Chapter XI

SAP R/3 Implementation Approaches: A Study in Brazilian Companies

Ronaldo Zwicker
University of São Paulo (USP), Brazil

Cesar Alexandre de Souza
University of São Paulo (USP), Brazil

Abstract

The approach used to implement an ERP system is an important decision in its implementation project as it greatly affects the configuration of the system, the allocation of resources and the management of the project and its risks. It will also play a decisive role at all the stages of the ERP system’s life cycle. This chapter discusses the different ways of “going-live” of ERP systems: big-bang, small-bangs and implementation in phases,
and describes their advantages and disadvantages. The chapter also presents results of an exploratory study made in 53 Brazilian companies, which implemented SAP R/3. Based on these results, influences of the companies’ characteristics and of the project on the selected method are discussed. The relation of the implementation approach and project time is also presented.

Introduction

The implementation of ERP systems is considered a difficult task that involves many organizational and technical issues. For example, the need for changes in the processes and in the culture of the organization are problems that are frequently discussed in the literature (Bancroft et al., 1998; Bingi et al., 1999; Davenport, 1998). Less attention has been paid to other equally important questions, such as one of the most critical decisions in the implementation project: the selection of the implementation approach (big-bang, small-bangs or implementation in phases). This decision depends on a number of factors such as limitations of resources and time, characteristics of the project team, the number of modules which will be implemented, the number of localities where the implementation will take place, and the risks which the company is willing to take.

This chapter presents an analysis of the elements involved in the choice of the implementation approach of ERP systems. First, the chapter describes the life cycle of ERP systems and analyzes the different implementation approaches related to the life-cycle stages. In this first part of the chapter are identified advantages, disadvantages and other factors that should be taken into account when the choice is made. A brief description of the R/3 evolution in the Brazilian market is also presented. Results of an exploratory survey made in 53 companies that implemented SAP R/3 are then shown. Based on these results, influences of the companies’ characteristics and of the project on the approach selected for implementation are discussed, and an attempt is made to establish the relationships between relevant factors and the choice made. Finally, the study analyzes the consequences of the choice in terms of the time taken to implement and stabilize the system.