

Chapter 8.4

Strategic Experimentation and Knowledge Management

V. K. Narayanan
Drexel University, USA

INTRODUCTION

Historically, the focus of IT infrastructure has been to capture the knowledge of experts in a centralized repository (Davenport & Prusak, 1998; Grover & Davenport, 2001). These centralized databases contained knowledge that was explicit and historical (e.g., competitor pricing, market share), and the IT infrastructure served to facilitate functional decision-making or to automate routine tasks (i.e., in re-engineering). The users of technology approached the repository to obtain data in a narrowly defined domain (Broadbent et al. 1999). Consequently, IT originally played a significant yet ultimately limited role in the strategy creation process. Management information systems (MIS) arguably generated information that was less applicable to strategy creation, as noted in early writings on the linkage between

MIS and strategic planning (Holmes, 1985; Lientz & Chen, 1981; Shank et al., 1985).

The active management of knowledge was similarly underdeveloped. Despite the fact that strategic decision makers had always emphasized the role of tacit knowledge, the actual importance of knowledge was not explicitly recognized. Formalized knowledge management (KM) (Davenport & Prusak, 1998), with its associated terminology and tools, is a recent development and, as such, did not inform the strategic planning process.

However, the shifts that have taken place in IT infrastructures over the last decade and the recent developments in knowledge management have brought them closer to the creators of strategy. Indeed, both IT and knowledge management are increasingly enablers in the contemporary strategic management practice.

1. IT infrastructure is transitioning in its focus from the functional work unit to a process orientation. Whereas computer systems were once the focal point, the new infrastructure is network-centric, with an emphasis on business knowledge (Broadbent et al., 1999). For example, traditional search engines utilized rule-based reasoning to identify elements matching specific search criteria; the “state-of-the-art” knowledge management systems employ case-based search techniques to identify all relevant knowledge components meeting the user’s request (Grover & Davenport, 2001).
2. IT now takes into account contexts that include cross-functional experts that are knowledgeable in a wide variety of potentially relevant issues. Additionally, there is a greater emphasis on the integration of infrastructure with organization, structure, culture (Gold et al., 2001), and organizational roles (Davenport & Prusak, 1998). In many ways, the newer IT infrastructures have enabled the garnering of explicit knowledge throughout the organization improving the speed of strategy creation.

The objective of this article is to outline how the developments in IT and KM are facilitating the evolution of strategic management to strategic experimentation in order to create quantum improvements in strategy creation and unprecedented developmental opportunities for the field of IT.

BACKGROUND

Information Technology (IT)

For the purposes of this chapter, IT is defined as physical equipment (hardware), software,

and telecommunications technology, including data and image and voice networks employed to support business processes (Whitten & Bentley, 1998). The overarching plan for IT deployment within an organization is called the IT architecture. Technology infrastructure refers to the architecture as including the physical facilities, the services, and the management that support all computing resources in an organization (Turban et al., 1996).

Knowledge Management (KM)

As used in this chapter, data are objective, explicit pieces or units; information is data with meaning attached; and knowledge is information with an implied element of action.

Knowledge is the fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms (Davenport & Prusak, 1998, p. 5).

KM is “a set of business practices and technologies used to assist an organization to obtain maximum advantage from one of its most important assets—knowledge” (Duffy, 2000, p. 62). In other words, it is actively capturing, sharing, and making use of what is known, both tacitly, informally, and explicitly, within the organization. IT often facilitates knowledge management initiatives by integrating repositories (e.g., databases), indexing applications (e.g., search engines), and user interfaces. Davenport and Prusak (1998) note that KM also incorporates traditional management functions: building trust among individuals, allocating resources to KM, and monitoring progress.

5 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/strategic-experimentation-knowledge-management/25336

Related Content

Validating Distinct Knowledge Assets: A Capability Perspective

Ron Freeze and Uday Kulkarni (2008). *International Journal of Knowledge Management* (pp. 40-61).

www.irma-international.org/article/validating-distinct-knowledge-assets/2737

An Architecture for Query Optimization Using Association Rule Mining

Sikha Bagui, Mohammad Islam and Subhash Bagui (2013). *Intelligence Methods and Systems Advancements for Knowledge-Based Business* (pp. 281-304).

www.irma-international.org/chapter/architecture-query-optimization-using-association/67729

Exploring the Role of the Project Manager in Organizational Knowledge Creation

Ted Bibbes, Minna Rollins and Wesley Johnston (2017). *International Journal of Knowledge Management* (pp. 38-54).

www.irma-international.org/article/exploring-the-role-of-the-project-manager-in-organizational-knowledge-creation/193193

IS Design for Community of Practice's Knowledge Challenge

Kam Hou Vat (2008). *Knowledge Management: Concepts, Methodologies, Tools, and Applications* (pp. 850-861).

www.irma-international.org/chapter/design-community-practice-knowledge-challenge/25141

The Role of Social Intelligence in Acquiring External Knowledge for Human Capital Development, Organisational Learning, and Innovation

Eric Kong (2014). *Knowledge Management and Competitive Advantage: Issues and Potential Solutions* (pp. 53-70).

www.irma-international.org/chapter/the-role-of-social-intelligence-in-acquiring-external-knowledge-for-human-capital-development-organisational-learning-and-innovation/86219