An exploration of enterprise technology selection and evaluation

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Available online 26 January 2005

Abstract

The evaluation-and-selection of enterprise technologies by firms has been said to be largely rational and deterministic. This paper challenges this notion, and puts forward the argument that substantial ceremonial aspects also play an important role. An in-depth, exploratory longitudinal case study of a bank selecting a ubiquitous and pervasive e-mail system was conducted using grounded theory and a hermeneutic [pre] understanding of institutional and decision making theories. Intuition, symbols, rituals, and ceremony all figured prominently in the decision process. However, rather than being in conflict with the rational processes, we found them to be in tension, leading to a more holistic social construction of decision processes. For researchers, this suggests that a focus on process rationality, not outcomes, might lead to a fuller understanding of these critical decisions. For managers, it underscores the importance of understanding the past in order to create the future.

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Keywords: Institutional theory; Decision making; Evaluation; Selection; Rationality; Ceremony

1. Introduction

The definition and study of Enterprise Systems (ES) has evolved from its initial resource planning focus to a broader approach that typically includes aspects of ‘integration’ and ‘best practice’. These concepts, however, are imprecise and may differ across contexts and perspectives. Not only do best practices frequently exist in the eye of
the beholder and vary within industries but integration is rarely a dichotomous condition
and can be implemented at a variety of levels and in a number of ways.

Furthermore, although the expanded definition allows us to increase the relevance of
ES research, ES are frequently characterized by debate about their adoption, use, and
efficacy and there is a growing recognition that they must be studied longitudinally
and within their technological and organizational context. For example, Orlikowski and
Iacono (2001) remind us to consider the specific aspects of technology that affect our
research and Robey and Boudreau (1999) recommend that we consider ‘logic of
opposition’ and recognise implicit contradictions and opportunities by focusing on
theories that promote and oppose social change and explain a wider range of outcomes.

This paper ameliorates understanding of organizational evaluation-and-selection
between ES by describing longitudinal research conducted through institutional and
decision theory lenses at Fidelis, a large financial institution. Believing that industry best
practices required a reduction in the number of systems and wanting to integrate a new
application, evaluative and decision processes were used to justify a move from multiple
systems to a product in use at other organizations and compatible with a new application
under consideration.

Technology evaluation and decision making is usually considered a predominantly
analytic or traditionally rational activity where options are compared against criteria such
as efficacy, market share, and total cost of ownership (TCO). In this characterization,
noninstrumental or ceremonial elements of the decision process are frequently ignored,
omitted entirely, or at the very least discounted. However, following an extensive
qualitative case oriented research methodology that focused on the technological and
organizational context, ES evaluation-and-selection processes were found to consist not
only of traditionally rational quantitative and qualitative elements but interwoven in a
fabric made up of ceremony and ritual.

The paper proceeds as follows. In Section 2 we describe the state of technology
selection-and-evaluation research and introduce the methodological and theoretical
perspectives applied: case study research and grounded theory within an umbrella of
phenomenological hermeneutics bracketed by decision and institutional theory. This is
followed by a description of the research site, data collection and analysis: longitudinal
interviews with multiple respondents analyzed using Atlas/Ti. Section 4 presents the
findings and interpretation, and the final section concludes with implications for future
research and theory development.

2. Background and theoretical methodology

This section briefly summarizes evaluation-and-selection research, institutional and
decision theory, and grounded theory and hermeneutics.

2.1. Technology evaluation-and-selection

The empirical study of research on technology evaluation-and-selection is a
relatively new area, and work is predominantly exploratory (Riddle and Williams,
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