Chapter 7
Can IT Act as a Catalyst for Change in Hospitals?
Some New Evidence

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ABSTRACT

This chapter presents a succesful reorganization of a patient care process that was carried out in a middle sized Finnish hospital. The reorganization of the patient care process for joint replacement surgery succeeded in achieving a 50 per cent increase in operations. This study proposes that IT may have an indirect influence on the achievement of goals, such as productivity, as soon as the IT investment has been decided upon; in other words, IT benefits start accruing before the IT component is even in place. This is a new feature to add to the previous definitions, because this particular benefit cannot be logically derived from any of the features of the actual IT system. Paying enough attention to this phenomen at the planning stage can be vital to the success of new IT system investment.

INTRODUCTION

In the last two decades, the assessment of the benefits of IT has given rise to an interactive dialogue between management sciences and information systems science in particular, but in health care the subject has received little attention. In the field of health care, IT investments are still seen as primarily an acquisition to replace earlier technology and expand current use, not as an investment project to be managed in line with business goals. There are, however, many phenomena at play shaping the practices of the health care sector and identifying and allowing for these phenomena may be the key to successful IT system projects, indeed even more important than the technology itself.

The literature on both IT management and process development is quite unanimous in its belief that both are necessary for achieving more efficient operation and a productivity increase. Therefore an IT system project is often a change project by nature, which can make it challenging particularly in the field of health care (Berg, 2001;

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Littlejohns, Wyatt, & Garvican, 2003), where resistance to change is virtually a characteristic of the profession (Weick & Sutcliffe, 2003).

The Act on Specialized Medical Care concerning the maximum times to arrange treatment, which came into force in Finland in March 2005, has made many healthcare units look at the arrangement of the services they produce in a new light. Particular attention is fixed on the legal obligation concerning the waiting times between treatment decisions and treatment measures, which is to be no more than six months. The need to increase the number of operations has become a matter of current debate particularly in orthopaedics, where the length of queues has become unlawfully long at several hospitals in Finland. Improvements in controlling the queues have previously been achieved by the more efficient handling of referrals (Harno et al., 2000), but with orthopaedics this was felt to be ineffective (Harno et al., 2001). In special operative areas, making use of all the development potential available within the traditional treatment chains should be explored as a permanent remedy, after first-aid obtained in the form of outsourced services.

This chapter illustrates a case where process management and process development tools where exploited to support new ways of work and improve productivity in healthcare. In Finland, Seinäjoki Central Hospital implemented a project to revise processes in order to reduce queues in surgery, particularly artificial-joint surgery. The project in question was originally classified as an IT project which also incorporated process development. Over the course of the project, however, the balance between the two components shifted, and there was no time to incorporate the new IT system before the changes were implemented. This chapter describes the results of the experiment for the benefit of, for example, other operation units that are taking a close look at their operations and of developers and management in health care as support for decision-making. Parts of the study have been published in Finnish language (Jokipii et al., 2006).

PROCESS MANAGEMENT THEORIES

The term 'process thinking' refers to a number of management theories that have been used by industry in its quest for better operating processes over the last few decades. In many of these, the use of IT also has a significant role. Indeed, IT has become more important in a number of areas, including health care; yet process thinking has not always been employed.

The populations of Europe and the Americas are ageing quickly. The healthcare system is struggling with the combination of rising demand and escalating costs in specialist medical care, while at the same time, there is strong support for reduced public-sector healthcare spending but firm rejection of any cuts in service levels. If the two targets are to become reality simultaneously, the methods enabling them to be achieved should be chosen on the basis of how deep the cuts should be.

Cosmetic improvements would be fairly painless: for example, Total Quality Management (Crosby, 1979; Deming, 1991) would result in long-term improvements in operating processes as a more efficient use of resources would bring gradual savings. Some scholars have, however, likened some quality management theories to a rain dance (Schaffer & Thomson, 1992). In their view they look good, sound good and allow those involved to feel good, while at the same time they may have no influence on the rain itself. There are also other management theories in the field of process thinking.

According to the time-based management approach, all development should focus on process lead-time (Stalk & Hout, 1990). In such an approach all other positive aspects, improved quality, cost savings and customer satisfaction will follow automatically. However, development measures do not need to mean squeezing more out of the stages intended to boost the value of the treatment process. In fact, industrial companies have been able to find larger savings in the way they use the time that brings no added value, which, after all,