THE SMALL PROJECT PARADOX IN SMES

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Full Length Research

The small project paradox in SMEs

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There is little scientific evidence on either managing small projects or project management in small to medium enterprises (SME). In a company's daily work, it is difficult to recognise a small project as such. There is still debate on the most appropriate model for managing small projects and definitive classification criteria for projects concerning size have not been agreed. On the other hand, it is not clear whether SMEs manage or should manage projects in the same way as a large company. This article formulates proposals attempting to contribute filling this gap: first of all, a project classification criteria using relative terms; secondly, a check list to identify very small projects or at least work that can be managed using project management tools; and finally, a comparison between the characteristics related to the project an organisation tackles, depending on its size, is presented.

Key words: SME, small projects, project management

INTRODUCTION

There is a relationship between the size of the company and the size of the project that it tackles: small companies tackle smaller projects (Turner et al., 2009), if we consider project size in absolute terms.

Small projects are often inserted in a pre-existing environment where they do not take priority (AFITEP 2000). This is particularly frequent in SMEs that are not focused on projects.

In practice, many projects, particularly small ones, are not managed with suitable methodologies for project management. According to Buehring (2006), one of the reasons against using project management methodologies is that they amass large quantities of documentation that are not practical or desirable in small projects. This is a very important discussion and any method focused on producing documentation at the expense of delivering the project's real advantages is more of an obstacle than an advantage.

For Larson and Larson (2009), one of the problems with small projects is that they are barely recognised as such, they are started up quickly (with no planning) and therefore communication fails and the promoter walks away. It is a paradox that this should occur in an SME, whose main advantages include easy communication and the fact that the promoter is often within the company itself.

Working from what has been published on the issue and the author's experience, this article aims to approach some key elements concerning managing of small projects in SMEs.

CHARACTERISATION OF SMALL PROJECTS

One of the first questions to be raised is small project characterisation. In this respect, the most generally adopted criteria to classify projects according to their size are the duration, cost and size of the project team. AFITEP (2000) characterises small projects as follows, in terms of frequent examples:

- Duration: from a few weeks to a few months.
- Number of study hours: between 500 and 5000
- Number of technicians made available is small, or one of them is clearly more important.
- Few studies.
- Number of participants required (or considered as such) is very small: one, two or three people, rarely more.
- Envisaged cost not determined, either due to real impossibility, or just as usual.
- Significant coordination with the rest of the company and often delicate insertion in its environment (production stoppages, safety, etc.)
- Importance for the company considered to not be essential.
Table 1: Project classification criteria depending on size

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Large project</th>
<th>Medium sized project</th>
<th>Small project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project budget as a percentage of organisation's annual turnover</td>
<td>&gt;10%</td>
<td>5 – 10%</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Dedication hours required, as a percentage of the organisation's annual hours (number of workers per annual hours for a worker)</td>
<td>&gt;10%</td>
<td>5 – 10%</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Number of team members, as a percentage of the company's technical-management team</td>
<td>&gt;10%</td>
<td>5 – 10%</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

On the other hand, Rowe (2007) distinguishes small projects from simple projects. A simple project is a small or short project that is completed by a team of three or less members. In general a small project:

- Lasts a short time, normally less than six months and dedication is usually part time.
- The project team has ten people or less.
- It involves a small number of technical areas.
- It has a simple objective and a solution that is easy to achieve.
- It has a definition and a closely defined scope.
- It affects a business unit and it has a single decision-maker.
- It has access to project information and does not require automated solutions from external sources.
- The Project Manager is the primary source of leadership and decision-making capacity.
- There are no political implications pending on its go-ahead.
- It produces deliverables directly, with few interdependencies between technical areas.
- It costs less than $75,000 and it has available funds.

Another proposal comes from Larson and Larson (2009) who, without setting any specific values, consider the following criteria to differentiate between small and large projects:

- Time, in hours.
- Budget
- Risks, in number and type
- The people involved, number and type
- Project visibility in the organisation
- Organisational formality, meaning the formal definition by the promoter, manager and project team.

In line with Bentley (2006), who suggests that the size of a project depends on the size of the projects that an organisation usually tackles, a proposal will be made below concerning criteria to classify projects in relative terms, table 1.

The usefulness of this proposal revolves around the fact that any organisation can thereby carry out its own classification, scale its project management methodologies and apply the most appropriate ones depending on the size of the project it is tackling.

However, occasionally the greatest problem does not revolve around project characterisation and consequent application of one technique or another, but it can be even more basic: project management discipline is not applied because a job to be done is not recognised as a project.

In a company’s everyday work, it is sometimes complicated to separate project work from daily operations. If projects are not recognised as such, they are not planned, they are not identified to the promoter, the team member roles are not clear and the risks are not identified (Larson and Larson 2009).

Along the same lines, Rowe (2007) understands that what we often call a task or an assignment should be considered as a project, as this gives the opportunity to define expectations and the best use of resources clearly and eliminate the frustration of wasted efforts and unnecessary re-working.

In cases where it might seem ridiculous to treat some tasks as projects, Bentley (2006) proposes using the concept of work packages from PRINCE2 so that these tasks can benefit from applying project management discipline.

A check list is proposed below that will help to identify a work package, task or activity as a project. If answers to the questions on the list are affirmative, in some cases project management discipline might be very useful to manage this activity or activities.

**SMALL PROJECT MANAGEMENT MODELS**

Rowe (2007) proposes the SSPM model (Small and Simple Project Management), compatible with the PMBoK from PMI (Project Management Institute 2008), a methodology that includes processes and tools designed specifically to manage small and simple projects. It is based on four processes that occur in all phases of the project life cycle:

1. Initiation process: includes activities that lead to project initiation. Defines and authorises the project.
2. Planning process: includes activities to define the project in detail and determines how the project targets will be met.
3. Control process: includes activities to deploy project tasks, plus measuring and monitoring and
Table 2: Check list for project identification Own source

<table>
<thead>
<tr>
<th>Question</th>
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<tbody>
<tr>
<td>- Is more than one organisation involved?</td>
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<tr>
<td>- Are there more than two types of people involved?</td>
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<tr>
<td>- Has it been assigned a budget?</td>
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<tr>
<td>- Do we have to resort to external financing resources?</td>
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<tr>
<td>- Do we have to resort to human resources from another section/other companies?</td>
</tr>
<tr>
<td>- Do we have to resort to technical resources from another section/other companies?</td>
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<tr>
<td>- Do the resources need additional training?</td>
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<tr>
<td>- Is there a deadline?</td>
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<tr>
<td>- Are the tasks going to be controlled or should they be controlled periodically?</td>
</tr>
<tr>
<td>- Are any of the following aspects going to be modified:</td>
</tr>
<tr>
<td>1). products?</td>
</tr>
<tr>
<td>2). company methods/processes?</td>
</tr>
<tr>
<td>3). management systems?</td>
</tr>
</tbody>
</table>

Over the last two decades, a movement known as ‘agile’ has emerged in the field of software projects that targets slightly different project management, particularly for small projects and offers an alternative to formal methodology. Even though it stems from computer projects, it is currently considered that its philosophy can be exported to projects in other fields, such as industrial projects.

Agile methodologies fit very well into organisations focussed on projects, but not into small companies that are organised functionally, and carry out projects sporadically. Furthermore, according to Turner et al., 2010, they require uniform work and uniform teams.

Finally, there is a set of contributions to managing small projects that, more than management models, are lists of phases and activities associated with them. This is the case of Cleland and Ireland (2004), Larson and Larson (2009) and Buehring (2006), among others.

According to Turner et al., (2009) SMEs require project management models that are less bureaucratic with maybe a different set of tools to the traditional tools designed for large or medium sized projects, with different variants depending on whether the project is medium, small or micro.

It could therefore be concluded that there are two major schools of thought when tackling small project management:

a). Up-bottom that would consist of scaling, adapting, relaxing and/or omitting elements from management standards (PMBOK, ICB, PRINCE2). Proposals by Rowe, Bentley and Brodnik et al. would all fall within this group. The advantage of this strategy is that, once the standard has been established, it is uniform and would simply be enough to design application manuals for this model depending on the size or type of project.

b). Bottom-up that, on the contrary, would consist of starting from zero and creating a specific model. We could frame proposals such as agile methodologies.
within this school of thought. For this strategy, the fundamental advantage is the freedom to do something new or at least specifically designed for small projects and that therefore might be more appropriate.

**PROJECT MANAGEMENT IN SMEs**

For the proposals in this work, the European Commission (2006) classification of companies according to size has been used:

a). A micro-company has less than 10 workers, sales figures under 2 million Euros and a balance from the exercise under 2 million Euros.
b). The small company has less than 50 workers, sales figures under 10 million Euros and a balance from the exercise under 10 million Euros.
c). The medium sized company has less than 250 workers, sales figures under 50 million Euros and a balance from the exercise under 43 million Euros.

Little has been published on project management in SMEs, Murphy and Ledwith (2007), Turner et al (2009), and several of the latest studies have focussed on innovating companies with considerable technological content. Murphy and Ledwith (2007) analyse high technology SMEs, identifying the success factors and tools used in their projects. They sent a survey to 200 companies and received replies from 40. One of the most interesting findings is that there is a significant positive relationship between the job of a project manager and global success. Most SMEs have identified project management processes and also have full-time managers, but the owners/managing directors are still more influential when making decisions concerning projects. These companies are usually organised more by projects rather than by functional lines. The results also suggest that the project management tools and techniques are used in a limited way in high technology SMEs. On the other hand, SMEs firmly believe that past experiences are a vital factor in implementing effective management procedures and in determining future success.

In the survey with similar characteristics by Marcelino-Sádaba (2012), the companies replied that the most used project management tools were programming (on calculation sheets or MsProject) in 84.6% of cases and cost control or communication tools in 53.8% of cases. Considering that the companies perceived the great importance that project success had for the company, it stood out that only 15.3% of companies used supply planning tools, and 23.1% used project risk management techniques.

Regarding projects to develop new products, Ledwith et al., (2006) found that there were differences between large and small companies, confirming what appears in previous literature. In their research, they used 47 interviews with people from teams developing new products, belonging to 4 companies (2 small and 2 large). According to the authors, development process concepts in large companies such as process control and project management can also be applied to small firms. Large companies can also learn from small companies, particularly relating to communication channels with the consumer and all employees sharing a strategic view.

Table 3 below aims to compare projects that are usually tackled in micro, small, medium-sized and large companies. In all cases, these are companies that do not work by project.

**CONCLUSIONS**

Working from contributions from other researchers and after debate and reflection, this article has made some
proposals on matters related to project size and carrying out projects in companies of different sizes.

A classification has been proposed for project size in relation to the organisation tackling it. In this respect, it is considered that essential elements when characterising projects are similar to traditional projects (budget, duration and number of people in the project team) although measured in relative terms.

On the other hand, a check list has been drawn up that might be useful to identify very small projects or at least work that can be managed using Project Management tools.

Two major ideological perspectives were suggested on management models for small projects that were called up-bottom, if they must emerge from the adaptation of existing standards or bottom-up if they must be created specifically.

Finally, a comparison was presented between the characteristics related to the project an organisation tackles, depending on its size.

In all cases this refers to preliminary proposals that must be submitted for consideration and contribution from experts and research in real companies tackling projects periodically.

REFERENCES


