, we can distinguish some examples of needs that may be a prerequisite for the launch of the project\(^10\):

- market demand - eg. the petrochemical company launched a project to build a new refinery in response to shortages of fuel on the market;
- business needs (financial) - training company organises a new course to increase revenue;
- behalf of a client - a company producing electrical equipment launched a project to build a new power transformer station of the new manufacturing plant;
- technological progress - electronics company launches a project to build a DVD player after the invention of new technology, recording and reproducing sound or images;
- legal requirements - manufacturer of paints launched a project to implement the new legal principles for dealing with toxic materials.

It should be remembered that, when considering the need to take into consideration all relevant interest groups, remembering that each one can have different needs and expectations. These interest groups are individuals and / or organisations that actively participate in the project or whose interests as a result of the project, may be positively or negatively affected\(^11\). Stakeholders in the practice of project management are\(^12\):

- Project manager - is responsible for the project management;
- Customer - a person or organisation for which the effect of the project will be the product;
- Implementing entity - a company whose employees are the backbone of implementation and execution of work in the project;
- Sponsor - a person / group of persons or entity providing financial resources for implementation.

**Goals of the project** is to define exactly, after which the project is implemented. This accurate and reliable concept can help the project in two ways.

---

\(^8\) Nowoczesne zarządzanie projektami, red. naukowa M. Trocki, PWE, Warszawa 2013, s. 145-146.


\(^11\) M. Pawlak, Zarządzanie projektami, PWN, Warszawa 2015, s. 85.

\(^12\) Duncan W.R., op. cit., s. 15.
At the planning stage can help the team in defining the rest of the plan. But when the project enters the implementation stage target with a defined scope of the project can help in the assessment of the proposed project changes\textsuperscript{13}.

Objectives of the project fullness of specific functions\textsuperscript{14}:
- An orientation - indicates the contractors of the project right direction;
- Selection function - targets allow you to choose between many different solutions;
- Coordinating function - thanks to the possibility of decomposition of the main objectives partial enable mutual adjustment and coordination;
- Control function - a measure of their achievement is control performance.

An important aspect of the process of setting goals is the time horizon, which was mentioned earlier and accurate determination and selection of appropriate metrics and indicators to make a precise evaluation of the implementation of actions deriving from the goal\textsuperscript{15}.

**Intermediate objectives** of the project also refer to the detailed concept. They do not tell, however, to the question "why?" And explain "what", ie which provides for the project. Intermediate targets, regardless of their definition which is individually formulated by any organization should be specific, measurable, realistic and -if necessary - a limited time. Sometimes they can be formulated in the form of infinitive, but remember this, not to go into the details more than necessary. Usually to describe the intermediate objectives of the project just approx. five intermediate objectives\textsuperscript{16}.

However, all the goals set by the contractors of the project should be\textsuperscript{17}:
- achievable;
- known (open);
- understandable;
- documented (recorded).

In turn, T. Kotarbiriski indicates characteristics of a good plan, which consequently could lead to smooth operation, in particular when:
- purposeful, supply to the objective pursued;
- feasible (feasible);
- theoretically consistent - consistent internally, free of contradictions;
- virtually consistent - covering only those elements that do not interfere with each other, and the actions are intended previous preparation later;
- operative (communicative) - clear and legible;
- rational - based on sound knowledge;
- flexible - allowing changes in the course of its components;

\textsuperscript{13} N. Mingus, op. cit., s. 42.
\textsuperscript{15} W. Walczak, *Rola fazy planowania w zarządzaniu projektami*, E-mentor 2010, nr 1(33).
\textsuperscript{16} Mingus N., op. cit., s. 44.
\textsuperscript{17} W. Prussak, M. Wyrwicka, op. cit., s. 20.
- optimally detailed - not too detailed and too general;
- accordingly walking, which includes the longest possible period of time;
- time specified, containing limitation period of performance;
- full (complete) - covering the whole task and all the relevant considerations.\(^{18}\)

A common issue that is the view that a properly marked general and specific objectives of the project should be consistent with the concept of SMART, proposed in 1981 by George T. Doran. It is a collection of five demands / guidelines traits properly formulated objective. This means that it must be\(^{19}\):
- \textsc{Specific}
- \textsc{Measurable}
- \textsc{Acceptable, achievable, available, appropriate, accurate,}
- \textsc{Realistic}
- \textsc{Time related, trackable}

With regard to the requirements of the project, they usually refer to the designed system, thus defining them as objectives of the system, as opposed to the goals of the project\(^{20}\). Description of the system requirements is usually more extensive than in the case of project objectives. These usually form part of the contract between the client and the designer of the system, and are determined by the customer\(^{21}\).

Referring to the issue of planning uncertainty with which it binds, the ability of the planner to use planning tools in the process of project management is an extremely important issue. Note, however, that even more experienced and competent expert is not always able to create the perfect plan, without flaws and failings. This is due to the fact that the issue concerns the planning of future actions, which in sequential way has to do with uncertainty. She can decide and influence the accuracy of forecasts and plans. It is this uncertainty makes even the most accurate and meticulously prepared plans are only a certain respect, predicting what the future may hold. If we are dealing with projects that are not new and are in a reproducible, then the probability of checking the estimates is high. In contrast, in the case of projects, which no one had ever done in such a way as planned. Then this uncertainty is greater, and what goes with it, the estimates are subject to greater uncertainty. This is particularly the case with innovative, cutting-edge projects for which we are pioneers.

In the case of projects with a small uncertainty, such as the construction of a house on the outskirts of the hundredth hundred identical houses, the plans that we can create for this project can be very accurately, because it allows for our experience. Do not prepare adequately detailed project plan in a situation where it

\(^{18}\) T. Pszczolowski T., \textit{Mała encyklopedia prakseologii i teorii organizacji} [w:] \textit{Nowoczesne zarządzanie...}, op. cit., s. 146-147.


\(^{21}\) Eisner H., \textit{op. cit.}, s. 47.
is possible, may be indicative of representatives violate the obligations, as detailed plan avoids the shortcomings, flaws, shortcomings or problems.

The situation is different in the case of projects burdened with a high degree of uncertainty, as is the case with the work and research and development projects. This is due to the fact that we have no experience in this field, and not always know what will end the study, and hence the plan for the project can not be clearly and precisely specified. In such a situation, the best solution is to break the plan period, eg. Research, which are meant to last three years can be spread over six half-year periods and start a project by planning activities only in the first period. After the end of the first period, we plan of action for the next, and so on. This method sometimes called rolling planning (rolling wave)\textsuperscript{22}.

In relation to the planning process, presented below his scheme, including phases, stages, characteristics and questions, to which should correspond to the different phases of action.

**Table 1. Scheme of the planning process**

<table>
<thead>
<tr>
<th>STAGES</th>
<th>PHASE</th>
<th>CHARACTERISTICS</th>
<th>QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning purposes</td>
<td>Stage 1</td>
<td>Determination of the problem and identification of targets</td>
<td>What should be achieved?</td>
</tr>
<tr>
<td>Planning process</td>
<td>Stage 2</td>
<td>Data exploration and information gathering</td>
<td>What information should be taken into consideration?</td>
</tr>
<tr>
<td></td>
<td>Stage 3</td>
<td>Determining the stage of development of possible solutions</td>
<td>What are the possible variants of the solution?</td>
</tr>
<tr>
<td></td>
<td>Stage 4</td>
<td>Evaluation rating conditions for solutions</td>
<td>What are the advantages and disadvantages of different options?</td>
</tr>
<tr>
<td></td>
<td>Stage 5</td>
<td>Selection best variant</td>
<td>Which variant is the best?</td>
</tr>
<tr>
<td>Checking the results of planning</td>
<td>Stage 6- control</td>
<td>Comparison of the results with the objectives</td>
<td>Have goals been achieved?</td>
</tr>
</tbody>
</table>


Planning, being the first in principle, the most important step in the process of management, referring to the project management mainly concerns the planning of the project. And so, citing M. Trotsky, it includes\textsuperscript{23}:

\textsuperscript{23} *Nowoczesne zarządzanie ..., op. cit., s. 149.*
- Planning the structure of the project - the task of the project and necessary for their implementation activities;
- Scheduling of the project - showing the progress of the project in time;
- Resource planning project - related to the distribution of resources to individual tasks and activities of the project and their distribution in time;
- Planning project costs - budgeting;
- Planning of risk;
- Quality planning;
- Communication planning;
- Planning of supply.

The above discussion focused on the conditions of project planning. They draw attention to the determinants and characteristics of particular importance in the process of project management. Very accurate view expressed according to S. Bercun'a, stating that the success of the project planning is derived from many factors, and thus a professional manager needs to recognise multiple dimensions and see a project plan from several perspectives: business conditions and technological orientation to customer needs or the impact of the impact of stakeholder\textsuperscript{24}. Therefore, such an important issue, in addition to developing an optimal plan of the project is the skilful selection of the team, and above all the extensive knowledge and experience of the project manager, who will be the leader and the coordinator of all the work in the process of its implementation.

References


Importance of planning in project management - theoretical approach


[17] https://www.pmi.org/Business-Solutions/~/media/PDF/Business-Solutions/Value%20of%20Project%20Management_FINAL.ashx (04.05.2016)

Received: December 1, 2016; Published: December 23, 2016