

# Chapter 20

## ERP System Selection Criteria: The Case of Companies in Slovenia

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### ABSTRACT

*The chapter proposes a possible model of criteria for ERP system selection. The proposed model consists of four groups of ERP system selection criteria: the ERP systems benefits criteria, the system quality criteria, the vendor related criteria and the ERP system package criteria. The data was collected in companies in Slovenia. Research results have confirmed internal consistency of ERP selection criteria in each group. For each criterion the importance is evaluated by small, medium-sized and large companies. Beside that also company size, implemented information strategy, representation of the IT department on the board level in the company and turnover impact on importance of each criterion is evaluated and presented. The model presented in this chapter could be useful for ERP system providers to better understand companies' needs and to provide systems tailored for individual needs of the company. The model could also be useful for companies considering ERP system implementation to avoid high costs of failed implementations.*

### INTRODUCTION

Nowadays, companies face a rapidly changing business environment with increased competition and raised customer expectations in expanded markets. This situation increases the pressure on companies to change their existing business practices and procedures to achieve lower total

costs of operation in the entire supply chain. It is crucial that companies shorten throughput times, drastically reduce inventories, expand product choice, provide more reliable delivery dates and better customer service, improve quality, and efficiently coordinate global demand, supply, and production (Umble et al., 2003; Jafari et al., 2006). All this is not possible without usage of information technology.

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From the information technology and information systems perspective, coordination of the individual elements of the overall set of business processes in the company could be supported by enterprise resource planning (ERP) systems. ERP systems also referred to as enterprise-wide systems due to their enterprise-wide scope, provide seamless integration of all the information flows and business processes across functional areas within a company such as finance, human resources, manufacturing, logistics, sales, distribution and purchasing (Davenport, 1998; Markus & Tanis, 2000; Law & Ngai, 2007; Bernroider, 2008). Thus ERP systems aim to integrate business processes and ICT into a synchronized suite of procedures, applications and metrics which goes over firms' boundaries (Wier et al., 2007).

ERP systems can be considered as the most important development in the corporate use of information technology and are beginning to become the backbone of any organization. ERP systems have gained major prominence by enabling companies to streamline their operations, leverage and integrate business data process (Karsak & Ozogul, 2009).

In spite of added value promised to be gained from ERP system adoption there are still many companies – mostly small and medium sized, which are only in a phase of consideration and acquisition of ERP system. Due to their nature (complexity and high implementation costs), ERP systems used to be mostly implemented in large companies. However, for the past few years, ERP vendors also intensively face challenges in providing ERP systems, especially tailored for the needs of small and medium sized companies (Malie et al., 2008).

The reasons for this trend lie in a saturation of the market, as many large organizations have already implemented an ERP system. There are also increasing possibilities and need for the integration of systems between organizations (pressures of

large organizations). The other reason also lies in the availability of relatively inexpensive hardware (Gable and Stewart, 1999).

The ERP systems' market consists of many different products, services and methodologies, not all of them applicable to different organizations (Malie et al., 2008). We acknowledge importance of ERP system readiness assessment addressed by Razmi, Sangari and Ghodsi (2009), and importance of training in the actual implementation process investigated by Plaza and Rohlf (2008). During the ERP system selection process, organizations need to consider different criteria related to ERP systems. Knowing the importance of these criteria could help companies to select more suitable ERP system and to avoid mistakes and large costs of failed implementations.

In this chapter, the importance of ERP selection criteria, which were investigated in companies in Slovenia are presented. The research was done in 131 companies in 2007. Altogether 28 ERP selection criteria were identified and investigated. The investigated criteria are grouped into the 4 groups: ERP benefits criteria, system quality criteria, vendor related criteria and ERP package criteria. Beside the criteria importance also companies characteristics - company size, implemented information strategy in the company, representation of the IT department at the board level and growth of the company - impact on importance of ERP selection criteria is presented.

The findings of this chapter are useful for organizations considering the ERP system implementation to avoid possible large costs of failed implementations and for ERP system providers to better understand different customers' needs and expectations. On the other hand, the chapter does not focus on project management issues. These were investigated by e.g. Soja (2006).

The rest of the chapter is organized as follows: the next section provides review of ERP system selection criteria. In the following section, data

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