Information Systems and Technology Projects in Healthcare Organisations

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INTRODUCTION

The challenges facing healthcare organizations require more comprehensive and integrated solutions and efficient resource management as a means of eliminating inefficiencies and of achieving promised benefits. In academic literature, information systems and technology (IS/IT) have been recognized as being an organizational capability that can lead to competitive advantage and better performance (Bharadwaj 2000; Kohli & Devaraj 2003). Organizations recognize project management as being a fundamental tool for the development of initiatives which lead to the implementation of the organizational strategies (Crawford, 2005; Hodgson, 2002). One way that the effectiveness of IS/IT project management capability has been assessed is through the use of maturity models, with the underlying assumption that higher levels of project management maturity imply a higher effectiveness of project management capability (Kwak & Ibbs 2002; Sonnekus & Labuschagne, 2004).

Our research focuses on the combination of the project management and maturity models approaches as a means of strengthening the final results of IS/IT projects in the healthcare sector. It is the authors' belief that this combination of approaches enhances not only the success of projects, but also the realization of the expected benefits. It is also important to emphasize that, by taking advantage of the specific features of each of these approaches, their structure will certainly increase the effectiveness of IS/IT projects in the health sector, by enhancing both the confidence of sponsors and investors, and also the achievement of the promise benefits.

The maturity models approach provides a framework which helps organizations increase their capability to deliver projects on schedule, within budget, and according to the desired technical performance (Levin & Skulmoski, 2000). Projects are temporary achievements that are used to solve various types of tasks of variable size, and are applicable in a very broad range of business sectors (Maylor, 2001). Project management coordinates skills and organizational knowledge and follows the progress of a set of pre-established activities in order to achieve objectives (Kronbichel, 2009). Many organizations fail to review whether the planned benefits of IS/IT projects have been achieved, or not, as they do not possess sufficient resources to undertake such a benefit review, and, moreover, they are constantly under pressure to deliver other projects (Bennington & Baccarini, 2004). Benefits management identifies goals and benefits by combining organizational changes and investments in IS/IT, and also by showing the way to achieve them (Gomes, Romão & Caldeira, 2013; Ward & Daniel, 2006).

BACKGROUND

Literature Review

Whilst there is general agreement that IS/IT does indeed contribute to adding business value, there is uncertainty as to how these contributions were really obtained (Melville, Kraemer & Gurbaxani, 2004; Devaraj & Kholi, 2003). Although many studies have focused on the consequences of IS/IT investments, fewer studies have examined factors which impact the capability of IS/IT (Devaraj & Kholi, 2003).

Project Management Institute (PMI) (2012) define project as a limited effort in time, which is undertaken to create a product, service or a result. The essence of project management is to support the implementation of these temporal initiatives under the framework of an organization's competitive strategy, in order to successfully deliver a particular outcome (Milosevic, 2003; Senhar & Dvir, 2007). Project management is thus a set of management activities which is required to ensure that projects which are defined, planned and monitored, go on to achieve agreed objectives and benefits (Deveraj & Kohli, 2003). Kerzner (2009) highlights the importance of project management in the planning and control of organizations' resources, helping to achieve, not only short-term goals, but also broader, temporal objectives.

It appears that determining whether a project is a success, or not, is far more complex. Success is perceived differently by the different stakeholders involved in the projects (Freeman & Beale, 1992). The differences in success criteria definition should reflect the different interests and points of view, which leads us to conclude that project success is a multidimensional criterion (Freeman & Beale, 1992; Pinto & Mantel, 1990). Success criteria known as the 'iron triangle' have been criticized for their exclusive focus on the project management process, to the detriment of including the vision and goals of the different stakeholders (Baccarini, 1999; Bannerman, 2008).

This classic approach remains the most widely used measure of project success and its main value is in offering a simple, direct measure of performance of the project, but it neglects whether the deliverables fulfilled the objectives of the project (Bannerman, 2008).

The improvement in the success of projects results from increased maturity and organizational competence (Sergeant et al., 2010). Higher levels of maturity will, in most cases, lead to improved project outcomes (Nieto-Rodrigues & Evrard, 2004). Projects which have multiple stakeholders, with different perspectives about the purpose of the project, usually have different expectations as to what the project should achieve (Lim & Mohamed, 1999). Since the success of a project depends on the perceptions of a large number of stakeholders, *"absolute success"* probably never exists in project management, but only *"perceived success"* (Baker, Murphy & Fisher, 1988). In the academic literature, we found examples of projects that have successfully completed the criteria of the "iron triangle", but resulted in disappointing business experiences (Shenhar et al., 2005). On the other hand, initiatives that did not meet the constraints of cost and time later proved to be successful (Pinto & Slevin, 1988). The understanding of the concept of project success has evolved over recent decades, and a gradual understanding is now emerging that project success requires a broader and more comprehensive definition.

Aaltonen et al. (2008), state that the key issue in project management is managing the relationship between the project and its stakeholders. There is little evidence to suggest that process capability improvement result in improved project success, although a few studies are promising in this respect (Mullaly, 2006; Lee & Anderson, 2006).

Maturity models have become an important evaluation tool for measuring the internal and external capabilities of organizations. Maturity models describe the development of an entity over time (Klimko, 2001) and they represent a structured collection of elements which highlight

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