



An investigation into the use of ERP systems in the service sector

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Abstract

Recently, service organizations have invested considerable resources in the implementation of Enterprise Resource Planning (ERP) systems, even using solutions initially targeted for manufacturing companies. The aim of this paper is to get an insight into how services approach ERP implementation. A review of ERP projects, especially in services, completed by six case studies has been undertaken. We identify and discuss some characteristics of services, which are discriminatory regarding manufacturing. Main characteristics identified deal with complete or partial integration, product or customer orientation, importance of labour, human factor. In conclusion, trends to standardization and integration seen in the industrial sector are also growing in services, but in different ways.

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1. Introduction

During recent years, organizations have invested considerable resources in the implementation of Enterprise Resource Planning (ERP) systems. ERP is a software package that attempts to integrate all departments and functions of a company onto a single computer system that can serve all different departments' needs. Klaus et al.

(2000) have performed an historical analysis and a state-of-the-art report on ERP phenomenon. As far as we know, service organizations were not in the initial target zone of many ERP vendors, which instead developed products for manufacturing companies. However, ERP systems are increasingly being implemented in the service sector. By all accounts, services dominate most developed economies given that significantly more than half of these countries' gross domestic product is in the service sector, and projected economic and job growth through the 21st century is expected to be dominated by services. Concurrent to this growth, the globalization of services and rapid

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technological progress, afforded by information and communication technology, are increasing the pressures for service firms to compete on new offerings (Menor et al., 2002). Since the study of ERP in the service sector is a new area, there is little theoretical research on the topic. Now, the need for such studies has become apparent.

In order to identify and discuss differences between service and manufacturing companies in the context of ERP implementation, one can firstly investigate in ERP return on experiments from services companies. A study with cases in insurance, healthcare, software and telecom services companies has been undertaken, and specificities of ERP projects in services activities have been identified.

Section 2 introduces ERP definition and market, presents motivations for implementation and states problems, benefits and success factors encountered in such projects. Section 3 introduces the main characteristics of services in relation to the industrial sector, like customer contact, product definition, characteristics of inputs and outputs. Section 4 investigates the ERP implementation process in service organizations and more particularly in hospital environments. Section 5 presents six French case studies to complete the analysis of previous research works. In Section 6, we attempt to explain the differences between service and manufacturing firms regarding ERP implementation. Finally, we conclude this investi-

gation work into the use of ERP systems in the service sector in Section 7.

2. Characteristics of ERP implementation

2.1. ERP definition

As illustrated in Fig. 1, an ERP system is an integrated software package composed by a set of standard functional modules (Production, Sales, Human Resources, Finance, etc.), developed or integrated by the vendor, which can be adapted to the specific needs of each customer. It attempts to integrate all departments and functions across a company onto a single computer system that can serve all those different departments' particular needs. Klaus et al. (2000) have performed an historical analysis and a state-of-the-art report on ERP phenomenon.

ERP systems do encompass the “enterprise” and focus on “resources”. However, they also facilitate tasks beyond “planning”. These include financial control, operational management, analysis and reporting, and routine decision support. Furthermore, although the term “financial” is nowhere represented in ERP, the general ledger module remains the foundation for most systems. ERP systems also empower the top, middle, and bottom of the organization hierarchy (Miranda, 1999). ERP implementation requires a “process”

ERP: integration +
standardization

- Data (unique database model)
- Flows (financial, physical, informational)
- Organization (entities, business units, market segments, roles...)
- Process (local/global, performance measurement)
- Software (interoperability)

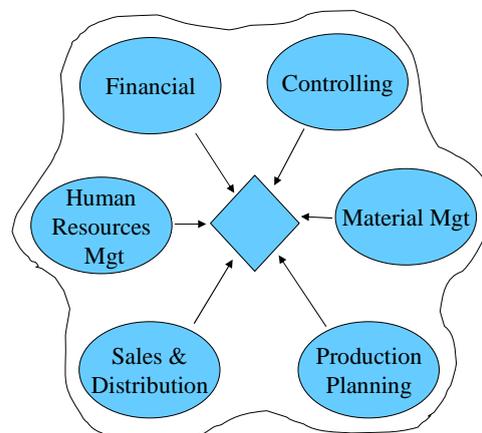


Fig. 1. ERP definition.

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