

# Chapter 39

## Advantages, Limitations, and Solutions in the Use of ERP Systems: A Case Study in the Hospitality Industry

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### ABSTRACT

*Enterprise Resource Planning (ERP) systems have emerged as solutions oriented to manage organizations' resources in an integrated way. They allow the automation of department activities, make information available to users at the right time, and support more accurately their decision-making needs. However, although the implementation of these systems has brought considerable benefits to users, they do not cover all processes from all industries. Many organizations have recognized this limitation and consequently felt the need to implement specific solutions to their industry, sector, or line of business. From the collected case study business drivers and objectives, the authors analyze the advantages and limitations of ERP Systems in the hospitality industry in order to understand how this industry uses ERP Systems and solves the challenge of integrating information spread through several heterogeneous information systems.*

### INTRODUCTION

The purpose of this research is, either through the review of literature on the topic, or via the case study, to examine how the IS/IT (Information Systems based on Information Technologies) of

the ERP type are applied in the hotel units studied, in particular giving its advantages and, at the same time, its limitations, helping to demystify that we are dealing with “complete” and “definite” systems.

In this context, the IS/IT of hotel units integrated in a growing group were analyzed and, for this reason, have the necessity to adapt systems and technology sometimes disparate and often

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obsolete. It was found in the investigation that the ERP Systems in the hospitality sector do not cover a large part of the processes of the sector and, contrary to what is offered for other sectors and industries, there has been some dispersion of software applications of different origins, with the inevitable difficulties of construction and management of interfaces between these applications.

## **ERP SYSTEMS: LITERATURE REVIEW**

### **Key Features of ERP Systems**

Organizations aim to use information as a means of maximizing productivity gains, which tends to choose the problems of integration of information as one of the most debated issues in the context of IS (Information Systems) in recent years (Lee, Siau, & Hong, 2003), mainly because there are many isolated tools in their most varied environments, leading, in most cases, to the duplication of information in the organization and to different results in its various “islands” (Muscatello & Chen, 2008; Alshawi, Themistocleous, & Almadani, 2004; Davenport, 2000).

The main problems of fragmentation of information are the difficulty of obtaining consolidated information and the inconsistency of redundant data stored on more than one system. ERP Systems solve these problems by aggregating, in one integrated system, the various business processes and support of organizations (Pang, 2001).

ERP Systems emerge as management systems that allow the administration of an organization's resources in an integrated manner by automating most of the departments or functions, so as to make the information available in real time (Ilfinedo & Nahar, 2006; Themistocleous, Irani, O'Keefe, & Paul, 2001). They provide decision makers with an overview of the organization's situation, globally and in each of its departments (Ross & Vitale, 2000) and along the entire value chain

(internal and external) (Shang & Seddon, 2002). It is against this background that the efforts of software companies fit, seeking to present products that integrate all these information centers.

### **Main Limitations of ERP Systems**

Despite the great recognition and acceptance of ERP Systems in organizations, some criticisms have been directed to these types of systems, whether from a technical standpoint or from a business perspective (Davenport, 2000).

The inflexibility of ERP Systems is often pointed as being a limiting factor to their use. On the one hand, organizations that adopt these types of systems end up having the processes designed in a standard form, just because the implemented system so requires (Alshawi, Themistocleous, & Almadani, 2004; Themistocleous, Irani, O'Keefe, & Paul, 2001; Soh, Kien, & Tay-Yap, 2000; Sumner, 1999). However, this only happens when organizations want a less expensive ERP System solution and with a smaller implementation period, therefore less parameterized (Lee, Siau, & Hong, 2003).

One of the major difficulties in the implementation of ERP Systems is the long implementation period that such systems require (Alshawi, Themistocleous, & Almadani, 2004; Murphy & Simon, 2002; Themistocleous, Irani, O'Keefe, & Paul, 2001). In large organizations, an implementation may last from 3 to 5 years, which critics accuse of being, in an ever-evolving business environment, too long a period.

A criticism of the ERP Systems is the use of outdated technology, although some recent efforts have been made like Business By Design (SAP) and SaaS systems providing Web 2.0 facilities (SAP, Oracle, ...). In fact, some ERP Systems do not make graphic and modern interfaces, as users would like. However, there are no viable alternatives to this situation. The current object-oriented systems do not offer the benefit of integration that is possible in ERP Systems (Davenport, 2000). Also the fact

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