REASONS FOR ERP ACQUISITION

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Abstract: Numerous reasons for Enterprise Resource Planning (ERP) system acquisitions in organizations have been proposed in the prior research. In this paper these different reasons for ERP system acquisitions are synthesized and categorized into technological and business reasons. Further, the prevalence of the different reasons is explored with an empirical data concerning the ERP acquisition in 41 Finnish companies.

1 INTRODUCTION

Enterprise Resource Planning (ERP) systems are configurable information system packages that integrate information and information-based processes within and across functional areas in an organization. Configuring these large generic software packages to the needs of specific organizations, industry sectors, and countries is necessary (Klaus et al., 2000) and requires large investments of money, time, and expertise (Davenport, 1998). Most of the large organizations worldwide have already adopted ERP and the small- and medium-sized enterprises are increasingly following the suit (Klaus et al., 2000; Kumar and Hillegersberg, 2000; Bernroider and Koch, 2001; Everdingen et al., 2000).

Almost all ERP software packages can be customized to the specific needs of a particular organization. This, however, is very expensive and may lead to problems such as the incompatibility of product patches and new versions with the customized ERP software (Butler, 1999; Kremers and Dissel, 2000; Sumner, 2000; Light, 2001). Consequently, some organizations choose to adapt themselves to suit the ERP software being acquired instead of customizing the software to suit the organization (Davenport, 1998). However, as some organizations do not want to modify themselves or furthermore, have critical needs that can not be met by standard functionality provided by the packaged ERP systems (Davison, 2002; Light, 2001; Soh et al., 2000; Everdingen et al., 2000), it is in these organizations' best interest to select the ERP software that best fits their needs with the least amount of customization so that both later maintenance problems and organizational misfit are avoided.

Previously the ERP systems selection has been studied from the point of view of criteria and process employed in the selection by a number of studies (see for example Everdingen et al., 2000; Stefanou 2000; Bernroider and Koch, 2001). On the other hand, the reasons for why organizations acquire ERP systems have not received as much attention in prior research and, thus, have been investigated in only few studies (see Brown et al., 2000; Knapp and Shin, 2001; Kremers and Dissel, 2000; Ross and Vitale, 2000).

In this study we aim to begin to fill this gap in the previous research by synthesizing the different reasons for ERP acquisitions proposed in the prior research and by exploring their prevalence with empirical data concerning the acquisition of ERP systems in 41 Finnish companies. Based on our literature review, we ended up with two categories of reasons for ERP acquisitions: technological and business reasons.

Technological reasons: In this category, the acquisition of ERP system is motivated by the need for new information technology (Hecht, 1997), and mainly aims to support current way of doing business. This category includes also the information technology (IT) investments mainly aimed for efficiency improvements, that is, cost reductions (Fitzgerald, 1998). The specific technological drivers might be, for example, the following:

• Desire to outsource software maintenance and development (Scheer and Habermann, 2000; Butler, 1999; Brown et al., 2000; Klaus et al., 2000).

• Vendor support has ended for the existing software (Kremers and Dissel, 2000; Holland and Light, 1999).

• Need for adopting clean slate approach in order to achieve improved software system to deal with, for example, structural fragmentation or lack of documentation (Holland and Light, 1999; Sprott, 2000; Davenport, 1998; Light, 2001).

• Need for common technology platform and increased standardization in technologies used across the organization (Sumner, 2000; Ross and Vitale, 2000; Parr and Shanks, 2000).

• Resolution of year 2000 problem (Sprott, 2000; Brown et al., 2000; Klaus et al., 2000; Ross and Vitale, 2000; Holland and Light, 1999; Parr and Shanks, 2000) or euro conversion problems.

• IT cost reduction (Sumner, 2000; Brown et al., 2000; Ross and Vitale, 2000; Holland and Light, 1999; Klaus et al., 2000).

• Desire to replace the aging IT architecture or technology with more modern one (Brown et al., 2000; Kremers and Dissel, 2000).

Business reasons: Sometimes the existing information technology may be an obstacle prohibiting necessary (Hecht, 1997), strategically important change in the enterprise. In these cases, new IT is acquired not simply to reduce costs but to facilitate change in the ways of doing business, and thus, to improve effectiveness or to gain strategic advantage (Fitzgerald, 1998; Silk, 1990). Specific drivers to adopt ERP software based on business reasons can be, for example, the following:

• Globalization or desire to move to a standardized IT and organizational blueprint to deal with merger/acquisition or globalization (Klaus et al., 2000; Holland and Light, 1999; Sumner, 2000; Brown et al., 2000; Ross and Vitale, 2000; Davenport, 1998).

• Desire to adopt best practice business models and new ways of doing business, and to conduct business process reengineering (Holland and Light, 1999; Davenport, 1998; Brown et al., 2000; Klaus et al., 2000; Ross and Vitale, 2000; Sumner, 2000; Parr and Shanks, 2000).

• Need for increased flexibility and agility in doing business (Brown et al., 2000; Klaus et al., 2000; Ross and Vitale, 2000; Davenport, 1998; Holland and Light, 1999; Parr and Shanks, 2000).

• Data visibility and integration aiding managerial decision making and operations (Sumner, 2000; Brown et al., 2000; Klaus et al., 2000; Kremers and Dissel, 2000; Ross and Vitale, 2000; Davenport, 1998; Parr and Shanks, 2000).

• Pressure from the value chain and need for electronic networking and collaboration with customers, suppliers and other business partners (Hayman, 2000; Kumar and Hillegersberg, 2000;

Kremers and Dissel, 2000; Klaus et al., 2000; Brown et al., 2000; Holland and Light, 1999).

It should be noted that the different reasons and drivers for acquiring ERP systems partly overlap and are interdependent with each other both inside, as well as between, the two categories presented above (Ross and Vitale, 2000).

2 METHODOLOGY

The data used in this study was obtained in a survey investigating the ERP software selection and use in Finnish companies. The survey was conducted during the autumn 2002 and spring 2003. For the purposes of this study, the data acquired through open-ended questions inquiring three most important reasons for ERP system acquisition is used. Of the 44 companies that responded to the survey 41 provided adequate answers to this question. Further, of these 41 companies roughly ¼ were large companies while ¾ were small and medium sized enterprises (<250 employees). Meanwhile, a bit over ½ of the companies operated in wholesale industry but the sample included also companies operating in retail, logistics, and manufacturing industries. Some of the companies that answered to the survey were currently acquiring ERP system while majority had already acquired and implemented their ERP systems. Majority of the companies had acquired their current ERP system in late 1990's or early 2000's. The reasons that the companies reported as the most important reasons for ERP acquisition were grouped based on the above presented categorization. The purpose of this categorization was to validate whether support can be found for the existence of the different reasons from empirical data. The different reasons reported by the companies and their categorization are presented in table 1. Identical and clearly overlapping reasons have been merged.

3 FINDINGS

The reasons that the companies reported as the most important reasons for the ERP acquisition are presented in Table 1 under the respective subcategories. For each subcategory, also the number of instances (answers provided by the companies) in that particular subcategory is displayed in the table. Admittedly, some of the reasons provided by the companies could, based on the interpretation, be seen to fit into several subcategories. Although the best possible fit was

Table 1: Technological and business reasons reported for the acquisition of ERP

TECHNOLOGICAL REASONS	BUSINESS REASONS
Desire to outsource software maintenance and development (6 instances) - Support for old ERP software ended - Acquisition of ERP software that is actively developed by the vendor - New ERP software allows further development - Maintenance services	**Globalization and desire to move to a standardized IT and organizational blueprint to deal with merger/acquisition or globalization** (9 instances) - Globalization of the company's business - Current ERP system does not adequately support global operations - Current information systems are not transferrable to abroad - Standardization of company's policies and practices - Acquisition of unified global system for the whole company - Development objectives set by the group - Demands of the group
Need for adopting clean slate approach in order to achieve improved software system (3 instances) - Need to acquire uncustomized standard ERP package - Problems with the maintenance of the old system - Old system not amenable to further development	**Desire to adopt best practice business models and new ways of doing business, and to conduct BPR** (10 instances) - Support for new processes - Improvement of the efficiency of existing processes - Changes in the company's business - Future development outlooks
Need for common technology platform and increased standardization in technologies used (7 instances) - Acquisition of a common information system to the group - Need to integrate the ERP system with other systems - Need to link all the group's companies into same network - Holistic renewal of company's information systems - Old system did not operate in the required way	**Need for increased flexibility and agility in doing business** (2 instances) - Speeding up the availability of timely information - Improving the efficiency of reporting
Resolution of year 2000 problems or euro conversion problems (4 instances) - Year 2000 problems - Euro conversion problems	**Data visibility and integration aiding managerial decision making and operations** (18 instances) - New requirements e.g. integrated CRM - Possibilities for integration - Support for the improvement of operations - Support for the sales and marketing - Improvement of customer service - Improvement of process control - Improvement of project control - Improvement of managerial accounting and reporting - Unified reporting - Enhancement of information flow within the company - Improvement of data visibility - Increasing the reliability of information - Increasing the amount of information
IT cost reduction (7 instances) - Need to improve efficiency - Need for more capacity and efficiency - Need to lower costs - Need to lower support and maintenance costs	
Desire to replace the aging IT architecture or technology (14 instances) - Need to adopt a modern ERP system - Abandonment of old mainframe computer - Old system used obsolete technologies - Need to meet increased requirements - Need to renew an old system - Replacement investment - Old system had reached the end of its development lifecycle	**Pressure from the value chain and need for electronic networking and collaboration** (4 instances) - Enablement of multicompany environment - Electronic commerce - Expansion of the existing electronic commerce solutions - Growing demands of customers and other interest groups

used as a criterion for categorizing the reasons, there is a possibility for interpretation bias, and thus, the results should be considered as tentative. Further, it should be noted that the reasons exhibited in table 1 are the top three reasons mentioned by the companies. Thus, a low number of instances in a category should not be interpreted as a sign of unimportance.

Of the different technological reasons for ERP acquisition, particularly the desire to replace the aging IT architecture or technology with more modern one was often reported as a reason for ERP acquisition. Further, the desire for IT cost reduction, as well as the need for a common technology

platform and increased standardization in technologies used across the organization, were rather common reasons for ERP acquisitions. The year 2000 problems and euro conversion problems, on the other hand, generated surprisingly few instances considering that the influence of year 2000 problems for the ERP system acquisition has been reported in prior research (Sprott, 2000; Brown et al., 2000; Klaus et al., 2000; Ross and Vitale, 2000) and that many of the companies participating in our survey had acquired their ERP systems in the late 1990's or early 2000's. Also the need for adopting a clean slate approach in order to achieve an improved

software system accumulated a surprisingly low number of instances.

Of the different business reasons, particularly data visibility and integration in order to aid managerial decision making and operations was often reported as a reason for ERP acquisition. Reasons related to business process re-engineering and adoption of best practice business models, as well as to globalization, and mergers and acquisitions, were also reported to have triggered ERP initiatives in rather many companies. Surprisingly, the need for improved flexibility and agility in terms of, for example, more efficient reporting, was not often mentioned. Perhaps even more surprisingly, value chain integration or e-commerce were not among the most reported reasons for ERP initiatives.

In about one third of the companies (16 companies) the three most important reasons for the ERP acquisition were technological reasons. Similarly, about one third of the companies (13 companies) reported business reasons to be the three most important reasons for ERP acquisition. The companies in the remaining third (12 companies) reported a mixture of both technological and business reasons among the three most important reasons. The results indicate that rather many companies view ERP acquisitions as technological initiatives. Knowing the risks involved in ERP implementation and wide effects of ERP systems in organizations, this can be considered alarming. More specifically, perceiving ERP as a technological initiative does not allow harnessing the full potential of ERP, which takes effect through re-engineering and improving the business processes in organizations.

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