



Chapter VI

**Enterprise Resource
Planning and Knowledge
Management Systems: An
Empirical Account of
Organizational Efficiency
and Flexibility**

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Enterprise resource planning (ERP) and knowledge management (KM) systems promise organizations the benefits of enhancing competitiveness and continuous revitalization. This chapter compares the characteristic differences and similarities between the two initiatives and examines how they

influence organizational efficiency and flexibility when implemented within a global engineering firm. We suggest that the two initiatives are conceptually complementary but can only create a synergy when the design of organizational routines and practices fits into the meta-routines imposed by ERP and KM, and the social processes are nurtured within functions and cross-functionally.

INTRODUCTION

Two new organizational initiatives can be identified that are being or have been widely implemented. The first is ERP systems (Cerullo & Cerullo, 2000) and the second is knowledge management (KM) systems (Davenport, De Long, & Beers, 1998). ERP systems are sold as a vehicle for integrating the core business activities of an enterprise, such as finance, logistics and human resources. They are based on developing common IT infrastructures and business processes where previously, especially in large globally distributed corporations, many systems and processes coexisted, making integration very difficult. The suggestion is that these systems can play an important part in leveraging organizational competitiveness through improving the way in which strategically valuable information is produced, shared and managed. Through improving these processes, organizational efficiency should be enhanced. KM systems emphasize how firms can enhance competitive advantage through the more effective utilization of their knowledge assets through allowing free flow of knowledge across organizations (Birchall & Tovstiga, 1999; Brand, 1998; Starbuck, 1992). Through improved knowledge sharing and knowledge creation, flexibility should be enhanced.

While prior studies have provided useful insights on each of these initiatives independently, few empirical studies take into account both initiatives and investigate their influence on organizational efficiency and flexibility. In this paper we examine the extent to which these two initiatives, when enacted within a single organization, are complementary or contradictory, and how the combination of the two influences organizational efficiency and flexibility.

Conceptual Foundations

The ability of firms to effectively respond to environmental opportunities, while simultaneously developing efficient internal processes, has long been seen as central to an organization's success (Geletkanycz & Hambrick, 1997; Volberda, 1996). A large body of literature has, thus, focused on examining the interface between the external environment and internal

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