Chapter 5.21
Challenges in Developing a Knowledge Management Strategy:
A Case Study of the Air Force Materiel Command

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ABSTRACT

It is widely acknowledged that knowledge management (KM) strategy is a desired precursor to developing specific KM initiatives. Strategy development is often difficult due a variety of influences and constraints. Using KM influences as a foundation, this case study describes issues involved in developing a KM strategy for the Air Force Material Command, including issues to be considered for future strategy development such as leadership support and understanding, conflicts with IT organizations, funding, technology usage and configuration, and outsourcing.

INTRODUCTION

Enablers, barriers, and influences of KM have been grouped into three broad categories: internal managerial influences, internal resource influences, and external environmental influences (Holsapple & Joshi, 2000, 2002). Managerial influences "emanate from the organizational participants responsible for administering the management of knowledge" (Holsapple & Joshi, 2000, p. 239); resource influences include human, financial, knowledge, and material resources that make KM a reality (p. 241); and environmental influences affect what "knowledge resources

should or can be acquired in the course of KM, as well as what knowledge manipulation skills (e.g., human or technical) are available" (p. 242).

KM strategy is also generally regarded as essential to implementation and should be guided by organizational strategy (Zack, 1999). Earl (2001) provides a taxonomy of strategic starting points, seven "schools of knowledge management" and key attributes of each. Yet despite such insight, little is known about KM strategy within the military (Bower, 2001; Plant, 2000). Difficulties stem from the unique context in which KM must be implemented including culture, organization, and operating environment. Because of these unique attributes, an investigation of military KM may prove telling theoretically and practically.

CASE BACKGROUND

Headquartered in Dayton, Ohio, Air Force Material Command (AFMC) employs 85,000 military and civilian employees worldwide. AFMC has "cradle-to-grave" oversight for all aircraft, missiles, and munitions. The Directorate of Requirements (DR) is home to AFMC's Knowledge Management program.

In the early 1990s, AFMC/DR developed a repository of acquisitions regulations, process descriptions, and other miscellaneous information. The repository soon expanded into the Defense Acquisition Deskbook program and was managed by an interservice Joint Program Office. AFMC/DR continued updating Air Force (AF) documents within Deskbook; however, this did not require DR's entire budget. As a result, it was decided the excess funding was to be used for the development of an additional KM application that helped to document and disseminate overarching AF lessons learned.

AFMC/DR was also developing Web-based training for acquisitions personnel due to impending talent drains as more civilian personnel retired. To improve AFMC's preparedness, Deputy Di-

rector Robert Mulcahy became a KM champion. He consolidated deskbook, lessons learned, and web-based training into one KM system in order to provide better capture and dissemination of critical workforce knowledge.

Mulcahy assigned Randy Adkins to lead the consolidated AF knowledge management (AFKM) program. Initially, the AFKM program centered on the use of commercial KM processes and technologies for solving specific customer problems. Soon, however, the now-consolidated KM system grew beyond its original three components; by 2000, two new modules were added: the AFMC Help Center and Community of Practice (CoP) workspaces." The Help Center provided search capabilities for information across AFMC web sites; the CoP workspaces fostered information exchange, collaboration, and problem solving. The AFKM Hub/home page was a portal-like entrance into the entire system.

RESEARCH METHOD

AFMC was one of the first AF organizations to embrace KM; the AFKM team also faced significant challenges determining future directions for their efforts. It was therefore likely key issues impacting KM strategy development might be identified in this context. Additional case research was also needed to bridge the gap between KM theory and practical advice (Jennix, 2005, p. vii). Given these factors, an exploratory case study methodology was used.

Holsapple and Joshi's (2000, 2002) KM influences framework provided three foundational constructs for "analytic generalization" (Yin, 1994, p. 31); these factors—managerial, resource, and environmental—could be examined as potential barriers to KM strategy development. Considerations for design quality were made in accordance with Kidder and Judd (1986) and Yin (1994); however, internal validity was not addressed due to the study's exploratory nature.

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