ABSTRACT

This study examines tacit knowledge sharing in enterprise resource planning (ERP) implementation. There is often a large gap in knowledge among ERP implementation personnel because of ERP’s cross-functional nature. An underlying assumption of knowledge sharing is that individuals can share the knowledge they have. Although this is a valid assumption for explicit knowledge that can readily be examined apart from the individual who originated it, tacit knowledge is not as easily examined. This study presents findings about facilitators of tacit knowledge sharing in three firms that have implemented ERP. Data were collected through interviews using a multi-site case study. This study contributes to the body of knowledge about tacit knowledge sharing in ERP implementation in several ways. First, it identifies and categorizes factors that facilitate tacit knowledge sharing during ERP implementation. Second, it proposes which facilitators seem to result in the most tacit knowledge sharing. Third, it provides several guidelines for practitioners that they can use in their own ERP implementations. Finally, the study provides directions for avenues of future research, and suggests two research questions arising out of these findings that might be explored.

Keywords: enterprise resource planning; knowledge sharing; organizational knowledge; tacit knowledge

INTRODUCTION

The knowledge-based perspective of organizations posits that the combination of resources a firm uses to offer its products/services is a function of the firm’s knowledge (Alavi & Leidner, 2001). This perspective raises the issue of how best to manage the knowledge resource, including how to facilitate knowledge sharing behaviors. This requires a view of knowledge that is broader than the traditional view of knowledge as an object that can be codified and distributed outside of the individual who created it (Fahey & Prusak, 1998). This type of knowledge is often referred to as explicit knowledge (Nonaka, 1994). In the last decade, many firms have begun to realize the importance of the storehouse of knowledge that exists within the heads and
experiences of their organizational members, while simultaneously grasping that it is difficult to separate from the originating individual (Grant, 1996). This suggests that knowledge may also be viewed as being embedded into the practices and communications of individuals (Fahey & Prusak, 1998; Spender, 1996; Swap, Leonard, Shields, & Abrams, 2001), and is often associated with tacit knowledge (Nonaka, 1994). The embedding may arise out of experiences of the individuals or the workgroups to which they belong, as well as from interpretations and routinization of work practices (Alavi & Leidner, 2000).

Tacit knowledge is contextual, held informally, and gained through experience and interactions among individuals and between individuals and processes (Nidumolu, 2001; Fahey & Prusak, 1998). It is rooted in the actions, experience, and involvement of organizational members in a specific context, and encompasses both cognitive and technical knowledge dimensions (Nonaka, 1994). Cognitive tacit knowledge is defined as a set of mental models that influence an individual’s actions and decisions. An example of this would be a salesperson’s beliefs about what might appeal to a customer (Alavi & Leidner, 2001). However, knowing what might appeal is not sufficient to enable that person to make the sale. The technical dimension of tacit knowledge is defined as the know-how that is applicable to a specific situation (Nonaka, 1994). For example, once the customer is interested, a salesperson needs to have the sales skills to lead the customer to actually buy the product. These skills are acquired through experience and the salespersons’ involvement with the customer, products, and the organization. The two dimensions together make up the salespersons’ tacit knowledge about the best way to approach a specific customer. This is different from explicit knowledge that might include the salespersons’ knowledge about specific product functionality and costs.

Enterprise resource planning (ERP) systems provide a fertile ground for examining the phenomenon of tacit knowledge sharing when people from different, and often competing, units must work together to capture both the tacit and explicit knowledge about organizational processes (Baskerville, Pawlowski, & McLean, 2000). Knowledge sharing is one critical piece of ERP success in any firm (Klaus & Gable, 2000; Markus, Tanis, & van Fenema, 2000; Kawalek & Wood-Harper, 2002). Knowledge sharing in ERP implementation is somewhat unique because ERP redefines jobs and blurs traditional intra-organizational boundaries (Lee & Lee, 2000). The knowledge required during ERP implementation entails a wider variety of experiences, perspectives, and abilities than is needed during traditional information systems implementations (Baskerville et al., 2000; Robey, Ross, & Boudreau, 2002). Tacit knowledge is developed and reinforced by the way people actually do their work and is difficult to rebuild after it is lost (Brown & Duguid, 2000). If this knowledge is lost during the transition to ERP, the organization may have trouble reclaiming valuable sets of skills (Baskerville et al., 2000). Therefore, tacit knowledge sharing is one key to ERP implementation. This study provides an exploratory assessment of the tacit knowledge sharing that occurs in ERP implementation. The primary objective of this study is to identify facilitators of tacit knowledge sharing in ERP implementation.