

Can Agile Project Management Be Adopted by Industries Other than Software Development?

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ABSTRACT ■

This research paper presents evidence from an exploratory survey on the use of agile project management (APM) practices and the presence of APM enablers in 19 medium- and large-sized companies from different industry sectors considering innovative projects. The results show that these companies are possibly struggling to use their current management practices in the face of different project challenges. Additionally, the presence of some APM enablers indicates opportunities to adapt the APM theory for different companies other than those in software development. Future research should explore the correlation between APM practices and enablers in order to develop “hybrid” management models for different industries.

KEYWORDS: project management; agile project management; APM practices; APM enablers

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INTRODUCTION ■

Project planning and control is a challenge for companies engaged in developing new products and/or technologies. This problem has been discussed by those who have been critical of the use of traditional management methods (e.g., waterfall, linear phased-gate approach, or rigid detailed upfront planning followed by rigid execution) in this type of project (Andersen, 1996; Baccarini, 1996; Dawson & Dawson, 1998; Williams, 1999; Maylor, 2001; Cohn, 2005; Shenhar & Dvir, 2007; Stefens, Martinsuo, & Artto, 2007; Perminova, Gustafsson, & Wikström, 2008). The solution could be in establishing a more “flexible” approach to new product development, adaptable to the contingencies of the project environment (Thomke & Reinertsen, 1998; Verganti, 1999; MacCormack, Verganti, & Iansiti, 2001; Smith, 2007; Biazzo, 2009).

This flexible approach has been recognized by the term agile project management (APM) or “agile methods.” According to the literature, the main focus of APM application has been the software industry (MacCormack, Verganti, & Iansiti, 2001; Qumer & Henderson-Sellers, 2008; Mafakheri, Nasiri, & Mousavi, 2008; Sheffield & Lemétayer, 2013). There is an implicit message in the APM literature reinforcing the need to implement or use APM as a “pure” approach, following the practices, tools, and techniques disseminated in this theory (Highsmith, 2004; Cohn, 2005; Schwaber, 2004). Although there is extensive evidence of effective APM use in the software industry, however, there is a lack of empirical studies in other types of industries and projects.

Considering this scenario, would it be possible to find evidence of APM use in other industrial sectors that do not formally adopt or recognize the use of agile project management theory?

In order to address this question, this research paper presents a conceptual framework to help with the identification of practices and enablers related to the APM approach. The framework was applied in an exploratory survey within a group of Brazilian companies. The investigation covered 19 medium-sized and large-sized companies that are parts of the program of the Center of Reference on Innovation, of the Innovation Center at Fundação Dom Cabral (FDC CRI-Minas, Brazil). A characteristic these companies share is their experience in new product development and the fact that they do not yet formally recognize the use of APM methods. The option to study new product development