

Chapter 13

The Post Implementation Phase of a Large-Scale Integrative IT Project

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ABSTRACT

In this chapter the authors focus on the iterative process that occurs within the implementation phase of an ERP which they depict as a series of learning cycles: managers make decisions, identify mistakes, and accumulate experience (lessons learned). They examine these “learning cycles” through the lens of absorptive capacity and they use a case study and a qualitative perspective. The authors identify a number of tradeoffs that represent the learning paths of Alpha Co. and find that such learning process is path dependent, organizational memory plays a fundamental role, and double loop cycles contribute in the development of absorptive capacity seen as a dynamic capability.

INTRODUCTION

According to Markus, Tanis, and Fenema (2000) Enterprise Resource Planning (ERP) systems are based on developing a common IT infrastructure and common business processes that will support the integration of an entire business activity. Use of ERP has spread rapidly since the late 1990s –and especially in large organizations where the need for efficiency and effectiveness of processes is crucial.

Practically, ERP systems are packaged software that has been developed and licensed out to clients. ERP systems typically have built-in standardized functionalities that allow organizations to integrate disparate data (Davenport, 2000; Cortada, 1998). Examples of popular application packages and their developers are SAP, Oracle, PeopleSoft, and JD Edwards (Jacobs and Weston Jr., 2007).

The main reason for the popularity of ERP systems is that they are perceived to improve both productivity and speed (Davenport, 1998). Their successful incorporation potentially brings huge

DOI: 10.4018/978-1-61520-625-4.ch013

economic benefits to firms, such as reduced cycle times, faster transactions, better financial management, and a foundation for the implementation of e-commerce, knowledge documentation, etc. (Davenport, 2000). While potentially ERP systems can help to improve organizational performance, many firms are unable to fully exploit this potential and realize all the benefits (Stein, 1998). In this chapter we focus on some of the problems that can arise in the implementation (for the first time) of an ERP system in a large organization.

Much of the research advocates ERP implementation as a sequence of linear phases, beginning with preparation and ending with actual deployment or “going -live”. This linear view is based on traditional innovation diffusion theory (Cooper and Zmud, 1990) that sees ERP implementation as part of the organizational effort to diffuse ERP innovation throughout a user community. Markus et al. (2000) introduce a process view of ERP implementation, which includes a maintenance phase that captures the “onward and upwards” efforts of users as they learn to exploit the ERP system to support their work once the package is implemented. Our definition of the implementation phase is consistent with Markus et al. (2000) as is our adoption of a process perspective of the implementation phase, that is, as an iterative rather than a linear process (Elbanna, 2006). In highlighting some of the problems than can arise during this process, we use a case study (Alpha Co.) approach and focus on a particular ERP system, that is, Customer Relationship Management (CRM). CRM systems are defined as ERP modules that specialize in capturing, integrating, managing, and analyzing customer data, such as how and when a particular customer interacted with the organization –the “who, what, when and how” of this interaction (Gefen and Ridings, 2002). CRM systems integrate and synthesize a broad array of activities related to customer services, sales, and marketing (Mankoff, 2001). Combining these activities into a single seamless interaction gives organizations a strategic tool to

maintain and improve their customer relationships through customized integrated services (Davids, 1999). Like other ERP systems, CRM systems often involve prolonged and difficult phases of system design, development, implementation, and post implementation.

In this chapter we focus on the iterative process that occurs within the implementation phase which we depict as a series of learning cycles: managers make decisions, identify mistakes, and accumulate experience (lessons learned). We argue that ERP development is a process of continuous evolution with no final design being possible or warranted. Moreover, we argue that ERP implementation is best viewed not as a one-time process but rather as a series of implementation and practical use cycles, each of which encompasses different degrees of reflection and learning such that the system becomes more embedded and better adapted to the context. We examine these “learning cycles” through the lens of absorptive capacity. We take from Cohen and Levinthal’s (1990) original construct, the concept of “knowledge accumulation.” From its further development we borrow concepts such as double loop learning and absorptive capacity (Dyer and Singh, 1998); relative absorptive capacity, that is what a firm can learn in terms of new knowledge acquired through consultancy (Lane and Lubatkin, 1998); how learning cycles can be seen as a dynamic capability (Todorova and Durisin, 2007); and the importance of framing the learning process within a multilevel perspective (Cohen and Levinthal, 1990; Lane, Koka, and Pathak, 2006; Quigley et al., 2007; Van de Bosch, Wijk, and Volberda, 2005)

Below we identify a number of themes that represent the learning paths in Alpha Co. as a result of its implementation of CRM software, which began in 2001 and is still ongoing at the time of writing (2009). The four themes have emerged from observations and interviews with persons from ALPHA CO. are the following:

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