

## A framework for agile implementation of ERP systems

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An Enterprise Resource Planning (ERP) system is an integrated software system, typically offered by a vendor as a package that supports the seamless integration of all the information flowing through *Business Processes, Business Intelligence, Business Integrations, Collaborations, etc.* However, ERP implementation projects rank among the slow-moving, costly and challenging business solutions in an organization. Many ERP implementation projects are still executed adapting waterfall or similar traditional methodologies. While the usage of waterfall methodology in IT projects is diminishing, agile approaches usage is mounting. Agile movements provide proactive, active and reactive alternatives to traditional approaches by responding unpredictability and rapid volatility with well-timed, flexible and incremental iterations and empirical feedbacks. There are many approaches for agility. Among them, *agile process management* or *agile project management* can be considered as a broad approach that can be adopted by engineering, information technology, and new product or service development projects. *Agile Software development* is one of its popular applications. Although agile based IT approaches are originated in software development domain, parts of agile may be applicable in enterprise system implementations like ERP, to smooth many of the current ERP challenges. There is a tiny body of research on the relationship between agile approaches and ERP implementations.

This research is intended to discuss on the need of agile approaches in ERP implementations and how agility and ERP implementations can coexist. In this case our research question is “Can the common ERP implementation challenges be solved by using agile approaches?” and if so, “How these challenges can be solved?”

Analysis of literature, findings of business case studies and new suggestions are consolidated into a unique framework which encapsulates the best practices in ERP implementations and agile strategies. Focusing key agile strategies are *Embracing Change, Business Value Prioritization, Effective Communication & Collaboration, Rapid feedback* and *Incremental Change*. The proposed framework focuses on filling the knowledge gap related to agility in ERP system implementations while summarizing the best practices, critical success factors from managerial and technical perspectives, success dimensions and associated critical issues during the agile implementation of ERP life cycle. This study is also seeking to uplift the level of awareness on the applicability of agility for ERP implementation projects, and these findings can be effectively used by ERP Implementers, Vendors, Consultants, Project Managers and Researchers in their respective projects.

**Keywords:** ERP implementation challenges, agile methodologies, ERP implementation agile solutions