

Chapter 2

A Proposition for Classification of Business Sectors by ERP Solutions Support

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ABSTRACT

This paper illustrates the results of an analysis of business sectors covered by ERP solutions. The authors answer questions in regards to business sectors supported by ERP solutions, while presenting a list of supported business sectors. Using a statistical analysis, an answer is given to the question of whether there are any business sectors that are supported by a large number of ERP solutions, and whether it is possible to classify business sectors based on the occurrence of the support. Finally, three classifications are described that stem from different statistical views of covering business sectors by ERP solutions, and a suggestion for a unique classification of business sectors is given.

INTRODUCTION

Information and telecommunication technology is unstoppably entering all segments of human activities by changing processes which run in them (Čerić, 2001). This paper is interested in business sectors which are currently supported by Enterprise Resource Planning (ERP) solutions.

Generally, an organization can be defined as: “..a deliberate association of people whose common goal is to fulfil certain tasks using suitable means and least possible effort in whichever area of social life” (Sikavica et al., 1993). When business is seen as an area of social life, business organization emerges.

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Each business organization, no matter if it is a profit or not for profit organization, accomplishes its goals and tasks by performing a group of connected activities which build connected business processes. A group of business processes belonging to a business organization is called business technology of the given business organization. Goals and tasks which every business organization strives to accomplish by performing a group of business processes, belong to one or more business sectors. Business technology of a certain business sector is a group of business processes used to achieve the goals and tasks of the concerned business sector.

If the number of business process inputs and outputs of a certain business sector (i.e., business technology of a given business sector) is large, i.e., the number of data that needs to be considered in order to create information is large, and if the algorithm for converting data into information is complex and the time needed to supply the information is short, then business processes, i.e., business technology is supported by complex business software. A special kind of business software is the ERP solution (Fertalj et al., 2004; Koch, 2008; Vukšić et al., 2005).

ERP solutions support general business technology of a certain business sector. The producers of ERP solutions speak of the “best practice” method in creating general business technology of a business sector. The creation of “best practice” is not explored to a satisfying degree in scientific literature. The article “The creation of ‘best practice’ software: Myth, reality and ethics” attempts at giving the answer to the question “How are ‘best practices’ created and embedded in new ERP software?” through the presentation of case studies in which follows the creation of the ERP product destined to be marketed as a best practice solution for higher education institutions (Wagner et al., 2006).

The purpose of this paper is to answer the question which business sectors are supported by ERP solutions, are there any business sectors which are supported by a large number of ERP solutions, and is it possible to classify business sectors based on the occurrence of the support.

In the existing ERP solution analyses, the following characteristics were studied: the average solution implementation cost, the average number of users, the coverage of application areas, the coverage of a certain market segment, applied technology, stability, flexibility, security, documentation, adaptability of the ERP solution, the level of support, upgrade reliability, improvement continuity, return of investment, etc. (Abas Business Software, 2003; Burns, 2006; Burns, 2008).

The article “Novel Approach to BCG Analysis in the Context of ERP System Implementation”, published in the journal *Advances in Information Systems Development*, shows an analysis of business processes within different business sectors and industries. The article describes the relationship between gap and BCG analysis through nine large projects of deploying ERP solutions in which the SPIS methodology is applied – a methodology for strategic planning of information systems. From the conducted analysis of business processes, conclusions on individual business sectors and industries are synthesized (Vrček et al., 2007).

As opposed to existing ERP solutions analyses, this paper observes business sectors which existing ERP solutions support, but the aim is not to evaluate ERP solutions, but rather the primary concern of the paper is to evaluate business sectors. The same analysis served as the basis for a suggestion of classification of ERP solution producers which is represented in the article “Analysis and Classification of ERP Producers by Business Operations”, published in the *Journal of Computing and Information Technology* (Jakupović et al., 2009).

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