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## Chapter IV

# The Impact of Agile SAP on the Supply Chain

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## **Abstract**

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*Enterprise Resource Planning (ERP) packages, such as SAP, present different competitive challenges to vendors and users. Vendor competitiveness demands an agile deployment process for ERP software while offering increased functionality. User competitiveness depends on obtaining optimal benefits from ERP while not sacrificing competitive agility. This research shows that as deployability of SAP software becomes more agile, using organizations experience increased business agility. In addition to agile ERP deployment, the importance of process understanding and targeted agility impacts are shown to influence user SAP outcomes.*

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## Introduction

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As technology advances and the rate of change accelerates, the typical organization has come to rely on Enterprise Resource Planning (ERP) as a tool for managing materials and information across functional silos. ERPs enable agile manufacturing operations, especially in the area of supply chain management. By making business processes and information visible, and therefore, capable of management, ERP provides a means for companies to improve their customer experience, time to market, order fulfillment, and, eventually, net income (Ross, 1999).

Several serious liabilities of ERP exist, however. ERP packages are not cheap and have long, idiosyncratic implementation cycles; business processes, once changed, become frozen in place, with business improvement either elusive or not seen until many months after complete organizational production has begun (Ross, 1999).

Most large business organizations now use one or more ERP software packages to integrate their supply chains and thus, improve their organization's agility. However, while the problems of ERP deployment have been discussed in many case studies, the concepts of agility as applied to ERP deployment have been ignored (cf. Biggs, 2001; Basu & Humar, 2002; Lee & Lee, 2000; McCormick & Kasper, 2002).

In this research, we sought to determine the impact on organizational agility provided by agile ERP software deployment. We apply agility concepts to SAP installations to demonstrate the applicability of agility theory to ERP implementation. We show that agile deployment has competitive benefits both for the software vendor and for the licensing business organization.

In the remainder of this report, software deployment and the extent of agility with which the software is deployed are discussed using a case study of an organization that deployed SAP's ERP system; then, we analyze survey results for several organizations. We develop the notion that the more self-aware the organization, the more their potential gain from deploying ERP software. We conclude with recommendations and trends for companies seeking to improve their business process operations through SAP software deployment, and recommendations and trends for SAP, Inc. to improve their product deployment agility and, thereby, improve their customers' agility.

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