Chapter 58
Evaluating the Success of ERP Systems' Implementation: A Study about Portugal

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ABSTRACT

Information management has assumed an increasing importance at business organizations, over the last decades. Such trends lead companies to promote enormous efforts on organizing and optimizing their business processes, acquiring expensive enterprise information systems, aiming to promote an accurate answer to market uncertainty. Unfortunately, traditional software implementations have revealed low levels of satisfaction by Enterprise Resource Planning (ERP) systems' customers. This study aims to evaluate the reasons for success and failure of ERP systems implemented in Portugal and the methodologies taken by consulting teams. To achieve such a goal, it has been submitted a web survey to Portuguese companies and consulting teams, in order to confirm major errors, ERP systems' coverage and quality's response for business processes, and assessment of engineering requirements as a major concern. This study is concluded with the presentation of the web survey results and some conclusions about ERP systems' implementation at Portugal.

INTRODUCTION

Some authors believe that ERP systems implementation' process should be considered as an information system development project, due to complexity and project management needs; which involves the use of skills and knowledge in coordinating the scheduling and monitoring of defined activities, to ensure that the stated objectives of implementation projects are achieved. Several steps should be taken in targeting full enterprise fitting by the ERP solution implementing team (Nah, J Lau, & Kuang, 2001, Akkermans & van Helden, 2002), resulting in a extended high risk

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process that often results in great expenditures of both time and money, while arising as an unfinished and/or failed project, both completely or partially (Bingi, Sharma, & Godla, 1999, Guanghui, Chun-qing, & Yun-xiu, 2006, Kang, Park, & Yang, 2008). The reasons for not accomplished implementation processes have been discussed since the mid of 90's; with special focus on the key factors leading to failure or success and entailing the notion that there is a spectrum of factors that either combined or individually can lead to ERP failure; being it due time overruns, cost overruns or both, or ultimately the solution adopted falling short in the expectations. To complement this, it's often found that the Requirements Engineering somewhat seems to either overlook certain aspects of the whole project or apply generic formulas to not so generic customers, with special notice to often mismatched choice of the solutions or the natural fitting of the latest to the customer's specific demands.

Parallel to this, most applications are built by software houses to become modular, whereas one enterprise will only acquire and implement those in need of (or at least the perceived need of) by choosing the product following a complex and multi-factor influenced decision (Verville, 2000, Verville & Halingten, 2002). The acquisition process often broadens the whole time span of the process for its very own beginning, with particular expression in larger corporations (Bernroider & Koch, 2001). Such processes often result in a 12 and plus months implementation process due to several facts, namely the number of modules to be implemented, the geographical extent of the facilities where the implementation and training takes place, the extent and difficulty of customization (Bingi et al., 1999, Almeida & Azevedo, 2009). To cut down on the implementation time-span, ERP vendors and producers are developing less customizable solutions, to whom Bingi et. al refer to as 'plain vanilla', as in reference to bland, not fully fitted or customizable solutions that somewhat tend to fall short in replying the enterprise demands, even more so within this new global fast reaction economy. This phenomena also clashes with the motivation and the cultural constraints as we will look in further detail later in this work, further increasing the obstacle to successful implementations (Bingi et al., 1999, Almeida & Azevedo, 2009). Alternatively, software houses also develop vertical solutions, geared towards specific industry sectors or markets, leaving short flexibility to the buyer which only can customize/configure some personal requirements (which, in some cases, could respond to important specific needs, that reflect ultimately each organizations competences, more than the sector overall needs).

RESEARCH METHODOLOGY

The professional experience of both authors on ERP systems' implementations has raised some questions which require a consistent theoretical validation, gathering important scientific contributions (from scientific papers, Msc and PhD thesis) that could ensure a conceptual evaluation. To provide a practical approach and ensure veracity to our conclusions, it has been realized a web-survey to ERP systems' companies and consulting teams.

This study has been organized and divided in 4 main phases, as resumed on Figure 1.

The first step was to resume some questions that always remain as major doubts on ERP systems' implementation (presented on the next chapter). The following step was a detailed work on the analysis of bibliographic and scientific papers, which could validate and present the theoretical concepts of the main theme.

One major concern from authors was the practical appliance and validation of this study, which lead to the development of a web survey (using *SurveyMonkeys* platform – www.surveymonkeys.com) to Portuguese companies, from different business sectors.