Chapter XXII
ERP Systems in Higher Education from Regional Perspective

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ABSTRACT

This chapter introduces the ERP systems, their complexity, and especially their integration in higher education as a significant challenge for many institutions. Information society paradigm, globalization, and the rapidly changing environment affect the contents and organization of higher education. In the always-conservative academic world, the organizational structure is very hierarchical and the knowledge transfer is fragmented. The real-world requirements are just the opposite; there is a vast demand for students and professionals having the ability of integration, cooperation, and knowledge absorption. During the last years, European Countries went through an intensive development and changing phase in which the experiences of transition and coping with the information society requirements mixed up. A way to develop training programs in the higher education on an integrated ERP platform from regional perspective is also illustrated in the chapter.

INTRODUCTION

Integrating ERP systems in higher education has been a major challenge for nearly ten years now. The tremendous complexity of ERP systems posed a significant challenge for many institutions. As Roseman (2004) said, from 1997 a wider integration of ERP systems in the curricula of Business, Information Technology/Information Systems and Engineering schools could be globally observed.

ERP systems education is an area demanding special attention for a number of reasons. Students have a strong interest in this subject hoping to gain market driven skills. While this often ensures high attendance, student perceptions and expectations must be managed carefully, in that it is not the objective of such initiatives strictly to enhance student skills via training activities. Managing ERP systems is typically comprehensive and complex. The frequency of upgrades and innovations from one software release to the next characterizes the rapidly evolving nature of these IS solutions. It is often difficult for the lecturer to stay abreast of these changes and to understand the implications of these changes to business practice, and to research and education, in general. By the time current textbooks of satisfying quality are available, there are new systems' upgrades and innovation cycles to deal with (Roseman, 2004).

Most of the market-leading Enterprise Systems vendors established University Alliances with regional relationship managers. These alliance programs have enabled curriculum innovations at the undergraduate and postgraduate levels often under a certain subject, such as Information Systems (IS). A number of academics contributed to the area of ERP systems education with case studies (Roseman, 2004).

While implementing these new technologies a lot of changes in business processes have to be made; ERP implementation is impossible without process reengineering and BPM (Business Process Management). ERP will support or even automate the whole supply chain. Geographical differences will be reduced and enterprises will procure/sell goods from suppliers/buyers located anywhere in the world. From this point of view regional perspective is very important.

THE EVOLUTION OF ERP SYSTEMS

An enterprise's success is related to the speed with which it can respond to changes in its business environment and create value for its chosen market space. Today it is almost impossible to run a competitive business without a computerized information system. The rapidly increasing use of the web has changed the manner in which business is done in almost all organizations. Computer-based information systems in conjunction with web applications are enhancing competitiveness and creating strategic advantage to organizations.

Providing a computerized solution to a business problem may require integrating a lot of information systems. ERP (Enterprise Resources Planning) systems are one of the most popular enterprise applications, and present a new model of enterprisewide computing. (Figure 1) They allow enterprises to replace their legacy systems with a single, integrated system, in which it is possible to plan and manage the use of the resources of an entire enterprise. We can say that ERP is a structured approach to optimizing an enterprise's internal value chain (Norris *et al.*, 2000*)*. What ERP really does is organize, codify, and standardize an enterprise's business processes and data. The software transforms transactional data into useful information and collates the data so that it can be analyzed. In this way, all of the collected transactional data becomes information that enterprises can use to support business decision-making (Norris *et al.*, 2000*)*. The main benefits are the increased efficiency, the improved quality, productivity, and profitability and they require major changes to organizational, cultural, and business processes.

ERP systems cover the core activities of the firm (e.g., accounting, finance, manufacturing, human resources). In these traditional functional

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