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 implementa-
tions. 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 implementa-
tion 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 clas-
sification framework of CSFs for ERP systems 
implementation based on three major dimensions. 
First, six fundamental stakeholders with divergent 
perspectives on EPR 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 investigat-
ing 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 clas-
sification framework will guide managers in the 
development of an implementation strategy and 
will help them make better decisions by identify-