Chapter 11
Agile Business Process and Practice Alignment Methodology:
A Case-Study-Based Analysis

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ABSTRACT

Business process management (BPM) encompasses the discovery, modelling, monitoring, analysis, and improvement of business processes. Traditional BPM limitations in addressing changes in business requirements have resulted in a number of agile BPM approaches that seek to accelerate the redesign of business process models. In a previous work, the authors proposed the business process and practice alignment methodology (BPPAM) to uncover, supervise, and improve business processes based on actual work practices. BPPAM aims at enabling business process modeling, supervision, and improvement through the distinction of two dimensions: (1) business processes and (2) work practices. This chapter describes an agile version of the methodology (ABPPAM). Agility is infused in ABPPAM through the redefinition of phases, roles, and iteration cycles. The chapter illustrates the effects of agility for the business discovery phase of ABPPAM through a case study analysis of a real organizational setting.

1. INTRODUCTION

Business Process Management (BPM) encompasses the discovery, modelling, monitoring, analysis and improvement of business processes. Traditionally, business processes are developed by creating a detailed model of a business process in question, acquiring an IT-system to support it, and then implementing it in the organizational practice (Bider & Jalali, 2016). Business Process (BP) modeling specializes on describing how activities interact and relate with each other, and how activities interact with other busi-

ness concepts such as goals and resources, where resources may be material and informational entities, as well as human or automated actors. Current BP modeling methodologies are supported by data collection techniques including interviews, surveys, text/document analysis, among others. BP modeling emphasizes process notions (workflow, decision, information, activities) as the dominant dimension (Hollingaworth, 2004).

However, BP modeling would benefit from a better understanding of other elements that contribute to process execution such as *people* and *human interactions*, *products* or *tools* used, specific *vocabularies*, *preferences, habits* and *rules*. Moreover, it has been argued that existing BP modeling methodologies offer little guidance in keeping up-to-date the continuously evolving knowledge coming from business process execution (Castela, Dias, Zacarias, & Tribolet, 2012). Business processes are executed through human and automated activities. Whereas many business processes are fairly static only at a high level, at finer-grained levels such as activities, are more agile and unpredictable. Indeed, many organizations do not know their end-to-end processes accurately or in detail, since the knowledge required for its execution is tacit and decentralized (Verner, 2004). Recent research in BP modeling is aiming to address the unpredictability of business processes (Mutschler, Weber, & Reichert, 2008; Reichert, Dadam, Jurisch, Kreher, & Goser, 2008), but there is yet little help in addressing the problem of tacit knowledge and business process model maintenance.

From our point of view, what appears to be unpredictable behavior does not mean chaos. Indeed, it follows certain rules. The rules followed in the execution of activities and tasks can be uncovered by capturing work practices. Work practice is a concept that originates in socio-technical systems, business anthropology, work systems design, and management science (Sierhuis, Clancey, Hoof, & Hoog, 2000). Work practices are behaviors of specific individuals, performing specific activities, in specific circumstances, exhibited as *action patterns*. Work practices involve people engaging in activities over time, not only with each other, but also with machines, tools, documents, and other artifacts.

The importance of discovering work practices to improve user support has been acknowledged in (Brezillon, 2003; Pomerol & Brézillon, 2011; Sierhuis, Clancey, van Hoof, & de Hoog, 2000). Work practice modeling is also important in (1) providing a deeper understanding of the human activities composing business processes, and (2) assessing the alignment between process models and actual execution (Zacarias, Serendero, Pinto, & Tribolet, 2008).

This paper describes an agile version of the Business Process and Practice Alignment Methodology (BPPAM) proposed in (Zacarias & Martins, 2014). BPPAM allows business analysts to discover, supervise, analyze and improve business processes, paying attention not only to the process dimension but also to product, information and human dimensions that become visible in actual work practices. The Agile Business Process and Practice Methodology (ABPPAM) aims at faster and more frequent delivery of business process models through the integration of phases and roles, as well as defining more focused iteration cycles.

ABPPAM was developed following a design research approach (Hevner, March, Park, & Ram, 2004). Design research enables building and evaluating artifacts such as models and methodologies. Design-science research involves two processes; (1) *build* and (2) *evaluate*. Both processes are used to create and/or improve four kinds of artifacts; (a) *constructs*, (b) *models*, (c) *methods*, and (d) *instantiations*. Purposeful artifacts are built to address unsolved problems. They are evaluated with respect to the utility provided in solving those problems. Constructs provide the language in which problems and solutions are defined and communicated. Models use constructs to represent a real-world situation. Models enable exploring the effects of design decisions and changes in the real world. Methods provide guidance

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