Knowledge Management Strategy Formation

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INTRODUCTION

Knowledge-based organizations (Holsapple & Whinston, 1987; Paradice & Courtney, 1989; Bennet & Bennet, 2003) are intentionally concerned with making the best use of their knowledge resources and knowledge-processing skills in the interest of enhancing their productivity, agility, reputation, and innovation (Holsapple & Singh, 2001). A key question that confronts every knowledge-based organization is concerned with how to approach the task of forming a KM strategy. Beyond aligning KM strategy with an organization's vision and overall strategy for achieving its mission, how does the creator of a KM strategy proceed? How is the created (or adopted) KM strategy communicated and evaluated? What can be done to avoid blind spots, gaps, and flaws in the strategy?

One way to begin to answer such questions is to study successful cases of organizational knowledge management (e.g., see Smith & McKeen, 2003; O'Dell et al., 2003; van der Spek, Hofer-Alfeis, & Kingma, 2003; Bennet & Porter, 2003; Oriel, 2003; Wolford & Kwiecien, 2003; Kelly & Bauer, 2003; DeTore & Balliet-Milholland, 2003). Such cases can give specific KM strategies to consider emulating or adapting. They can lead to an understanding of various issues to consider in the act of forming a KM strategy. Other cases can even identify dysfunctional elements to avoid during KM strategy formation and use (Malhotra, 2003).

A complementary approach to answering such questions is to employ a general-purpose model as a guide for KM strategy formation. This can be used regardless of the nature of the organization or its particular circumstances. It guides the strategy formation process in the sense of providing a structure for identifying the KM activities that a strategy can or should address in its efforts to maximize performance. A KM director uses the model to assess where the organization presently stands with respect to each of the identified activities, to consider new initiatives for each of the activities (customized to the organization's particular circumstances), and to furnish dimensions for evaluating competitive standing.

Here, we examine the Knowledge Chain Model for guiding KM strategy formation. It is important to understand that this is *not* a process model that specifies some sequence of steps to be followed in devising KM strategies. Rather, it is a model that identifies key factors that need to be considered in the development of KM strategies. These factors are "key" in the sense that they are potential sources of greater competitiveness. They are areas of activity that, if performed better than competitors, will yield superior organizational performance through better productivity, agility, innovation, and/or reputation. Creators of KM strategies need to pay close attention to the techniques and technologies selected and deployed in each of the key activity areas in both their own organizations and in other (e.g., competing) organizations.

BACKGROUND

The notion of a strategy has varied meanings (Mintzberg & Quinn, 1996). Here, we regard strategy as being a systematic plan of action for deliberately using an organization's resources in ways that fulfill its purpose (e.g., mission, duty, vision). A knowledge management strategy, then, is a plan for marshaling and applying knowledge-oriented resources in the interest of supporting the organization's purpose. These knowledge-oriented resources include the organization's *knowledge processing capabilities* and its *knowledge assets* (Holsapple & Joshi, 2004). The classes of knowledge assets include knowledge held by an organization's participants, various artifacts belonging to the organization (e.g., documents, manuals, videos), the organization's culture, and its particular infrastructure of roles, relationships, and regulations. The knowledge processing capabilities include the skills of both individual participants (both human and computer-based processors) and collective participants (e.g., groups, teams, communities) in the organization.

Knowledge Processing Capabilities

An organization's knowledge processing capabilities can be categorized into those that are technologically based and those that are practice based. Capabilities can depend on a combination of these two. In any case, knowledge processing capabilities manifest in the actual activities that an organization performs as it operates on its knowledge assets. KM strategy determines what technologies and practices will be adopted in any given instance of a KM activity.

Information technology (IT) is being subsumed by *knowledge technology*. IT systems for automated transaction handling, record storage, and reporting remain important. However, the emphasis going forward is on technological systems that support knowledge amplification within and across organizations. This knowledge technology involves the use of computer and communication technologies to automatically acquire, derive, or discover knowledge needed by decision makers and researchers on a just-in-time basis. Knowledge technology fosters knowledge sharing and unleashes the creative potential inherent in knowledge-worker collaboration. It includes technology that measures and coordinates the activities of knowledge workers. Knowledge technology provides a basis for organizational memory and learning. It also involves technology to personalize timing and presentation of knowledge delivery according to knowledge-worker profiles.

Human cognitive and communicative acts are the other part of the KM equation. This part comprises *knowledge practices* and their alignment with an organization's vision and plans. These practices are based on knowledge ontologies, methods, techniques, metrics, incentives, and processes. They are concerned with issues of organizational infrastructure (roles, relationships, regulations), culture, ethics, training, skills, and core competencies.

Knowledge Assets

One way for an organization to begin developing a KM strategy is to ascertain the competitiveness of its present knowledge position. Zack (1999) suggests that competitive knowledge position can be categorized in terms of the degree of innovation relative to its competitors within an industry:

- **Core Knowledge:** The basic body of knowledge required of all players in an industry in order to remain competitive.
- **Advanced Knowledge:** Knowledge that distinguishes an organization from other players in its industry in a degree sufficient for achieving a competitive edge.
- **Innovative Knowledge:** Knowledge held/applied by an organization that is so distinctive that it is the basis for being a market leader in the industry.

By evaluating its knowledge assets relative to these three categories, an organization's competitive knowledge position becomes evident. Zack goes on to advocate using a strength-weakness-opportunity-threat (SWOT) analysis to recognize deficiencies in an organization's knowledge position, as well as knowledge strengths that can be leveraged. Of course, organizations will differ in both their knowledge positions and in the strategies that they devise for working from these positions within their environments.

Zack (1999) advises that to find its own unique connection between strategy and knowledge assets, an organization should be alert for the need to increase knowledge assets in a particular area (e.g., ensuring sufficient core knowledge, fending off threats), opportunities to more fully exploit existing knowledge assets, the potential to generate new knowledge internally (especially advanced or innovative knowledge), and the potential of acquiring knowledge from external sources.

Developing KM Strategy

An organization should recognize that its KM strategy can be connected not only to its knowledge assets, but also to its knowledge processing capabilities (see Figure 1). Thus, in addition to guiding KM strategy formation through an analysis of an organization's actual and potential knowledge assets, there needs to be an analysis of possible practices and technologies that may be adopted for operating on those assets. This analysis of knowledge processing capabilities may follow the format used for knowledge assets. The capabilities can be classified into core, advanced, and innovative categories to understand the organization's knowledge processing capabilities relative to those of competitors. Further, via a SWOT approach, an organization needs to ascertain whether to increase knowledge processing capabilities in a particular area such as assimilating knowledge, whether opportunities to more fully exploit existing knowledge processing capabilities exist, whether new practices/technologies can be developed in-house, or whether the practices/technologies can be implemented via outsourcing, alliances, and/or purchase.

What is missing from this consideration of KM strategy development is an appreciation of the fundamental kinds of KM activities that are candidates for strategic focus. More broadly, fundamental kinds of