

## Chapter 6

# A Classification Framework of Critical Success Factors for ERP Systems Implementation: A Multi-Stakeholder Perspective

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### ABSTRACT

*Although organizations can gain many benefits from successful implementation of an enterprise resource planning (ERP) system, there are high failure rates in ERP implementation projects. Therefore, a better understanding of ERP implementation success is a critical. One of the best known approaches used to define and measure ERP implementation success has been the critical success factors (CSF) approach. In this study, the authors investigate the current literature of critical success factors (CSFs) of ERP systems implementation and propose a new classification framework, categorized according to six proposed fundamental stakeholders. The authors then map those critical success factors to three different stages of an ERP project lifecycle. In addition, they identify several roles that each stakeholder may play during the ERP systems project lifecycle. The proposed classification framework provides organizations with a classification tool to help them identify the CSFs and those stakeholders who are most likely to have an impact on the implementation of the ERP system, which will help organizations to better plan for the implementation of their ERP systems.*

### INTRODUCTION

Many firms around the world are purchasing different commercial software packages, such as enterprise resource planning (ERP) systems, to improve processes and decrease costs. ERP

systems are integrated, enterprise-wide systems that provide automated support for standard business processes within organizations (Esteves & Pastor, 2001; Haines & Goodhue, 2003; Shih, 2006). ERP systems can benefit organizations in many ways, including providing support for all

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variations of best business practices, enabling the implementation of these practices with the aim of improving productivity, and enabling organizations to modify the implemented business processes to fit their requirements (Chang et al., 2008; Holland & Light, 1999; Rao, 2000).

Yet, ERP systems are considered very costly and often require disruptive organizational changes to implement (Osei-Bryson et al., 2008; Soh et al., 2000; Sun et al., 2009; Wu & Wang, 2006). Moreover, ERP systems implementation is complex, involving technology improvement and change management. While some researchers have anticipated that about three quarters of the implemented ERP systems are unsuccessful, others suggest that ERP implementation failure rates exceed 50% (Barker & Frolick, 2003; Holsapple & Sena, 2005; Yeh et al., 2007).

In short, research has revealed that ERP implementation can achieve many benefits for organizations or it can lead to catastrophic results for organizations that fail to manage the implementation process (Kang et al., 2008). Therefore, a better understanding of ERP implementation success is one of the key issues which many studies have investigated. One of the best known methods used to define and measure ERP implementation success has been the critical success factors method. Many researchers have applied the critical success factors (CSFs) method to analyze ERP systems implementation (Holland & Light, 1999; Muscatello & Chen, 2008; Nah et al., 2001; Somers & Nelson, 2001; Willcocks & Stykes, 2000). These researchers have applied different labels to the categories they have proposed for their list of CSFs, but few have focused on identifying CSFs from the perspectives of key stakeholders (Chetcuti, 2008). Organizations can be considered social structures consisting of different stakeholders whose interests can converge or diverge based on their roles and values (Cameron, 1986). Few researchers have acknowledged the importance

of stakeholders in CSFs. Nah et al. (2001) have pointed out the importance of studying the CSFs from stakeholder perspectives. Similarly, Bajwa et al. (2004) and Skok and Legge (2002) have suggested that future research should examine the role of external stakeholders in ERP implementations. Moreover, after conducting a review of the literature of the different identifications of CSFs for ERP systems implementation, Finney and Corbett (2007) have concluded that the most significant finding is the lack of research focusing on the identification of CSFs from the perspectives of key stakeholders.

In summary, our extensive review of previous literature on CSFs for ERP systems implementation indicates that studies on ERP systems success from the perspectives of key stakeholders have been very limited. Thus, this study is designed to fill this gap in research. We propose a new classification framework of CSFs for ERP systems implementation based on three major dimensions. First, six fundamental stakeholders with divergent perspectives on ERP implementation success have been identified. Second, the ERP project lifecycle has been divided into three macro phases, and five different roles which each stakeholder may play during each phase are identified. The CSFs are then categorized according to each stakeholder and mapped to the three phases of the ERP systems project lifecycle.

This study is significant because our classification framework can help researchers in investigating and assigning CSFs to a different perspective, namely the stakeholders of an ERP system, and identifying the relationships between them. Our study is particularly suitable for the analysis of ERP projects because it includes the influences of the different factors on the different stages of ERP systems lifecycle. Also, the proposed classification framework will guide managers in the development of an implementation strategy and will help them make better decisions by identify-

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