Chapter 6.4
Changing Healthcare Institutions with Large Information Technology Projects

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ABSTRACT

This article reviews the development of institutional theory in direct relations to historical changes within the UK's National Health Service (NHS) with an eye to contributing to the theoretical specification of healthcare information processes. This is done partly by extending certain paradigms (see Meyer & Rowan, 1991; Powell & DiMaggio, 1991; Tolbert & Zucker, 1994) through a proposed model of causes and consequences of variations in levels of institutionalisation in the healthcare industry. It reports findings from a 5-year study on the NHS implementation of the largest civil ISs worldwide at an estimated cost of $10 billion over a 10-year period. The theoretical basis for analysis is developed, using concepts drawn from neo-institutionalism, realisation of business value, and organisational logic, as well as mixed empirical results about the lack of IT investments value in the NHS. The findings suggest that large scale, IT change imposed upon a highly institutionalised healthcare industry is fraught with difficulty mainly because culturally embedded norms, values, and behavioural patterns serve to impede centrally imposed initiatives to automate clinical working practices. It concludes with a discussion about the nature of evaluation procedures in relation to the process of institutionalising IS in healthcare.

INTRODUCTION

An historical overview of IT projects in the UK's National Health Service (NHS) during the last six decades is presented here with the intention to both clarify the links between institutional theory and previous traditions of sociological work on organisational structure. The initial exposition of this theory by works of established institutionalists (Meyer & Rowan, 1991; Scott, Ruef, Mendel, & Caronna, 2000; Tolbert & Zucker, 1994) focuses on the ways of challenging dominant theoretical and empirical traditions in organisational research. While this article clarifies some ambiguity and elaborates on the logical and empirical implica-

tions of a phenomenologically based version of institutional theory, the primary aims are to clarify the independent theoretical contributions of institutional theory to analyses of the NHS and to develop this theoretical perspective further in order to enhance its use in empirical research in other healthcare environments (internationally and globally).

Markus (1983) claims that interaction theory draws together three principal strands of resistance: (1) internal factors, (2) technical problems, and (3) political context. This theory has been highly influential in IS strategy and other social sciences generally since Markus first developed the ideas over two decades ago. The focus here (see Table 1) is on how interaction theory offers a new way of looking at IS implementation in the healthcare industry.

Much has been researched in the last few decades about the major lack of a coherent implementation strategy for IS (Sambamurthy & Zmud, 1994) in the healthcare industry (Stevens, Schade, Chalk, & Slevin, 1993; Vogel, 2003). Most of such claims have been levelled against an apparent "productivity paradox" with respect to investments in healthcare management (in general) and IS (in particular). The Wanless report (2002) and Committee on Quality Health Care in America assessment report by Institute of Management (2002)—both national government's mandated investigations into the UK and USA national healthcare systems respectfully—among others, have failed to find a convincing body of evidence that investment in healthcare IS is associated with increased output (refuting the productivity paradox), but not with healthcare value as measured by patient satisfaction.

WHAT IS INSTITUTIONALISM?

Institutionalism is continuously being used to mean different things by researchers of political science, economics, and sociology. Lowndes (1996, p. 182) presents institutionalism as informal codes of behaviour, written contracts, and complex organisations with four elements:

- A middle-level concept. Institutions are devised by individuals and therefore constrain individuals' actions. Institutions here are seen as part of the broad social fabric and medium for individuals' day-to-day decisions and other activities. DiMaggio and Powell (1994) argue that institutions shape human actions, imposing constraints while providing opportunities for individuals.
- Having formal and informal aspects. Lowndes (1996) views institutions to involve formal rules or laws, which allows informal norms and customs to be practiced. That is because some institutions are not

Table 1. Implementation theory: Usage, fitness, relationship and sufficiency

Authors	IS Implementation	Theory Description
Lucas, 1993	Appropriate use of IS	Process theory explaining appropriate IS use Variance theory linking use with business value
Grabowski & Lee, 1993	Strategic fitness of IS	Process-type relationship between strategic fit and performance of IS
Markus, 1983	Relationship of IS assets	How IS investment do or do not become IS assets How IS assets do or do not yield improved organisational performance
Sambamurthy & Zmud, 1994	Insufficient to produce impacts	Process model connecting raw material inputs to outputs Variance theory of IS management competencies and IS impacts Variance theory linking impacts and business value

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