

# Chapter 41

## Key Health Information Systems Outsourcing Issues from Six Hospital Cases

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### EXECUTIVE SUMMARY

*Traditionally, little attention has been paid by hospitals to the key issues in the health information systems (HIS) outsourcing decision-making process. This is important given that the HIS outsourcing can play a key role in assisting hospitals in achieving its business objectives. However, the decision-making process of HIS outsourcing in hospitals is under-studied, especially in the management of their HIS outsourcing contracts. Therefore, the main objectives of this book chapter are to: (1) examine key issues surrounding the management and implementation of HIS outsourcing in Taiwanese hospitals; and (2) identify issues that are crucial in managing and implementing HIS outsourcing in hospitals. Four key issues and problems were identified in the HIS outsourcing process: lack of implementation in IS investment evaluation process, problems in managing HIS outsourcing contracts, lack of user involvement and participation in HIS outsourcing process, and failure to retain critical HIS contract management skills and project management capabilities in-house. Solutions and recommendations are provided to deal with key issues that are critical in the management and implementation of HIS outsourcing in hospitals.*

### INTRODUCTION

Health Information Systems (HIS) outsourcing is to partially or completely contracting out HIS functions to external service contractors. These include: setup and maintenance of the required

functions, manipulation of systems, management of networks and communication, end-user computing support, systems planning and management, and procurement of application software (Young, 2003). Outsourcing in IS – since the Kodak's 1989 milestone decision, the transferring of internal IS assets, hiring and lending of assets, employees and management responsibilities to a third party

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service contractor has become a popular trend. Ever since this milestone decision, the process of transferring of internal IT functions to a third party service contractor to deliver required services has become a popular trend (Shinkman, 2000). In recent years, both public and private organizations worldwide have outsourced their major IS functions to external contractors (Lin et al., 2007).

Some of the main reasons for these organizations to outsource their IS functions are to: save costs, concentrate on other activities or core activities, improve services and productivity, and contract out the maintenance of existing systems. The setup (and maintenance) of a HIS/IS function is usually an expensive exercise. Outsourcing contractors have the advantage of economies of scale due to their large client bases (Menachemi et al., 2007a; Young, 2003). This is not something that a single organization can afford to do it. Therefore, cost saving is one of the reasons for IS outsourcing (Diana, 2009; Hsaio et al., 2009; Marek et al., 1999). Another reason for IS outsourcing is to increase efficiency (Liu et al., 2008; Moschuris and Kondylis, 2006; Roberts, 2001). Outsourcing contractors are able to keep up the trend and provide necessary leading edge software and systems to their clients. Moreover, IS outsourcing contractors have usually possessed more technical know-hows and skilled personnel to solve their clients' problems than a single organization (Beaver, 2003; Lorence and Spink, 2004; Ondo and Smith, 2006).

Hence, management of IS outsourcing contracts has become one of the top key management issues for IS executives in recent years (Luftman et al., 2006). Although a plethora of IT outsourcing studies have been published in the literature in the past, HIS outsourcing in the hospital setting, however, is still under-studied. Very few studies have examined how the hospitals manage their HIS/IS outsourcing contracts as well as how they consider key issues and problems in making HIS outsourcing decisions (Diana, 2009; Lorence and Spink, 2004). This may be due to the fact that

only 20% of healthcare organizations' budgets are spent on outsourcing compared with 33% for other industries such as manufacturing, banking, insurance, and finance as healthcare organizations tend to have less experience in managing external relationships such as IS outsourcing (Shinkman, 2000). Not surprisingly, it is not unusual for hospitals and other healthcare organizations to make mistakes in developing and managing their HIS outsourcing process (Guy and Hill, 2007). Indeed, understanding key HIS outsourcing decision-making issues will help hospitals to better manage and select appropriate outsourcing arrangements. This will also help hospital managers to decide about when to consider outsourcing as an option. Therefore, the main objectives of this study are to: (1) examine issues surrounding the management and implementation of HIS outsourcing in Taiwanese hospitals; and (2) identify issues that are crucial in managing and implementing HIS outsourcing in hospitals. One contribution of the study is the recommendations provided to deal with issues that are critical in the management and implementation of HIS outsourcing in hospitals. Most of the key issues identified have not been discussed in the relevant HIS outsourcing literature in the hospital context.

## **THEORETICAL BACKGROUND**

Total spending on IS outsourcing worldwide has been predicted to be about \$441 billion in 2008, an increase of 8.1% from 2007 (Gartner, 2008). It has become a worldwide phenomenon with no signs of a slowdown in its use (Barthelemy and Geyer, 2004; Computer Economics, 2006; Gartner, 2009). According to Frost and Sullivan (2006), HIS outsourcing in the European market is likely to reach approximately US\$700 million in 2010. Many outsourcing experts believe that extensive outsourcing by healthcare organizations assist in creating an outsourcing market and culture that other healthcare organizations can tap into in

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