A McKinsey 7S Model-Based Framework for ERP Readiness Assessment

Payam Hanafizadeh, Allemeh Tabataba'i University of Tehran, Iran

Ahad Zare Ravasan, Allemeh Tabataba'i University of Tehran, Iran

ABSTRACT

Implementing Enterprise Resource Planning (ERP) systems is a complex, lengthy and expensive process which usually faces serious challenges and failures. Thus, it is necessary to perform a readiness assessment at the initial stage of an ERP implementation project to identify weakness areas which may encounter the project with failure. This paper proposes a new framework for assessing readiness of an organization to implement the ERP project on the basis of McKinsey 7S model using confirmatory factor analysis. Through this method, the construct of ERP readiness is proposed based on 7 dimensions namely "structure", "strategy", "systems", "skills", "style/culture", "staff", and "shared values/ superordinate goals". Using the framework, the current situation of the organization can be determined and necessary changes can be made prior to system implementation. The proposed framework is then applied to 2 real Iranian banking cases and the advantages of the framework over available frameworks are illustrated.

Keywords: Confirmatory Factor Analysis (CFA), Critical Success Factors (CSFS), Enterprise Resource Planning (ERP), ERP Readiness Assessment (ERA), McKinsey 7S Model, Multidimensional Constructs

INTRODUCTION

ERP systems are described as "computer-based systems designed to process the transactions of an organization and facilitate integrated and real-time planning, production, and customer response" (O'Leary, 2000). These systems are designed to address the problem of fragmentation as they integrate and streamline internal processes by providing a suite of software modules that cover all functional areas of a business (Koch, Slater, & Baatz, 2001). Although, ERP systems can bring many benefits to organizations, the high failure rate is a major concern (Davenport, 1998). It is said that, about 70 percent of ERP implementations fail to deliver anticipated benefits (Al-Mashari, 2000) and three quarters of these projects are unsuccessful (Griffith, Zammuto, & Aiman-Smith, 1999; Hong & Kim, 2002; Kumar, Maheshwari, & Kumar, 2003). These projects are on the average 178% over budget, took 2.5 times longer than intended and deliver only 30% of the promised benefit (Zhang, Lee, Huang,

Zhang, & Huang, 2005). These statistics imply that ERP projects are one of the most difficult system development projects. To avoid such costly failures, much effort has been done by researchers. Some researchers have provided valuable insights into the process of ERP implementation (Holland & Light, 1999; Mandal & Gunasekaran, 2002; Motwani, Mirchandani, Madan, & Gunasekaran, 2002; Soja, 2008; Subramanianh & Hoffers, 2005; Wang, Shih, Jiang, & Klein, 2008; Yusuf, Gunasekaran, & Abthorpe, 2004) and others have identified a variety of critical factors affecting either on success (Al-Mashari, 2003; Hanafizadeh, Gholami, Dadbin, & Standage, 2010; Nah & Delgado, 2006; Nah, Zuckweiler, & Lau, 2003; Zarei & Naeli, 2010; Zhang et al., 2005) or failure (Aladwani, 2001; Amoako-Gyampah & Salam, 2004; Bradford & Florin, 2003; Hong & Kim, 2002; Somers & Nelson, 2004; Umble & Umble, 2002) of ERP projects.

Considering the importance of ERP, some works conducted in this area are reviewed here. Esteves and Pastor (2001) in their work summarized and grouped ERP literature until 2000 according to what they term as "the ERP lifecycle framework". The lifecycle consisted of adaption, acquisition, implementation, usage & maintenance, evolution, and retirement (Esteves & Pastor, 2001). They showed that most of the literature published prior to 2000 focused on implementation approaches. Other studies conducted considering categories proposed by Esteves and Pastor (2001) approved these results and suggested that literature on implementation dominates others, i.e., 38% of total papers published between 2000- 2005. According to the results, just 2% of all papers devoted to studies on adaption phase (Dery, Grant, Harley, & Wright, 2006). So, it is clear that there is a dearth of studies in the pre-implementation phases such as ERP selection, readiness assessments, ERP acquisition planning, etc.

This paper, as a potential contribution to knowledge, is intended to consider the subject of ERP Readiness Assessment (ERA). Such an assessment determines the current state of organization's readiness to implement an ERP system besides identifying the weakness areas which must be improved prior to later stages. Thus, the aim of this paper is introducing the concept of ERA and developing and validating a practical framework for such an assessment. In practice, the results of the paper would enable managers to achieve a comprehensive understanding of ERP project and help them to make a proper decision on initiating the ERP project. In addition, they would be aware of their weakness areas prior to project implementation. Therefore, they can effectively manage the potential risks and costs associated with the project and avoid most of the challenges in later stages of the implementation.

LITERATURE REVIEW

Two basic elements of the present research are the ERA and the McKinsey 7S model which are well described. Also, a brief review on available renowned models in the field is presented. Finally the most important factors in ERA are extracted from the most relevant literature and the conceptual framework is developed based on these factors.

ERP Readiness Assessment

Failures of ERP implementation can be caused by multiple factors. But, studies suggest that failure is largely due to organizational and social, rather than technical factors (Fitzgerald & Russo, 2005). However, there are extensive challenges in the implementation of ERP systems which sometimes turn the project into a complete failure. These challenges affect the success of ERP project in the implementation stage and must be identified at the beginning of the project to avoid potential risks in latter stages. Thus, it would be necessary to assess and analyze the preparedness of an organization before initiating the project. Without proper readiness, the project probably fails or faces intensive challenges. That's why ERA is usually introduced as a separate stage for ERP projects which must necessarily be conducted prior to project kick-off (Leon, 2007). The success of

Related Content

Knowledge Assets in Virtual Enterprises: Sources of Risk and Management Issues
Ettore Bolisani (2010). *Managing Risk in Virtual Enterprise Networks: Implementing Supply Chain Principles (pp. 92-114).*
www.irma-international.org/chapter/knowledge-assets-virtual-enterprises/42217

Hybrid Fuzzy Neural Search Retrieval System
Rawan Ghnematand Adnan Shaout (2016). *International Journal of Enterprise Information Systems (pp. 1-16).*
www.irma-international.org/article/hybrid-fuzzy-neural-search-retrieval-system/167623

Applying Collaboration Theory for Improving ERP System-User Interaction
Wendy Lucas, Tamara Babaianand Heikki Topi (2008). *Techniques and Tools for the Design and Implementation of Enterprise Information Systems (pp. 1-21).*
www.irma-international.org/chapter/applying-collaboration-theory-improving-erp/30114

IT Adoption and Industry Type: Some Evidence from Kuwaiti Manufacturing Companies
Omar E.M. Khaliland Tawfik Mady (2005). *International Journal of Enterprise Information Systems (pp. 39-55).*
www.irma-international.org/article/adoption-industry-type/2090

An Exploratory Study on the Influencers of the Perceived Relevance of CIO's Activities and Skills: An Update
João Varajão, António Trigoand Pedro Soto-Acosta (2017). *Enterprise Information Systems and the Digitalization of Business Functions (pp. 401-421).*
www.irma-international.org/chapter/an-exploratory-study-on-the-influencers-of-the-perceived-relevance-of-cios-activities-and-skills/177353