

Chapter 6

Work Unit's Knowledge Processing Style: An Empirical Examination of its Determinants

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ABSTRACT

Intraorganizational units play a critical role in KM processes of acquiring, creating, exchanging, and utilizing knowledge assets. While much attention has been directed to effective knowledge strategies for supporting organizational KM processes, there is a lack of insightful research on knowledge strategy and its implementation at the work-unit level. This study examines two types of work unit knowledge processing styles (i.e., codification and personalization) and explores the relationship between critical determinants (i.e., task, organizational culture, and technology) and knowledge processing styles. The results showed that task variety and task analyzability were strongly associated with both knowledge processing styles. Interestingly, task interdependence and autonomy were significantly related only to personalization, whereas IT support was strongly associated with codification. The findings from this study suggest that the unit's organizational variables should harmonize appropriately with its knowledge processing styles.

INTRODUCTION

In recent years, knowledge has been regarded as one of the most strategically important resources of the firm. A firm's ability to sustain its growth and competitive edge depends on how well it man-

ages its stock of knowledge (Hansen & Oetinger, 2001; Teece, 2000). Much attention has been directed to understanding knowledge management (KM) practices at the organizational level, which includes how companies can leverage knowledge for value creation within organizations (Gold,

Malhotra, & Segars, 2001; Lee & Choi, 2003; Sabherwal & Becerra-Fernandez, 2003) as well as the choices of effective knowledge strategy and its implementation (Bierly & Chakrabarti, 1996; Choi & Lee, 2003; Earl, 2001; Hansen, Nohria, & Tierney, 1999; Scheepers, Venkitachalam, & Gibbs, 2004; Zack, 1999). While these research endeavors have been useful in explaining firm-level KM processes of creating, transferring, and utilizing knowledge, few studies have attempted to examine why the knowledge structure or configuration of some units within the organization differs from that of others.

Work units in an organization are not all alike in the nature of work they do and, therefore, in the type of knowledge they deal with. Thus, a unit may have its own way of processing knowledge. For example, if the knowledge a unit deals with is more structured or explicit, the unit is more likely to rely on "written tools," such as manuals, databases, repositories, and so forth, for the documentation and reuse of knowledge (Hansen et al., 1999; Zollo & Winter, 2002). In this study, different styles in processing knowledge will be referred to as knowledge processing (KP) styles. Particularly, considering that the choice of a unit's KP style depends upon the nature of knowledge the unit predominantly deals with, the article draws on two underlying types of a unit's KP style: *codification* and *personalization*¹.

Most KM activities, however, may not be managed effectively in a uniform manner throughout an organization due to differences in the organizational characteristics of various work units. Thus, researchers have given intensive attention to understanding the influence of the organizational factors on the successes of KM practices, including organizational culture and structures (Alavi, Kayworth, & Leidner, 2006; Gold et al., 2001; Holsapple & Joshi, 2000; Lee & Choi, 2003; Wasko & Faraj, 2005), as well as technology (Alavi & Leidner, 2001; Davenport & Klahr, 1998; Gupta & Govindarajan, 2000; Lee & Choi, 2003; Ryu, Kim, Chaudhury, & Rao, 2005). Further, a

typical employee performs day-to-day tasks while interacting with other members within the same work unit, which involves KM activities such as knowledge creation, acquisition, transfer, and utilization. The specific task environments of a work unit may determine how effectively the unit processes knowledge, depending upon the nature of knowledge the unit deals with. However, there is a lack of insightful research which examines the influence of these work unit environments on the unit's knowledge strategy. This motivates the research questions for this study: *what are the critical determinants of a unit's knowledge processing style? How do these determinants affect the choice of appropriate knowledge processing style?*

The article is organized as follows. First, I will present my research model, corresponding to the research questions identified above, followed by the development of research hypotheses and a description of my research methodology. The article then presents the study results and a discussion of research findings, concluding with a discussion of the limitations and the implications of the study.

RESEARCH MODEL AND HYPOTHESES

This study will explore the effect of a work unit's organizational factors on its knowledge strategies (i.e., KP styles), which in turn ultimately affect the overall effectiveness of its KM practices (Choi & Lee, 2003; Scheepers et al., 2004). The research model, as depicted in Figure 1, consists of a number of research constructs related to work unit environments and its KP style.

KM practices are greatly influenced by specific types of cultural values such as collaboration and autonomy (Alavi et al., 2006). Further, researchers (e.g., Alavi et al., 2006; DeLong & Fahey, 2000; Gold et al., 2001; Janz & Prasarnphanich, 2003) have shown that organizational culture is significantly related to effective KM processes

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