

## Chapter 48

# Evaluating and Managing Electronic Commerce and Outsourcing Projects in Hospitals

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### **ABSTRACT**

*Despite the huge popularity of outsourcing in electronic commerce/IT in the past two decades, many hospitals have failed to realize the expected benefits from their outsourcing projects. Not surprisingly, the management of electronic commerce/IT outsourcing contracts has become one of the top management issues for hospitals executives in recent years. Hence, the purpose of this study was to provide an overview of outsourcing in electronic commerce/IT investment evaluation and benefits realization processes and practices in Australian and Taiwanese hospitals. Inherent in this study was the opportunity to compare such practices between a developed economy (Australia) and a newly industrialized economy (Taiwan). Several key electronic commerce/IT investment evaluation and outsourcing issues and challenges faced by Australian and Taiwanese hospitals will be presented. The results will assist hospital executives to develop their own approaches and strategies to better manage the opportunities and threats that exist in undertaking electronic commerce/IT outsourcing projects in Australian and Taiwanese hospitals.*

## **INTRODUCTION**

Electronic commerce has revolutionized the way business is conducted. According to eMarketer (2014), worldwide electronic commerce sale is likely to increase by 20.1% to reach US\$1.5 trillion in 2014. It utilizes information technology (IT) (e.g. the Web, the Internet, intranets, extranets) in support of commercial activities (Cao, Lu, Gupta, & Yang, 2015; Standing & Lin, 2007). Electronic commerce can enhance hospitals' competitive advantage via increased efficiency and reduced costs. The main characteristics of electronic commerce include: externalities and exponential growth; critical mass; customer cohesion; content and category depth; broadening and deepening hub services; and disintermediation (Zeng, Wen, & Yen, 2003). It is able to assist organizations in lowering the cost of entry and in expanding the market reach for a variety of business activities. The innovative electronic commerce as an Internet-based option provides a means of achieving the desired degree of interconnectivity without a huge investment and greater technical complexity (Chau & Jim, 2002). Its implementation allows business partners to access their internal business systems via the Internet (Lee, Lim, & Tan, 1999). Electronic commerce provides an efficient and effective channel for information exchange and sharing and enables organizations to trade on a 24x7x365 basis (Lee et al., 1999; Tsao, Lin, & Lin, 2004). It also helps organizations such as hospitals and healthcare companies to use it as a wide-coverage, high-functionality, low-cost tool for venturing into new markets in the global economy (Lin, Huang, Jalleh, Liu, & Tung, 2010; Raisinghani et al., 2005).

Hospitals and healthcare organizations must make good use of their IT/electronic commerce systems through both internal and non-internal sourcing activities in order to remain competitive. According to Gartner, worldwide IT outsourcing spending is forecast to grow by a 5.9% compound annual growth rate from 2013 to 2018 (Britz et al., 2014). IT outsourcing spending accounted for 10.6% of the total IT budget among organizations undertaking outsourcing in 2013 (Computer Economics, 2013). However, only 39% of healthcare organizations engaged in IT outsourcing activities, which was well below the average for all sectors at 60% in the same year (Computer Economics, 2013). Hence, the management of electronic commerce/IT outsourcing contracts has become one of the top management issues for hospitals executives in recent years. However, difficulty in measuring and monitoring the performance of the electronic commerce/IT outsourcing contracts is one of the major problems for hospitals. Despite the benefits of electronic commerce/IT, organizations need to evaluate to determine whether their outsourcing efforts are paying off (Cutler & Sterne, 2000). Although the effective leverage and evaluation of electronic commerce investments can result in improved organizational performance (Melville, Kraemer, & Gurbaxani, 2004), there is little doubt that the less precisely bounded environment of electronic commerce technology adds more complexity to the traditional IT measurement problem as this type of investment is physically distributed between suppliers and vendors, making the evaluation process even more difficult (Zhuang, 2005). The problem becomes more evident as electronic commerce is used to link the supply chain or to change the structure of industries, since costs and benefits have to be tracked across functional and organizational boundaries (Barua, Konana, & Whinston, 2004; Liu, Huang, & Lin, 2012). Existing business models are unequal to this task and planning for such systems has to encompass capabilities for managing and evaluating organizational capabilities to create value across the network of alliances and hence requires evolutionary approaches which can be tailored to business needs at different stages of organizational maturity (Lin, Huang, & Burn, 2007). Needless to say, many organizations find these issues challenging and evaluation methodologies are required to measure and monitor the performance of such investments (Lin, Pervan, Lin, & Tsao, 2008).

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