

Perceived Required Skills and Abilities in Information Systems Project Management

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ABSTRACT

This article reports on results of a study on Information Systems (IS) project management skill set based on a two-round data collection from IS project managers and professionals. The first phase involved interviews with 47 project managers that resulted in identification of 12 important project management skills. In phase two, a survey was developed, based on phase 1 study results, to collect data from 41 IS project managers and professionals. Results identify rankings of the 12 skills as the 12 skills are further grouped into four categories of Communication and relationship management, Resource management, Change leadership, and Administrative.

Keywords: *Information System Project Management, Information Systems, Project Management, Project Management Competency, Project Management Skill*

INTRODUCTION

Project management has become an increasingly important function in many organizations. The constant change, use of cutting edge technology, and cross-functional impact of business processes that is characteristic of modern firms make project management an attractive as well as challenging profession. Project management concept, standards, and competency has significantly enhanced over the years thanks to academic and professional programs. Still, a great number of projects fail before completion

for a variety of reasons including shift in priorities, project misalignment with organizational goals, leadership issues and the like. A project manager's skills and abilities will clearly influence whether or not a project will be successful (Rozenes, 2011). The literature on this topic is extensive and *A Guide to the Project Management Body of Knowledge* (PMBOK) published by PMI describes what is recognized as good project management practice. These guidelines describe general practice across disciplines and types of project.

Notwithstanding the fact that good project management practice is useful for most situations, some skill sets may be more important

DOI: 10.4018/ijtpm.2013010101

than others in a discipline (Faraj & Sproull, 2000). This study concerns perceived skill sets necessary for the success of information system project management. Information systems development has increasingly relied on effective use of project management tools and principles and that trend is likely to continue (Shenhar & Dvir, 2007). It can be argued that the success of information system projects is to a large extent influenced by effective practice of project management principles (Verner & Evancho, 2005). It is also argued that the practice of information system project management may be unique (Vaas, 2002) due to higher level of uncertainty (Wirth, 1996). According to a 2004 Standish Group International report, majority of information system projects are over budget and/or late. There is a need for better understanding of individual project management skills and abilities that are important to the success of information system projects. Earlier studies on project management body of knowledge encourage that line of research (Morris, Crawford, Hodgson, Shepherd, & Thomas, 2006). Specific goals of this study were to address the following research question:

- What are important skills and abilities in information system project management?

This study consisted of two phases. First, we wanted to generate a list of IS project management skills and abilities that are perceived to be important by professionals. In phase one of the study we carried out interviews with 47 IS project managers in Southwest region of the United States. We asked these professionals to identify individual skills and abilities that they felt were important to the success of project management. These interviews resulted in a list of 12 project management skills. In phase two of the study we administered a survey questionnaire comprised of these 12 skill items and their definitions to 41 IS project managers and professionals in order to further examine

their importance and rank order them. In the following sections, we first review the relevant literature followed by a description of study methods and analysis of results. Implications of study findings are also discussed.

LITERATURE REVIEW

A number of surveys and journal articles describe the skills and attributes of the successful project manager (e.g., Ingason & Jonasson, 2009; Crawford & Pollack, 2007; Muzio, Fisher, Thomas, & Peters, 2007; Henderson, 2008; Neuhauser, 2007; Geoghegan & Dulewicz, 2008; Napier, Keil, & Tan, 2009; Taylor & Woelfer, 2010). Some have described project management competency from two perspectives of attribute based and performance based (Crawford, 2006). Attribute based competency includes knowing of how to use tools and do things and individual characteristics. Performance based competency includes actions that the project manager takes to successfully complete a project. Others have described project management competency from the two perspectives of personal characteristics and managerial and organizational skills (Posner, 1987). The primary problems of project managers, according to Posner, are human, not technical. Increased technical capabilities will be helpful “only to the extent that this improves their ability to communicate, be organized, build teams, provide leadership, and deal comfortably with change (p. 54).” Others argue that effective leadership begins with technical competency: “Managing technicians without an understanding and an appreciation for the technology is not only difficult, it is downright dangerous” (Cash & Fox, 1992, p. 11). In their view it is important for the accuracy of project plans and budget estimates that project managers have technical competency.

Others have grouped project management skills into four areas: people skills, management skills, business expertise, and technical

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