Chapter XX
Analyzing an ES Implementation in a Health Care Environment

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ABSTRACT

At the present moment, many hospitals are going through a process of change directed at the integrated delivery of health care. Enterprise Systems (ES) are increasingly used to support this process and to manage hospitals on a coherent basis. We also know, however, that ES implementation itself, can be viewed as an organizational change process that affects many stakeholders. For that reason it is relevant to study how ES implementation takes place within hospitals and how it tends to impact the existing organizational arrangements. The purpose of this chapter is therefore to describe and analyze how ES implementation within a hospital affects the interests of stakeholders and which specific problems may arise as a result. This chapter uses the evidence of a case study to reveal some important dimensions of the organizational change issues related to ES implementation within hospitals.

INTRODUCTION

Many hospitals are going through a process in which they are changing from loosely coupled units into more integrated entities. Hospital managers are increasingly accountable for the cost-effectiveness and the quality of their organizations, which explains their need for more integration and control. To achieve this, the managers are look-ing for information systems that can help them to manage their hospitals on an integrated basis (Merode, van et al, 2004). This is why in recent years many hospitals have started to implement enterprise systems (Jossie et al., 2005). Enterprise systems are software packages that facilitate the integration of transactions-oriented data and business processes throughout an organization (Klaus et al., 2000). Traditionally, enterprise

systems are used in manufacturing, which differs in many respects from a hospital context. It is therefore relevant to describe and analyze how ES implementation within hospitals takes place and which specific problems are faced by the implementers and managers.

In this chapter we will describe and analyze the implementation of an enterprise system in a medium-sized hospital in The Netherlands. We will analyze this implementation by focusing on the roles of the various stakeholders involved, the meaning that they attach to the system, and the actions they take throughout the project. We have chosen this perspective because stakeholders involved in hospitals differ significantly from those involved in other industries. This chapter aims to provide insight into the role that the different stakeholders involved in hospitals may play during ES-implementations. Understanding the possible impact of ES on particular stakeholder interests may help project managers and others to manage ES implementation within hospitals in a more effective way.

There are only few descriptive accounts of how groups and individuals related to hospitals interpret IS proposals in general and ES systems in particular, and how they respond subsequently (Levine et al., 1995). Especially empirical case studies that focus on the role of politics and stakeholders in relation to ES implementation within hospitals are scarce. As a result, our insight into the role of stakeholders in the implementation of IS applications within hospitals in general and that of ES applications in particular is limited. This means that we have a lack of understanding of why groups and individuals act in the way they do. Knowledge of barriers to implementation and approaches to analyze them is of importance to practitioners, such as project managers, who are involved in implementing ES within hospitals, and hospital managers, who have to decide whether to implement ES.

The chapter is organized as follows. In the next section we will explain the distinctive features of enterprise systems and describe theory and models that the research has been based on, which may help us understand the relevance of studying enterprise systems in health care environments. After that, we will describe the methodological background of the research. The following section presents the case study and then an interpretation will be given of this case study on the basis of the model. In the final section we will put the study in a broader perspective and put forward some views about the practical implications for managers responsible for ES implementations within hospitals.

BACKGROUND

Enterprise systems are software applications aimed at integrating a range of business functions in order to acquire an overview of the business based on a single information architecture (Merode, van., 2004). Starting from manufacturing and financial systems, enterprise systems may eventually allow the integration of inter-organizational supply chains (Markus et al., 2000; Fowler et al., 2003). Enterprise systems are multi-functional and cover a range of activities, such as logistics, human resources and finance. These functions are integrated in such a way that whenever data are entered into one of these functions, they become available to all related functions. Enterprise systems are modular and can be used in many combinations of modules. They link the different organizational units by coordinating the business processes.

Because these systems affect so many aspects of an organization's internal and external operations, their successful deployment and use are critical to organizational performance and survival. In the case of ES successful implementation is important, since the costs and risks of these technology investments rival their potential payoffs. Failure of enterprise system implementation projects may lead to bankruptcy (Markus et al.,

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