Chapter X
The Role of Change Management in IT Systems Implementation

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ABSTRACT

Implementation of IT enterprise systems triggers an inevitable organizational change. Managing an IT driven change requires a holistic approach to IT implementation. Such changes require an integration of best practices in project management, risk management, HR management, business process modelling, knowledge management, and software development. This chapter provides an introduction to the role of change management in IT systems implementation and describes the BEST methodology with three case studies from Norway and Israel.

INTRODUCTION

The chapter highlights the potential of an integrated holistic approach to IT systems implementation. It proposes tested approaches to harmonic enterprise architecture development. The chapter also provides a review of the theoretical background to holistic IT systems implementation. Several case studies from the better enterprise system implementation (BEST) project funded by FP5 IST are presented to show how change management can facilitate IT driven enterprise architecture (EA) development. Some results on IT risk management from the FP6 IP project MUlti-industry, semantic-based next generation business INtelliGence (MUSING) are also mentioned.

IT IMPLEMENTATION AS AN EA DEVELOPMENT PROCESS

As often reported in the literature and practice, IT systems do not achieve expectations economically, organisationally, and in terms of anticipated gains in competitive advantage. Many IT system implementation projects suffer from budget and time overruns and sub-optimal or even detrimental results. A 2002 survey of 134 organisations in the U.S., Africa, Australia, and Europe, conducted by KPMG (2002), on the implementation of programme management, a new integrated management method, shows that about 60% of the companies studied have experienced failed projects within the previous year at an average cost of 12 million Euro each.

By IT or enterprise systems (ES), we refer to integrated software packages, which have been developed to support several aspects of a company's information management needs such as ERP, PDM, CRM, and KM. An IT system can be used to support tasks like product design and manufacturing, purchasing and logistics (material management, production planning), sales management and distribution, finance and controlling, and human resources management.

The implementation of a new IT system affects the enterprise architecture itself, touching key issues as business and organisational development. The IT implementation process triggers a complex set of change processes within the enterprises. We distinguish between issues related to IT implementation as a business development effort and organizational development implications.

IT Implementation as a Business Development Issue

An ES may integrate new tasks into the existing work processes and generate new management information. The outcome is dependent on the choice of ES and the configuration of the system. A key point is that an ES affects the work of many people in the organisation, influences work functions, but in general does not fully automate them. The overall perspective of this chapter is that enterprise architectures change as a consequence of implementation of an ES. We propose a change management methodology that is focused on key elements of an organisation and its key stakeholders throughout the implementation process. Effective change management requires an understanding of the impact on business of an IT system and its configuration. It is also necessary to understand which competencies are needed among the employees who participate in the change process, on the shop floor, as well as in administration, at management level, and others (Koch & Buhl, 2001).

From a business development perspective, a significant number of ERP projects are reported as failing to achieve anticipated benefits (Appleton, 1997), putting potentially a whole company at risk. Moreover, while new information technologies promise to significantly enhance organizations' performance, much of this potential is never realized (Kwon & Zmud, 1987; Nash, 2000). There is wide empirical evidence of unproductive use of IT systems. The "IT productivity paradox" is a well-known phenomenon, which, in this context, means that there is little correlation between a company's investment in IT and its productivity (Landauer, 1995, Willcocks & Lester, 1999). Problems have been identified not just to be technical issues, but also organisational and social ones—and this situation does not seem to have significantly improved over time.

IT Implementation as an Organisational Development Issue

In the literature, many IT implementation related problems are characterised as organisational and related to human resources. Technical problems are only a minor proportion of the reported problems. To confirm and refine this observation, the authors have analysed IT implementation pro-