

Complex software project development: agile methods adoption

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Abstract

The Agile Software Development paradigm has become increasingly popular in the last few years, since it claims lower costs, better productivity, better quality and better business satisfaction. Supply chain management (SCM) is a complex software development project. Owing to its scope and uncertain, complex and unstable requirements, it is not possible to develop it with predictable software development process models. Agile methodologies are targeted toward such kinds of problems that involve change and uncertainty, and are adaptive rather than predictive. How an agile process is introduced will significantly impact the implementation success of the process change. The objective of this paper is to analyze the agile development methodologies and management approach used in developing a complex software project. This further demonstrates how to overcome risks and barriers in each development phase of such complex inventive software projects. It also provides a set of guidelines regarding how the agile methodologies can be adopted, combined and used in these kinds of complex software projects. These findings have implications for software engineers and managers developing software by agile methods. Copyright (C) 2011 John Wiley & Sons, Ltd.