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## **Chapter VI**

# **How to Prioritize Information Systems Selection Decisions Under Time Pressure**

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### **ABSTRACT**

*This chapter reports on an action research study that used the Strategic Choice method. This method was used to support the prioritization of information systems with respect to enhancing these systems within a public sector health department. Such decisions are notoriously complex, fuzzy, time-consuming and political for stakeholders. The results of this study indicate that the Strategic Choice method offers the potential to reduce time commitment for stakeholders in a satisfactory manner.*

### **INTRODUCTION**

Currently, there are many occasions in which budget and constraints on personnel dictate that only a limited amount of development or systems enhancement is possible. This is becoming a more common problem as legacy systems and their ongoing need for maintenance continue to represent a growing proportion of an IT department's budget. In addition, the nature of the relation-

ships between information systems is complex and often subtle in terms of their strategic contribution to the organization. Worse still, there is no single methodological approach which has been recognized as ideal for making this kind of decision (Gregory, 1995; Sikora et al., 1998), especially so when such decisions are often required to be made under severe time limitations.

The method used in this study was the Strategic Choice approach (Friend & Hickling, 1987). The approach is empirical rather than intellectual and explicitly recognizes some of the ways in which people, faced with complex decision problems in practice, cope with dilemmas at an intuitive level. It has been used in other decision domains (Stromberg & Khakee, 1993; Friend, 1989) but not in information systems selection. A particularly attractive feature of Strategic Choice was the potential for minimal involvement of the stakeholders, and so an action research study was set up to examine this question. As a consequence, only three two-hour sessions involving five stakeholders were required to arrive at a decision.

The study was set up on typical action research lines (Wood-Harper, 1985; Elden & Chisholm, 1993). All participants were qualified in terms of their agreement to participate in the research (Winter, 1998), in terms of the nature of the problem focus (Cook, 1998), and what their role would be within that. The chapter proceeds as follows. The next section provides a brief overview of the Strategic Choice method. This is followed by a section describing what actually occurred in each of the three sessions as well as some further detail of the method. The chapter closes with an evaluation of Strategic Choice in terms of the study's aims.

## THE STRATEGIC CHOICE METHODOLOGY

Strategic Choice is best described as a framework involving four complementary phases (or modes) of decision-making activity. These are the shaping mode, the designing mode, the comparing mode and the choosing mode (Friend & Hickling, 1987). Researcher involvement is primarily facilitative, describing the process and assisting the workshop participants to work through all steps (modes).

In the **shaping** mode, decision-makers address concerns about the structure of the set of decision problems which they face. They may debate the way in which problems should be formulated and whether links exist between decision options. They may consider whether their current focus should be enlarged, or conversely broken down into more manageable parts.

In the **designing** mode, decision-makers address concerns about what courses of action are possible in relation to their current view of the problem shape. They may debate whether they have enough options in view, or whether

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