

AN APPROACH TO CONTINUOUS PROCESS IMPROVEMENT (CPI) BASED ON CASE-BASED REASONING AND PROCESS CHANGE PATTERNS

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ABSTRACT. *Today's business environments are characterized by fierce competitions and rapid changes. Accordingly, organizations must retain a quick adaptability, which capability can be achieved and maintained by sufficient attention to the whole lifecycle of business process management. In order to accomplish such agility, organizations need to improve their business processes continuously in response to changes in the business environments. In this paper, we present an approach to continuous process improvement based on case-based reasoning and business process change patterns. The approach includes a decision support feature and suggests a specific business process improvement guide for process improvement staff. It is expected that the proposed approach, through provision of such a concrete and detailed guide, will increase the efficiency and effectiveness of process improvement efforts.*

Keywords: Continuous process improvement, Case-based reasoning, Business process management, Process change patterns

1. Introduction. Recently, many organizations have adopted BPM (Business Process Management) systems in order to manage their operational business processes efficiently. A BPM system is defined as “a generic software system that is driven by explicit process designs to enact and manage operational business processes” [1]. BPM has been referred to the succeeding stage to 1990s' workflow management (WFM) [2]. BPM system has been recognized as a key enabler for integrating core enterprise information systems such as SCM (Supply Chain Management) [3,4], ERP (Enterprise Resource Planning) and so on. Today, BPM systems, incorporating many related technologies, are readily available [5].

The ultimate goal of BPM system implementation is to continuously improve business processes in an efficient and effective way [6]. To that end, the whole lifecycle of process management, including process design, system configuration, process enactment and diagnosis, must be comprehensively supported. Essential therefore is the provision of tools and techniques for support of continuous process improvement (CPI), process design, execution and monitoring [7,8]. Furthermore, today's rapidly changing and acutely