Portal Strategy for Managing Organizational Knowledge

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INTRODUCTION

Since its maturity four or five years ago, portal has become the common practice in organizations. A portal strategy is a way in which a Web site is customized that provides people easy access to most of the information, tools and applications they need to use—all with a single sign-on. Portal has been growing rapidly within organizations. META Group's Worldwide IT Benchmark Report 2004 confirms this trend, showing that 46% of their respondents spent more on portals in 2003 than they did in 2002 (36% spent the same, 18% spent less) (cited in Roth, 2004).

More and more organizations begin to adopt portal strategies to facilitate knowledge acquisition and transfer within and across organizations. Because an effective portal strategy allows people to make better use of rich knowledge and information resources across the organization, enhances ability to better connect with prospective users, and thereby contributes to enhanced service, improved communication and increased efficiency. For instance, Compaq applies two forms of portals in its knowledge management: enterprise portal services (EPS) and the Package Portal Solution (McKellar, 2000). The purpose of using knowledge management portals is to let employees (customers or partners) find the knowledge they want at the right time and at the right place. Several researchers (e.g., Hoffman, 2002) identify the benefits that are reaped by using portals in knowledge management which include reducing lost time, loss of intelligent assets, cost of rework, and cost of redundancy. However, it is not well understood how appropriate portal strategies should be adopted and implemented for organizations with different focuses of knowledge. Therefore, we propose to address this gap in our research.

In order to further understand the role of the portal strategies in organizational knowledge management, we investigate the advantages and disadvantages of portal strategies. In particular, the article intends to address the following research questions:

1. What are the major decisions that organizations have to make in adopting the portal strategies in managing organizational knowledge?
2. What are the major trade-offs for different portal strategies along the two dimensions of knowledge: source and type?
3. How should organizations specifically implement the portal strategies as proposed?

The remaining of the article proceeds as follows. The next section reviews relevant literature relating portals for knowledge management. The third section details our model of organizational portal for knowledge management. The fourth section presents future trends of our study, and the fifth section concludes the paper.

BACKGROUND

According to Gartner, "Portal provides a secure, single point of interaction with diverse information, business processes and people, which is personalized to a user's needs and responsibilities." Merrill Lynch defines portal as "the applications that enable companies to unlock internally and externally stored information, and provide users a single gateway to personalized information needed to make informed business decisions" (cited in CitiXsys Technologies, 2005). In line with this, the Web site at Whatis.techtarget.com defines portal as:

a term, generally synonymous with gateway, for a World Wide Web site that is or proposes to be a major starting site for users when they get connected to the Web or that users tend to visit as an anchor site. (As cited in Martin, 2000)

Portal has been widely used nowadays in organizations for various purposes, including human resource (HR) portals on intranets, customer-facing information portals, and supplier-facing information portals. The worldwide penetration of the Internet has provided great opportunities for global expansion of Internet portals (Robles, 2002). According to an industry survey conducted by Systems Development Inc., portal has become one of the leading e-business applications. Nearly one-third of companies use portal nowadays and another quarter of them plan to use portal within a year (Pickering,

2002). Ramos (2002) suggests that organizations use Total Economic Impact™ (TEI) to analyze the financial impact of implementing a portal strategy, which allows IT managers to determine whether elements outlined in the portal strategy are relevant to the organization and, if so, how to go about quantifying each element and building the business case for (or against) a portal implementation.

In Gartner's opinion, portal is undergoing a metamorphosis, evolving into integrated software suites that contain portal functionality (White, 2003). The purpose of a portal is to integrate individual applications and information resources, maximizing system utilization, reducing technology budgets, and implementing management control (White, 2002). Twelve good features are summarized for a good organizational portal (Bogue, 2005). Out of them, seven features are for the target of external business partners and customers which include search, consistent and easy-to-use interface, minimal client deployment, discussion, aggregation, alerts, and self service. The remaining five are for the target of internal employees which encompass digital dashboard, personalization, knowledge management, collaboration, and distributed control.

Research has recently touched upon using portal technology as a means for storing and transferring knowledge. Ruber (1999) defines an enterprise portal as "a single, browser-based point of entry to all of its knowledge assets" and "a Web-based front end to internal and external information that is classified according to a company-specific information taxonomy." With a case study, Fernandesa, Rajaa, and Austin (2004) demonstrate the use of portal technology to increase the overall project reactivity, reduce time, improve decision-making, and improve productivity and reliability. A five-step approach for developing an effective project management portal is presented with empirical evidence.

THE PORTAL STRATEGY FOR KNOWLEDGE MANAGEMENT

This section outlines a model of organizational portal strategy for knowledge management, then shows the endogenization and exogenization processes in the subsystems, and finally discusses the necessary IT support for implementing the comprehensive portal strategy.

The Model of Organizational KM Portal

Jasimuddin (2005) argues that organizational knowledge can be categorized along two dimensions: type (tacit or explicit) which is based on tacitness of knowledge and source (endogenous or exogenous) which is discussed upon the location of the knowledge. Hence, different portal strategies based on these two dimensions need to be adopted to acquire and transfer organizational knowledge.

Following the knowledge management strategy proposed by Hansen, Nohria, and Tierney (1999), we suggest that portal strategy for organizational knowledge management can also be differentiated as either *personalization* or *codification* based on the tacitness (type) dimension of organizational knowledge. The personalization portal strategy regards enterprise portal as the tool to facilitate personal face-to-face interactions, whereas the codification one as the major knowledge repository for storing various documents and information which are available in explicit form.

From the other dimension—source—different portal strategies can also be identified. According to the Delphi Group's Corporate Portal Report (2000, as cited in Plunkett, 2001), there are three types of organizational portals that can be used as knowledge management systems in business-to-employee (B2E), business-to-consumer (B2C), and business-to-business (B2B) scenarios, respectively. Organizations with major exogenous sources of knowledge should apply B2B or B2C type of portal strategy, whereas those with major endogenous sources should apply B2E type of portal strategy.

Figure 1 graphically demonstrates the proposed portal strategies along two dimensions of organizational knowledge. If the organizational knowledge is mainly endogenous and can be explicitly documented, the organizational portal strategy should focus on the B2E system by codifying its internal knowledge. If the organizational knowledge is mainly endogenous but cannot be easily documented, the organizational portal strategy should focus on the B2E system to enhance the personal interactions among employees. In contrast, if the organizational knowledge is mainly exogenous on the side of customers or business partners, the organizational portal strategy should focus on the B2B or B2C systems to increase the knowledge transfer across organizational boundaries by using codification or personalization methods depending on the tacitness degree of organizational knowledge. However, in a networked economy, an organization is inevitably related to its customers or business partners. Therefore, organizations have to apply the comprehensive portal strategy that takes into account both endogenous and exogenous knowledge.

The Processes of Endogenization and Exogenization

Based on the proposed KM portal strategy, we present how each subsystem relates when a comprehensive portal strategy is applied.

Figure 2 illustrates the subsystems which are interdependent, outlining the three major subsystems (B2E, B2B, and