

Successful Enterprise Resource Planning Post-Implementation: Contributions of Technological Factors

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Abstract

Enterprise Resource Planning (ERP) has been widely studied in the past. However, the effective deployment of ERP in order to achieve benefits in post-implementation stage has puzzled many organizations. Therefore, the objective of this paper is to introduce a conceptual framework of the technical Critical Success Factors (CSFs) on ERP post-implementation supported by the Technological, Organizational and Environmental (TOE) theory, and adds the critical factors of ERP data accuracy, ERP implementation team, ERP implementation strategy and ERP communication which were not included in the past. This paper applies previous literature, theories and conceptual framework to present a new conceptual model that contributes to CSFs becoming empirically joined to ERP Post-Implementation Success (PIS) and discusses the impact of this new approach on ERP PIS. The paper make a bridge to fill up a research gap in how technical factors impact PIS of ERP and similarly the need to a conceptual model prearranged to offer approach into ERP PIS.

Keywords: ERP data accuracy, ERP implementation team, ERP implementation strategy, ERP communication, Technology, Organization and Environment (TOE) theory

1. Introduction

Enterprise Resource Planning (ERP) is a commercial software package i.e., Oracle, SAP, JDE, PeopleSoft, BAAN, that empowers the unification of business processes (Markus et al., 2000; Grabski et al., 2011). ERP requires an extensive amount of money to implement (Livermore and Rippa, 2011), expert individuals (Wenrich and Ahmad, 2009), allocated to promoting output through the organization (Beatty and Williams, 2006), and it's take average 6 months to 2 years to implement (Aloini et al., 2007). In the study by Panorama (ERP Consultation Company) in (2014), during the four years of research, it cost 6.5 million dollars and 16.1 months in average. Across this step, approximately 50 percent of projects have implemented ERP by the planned budgets, near 28 percent of projects have implemented ERP on their planned time and finally 66 percent of organizations cached less than 50 percent of predetermined benefits of their ERP. Studies have addressed the problems associated with the failure of firms to set up organizational benefits by focusing on Critical Success Factors (CSFs) in equivalent with the technological operation of ERP (Al-Mashari et al., 2003; Nah et al., 2003; Satyan, 2003; Umble et al., 2003; Somers and Nelson, 2004). The issue, "what makes implementation of an ERP program successful?" clearly studied in the previous.

Most researches on ERP projects success factors primarily concentrate on the pre-implementation and the implementation stages (Kumar et al., 2003; Umble et al., 2003). Other researchers suggested success factors for all ERP life stages e.g. (Mabert et al., 2003; Nah et al., 2003; Zhang et al., 2005). The successful use of ERP in order to achieve benefits confused many organizations. The common trouble is that by complementing the implementation phase organizations do not gain the benefits from the ERP (Willis and Willis-Brown, 2002). Hence, the post-implementation stage is vital to the long-standing success of the ERP (Law et al., 2010; Wilson, 2012). Thus, it is important for managers to focus on the post-implementation phase, because when ERP is implemented, these systems are usually not replaced. Indeed, they are updated and maintained to support new business processes and to obtain efficiencies in the post-implementation phase (McGinnis and Huang, 2007). Therefore, a key research problem in this study is the Post-Implementation Success (PIS) of ERP in order to gain expected benefits. But, few researchers have studied this issue. Hence, requirement of study associated to post-implementation stage of the ERP is the major incentive for current study.

In other words, there are so many researches on (ERP), but in the post-implementation stage is not enough. More specifically, what is lacking is a technological theoretical