A Tailored Methodology for Project Management

Adriana Petruța Prodan
SIVECO Bucharest, Romania

Abstract

Nowadays, Information & Technology (IT) projects are rapidly increasing in number and value due to their importance and impact across all industries. Public institutions, nongovernmental institutions, nonprofit institutions and the private sector need to enhance their level of digitization. All the industries show similar trends in enhancing the usage of the last-mile technologies: manufacturing, banking, insurance, healthcare, agriculture etc. To cover the market needs, a big number of IT projects is generated yearly, encompassing projects of different dimensions, from projects that address 10-20 users to projects that address a billion users. The management of these projects is becoming more challenging and there is a certain need to apply management methodologies that fit in the context of each project. The author's previous research and experience prove that the methodological approach of the IT projects should be customized by taking into account the dimension of the project and by capitalizing the existing resources.

Keywords: management, processes, IT projects

Introduction

The project managers are often locked in methodologies that make the management of the project difficult and bring no added value to the project itself and to the organization. In some cases, the methodologies are difficult to be applied and the associated effort is not justified, taking into consideration the dimension of the project.

The project's dimension has been largely debated in the specific literature, and it has been observed that there are many criteria that could influence project dimensions, criteria that should be permanently

„Our business is about technology, yes. But it's also about operations and customer relationships."
Michael Dell

* Correspondence to: burduja_adriana@yahoo.com

evaluated. In this article, the author presents a new management methodology tailored to the dimension of the project. The model proposed by the author is also based on the assessment of the dimensions of the IT project and takes into consideration other important steps to be followed at the level of the organization: defining the criteria for evaluation, establishing the project priority and addressing the lesson learned.

The management methodology proposed is mainly based on the PMBOK processes and is promoting a simplification of it, to make it usable in an efficient way for smaller projects.

Methodology

The present article will combine theoretical research from the literature regarding IT projects with the observations from the implementation of the IT projects in real business environments. The management methodology proposed by the author is limited in terms of validation across a large number of projects. It has been deployed in few IT projects with encouraging results.

For evaluating the steps and processes needed to be customized, the author assessed the PMBOK processes and effectiveness in a project having reduced dimension, based on the author's experience, literature research and surveys.

The Importance of a Tailored Methodology

Whitaker (2014) defines the management methodology as a set of politics, practices, processes, tools, techniques and templates that will support the manager in the implementation of the projects. One if the frequent causes of the failure of IT projects is that a formal methodology is missing at the organization's level. As reported by Wellingtone (2015), methodologies will help managers to better understand the necessary processes, the lifecycle of the project and also the tools and templates necessary to manage the project.

The most common elements indicating that a methodology is not followed because it is not tailored to the projects' needs are given by the project's team; firstly, because the team members are not following the same processes and secondly, the project team is conducting the change management processes without the support or involvement of the management, which is contributing to the lack of standardization in the project, as argued by Whitaker (2014).

LaBrosse (2015) affirms that the most valuable competitive advantages could be represented by a methodology which is applied with success at the organization level. Project team members can easily follow the same steps and processes to solve the tasks. A good methodology that is known, followed, applied and respected will help the team to pass from vision to action. Project management methodology

can be linear or iterative, extensive or minimalist, in phases or on the entire life cycle, but it is important to be adapted to needs of the project to guarantee the completion of the project.

The first step in selecting the management methodology is to know the dimension of the project and then to decide what process are to be applied. The management of the organization should give the correct answers and direction to the project manager: how complex is the project, how to measure it and what kind of methodology should be applied. An applicable matrix for selecting the complexity of the management methodology is shown in Figure 1:

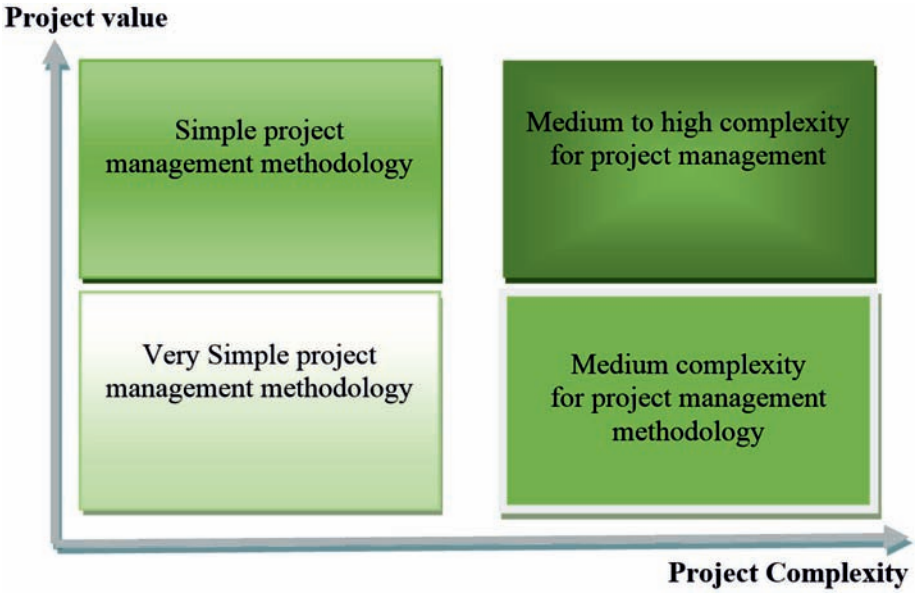

Figure 1 – *Matrix for selecting complexity of the management methodology* (Whitaker, 2014)

Following Wiegers (2014), there can be defined five dimensions of a project that should be considered when implementing a methodology: project complexity, quality, duration, costs and team. The complexity of the project should be evaluated from a technical perspective and a management perspective (2008):

- **Technical perspective:** number of technologies involved, expertise in the chosen technologies and associated risks to the technologies;
- **Management perspective**: the risks associated with requirements for the project, project resources requested in the project, political aspects, number of stakeholders, constraints and issues regarding the time and the costs.

The New Tailored Methodology

The author paid a close attention to reduced size IT projects, where it is important to reduce the effort associated with the management processes. Usually, the planning phase for this kind of projects is minimized, in some cases skipped and the project goes directly into the execution phase. This approach creates unrealistic deadlines. The communication process is also minimized in such a way that the stakeholders are not managed and the team is not properly informed on a regular basis (Larson, 2012).

The planning of the projects should respect the principles mentioned by Humphrey (2010):

1. **Accessibility** – all the necessary information should be found in one place;
2. **Clarity** – all the information should be easy understood by the project team members;
3. **Relevant to the project** – the project plan addresses the specific characteristic of a project, such as what will be done, when will it be done, by whom will it be done and related costs;
4. **Precision** – all the information will be presented with precision.
5. **Accuracy** – if the project information will not allow an accurate planning, then the planning process will be reiterated several times.

The author constructed a methodology in order to manage a project in two steps: first, the dimensioning of the project, and second, the management methodology to be followed accordingly with the results from the first step.

The author's model for dimensioning the projects considers that the IT projects with reduced dimension have a reduced technical complexity, a small number of stakeholders entities, a limited number of resources needed to cover the project's activities. In an organization, the reduced size projects represent approx. 10% of the resources and 10% of the revenue. The main principles to be followed in dimensioning an IT project are presented in Figure 2:

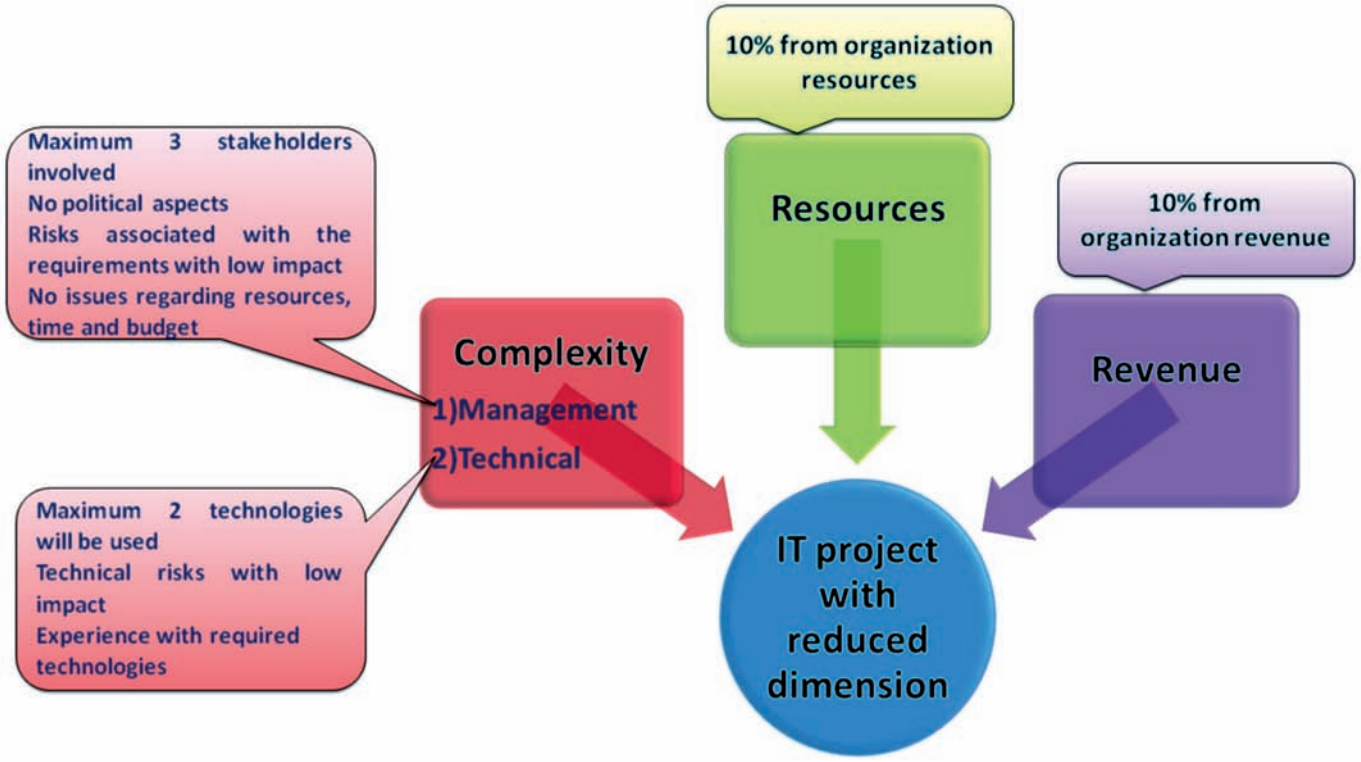

Figure 2 – *A model to evaluate IT projects' dimension*

The complexity of the project can be evaluated by assessing the criteria from a management perspective (resources, time, budget, stakeholders and political aspects) and balancing them from a technical perspective. Based on PMI methodology, the author defined a management methodology for IT projects tailored to the needs of

reduced IT projects, as shown in Figure 3. The management methodology processes are grouped into 4 phases:

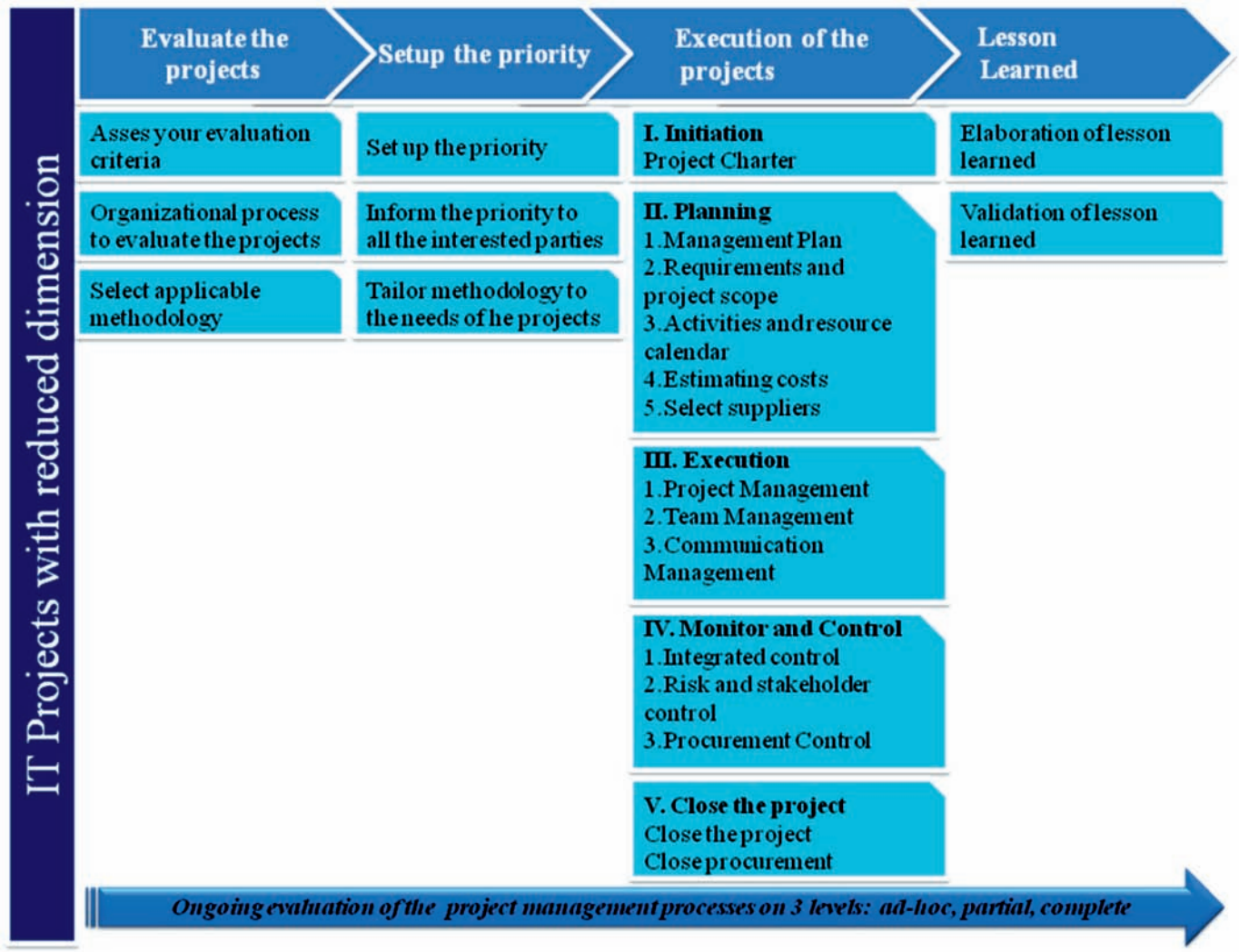

Figure 3 – *Tailored methodology for IT projects with reduced dimensions*

Phase 1. Evaluating the projects within the organization. It includes three processes: assessing the evaluation criteria, considering the organizational process to evaluate the projects and tailoring the methodology that will be used accordingly with projects' dimension. To assess the degree to which the organization is evaluating the ongoing projects on a scale from 1 to 3, there can be used:

1. Ad-hoc evaluation – the evaluation process is triggered by some crisis at the level of the organization and there is no framework established;
2. Partial evaluation – defined criteria exists, but they are covering only some project categories from the organization;
3. Complete evaluation – the evaluation is executed permanently and the criteria are covering all the projects of the organization. The list of criteria is permanently updated to the organization's needs and to market's evolution.

Phase 2. The phase of assessing the priorities includes:

- **Assessing the projects for identifying the priority.** The priority of every project will be established through a standardized process with well-known criteria. The criteria should be related to the dimension of the project, organization strategy and available resources.
- **Communicating the priority.** This needs to be transparent at all levels of the organization.
- **Adapting the organizational process** to consider projects priorities in the company planning and executing of activities.

The priority establishing phase will be evaluated using a scale of 1 to 3 as follows:

- ❑ Ad-hoc – the priorities will be made randomly, without an established framework;
- ❑ Partial – some projects are permanently evaluated according to well-known criteria;
- ❑ Complete – all projects have priorities assigned by using a well-established framework.

The practical result of this phase will be the list of all projects with different priorities that will create the base of the future actions for the ongoing and future projects.

The lack of of the evaluation and priority set up processes will lead in most cases to the chaotic execution of projects. This kind of operation is usually running without the top management support due to the fact that the objectives and the results of the projects are not aligned or have little or no importance for management. The results of the priority setting process can contribute to a detailed analysis of the benefits given by different projects to the organization. The adopted methodology will support the implementation of the project in conformity with the results of the evaluation process. Any new update on the projects – for example, the revenue, duration etc. – can influence the results of the evaluation process.

Phase 3. Is represented by the execution of the project with the well-known five phases from PMBOK: Initiating, Planning, Executing, Monitoring Controlling and Closing.

The processes from the five phases were reduced according to with studies made by the author. The version 5 of PMBOK has 47 processes to manage the execution of projects. Those processes are proposed to be reduced to 23 the processes. The comparison between the number of processes in each phase from PMBOK and the new tailored methodology is summarized in Figure 4.

Phase 4. Includes elaboration and validation of lesson learned. In order to evaluate the process of completion and validation of the lesson learned, we will use the same principle of using a scale from 1 to 3:

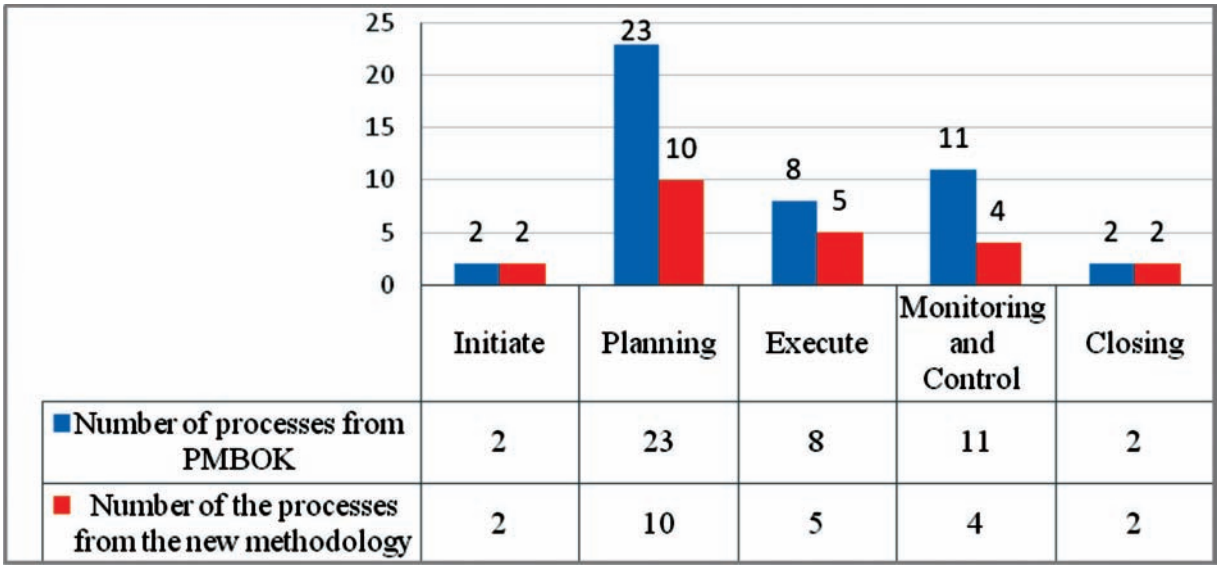

Figure 4 – *Number of processes from PMBOK versus processes from proposed methodology*

1. The completion and validation of the ad-hoc lesson learned – the completion of the lesson learned is made randomly, without an established framework;
2. Partial completion of the lesson learned, only for some part of the projects;
3. Full completion of the lesson learned when all the projects include validated lesson learned.

The process of completing the lesson learned is very important and it is mandatory that they are validated by the experts in the field to ensure that the usage of the lesson learned at the level of the organization will bring the desired impact. Lesson learned won't reduce or replace the planning phase.

Results and Discussions

Based on the assumptions of Larson (2012), formalizing a management methodology at the level of an organization will enhance the capacity of the organization to deliver IT services and will also allow a unique approach for the requirements and tasks for all the parties involved, while reducing the risks for the IT organization which executes the project. There are clear elements that need to be considered and that will influence the implementation of a new management methodology in an organization:

- ❑ A new management methodology will be followed in small steps to capture the negative aspects and to avoid the negative impact at the level of the organization;
- ❑ The effort of implementing the new management methodology will be significant and irrelevant if the top management is not involved and does not support the implementation itself;
- ❑ The methodology will be improved in the implementation phase by identifying aspects that were treated wrongly;
- ❑ Project managers used a methodology without pointing gaps and their

involvement in the implementation process of the new methodology will enhance the possibility to assess and evaluate the right processes.

The goal of any organization is to bring value to its shareholders and this is to be achieved by increasing, in a structured way, the chances of success of its projects. That is also the goal of the present model for reduced size projects.

Conclusions

The managers need to be aware of the dimension of the project managed in order to adopt the proper tools, models and methodology to follow. The main objective of the proposed methodology is an alternative model to be used for the projects with reduced dimensions. There are two conditions that must be achieved: the success rate of the projects is bigger than using the old methodology, and the management effort is lower.

The management model for reduced size projects has the right elements to achieve this by setting up front the priority, by adopting a process simplification and focusing on people management.

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„If everyone is moving forward together, then success takes care of itself."
Henry Ford