Chapter 6.10
Understanding an ERP System Implementation in a Higher Education Institution:
A Grounded Theory Approach

Jose Esteves
Universitat Politecnica de Catalunya, Barcelona, Spain

Joan Pastor
Universitat Internacional de Catalunya, Barcelona, Spain

ABSTRACT

This chapter addresses the problem of enterprise resource planning (ERP) implementation in Higher Education Institutions (HEI). It attempts to contribute to the understanding of ERP implementations in this kind of organizations by identifying and analyzing the major factors that affect this type of projects. Special attention has been paid to contextual influence and to organizational factors. The conclusions of this work suggest that most problems in ERP implementation projects are not technological but may be attributed to organizational factors. The chapter describes an in-depth case study carried out at a HEI that implemented an ERP system in 2001. The case was studied as part of a grounded theory based research project whose aim was to develop a model for the implementation of ERP systems.

INTRODUCTION

In recent years, a growing number of HEIs worldwide are exploring the use of ERP systems as a means of supporting their organizational processes, while linking areas like financial, real estate, and staff management, management of students, and support of teaching and learning. This adoption of ERP systems by HEIs is bringing problems in ERP implementation projects that are specific to these types of organizations. Because HEIs comparatively have modest IT/IS resources and budgets, they expect to benefit largely from

implementing off-the-shelf application products like ERP systems. They do not usually have the depth of experience or a constant availability of adequate expertise to be able to handle the in-house development of an enterprise-wide system.

This chapter reports the results of an in-depth case study carried out in the economics management area of a Spanish HEI that implemented an ERP system in 2001 by following a "big-bang" implementation approach. The big-bang approach is characterized by the "go live" of all implemented ERP modules at the same time.

The interpretive perspective adopted in our research reflects our aim for understanding the phenomenon of ERP implementation in a HEI within the full-fledged organizational context where it occurs. In order to keep the confidentiality of the research site and the people involved in this case study, we deliberately omitted the name of the institution and ERP product. The chapter is structured as follows. First we present the literature review on ERP. Then we describe the case study background. Next, we present the research methodology. Subsequently, we describe the findings. Finally, the conclusions and the implications for further research are outlined.

PRIOR RESEARCH ON ERP

Esteves and Pastor (2001) reviewed 189 articles on ERP topics that were published in conferences and top information systems journals. They noted that implementation approaches have been studied and that new ones have been proposed. However, they detected that "implementation" does not mean the same to all authors. Specifically, in what concerns the process, different authors consider different models with different phases and stages. The survey findings suggested that research on the critical factors relevant to ERP implementation success was covered with some studies that did not provide precise definitions of those factors found. Therefore, more effort should be put into

defining ERP implementation critical success factors and their subsequent validation.

Aladwani (2001) stated the following:

Past ERP implementation research may be described as factor research, which involves identifying the factors or variables that are critical for implementing ERP successfully. Although factor research is valuable for advancing our understanding of ERP implementation success, it adopts a static view, which limits its adequacy in explaining the dynamics of the implementation process. (p. 267)

Aladwani (2001) and Robey, Ross, and Boudreau (2002) suggested a process research approach or a combination of factor and process approaches, in order to improve research in ERP topics. Using a process approach, ERP implementation may be conceived as sequences of discrete events that lead to outcomes of particular interest. Some studies focused on ERP impacts at organizational, technological, and business levels, business process reengineering, and organizational change management issues. However, the few studies developed so far are not enough to create a body of knowledge in the area. Case studies, not necessarily in-depth, constituted the largest category of articles. From the perspective of research methodology, Esteves and Pastor (2000) detected that in some of the referenced studies, there was a lack of explanation of the research methodology applied, lack of data to support the presented results, and lack of assumptions or hypotheses (in theoretical terms) for further studies. Furthermore, although some studies attempted to identify critical success factors for ERP implementations in general (e.g., Esteves & Pastor, 2000), and more specifically to HEI (Nielsen, 2002), there is a lack of research on the management of these critical success factors.

In sum, as Robey, Ross and Boudreau (2002) mentioned, the research on ERP has been mostly descriptive. They pointed out that "little atten-

10 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/understanding-erp-system-implementation-higher/22374

Related Content

Providing Mobile Multimodal Social Services Using a Grid Architecture
Stefania Pierno, Vladimiro Scotto di Carlo, Massimo Magaldi, Roberto Russo, Gian Luca Supinoand Luigi Romano (2009). *Multimodal Human Computer Interaction and Pervasive Services (pp. 315-330).*
www.irma-international.org/chapter/providing-mobile-multimodal-social-services/35895

Information-Communications Systems Convergence Paradigm: Invisible E-Culture and E-Technologies
Fjodor Ruzic (2009). *Human Computer Interaction: Concepts, Methodologies, Tools, and Applications (pp. 2324-2340).*
www.irma-international.org/chapter/information-communications-systems-convergence-paradigm/22389

Comparing Scales for the Assessment of Visual Aesthetics of Mobile GUIs Through Human Judgments
Adriano Luiz de Souza Lima, Christiane Gresse von Wangenheimand Adriano Ferreti Borgatto (2022). *International Journal of Mobile Human Computer Interaction (pp. 1-28).*
www.irma-international.org/article/comparing-scales-for-the-assessment-of-visual-aesthetics-of-mobile-guis-through-human-judgments/313028

A New Trend in Education: Technoself Enhanced Social Learning
Li Jin (2013). *Handbook of Research on Technoself: Identity in a Technological Society (pp. 456-473).*
www.irma-international.org/chapter/new-trend-education/70369

Overcoming Challenges to Long-Term Financing: A Behavioral Perspective
Hazik Bin Mohamed (2017). *International Journal of Applied Behavioral Economics (pp. 37-51).*
www.irma-international.org/article/overcoming-challenges-to-long-term-financing/180710