

Chapter 11

Key Adoption Challenges and Issues of B2B E-Commerce in the Healthcare Sector

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ABSTRACT

Although B2B e-commerce provides healthcare organizations a wealth of new opportunities and ways of doing business, it also presents them with a series of challenges. B2B e-commerce adoption remain poorly understood and it is also a relatively under-researched area. Therefore, case studies were conducted to investigate the challenges and issues in adopting and utilizing B2B e-commerce systems in the healthcare sector. The major aims of this study are to: (a) identify and examine main B2B e-commerce adoption challenges and issues for healthcare organizations; and (b) develop a B2B e-commerce adoption challenges and issues table to assist healthcare organizations in identifying and managing them.

INTRODUCTION

Business-to-business (B2B) e-commerce has achieved considerable importance for the global economy in recent years. B2B e-commerce is an initiative which requires the participation of multiple firms making some sort of complementary

investment to enable one another's EC strategy (Burn and Ash, 2005; Lin et al., 2007). Currently, the most popular electronic commerce applications used by organizations in their B2B relationships are EDI, web-forms, XML, and other varieties of Internet initiatives such as electronic marketplace and B2B web portals (Chan and Swatman, 2003; Standing and Lin, 2007). Depending on the

DOI: 10.4018/978-1-60960-042-6.ch011

characteristics of the products, market variability, market volatility, and continuity of the business relationship between the channel partners the B2B e-commerce markets can take different forms, such as electronic hierarchies, cooperative arrangements, and spot markets.

Although healthcare is the biggest service industry worldwide, it has historically lagged behind other industries in the use of information technology (IT) such as B2B e-commerce (Lee and Shim, 2007; Parente, 2000; Wickramasinghe et al., 2005). Despite high expectations for realizing benefits from B2B e-commerce in the healthcare, its use remains poorly understood (Bhakoo and Sohal, 2008; Davidson and Heslinga, 2007) and is also a relatively under-researched area (Chiasson et al., 2007). Little is known about why certain organizations within the healthcare industry have adopted and implemented IT such as B2B e-commerce successfully while many others have not (Heeks, 2006; Miller, 2003). Until recently, Australian healthcare supply chain has been still a mainly paper based system with manual processing (GS1, 2004). Effective utilization of B2B e-commerce in the healthcare industry has the potential to lead to an increased accessibility to healthcare providers, improved work-flow efficiency, a higher quality of healthcare services, improved inventory management, and reduction in healthcare costs and medical errors (Bhakoo and Sohal, 2008; Heeks, 2006; Lin et al., 2008a, 2008b).

BENEFITS OF B2B E-COMMERCE IN HEALTHCARE

The adoption of B2B e-commerce by healthcare organizations includes online activities such as biotechnology online transactions between, for example, hospitals and their suppliers and the sales of medical products and services via e-marketplace (Parente, 2000; Standing et al., 2008). It enables healthcare organizations to minimize

their procurement costs and assists their suppliers to sell via an efficient marketing channel (Parente, 2000). B2B e-commerce allows health organizations' business partners to access their internal business systems via the Internet. Some of the major benefits of B2B e-commerce specifically to healthcare organizations are: (1) it gives medical suppliers access to huge number of new customers and suppliers (Suomi et al., 2001); (2) it can reduce healthcare organizations' costs such as procurement costs, inventory holding, and search costs (Bhakoo and Sohal, 2008); (3) it allows healthcare organizations to compare the partners effectively and easily the change traditionally rigid procurement contracts (Suomi et al., 2001); (4) it provides an efficient and effective channel for medical information exchange and sharing among healthcare organizations (Suomi et al., 2001); (5) it helps to provide accurate and timely business information and streamline orders and payments (CR Group, 2002); and (6) it offers an effective channel and platform for suppliers and customers to trade and communicate (Suomi et al., 2001).

GOVERNMENT/INDUSTRY B2B E-COMMERCE INITIATIVES IN HEALTHCARE

There are several subtle as well as obvious differences between healthcare industry and other industries. For instance, the healthcare industry, unlike other industries, does not generally face stiff competition. In addition, organizations in other industries expect to maximize their profits whereas many stakeholders (e.g hospital patients and governments) in the healthcare organizations expect better and efficient products and services (Suomi et al., 2001). Therefore, healthcare organizations must look at B2B e-commerce from a strategic perspective and measure its contribution because it can assist them in developing and controlling strategic, tactical, and operational plans that define the appropriate role of B2B e-

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