

Chapter 7

Factors that Improve ERP Implementation Strategies in an Organization

Chetan S. Sankar
Auburn University, USA

ABSTRACT

This paper reports the results of an exploratory research that describes the Enterprise Resource Planning (ERP) implementation experiences of Robert Bosch Corporation over a period of time. In this paper, the author highlights a list of factors that could improve ERP implementations such as large resource commitment to the project, adoption of corporate standards that promote process harmonization, making hard yet important decisions that are irreversible, and top management support. The major contribution of this article is in explaining why the ERP implementation experience at Robert Bosch succeeded in 2004 in contrast to its implementation experience during 1992-1999. The resulting practical implications are discussed.

INTRODUCTION

In today's volatile business climate, market behavior no longer seems to guarantee an eventual equilibrium in which both supply and demand are satisfied. Rather, if a company makes a move at the right moment, this can initiate a positive snowball

effect that gives that company an exponentially growing lead over its rivals (Baets, 1998). If a company makes a move at the wrong moment, it might join the likes of Circuit City, Linens-n-Things, and Lehman Brothers in bankruptcy (Newman, 2008). Organizations are experiencing environments that are not only changing more rapidly but are increasingly subject to sudden irregularities (Ellis, 1988). In environments that are non-linear

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and dynamic, traditional strategic theories such as SWOT analysis (Hill & Westbrook, 1997) may have to be supplemented by new approaches such as dynamic strategies to explain the factors that can help in effective implementation of ERP systems (Baets, 1998; Ghemawat & Cassiman, 2005; Erat & Kavadias, 2006; McGuinness & Morgan, 2005; Paquin & Kopylay, 2007; Yuksel & Dagdeviren, 2007; Allen et al., 2002).

SWOT analysis is one of the primary tools of choice to identify effective IT strategies. Several groups have put this tool to effective use: Shuai (2008) uses a SWOT analysis to provide policy recommendations to the Chinese government on whether they should contribute to the World Food Programme. Arslan and Er (2008) use a SWOT analysis to formulate a strategy concerned with the safe carriage of bulk liquid chemicals in maritime tankers. Guerrero, Lozano, and Rueda-Canutuche (2008) use a SWOT analysis to identify eight strategic measures aimed at providing policymakers with key guidelines to minimize negative social, economic, and environmental impacts due to a mine collapse in Spain. Uscher-Pines et al. (2008) apply a SWOT analysis to a domestic shortage of influenza vaccine to identify lessons learned and to generate effective solutions for future public health rationing emergencies. Mauerhofer (2008) analyzes several conceptual figures describing the relationship between environmental, social, and economic sustainability by using a SWOT analysis. Other applications for SWOT analyses are determining international distribution centers (Lee & Lin, 2008); renal allograft rejection strategies (Mengel et al., 2007); outsourcing of airlines' maintenance, repair, and overhaul activities (Alkaabi et al., 2007); energy planning (Terrados et al., 2007); planning support systems (Vonk et al., 2007); urban development planning (Halla, 2007); and evaluating nuclear energy strategies (Lee et al., 2007). Once an effective IT strategy has been decided on, what other tools can be used to enhance the success of implementation strategies?

This study is an exploratory research aimed at identifying factors that led to the success of the enterprise resource planning (ERP) implementation at Robert Bosch GmbH during the period 1992-2004. We recorded snapshots of the implementation process at two points in time: 2000 and 2004. On each occasion the companies' Chief Information Officers in Stuttgart, Germany (corporate headquarters) and in Broadview, IL (the headquarters of Robert Bosch US) were interviewed. Comparing the sets of data gathered for the two different time periods revealed very different strategies and personalities leading the implementation effort. In particular, it was educational to examine why the SAP R/3 implementation at Robert Bosch GmbH ran into problems during 1999 and how these problems were resolved by 2004.

We analyzed the strategy used in the ERP implementation process using a SWOT analysis during 1999 and shared the results with the company. In a subsequent meeting with the CIOs during 2004, we noticed that that the company had actually used substantially different strategies and that the SAP R/3 implementation was nevertheless proceeding successfully in the company. A literature search for a theory that could explain the implementation experiences of Robert Bosch GmbH identified the Force Field Analysis approach suggested by Paquin and Kopylay (2007) as a promising candidate for depicting dynamic strategic situations (Ghemawat, 1999, 2006). This paper applies a modified version of this theory to explain the ERP implementation experiences of Robert Bosch GmbH. Thus, the *study objective* is:

- *Identify the factors that made it possible for the ERP implementation experiences at Robert Bosch GmbH to succeed in 2004 in contrast to its implementation experience in 1999*

The next section reviews the relevant literature and discusses gaps in our understanding of

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