Journal of Cases on Information Technology
Volume 20 • Issue 4 • October-December 2018

A Practical Agile Framework for IT Service and Asset Management ITSM/ ITAM Through a Case Study

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ABSTRACT

Agile mode projects are increasingly popular among IT Department, including the most complex organizations. The deployment of agility on a larger scale fits over a long period because the motivations are part of a persistent setting. The deployment of large-scale agility is therefore based on a deep and lasting transformation of the organization. In order to support transformational business changes, IT must streamline the top-down process of new IT processes. The success of an IT service and asset management depends on innovation, agility, and efficiency to accompany the transformation of the organization from a traditional vision to a digital vision. The aim of this article is to propose a practical agile framework to improve IT service and asset management ITSM/ITAM processes through a case study in the organization. The finding will help organizations to assess their capabilities and to address the procedural, technical and human aspects of IT service and asset management.

KEYWORDS

Agility, DevOps, Framework, IT Asset, IT Service, Maturity Assessment, Organization

1. INTRODUCTION AND BACKGROUND

Over the past two decades, ITSM frameworks provided a more systematic approach to IT service management in the areas of IT operations for continuous improvement, implementation and design (Marrone, Gacenga, Cater-Steel, & Kolbe, 2014). Various studies focused on the adoption of IT Service Management (ITSM) as a "specific service-oriented best practice." According to (Winniford, Conger, & Erickson-Harris, 2009), approximately about 45% of US corporations are operating an ITSM while 15% are preparing for its usage. IT service management is a quality customer service that tries to ensure that customer needs and expectations are met at all times.

In "ITIL: What It Is and What It Isn't", (Marquis, 2006) examined the measuring techniques of successful companies when implementing the ITIL-best practices. He describes Service Support, Service Delivery and explains its stress on an ITSM-ITIL best practices that it does not stand alone and it could be successful when applying to other practices. The authors define three major tasks, which define appropriate goal setting through a Process Maturity Framework (PMF), rigorous

DOI: 10.4018/JCIT.2018100105

auditing and reporting through a Quality Management System (QMS) and Project Management and a Continuous Service Improvement Program (CSIP), to support ITIL-usage. Furthermore, he also provided more information about business-aligned IT process and continuous improvement of the tactical and operational components especially those processes that focused on service quality by clients and users. In other work, (Bartolini, Salle, & Trastour, 2006) suggested an IT Management by Business Objectives (MBO) method, which is a special method to ensure business strategic objectives-IT alignment, by defining a new system for decision support in ITSM. It is closely related to the ITIL component in operational level and tactical level of theoretical. In "E-government: ITIL oriented Service Management Case Study". (van Grembergen & de Haes, 2009) illustrated a set of the best guides and practices (COBIT Framework) for IT management control and assurance of information technology, and categorized them around a logical framework based on 34 IT processes. (Marrone & Kolbe, 2011) studied the benefits of both operational and strategic of IT Service Management. The research outcome indicates that as the implementation of ITIL increased the number of realizing benefits, like the levels of maturity of the Business-IT-Alignment. In his book (Willcocks, 2013), the author proposes different approaches to evaluating practice at strategic levels and during the pre-purchase phase of IS assessment. In their book (Ang, 2014) introduces a comprehensive and new approach to the secular problem of where to place your money in the IT asset management. In recent works (Lowenstein & Slater, 2016). The authors explore the balance of the three fundamental aspects that make up asset management and will focus on how to implement strategies to reduce the total ownership cost.

The concept of agility was first used in the strategic management and industry literature in the 1990s (Meade, L. M., & Rogers, 1997; Vernadat, 1999; Volberda & Rutges, 1999; Yusuf, Sarhadi, & Gunasekaran, 1999). The agility presented and proposed in the literature with the argument that success in volatile industries requires a different set of capabilities than those required for success in stable industries.

In the literature, there is a lack of research on agility in IT management systems (van Oosterhout, Waarts, & van Hillegersberg, 2006). Although the IT function, in all its dimensions, gains in flexibility and reactivity (Bi, Davidson, Kam, & Smyrnios, 2013). Beyond that, the IT system function is at stake and must have the capacity to accelerate its adaptation to business needs, market requirements and the strategic alignment of IT and organization. Agility is the best solution to cope with different internal/external changes (Overby, Bharadwaj, & Sambamurthy, 2006). DevOps is a set of best practices and guidelines that ensure the development, assurance and quality improvement and operations to better meet the customer's needs (Balalaie, Heydarnoori, & Jamshidi, 2016). The word DevOps (DevOps is the concatenation of the first three letters of the word "development" and the usual abbreviation "ops" of the word "operations") was invented by Patrick Debois during the organization of the first DevOps days in Ghent, Belgium, in October 2009. To ensure competitiveness, the organization needs to accelerate the delivery of new software features and functionality (Balaji et al., 2014; DeGroote & Marx, 2013). This is the idea behind agile application/software development processes that are now widely used by application delivery teams to reduce the time delivery (Fitzgerald & Stol, 2017). DevOps can be applied in the ITSM/ITAM field, in order to benefit from it and to ensure an efficient and flexible ITSM/ITAM in the organization. In recent works, (James, A. R., Pankaj, C., & Micki, 2015) explore the attributes to select and execute a response in an agile information system. A set of attributes was initially derived from practitioners' literature and then refined using interviews with practitioners. The importance and validity of the attributes were established using an industry survey. All attributes derived from this study were considered relevant for selecting and executing a change in an agile information system. More than ever before, (Kim, Debois, Willis & Humble, 2016) argue that effective technology management is essential to ensure a successful business competitiveness. The book creates a language to describe DevOps. Highly recommended, no matter if you have a professional or technical environment. The DevOps Handbook shows leaders/practitioners how to replicate these