

## Chapter 8

# A Preliminary Study of the Practices and Processes of B2B E-Commerce Evaluation and Benefits Realization in Taiwanese Hospitals

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### ABSTRACT

*Many hospitals still have not fully received the expected benefits from their investments in Business-to-Business (B2B) electronic commerce (e-commerce). Senior executives in these hospitals are often under increasing pressure to find a way to evaluate the contribution of their B2B e-commerce investments to business performance and to ensure that the expected benefits from these investments are eventually delivered. This is as true in hospitals as it is in the other industries. However, relatively little research has examined how Taiwanese hospitals evaluate their B2B e-commerce investments and to what extent their B2B e-commerce benefits are realized. Hence, the authors take a multi-case study approach to investigate the practices and processes of B2B e-commerce evaluation and benefits realization and their impact on B2B e-commerce benefits and user satisfaction in Taiwanese hospitals. Issues arising from the study include a lack of B2B benefits realization methodology or process and a lack of understanding of B2B benefits realization practices. The results also reveal that a B2B investment evaluation methodology*

*or process was used in most hospitals interviewed. However, there appears to be a lack of proper B2B investment post-implementation review measures in most participating hospitals. Moreover, the findings also show that the level of B2B investment evaluation methodology or process adoption was directly related to the levels of organizational IT maturity and user satisfaction. Furthermore, the authors found that most Taiwanese hospitals in general had not allocated sufficient resources and funding to undertake proper evaluation of their B2B investments.*

## **INTRODUCTION**

In recent years, there have been concerns by the healthcare industry (particularly hospitals) with respect to the escalating costs in procuring the requisite medical supply. Effective use of Business-to-Business (B2B) electronic commerce (e-commerce) can assist organizations such as hospitals to reduce costs in procuring and distributing medicines and other medical-related products to the patients, to procure requisite medical supplies on a 24/7/365 basis, and to provide accurate and timely business information and streamline orders and payments. B2B e-commerce technologies have gained strategic importance globally in the last decade and have outpaced all other forms of e-commerce. In particular, there is a potential for hospitals and other healthcare organizations to adopt and utilize B2B e-commerce technologies to assist in procuring medicines and other medical-related supplies and ingredients from pharmaceutical companies. For example, the use of e-commerce technologies in conjunction with video-conferencing equipment enables hospitals and other healthcare organizations to procure their products more effectively and efficiently via online detailing with pharmaceutical companies (Guy & Gartenmann, 2001; Houghton, 2002). A survey conducted by Institute for Information Industry (III, 2010) estimated that the investments in B2B e-commerce by Taiwanese enterprises increased by 8.4% between 2008 and 2009 and it is likely to increase to more than US\$340 billion by 2013.

Despite this, many senior hospital executives have discovered that they have not yet fully reaped

the benefits from their B2B e-commerce investment. Indeed, the realization of benefits from Information Technology (IT) investment (e.g. B2B e-commerce) has been the subject of considerable debate by many academics and practitioners over the last few decades (Brynjolfsson & Hitt, 2003). Some researchers (e.g. Brynjolfsson & Hitt, 2003; Byrd, et al., 2006; Hu & Quan, 2005) take the position that the confusion over the realization of B2B e-commerce benefits is due to, among other things, lack of use of IT evaluation methodology to ensure successful evaluation of IT. In addition, despite the focus by recent literature of the role played by IT evaluation on realization of B2B e-commerce benefits, the importance of other organizational factors (e.g. organizational IT maturity and IT evaluation resources allocation) and IT evaluation methodology adoption on B2B e-commerce benefits remain unclear (Byrd, et al., 2006). For example, Hackbarth and Kettinger (2004) have found that there was some connection between organizational IT maturity and the IT evaluation. Melville et al. (2004) have pointed out that successful IT evaluation methodology adoption depends heavily on right level of IT evaluation resources allocation. There has not been much discussion in the literature with respect to the relationship between these organizational factors on B2B e-commerce benefits and user satisfaction. In particular, the practices and processes of B2B e-commerce evaluation and benefits realization in Taiwanese hospitals remain poorly understood and relatively under-researched. Hence, we take a multi-case study approach to investigate the practices and processes of B2B e-commerce evalu-

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