

The Challenges of the IS/IT Projects in the Healthcare Sector

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ABSTRACT

Essentially, the purpose of investment in information systems and information technology (IS/IT) is to improve the operational efficiency of the organizations, reducing costs and improving levels of quality. Thus, many traditional appraisal techniques are used to evaluate tangible benefits, which are based on direct project costs. Since the 1980s, IS/IT has positioned itself as a strategic tool that through flexibility and innovative ways can produce superior performance. The health sector has sought to improve its effectiveness and efficiency by adopting IS/IT solutions to increase the quality of services, namely patient safety, organizational efficiency, and end-user satisfaction. Hospitals are complex organizations, and this complexity magnifies the opportunity for inevitable human errors. A poorly integrated system can decrease operational efficiency and reduce the quality of healthcare services. The issue remains controversial, as evidenced by several articles. The authors noticed that emergent technologies may offer opportunities to those who can exploit them effectively.

KEYWORDS

IS/IT Implementations in Healthcare, IS/IT in Healthcare, IS/IT Investments in Healthcare, IS/IT Projects in Healthcare, Success of IS/IT in Healthcare

INTRODUCTION

The business value of Information Systems and Information Technology (IS/IT) investments is predicted to remain, one of the major topics for the researchers (Dehning et al., 2014; Roztocki & Weistroffer, 2008). Some early studies (Dos Santos et al., 1993; Hitt & Brinolfsson, 1996; Im et al., 2001; Rai et al., 1997; West & Courtney, 1993) doubt from the economic value of IS/IT, the vast majority of authors find empirical evidence and theoretical arguments in favor of both the operational and strategic relevance of IS/IT (Aral et al., 2007; Beccalli, 2007; Dedrick et al., 2003; Dehning et al., 2003; Han et al., 2011; Kim et al., 2009; Kohli & Grover, 2008; Lee et al., 2011; Lin et al., 2006; Mahmood & Mann, 2005; Neirotti & Paolucci, 2007; Peslak, 2003; Ramirez et al., 2010; Santhanam & Hartono, 2003; Shin, 2006; Swierczek & Shrestha, 2003; Zhang, 2005). As competition increases because of globalization and other market factors, it is even more important that an organization performs at its best capabilities. Organizations are being put under increasing pressure to justify the large amount of financial resources spent on IS/IT assets (Gomes et al., 2013). The decision-making process over IS/IT investments is not

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as objective and transparent as it is claimed to be, creating significant failures on achievement of the objectives and their related benefits (Berghout et al., 2005). Organizations seek benefits and value only in monetary terms, which have resulted in a lot of wasted energy, time and money. It is very common that organizations place their focus on the technical aspects such as does it work? rather than the social aspects such as is this adopted successfully? or from a business perspective is this delivering value? (Gomes & Romão, 2017). The health care sector has a unique, complex, dynamic context which differ significantly from other industries in which IS/IT have been applied (Chau & Hu, 2002; Westbrook et al., 2004). IS/IT for healthcare have been referred as a key instrument that facilitate communication, processing and transmission of information by electronic means, with the aim of improving human health (Bukachi & Pakenham-Walsh, 2007; Drury, 2005; Häyrynen et al., 2008). The difficulties due to the implementation of IS/IT solutions and assessment of their performance have been acknowledged by several scholars (Lueg & Lu, 2012, 2013). Therefore, finding means to overcome these issues and to improve the performance and return from investments in IS/IT has been a research focus of the last decades. Grounded by theory of competitive strategy, several authors argued that IS/IT can contribute to more profits if it cannot be replicated easily or it can make product differentiation (Mithas et al., 2012). Although many studies have focused on the consequences of IS/IT investments, fewer studies have examined factors that impact the IS/IT capabilities (Devaraj & Kohli, 2003; Brynjolfsson, 1993). IS/IT investments are now spread worldwide, adopted and used in many sectors, including the health sector. While promoting population health has been the classic goal of public health practice and policy (Dawson & Verweij, 2007), in recent decades, new objectives in terms of autonomy and equality have been introduced (Munthe, 2008). According to the World Health Organization, the use of IS/IT in health is not merely about technology but is a means to reach a series of desired outcomes across the entire health system (WHO, 2005). As stated by the European Community, the aim of IS/IT for Health is to improve significantly the quality, access and efficacy of healthcare for all citizens (EC, 2006). The move toward computer information systems began from the 1970s that ultimate goal of these systems is access to Electronic Health Record (EHR) (Shortliffe & Barnett, 2014). EHR implementation results in the improved quality of care, cost effectiveness, customer-orientation and timely access to complete and precise information (Gagnon et al., 2014). Despite the potential benefits of EHR, its implementation is a difficult and complex task whose success and productivity depends on many factors (Yusof et al., 2008; Terry et al., 2008).

METHODOLOGY

This study is aimed to research the pattern of IS/IT projects in healthcare, using articles published in academic health management journals. Two stages were performed to achieve this objective. Firstly, the selection of academic documentation, and secondly the content analysis. The first step was performed through the collection of manuscripts based on a literature review using the article keywords in several academic databases. The titles, abstracts, keywords, and texts of these journals were searched based on the following the terms; IS/IT in Healthcare, Success of IS/IT in Healthcare, IS/IT Projects in Healthcare IS/IT investments in Healthcare, IS/IT Implementations in Healthcare. The goal was to identify as many applications of the IS/IT in the health sector. The second phase were the selection of documents that meet the study goals by comparing the documents retrieved with the objectives of our study.

LITERATURE REVIEW

IS/IT Implementations

According to several studies, there is a growing use of information and communication technologies by citizens and their families regarding the search for health information (Andreassen et al., 2007).

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