Chapter 7
Influence of Knowledge Management Infrastructure on Innovative Business Processes and Market–Interrelationship Performance:
An Empirical Study of Hospitals in Taiwan

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ABSTRACT

Knowledge management (KM) infrastructure is the foundation for managing and embodying valuable knowledge in firms. Based on the resource-based view (RBV) and process level analysis, this study investigates how KM infrastructure influences market interrelationship performance through innovative business processes. The study collected a sample of 126 hospitals in the Taiwanese healthcare industry. The results suggest that technological capability and cultural capability positively affect market interrelationships via innovative business processes. Cultural capability is associated with market interrelationship performance whereas structural capability is unrelated to innovative business processes. The findings advance understanding of the influence of KM infrastructure on market interrelationship performance as well as provide managerial insights on the influence of innovative business processes on market interrelationships performance.

INTRODUCTION

Knowledge is one of the most valuable resources for organizations owing to the barriers that exist in its transfer and replication by competitors (Alavi & Leidner, 1999a, 2001). Knowledge management (KM) can confer organizations advantages in a competitive market (Kogut & Zander, 1992). Once knowledge is managed and categorized, employees can know how to quickly access the required knowledge, and thus provide improved services. KM is essential for professional service firms seeking competitive advantage. Numerous professional service firms have adopted KM to enhance their services and expertise in competing against other firms in their profession (Alavi & Leidner, 1999b). Competitive advantage can be expected to improve service industry performance (Bharadwaj, Varadarajan, & Fahy, 1993).

Previous investigations have claimed that KM infrastructure can manage and deploy organizational knowledge (Cepeda & Vera, 2007), transform tacit knowledge into explicit knowledge (Davison & Wickramasinghe, 2003; Wickramasinghe, Fadlalla, & Sharma, 2004), and improve organizational effectiveness (Gold, Malhotra, & Segars, 2001; Ghosh & Scott, 2005, 2008). In the healthcare industry, KM infrastructure help hospitals integrate knowledge from knowledge workers and provide better services to satisfy patient needs (Davison & Wickramasinghe, 2003; Ghosh & Scott, 2005, 2008; Wickramasinghe et al., 2004). Therefore, improved understanding of how to develop KM infrastructure is essential for hospitals when seeking market interrelationship performance that refers to service enhancement, sales and marketing support, and customer relations.

KM infrastructure is an important foundation for improving KM activities in hospitals (Davison & Wickramasinghe, 2003; Ghosh & Scott, 2005, 2008; Wickramasinghe et al., 2004) and is used to realize the maximize value of exploiting organizational knowledge, including technological capa-

bility of KM infrastructure, structural capability of KM infrastructure, and cultural capability of KM infrastructure (Gold et al., 2001). The value of these capabilities of KM infrastructure has not been widely investigated. This study empirically tests the influence of the technological, structural and cultural capabilities of KM infrastructure, and examines how they can help hospitals compete in terms of market interrelationship performance.

Resource-based view (RBV) can help analyze organizational resources so as to determine organization abilities to achieve relative advantage (Barney, 1991; Wernerfelt, 1984). However, as warned in prior research, using RBV to examine economic analyses of resources or capabilities may result in misleading conclusions, process-level analysis more appropriate (Ray, Barney, & Muhanna, 2004; Ray, Muhanna, & Barney, 2005). Although process-level analysis is appropriate for reflecting a relative performance effect, previous studies have not examined the influence of business processes on specific competitive advantages. Therefore, this study tries to fill this gap and use RBV to examine how technological capability, structural capability and cultural capability of KM infrastructure influences market interrelationships in the healthcare industry, and supplement these with a process-level analysis.

Cultural values, generally considered as a key feature of national environment (Lachman, Nedd, & Hinings, 1994), have been found to have significant impact on organizational operations through its influence on organizational structure (Lachman et al., 1994). Hence, the culture of the country in which an organization resides influences organizational structure and thus business outcomes. Organizations should develop organizational infrastructures that match their target markets based on the culture of the host country. Numerous studies have examined the relationship between national culture and organizational infrastructure (Baligh, 1994; Lachman et al., 1994). Lachman et al. (1994) have found that congruency between

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