Managing IT for Business Innovation: Issues of Culture, Learning, and Leadership in a Jamaican Insurance Company

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The recent major changes in the general insurance sector have significantly increased the need for the development and use of IT for business innovation. This paper uses the case study method to explore how a Jamaican general insurance company responded to these pressures by establishing a cross-cultural joint venture for IT development. The research was guided at the meta-level by the principles of structuration theory, but explicitly uses the more familiar perspectives of culture, learning, and leadership in analysing the empirical work. Results from the case study include illustrations of how, during initiation activities of innovation, visionary leadership utilised an intimate knowledge of the business along with double loop learning capabilities. However, during the implementation of the innovation, leadership styles did not cope adequately with cultural characteristics. The paper uses insights from the case study to develop some practical implications concerning appropriate policies when managing joint ventures for IT development, particularly when cross-cultural teams are involved.

Between the late 1980’s and the early 1990’s, the world’s insurance markets experienced the worst spate of natural and man-made catastrophes in its recorded history. The markets suffered huge losses as the unprecedented levels of claims that followed were inadequately covered by the low premium rates which had developed from an oversupply of underwriting capacity. International re-insurers (insurers to primary insurers), who accepted a high percentage of the risks from local insurers in high catastrophe areas such as Jamaica, started to demand new and more detailed business information from them. This put considerable pressure on local insurers to develop information systems to help meet re-insurer’s new business needs. This requirement to develop new information systems is particularly pressing and difficult for local insurers in developing countries. They are heavily reliant on re-insurance because of their low capital base, and they also have limited access to scarce IT resources to deliver the new systems demanded by re-insurers.

The above issues in the insurance sector are typical of the worldwide pressures for the development of new and innovative IT systems, and one response which organizations have made is to out-source application development through a wide range of joint venture activities globally. The joint venture partners have been with organizations in countries such as India which have gained a good reputation for providing highly skilled software developers at significantly lower cost than their counterparts in the West (Heeks 1993).

While a lot of joint venture activities have taken place between multi-national companies and software houses in India, the large and competitively priced Indian market of computer professionals is becoming increasingly attractive to companies in developing countries where IT resources are scarce and in high demand.

This paper examines the process of developing IT for business innovation within a Jamaican insurance group which we will call SAD1. Indian computer professionals were brought in by the Jamaican group to set up a software company to develop innovative applications to meet the changing business requirements of re-insurers worldwide. The goal of the research study was to examine the social and organizational issues involved with managing IT for business innovation, with a focus on the use of cross-cultural development teams. The basic research question was: “what issues of culture, learning, and leadership are important in managing IT for...
business innovation?”. A specific question in this particular case study was: “what special problems may occur in using cross-cultural teams for IS development?”.

The basic research question seeks to address the issue of managing IT for business innovation which continues to be an area of great importance, particularly in the financial services industry. The perspectives of culture, learning, and leadership were developed after our review of the organizational innovation literature identified them as being valuable approaches to gaining an understanding of the innovation process. The specific question regarding cross-cultural teams for IS development relates to the topical issue of using analysts and programmers from other cultures in the development of systems, particularly in the context of outsourcing (Heeks 1993).

The research was based on an interpretive epistemology (Orlikowski and Baroudi 1991, Walsham 1993), using a single in-depth case study. A longitudinal design was utilised to investigate events in real time as they unfolded. Perspectives of culture, leadership, and learning were utilised explicitly in the case analysis, and the research process was guided by the principles of structuration theory (Giddens 1984). The iterative process of data collection and case analysis led to insights and implications for practice which can be applied to other contexts.

The remainder of the paper is structured as follows. The next section draws from the relevant IT and organizational literature on innovation, and discusses the importance of the theoretical perspectives of culture, learning, and leadership in investigating innovation. This is followed by a section on research methods. The multi-level contexts operating in Jamaica’s general insurance industry and the events and actions of the ABCO case are then described. The case is subsequently analysed and insights on the theoretical perspectives developed. The final section of the paper discusses some implications for practice.

**Literature Review**

The development of innovation in the IT literature has many parallels with the development of the organizational innovation literature. The research can be classified into three discernible streams: the diffusion of an innovation (over time and/or space) through a population of potential adopters; factors affecting the innovativeness of organizations; and the process of innovation within organizations. These streams of research have developed relatively sequentially over time, and the latter approach based on examining the innovation process formed the basis of our research work. A brief review of the three streams of work is given below.

Fichman (1992) provides a useful review of empirical research in IT **diffusion**. He also develops a framework building on classical diffusion theory and other more conceptual work, and maps existing research on to the framework. Livari (1993) notes that innovation research concerning the diffusion/adoption of information technology has predominantly taken place at the macro-level (e.g. Zmud 1984, Cooper and Zmud 1990), following the macro theory of innovation diffusion in traditional innovation research. He has proposed a framework for a micro-innovation theory of IS adoption to complement the dominant macro-innovation focus of IT diffusion. In his framework, adoption of innovation is assumed to be a social process involving a number of participating actors. This leads us towards process approaches to innovation as discussed later in this section.

The emphasis of **factors research** has been to view information systems (IS) implementation as a technical innovation, and to analyse the factors behind the success and failure of the use of the innovation (Lockett 1987, Kwon and Zmud 1987). The limitations of factors research include the lack of a solid theoretical framework, and insufficient attention paid to social context and process (King 1990). Early process models adopted the process itself as the phenomenon of interest (Kolb and Frohman 1970), but these models viewed implementation as a series of predetermined stages and were rather static in nature.

Several papers (e.g. Markus and Robey 1988, Orlikowski 1992, Robey and Azevedo 1994) have recommended interpretive approaches in explaining the dynamic process of organizational transformation through information technology. More specifically, an interpretive approach to the **process of innovation** has been suggested (Van de Ven and Rogers 1988) in order to incorporate human action in understanding this complex process. This interpretive process-based approach to studying innovation was utilised in our research study.

**Theoretical Perspectives**

Interpretive approaches to gathering research data require an underlying guiding theory, and structuration theory has recently been utilised in the IS literature (Orlikowski 1992, Walsham 1993) to provide a basis for a dynamic perspective. Structuration theory suggests that any process study needs to consider the interlinking of action and social structure. A core concept of structuration theory is the notion of ‘structure’ which is viewed as rules and resources recursively involved in the reproduction of social systems. ‘Structure’ exists as mental models which are drawn on in human action and interaction, and in so doing structure is created or reproduced. We do not have space here to describe structuration theory in further detail, but we refer the interested reader to the considerable body of literature on structuration theory and its applications within IS (e.g. Poole and DeSanctis 1990, Orlikowski 1992, Walsham 1993).

In this paper, the role and use of structuration theory is as a ‘meta-theory’. We did not use it explicitly as a basis for the analysis of the empirical data. There are a number of problems associated with using structuration theory for empirical work as discussed by Garnsey and Kelly (1995). The complexity and subtlety of this meta-theory is often misunderstood even by experienced social scientists, and Giddens’s esoteric use of standard terms may be confusing. Despite these operational problems, it was valuable as a ‘sensitising device’ in guiding
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