Chapter 6.9
Organizational Knowledge Sharing in ERP Implementation:
Lessons from Industry

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ABSTRACT

This study examines organizational knowledge sharing in enterprise resource planning (ERP) implementation. Knowledge sharing in ERP implementation is somewhat unique because ERP requires end users to have more divergent knowledge than is required in the use of traditional systems. Because of the length of time and commitment that ERP implementation requires, end users are also often more involved in ERP implementations than they are in more traditional ERP implementations. They must understand how their tasks fit into the overall process, and they must understand how their process fits with other organizational processes. Knowledge sharing among organizational members is one critical piece of ERP implementation, yet it is challenging to achieve. There is often a large gap in knowledge among ERP implementation personnel, and people do not easily share what they know. This study presents findings about organizational knowledge sharing during ERP implementation in three firms. Data were collected through interviews using a multi-site case study methodology. Findings are analyzed in an effort to provide a basis on which practitioners can more effectively facilitate knowledge sharing during ERP implementation.

INTRODUCTION

Enterprise resource planning (ERP) is a strategic tool that helps companies gain a competitive edge by streamlining business processes, integrating business units, and providing organizational members greater access to real-time information. Many firms are using ERP systems to cut costs, standardize operations, and leverage common processes across the organization. ERP allows firms to have a more convergent view of their infor-

mation by integrating processes across functional and divisional lines using a centralized database and integrated sets of software modules (Scott and Kaindl, 2000; Zheng et al., 2000).

However, the convergence that ERP affords at the organizational level often results in a divergence of the knowledge required at the individual level (Baskerville et al., 2000). ERP imposes a new framework on the organization (Robey et al., 2002). It requires end users to have broader knowledge than is required in the use of traditional systems. They must understand how their tasks fit into the overall process and how their process fits with other organizational processes (Lee and Lee, 2000). Thus, knowledge sharing is one critical piece of ERP implementation. An organization begins to build the foundation during implementation on which end users can understand enough about the ERP framework to realize its benefits (Robey et al., 2002). Because of the time commitments and the extensive knowledge sharing that must take place during ERP implementation, end users are often more involved in the implementation than they are in more traditional implementations. In some cases, ERP implementations are managed and led by end users and end user managers, and IT staff serves primarily as technical advisors (Jones, 2001). Unfortunately, there is usually a significant gap in knowledge among these implementation personnel, and people do not easily share what they know (Constant et al., 1994; Jarvenpaa and Staples, 2000; Osterloh and Frey, 2000; Soh et al., 2000).

This study was undertaken to examine how firms ensure that organizational knowledge is shared during ERP implementations. One objective is to identify facilitators of organizational knowledge sharing. Another is to synthesize findings into lessons about knowledge sharing during implementation that other firms can apply in their own ERP implementations.

THEORETICAL BACKGROUND

Knowledge sharing in ERP implementation is somewhat unique because ERP redefines jobs and blurs traditional intra-organizational boundaries (Lee and Lee, 2000). Knowledge must be shared across functional and divisional boundaries, and the knowledge required during ERP implementation entails a wider variety of experiences, perspectives, and abilities than traditional information systems implementations (Baskerville et al., 2000; Robey et al., 2002). Knowledge sharing is challenging because much knowledge is embedded into organizational processes (Davenport, 1998). The way people actually do their jobs is often different from the formal procedures specified for even the most routine tasks (Brown and Duguid, 2000). It is also challenging because there are gaps between what people do and what they think they do (Brown and Duguid, 2000). Some tasks are so routine, and people have done them for so long, that many of the steps involved are subconscious (Leonard and Sensiper, 1998). However, there is a variety of factors that can facilitate knowledge sharing during ERP implementation.

In order to present a coherent and logical view of knowledge sharing, we identify factors that influence knowledge sharing that are linked by a common conceptual underpinning, which allows individuals to share observations and experiences across traditional boundaries. Most ERP implementation activities center around the ERP implementation team (Baskerville et al., 2000). ERP implementation teams typically consist of organizational members from a variety of functional areas and organizational divisions. Each team member must understand what the others do in order to effectively map processes during the implementation (Baskerville et al, 2000). Team members must work to achieve this level of understanding. The knowledge sharing required does not come automatically with team membership; it must be facilitated. Thus, facili-