Chapter 64
Key Issues and Challenges for Managing and Evaluating B2B E-Commerce Projects within the Australian Pharmaceutical Supply Chain

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ABSTRACT

The use of Business-to-Business (B2B) e-commerce within the Australian pharmaceutical supply chain can potentially assist in setting up an infrastructure which supports complex, multiparty Internet-based trading and transactions among pharmaceutical manufacturers, wholesalers, hospitals, pharmacies, medical supply importers and exporters, and other players in the healthcare system. Effective use of B2B e-commerce can help these organizations reduce costs in supplying and distributing medicines and other medical-related products to the general public. However, despite high expectations for realizing the benefits of B2B e-commerce in the pharmaceutical supply chain, issues surrounding its evaluation and management remain poorly understood and relatively under-researched. This chapter presents case study findings on key management and evaluation issues and challenges in adopting and utilizing B2B e-commerce systems on eight pharmaceutical organizations in Australia. The key objectives of this study are: (1) to establish current practices and norms in evaluating B2B e-commerce investments and projects in the pharmaceutical industry; and (2) to identify key B2B e-commerce management issues and challenges within the Australian pharmaceutical supply chain. A key contribution of this chapter is the identification and examination of key issues and challenges faced by the pharmaceutical organizations undertaking B2B e-commerce activities within their supply chain. The findings will guide senior executives in these organizations to develop their own approaches or strategies to manage the opportunities and threats that exist in the Australian pharmaceutical supply chain.

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INTRODUCTION

The Australian pharmaceutical industry has played an important role in the research and development of prescription medicines as well as in the production and supply of medical products to the Australian population. It is also one of Australia's leading exporters, totaling more than US$3.5 billion in 2007-2008 (Medicines Australia, 2009). The industry directly employs over 30,000 people and contributes over US$6 billion annually to the Australian economy (DIISR, 2008; Medicines Australia, 2009). International Data Corporation (IDC) has estimated that Information Technology (IT) spending by the Australian healthcare and pharmaceutical organizations is likely to reach US$2.16 billion by 2013 and a good proportion of this is likely to be spent on telecommunications such as B2B e-commerce (Chiew, et al., 2010). The use of Business-to-Business (B2B) e-commerce within the Australian pharmaceutical supply chain can potentially assist in setting up an infrastructure which supports complex, multiparty Internet-based trading and transactions among pharmaceutical manufacturers, wholesalers, hospitals, pharmacies, medical supply importers and exporters, and other players in the healthcare system.

Effective use of B2B e-commerce can also help these organizations to reduce costs in supplying and distributing medicines and other medical-related products to the general public, to facilitate to trade on a 24/7/365 basis, and to build global relationship with partners, suppliers and customers. Globally, IT spending by pharmaceutical organizations increased only slightly by 0.1% between 2008 and 2009, and it has been predicted by Gartner Research that IT spending as a percentage of total operational expenses to stay the same between 2009 and 2010 (3.5%) (Potter, et al., 2010). However, in Australia, IDC has estimated that IT spending by the healthcare (including pharmaceutical) industry is likely to increase by almost 5% annually (from US$1.89 billion in 2010 to US$2.16 billion by 2013) (Chiew, et al., 2010). A significant proportion of the IT spending (US$603 million in 2010) in Australian health is likely to be spent on telecommunications (e.g. B2B e-commerce) (Chiew, et al., 2010).

The use of appropriate IT (e.g. bio-technologies and integrated B2B e-commerce and the supply chain systems) can potentially assist these pharmaceutical organizations in realizing the savings in producing breakthrough medicines as well as in reducing the supply chain costs (Houghton, 2002). B2B e-commerce technologies have gained strategic importance globally in the last decade and have outpaced all other forms of electronic commerce. In particular, there is a potential for pharmaceutical organizations to adopt and utilize B2B e-commerce technologies to assist in procuring, marketing and distributing their medicines and other medical-related supplies and ingredients. For example, the use of e-commerce technologies in conjunction with video-conferencing equipment also enables pharmaceutical organizations to market and supply their products more effectively via online detailing by answering queries from General Practitioners (GPs) or other medical professionals in real time and by providing drug information on demand (Guy & Gartenmann, 2001; Houghton, 2002).

However, despite high expectations for realizing the benefits of B2B e-commerce in pharmaceutical supply chain, issues surrounding its evaluation and management remain poorly understood and relatively under-researched. Research studies have continued to report contradictory findings of the effect of IT expenditures (e.g. on B2B e-commerce) on organizational performance (Thatcher & Pingry, 2004). The term "productivity paradox" has gained increasing notoriety as researchers fail to demonstrate a direct and sustainable connection between IT investments and business performance despite large investments in IT over many years (Brynjolfsson & Hitt, 2003; Hu & Quan, 2005). Particularly, there are significant gaps in our understanding of pharma-