Chapter I

Knowledge Management and New Organization Forms: A Framework for Business Model Innovation

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The concept of knowledge management is not new in information systems practice and research. However, radical changes in the business environment have suggested limitations of the traditional information-processing view of knowledge management. Specifically, it is being realized that the programmed nature of heuristics underlying such systems may be inadequate for coping with the demands imposed by the new business environments. New business environments are characterized not only by rapid pace of change, but also discontinuous nature of such change. The new business environment, characterized by dynamically discontinuous change, requires a re-conceptualization of knowledge management as it has been understood in information systems practice and research. One such conceptualization is proposed in the form of a sense-making model of knowledge management for new business environments. Application of this framework will facilitate business model innovation necessary for sustainable competitive advantage in the new business environment characterized by dynamic, discontinuous and radical pace of change.

“People bring imagination and life to a transforming technology.”
— Business Week, The Internet Age (Special Report), October 4, 1999, p. 108

The traditional organizational business model, driven by pre-specified plans and goals, aimed to ensure optimization and efficiencies based primarily on building consensus, convergence and compliance. Organizational information systems – as well as related performance and control systems—were modeled on the same paradigm to enable convergence by ensuring adherence to organizational routines built into formal and informal information systems. Such routinization of organizational goals for realizing
increased efficiencies was suitable for the era marked by a relatively stable and predictable business environment. However, this model is increasingly inadequate in the e-business era that is often characterized by an increasing pace of radical and unforeseen change in the business environment (Arthur, 1996; Barabba, 1998; Malhotra, 1998b; Kalakota and Robinson, 1999; Nadler et al., 1995).

The new era of dynamic and discontinuous change requires continual reassessment of organizational routines to ensure that organizational decision-making processes, as well as underlying assumptions, keep pace with the dynamically changing business environment. This issue poses increasing challenge as ‘best practices’ of yesterday—turn into ‘worst practices’ and core competencies turn into core rigidities. The changing business environment, characterized by dynamically discontinuous change, requires a re-conceptualization of knowledge management systems as they have been understood in information systems practice and research. One such conceptualization is proposed in this article in the form of a framework for developing organizational knowledge management systems for business model innovation. It is anticipated that application of this framework will facilitate development of new business models that are better suited to the new business environment characterized by dynamic, discontinuous and radical pace of change.

The popular technology-centric interpretations of knowledge management prevalent in most of the information technology research and trade press are reviewed in the next section. The problems and caveats inherent in such interpretations are then discussed. The subsequent section discusses the demands imposed by the new business environments that require rethinking such conceptualizations of knowledge management and related information technology-based systems. One conceptualization for overcoming the problems of prevalent interpretations and related assumptions is then discussed along with a framework for developing new organization forms and innovative business models. Subsequent discussion explains how the application of this framework can facilitate development of new business models that are better suited to the dynamic, discontinuous and radical pace of change characterizing the new business environment.

**KNOWLEDGE MANAGEMENT: THE INFORMATION PROCESSING PARADIGM**

The information-processing view of knowledge management has been prevalent in information systems practice and research over the last few decades. This perspective originated in the era when business environment was less vacillating, the products and services and the corresponding core competencies had a long multi-year shelf life, and the organization and industry boundaries were clearly demarcated over the foreseeable future. The relatively structured and predictable business and competitive environment rewarded firms’ focus on economies of scale. Such economies of scale were often based on a high level of efficiencies of scale in absence of impending threat of rapid obsolescence of product and service definitions, as well as demarcations of existing organizational and industry boundaries.

The evolution of the information-processing paradigm over the last four decades to build intelligence and manage change in business functions and processes has generally progressed over three phases:
Toward a Consensus Knowledge Management Success Definition

Culture and Knowledge Transfer Capacity: A Cross-National Study

Alignment of Business and Knowledge Management Strategies