Employee Knowledge Sharing in Highly Dispersed Organizations

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ABSTRACT

Advances in information and communication technology have enabled contemporary organizations to become increasingly dispersed. Knowledge sharing among highly dispersed employees has been widely regarded as an organizational challenge that, if not dealt with properly, would affect the organization's competitive advantage. Based on the practice perspective of knowledge, this study aims to explore factors and mechanisms that facilitate or impede knowledge sharing among highly dispersed organizational employees. In this paper we analyze data collected from semi-structured interviews with twenty employees in a highly dispersed organization, to understand how employees share knowledge through their work practice in order to get work done. The methodology and data analysis plan is also described.

Keywords

Knowledge sharing, virtual organizations, practice-based perspective, exploratory case study

INTRODUCTION

As society enters the twenty-first century, there is a growing realization that information technology strongly influences organizational structures within which people live, work, and interact (Orlikowski and Barley 2001). One such structure is the virtual (or dispersed) organization that consists of individuals working toward a common goal, but without centralized buildings, physical plants or other characteristics of a traditional organization (Staples, Hulland et al. 1999). This is essentially a "company without walls" (Galbraith 1995) that operates as a "collaborative network of people" working together regardless of their locations or affiliations (Grenier and Metes 1995; Hedberg 1997).

As organizations become increasingly dispersed, what continues to hold them together? Recently a knowledge-based view (KBV) has risen to complement the traditional organizational theories that explain the existence of firms (e.g., transaction-cost theory (Coase 1937; Williamson 1975)) (Brown and Duguid 1998). The KBV posits that a firm's knowledge is its most important resource - that knowledge provides a synergistic advantage not replicable in the marketplace (Grant 1996; Argote 1999) and therefore offers a source of sustainable competitive advantage (Barney 1991; Grant 1996). To the extent that knowledge is often thought of as being the property of individuals (Grant 1996) and being highly specialized and distinct in different subunits (Boland and Tenkasi 1995), the principle role of the organization ought to be to organize and integrate knowledge across units (Weick and Roberts 1993; Grant 1996; Brown and Duguid 1998). That is, cultivation of an organization's knowledge - often an implicit cultivation - is critical in maintaining sustainable competitive advantage (Spender 1996; Brown and Duguid 1998; Brown and Duguid 2001).

Difficulties inherent in communicating knowledge among collocated or dispersed environments has become an important topic in information technology and innovation research (von Hippel 1994; Hansen 1999). In particular, the literature states that employees in dispersed environments are frequently confronted by hurdles to effectively managing knowledge (Strauss and Olivera 2000; Alavi and Tiwana 2002). Recent research has suggested that one of the reasons for failure in sharing knowledge is the existence of "practice boundaries" or "divisions of practice" (Brown and Duguid 2001). However, no empirical research has yet appeared exploring the processes of sharing knowledge in highly dispersed organizations, where both geographical and practice-based boundaries makes knowledge sharing processes especially challenging

As an early empirical step to explore these challenges, this study asks, ***what are the factors and mechanisms that facilitate or impede knowledge sharing practices among highly dispersed organizational employees?***. This practice-based perspective we are adopting basically suggests that knowledge flows most relatively easily within practice boundaries, but relatively poorly across divisions of practice (Wenger 1998; Brown and Duguid 2001). This study qualitatively investigates actual knowledge sharing practices related to employees' everyday work in one geographically dispersed organization. The

in-depth qualitative data analysis in this paper draws our attention to potential knowledge barriers as well as mechanisms through which knowledge sharing occurs among employees who face both geographical and practice boundaries.

The remainder of the paper is organized as follows. First, we discuss how the practice-based perspective shapes our investigation. Second, we describe the research setting and methods. The plan for follow-up research is also discussed.

THE PRACTICE-BASED PERSPECTIVE

The practice-based perspective, which seeks to explain knowledge flows within organizations (Brown and Duguid 2001), has emerged as an important alternative theoretical perspective to the mainstream, inherently property-based approach to the classification of knowledge (Polanyi 1962; Nonaka 1994; Nonaka and Takeuchi 1995; Spender 1996). For example, instead of examining knowledge properties (such as "sticky" vs. "leaky", or "tacit" vs. "explicit"), the practice-based perspective advocates an integrated approach that affords a view of knowledge as processual and dispersed (Tsoukas 1996; Davenport and Prusak 1998; Cook and Brown 1999), and as something that emerges naturally as people get their work done (Lave and Wenger 1990; Wenger 1998; Brown and Duguid 2001). Thus, what makes knowledge "sticky" or "leaky" within an organization is not the dispositional nature of a given piece of knowledge, but rather the broader context within which practice is situated (Wenger 1998). The extent to which an individual acquires knowledge and applies it to his specific situation is then related to the degree of overlapping epistemological boundaries associated with different situation-specific practices (i.e., the practice boundary) (Brown and Duguid 2001). In other words, knowledge is easier to share within a given practice boundary, because the participants already possess a shared contextual understanding of practices This perspective serves as a theoretical base for our exploratory study.

RESEARCH SETTING AND METHODS

Our empirical study uses an exploratory case study methodology. This approach builds on the fundamental premise that social reality is constructed and interpreted by social actors, instead of being objectively definable (Orlikowski and Baroudi 1991; Mason 1996). We focus on actors' subjective views of their work, and the social contexts in which their work is situated. Accordingly, we rely on qualitative analyses of interview data, as well as the authors' observations and social interactions at the research site.

The site chosen for this research was the Canadian division of a global (104-nation) charitable religious organization, hereafter referred to as CharityCorp. This organization seeks to spread its message by building long-term interpersonal relationships with people. CharityCorp had 93 members divided into six functional groups and six geographical regions, resulting in a matrix staff distribution (see table 1). The three primary functional groups were referred to as the campus stream (including 24 full-time staff who worked on various Canadian university campuses), the community stream (including 25 full-time staff who developed relationships and networks in residential communities across the country), and the intercultural stream (including 14 full-time staff who worked overseas and/or with people who belong to ethnic or other subcultures within Canada). The associates stream included mainly unpaid volunteers working under the supervision of other field staff. Eight administrative service personnel worked for the national office (seven in Ontario, plus one in western Canada), and provided administrative support to the field staff in terms of people services (e.g., hiring, training and development), corporate services (e.g., legal reviews, insurance), resources (e.g., organizing conferences, developing teaching materials), and development (e.g., fundraising, staff communication). Finally, four senior personnel served on the national leadership team (NLT) to provide strategic direction to the rest of the organization.

Function \ Region	British Columbia	Prairies	Ontario	Quebec	Atlantic	Overseas	Total
Campus	3	8	9		4		24
Community	5	4	11	1	4		25
Intercultural	1		3	1	1	8	14
Associates			12	2	2	1	17
National Office	1		7				8
National Leadership Team	1		3				4
Total	11	12	46	4	11	9	93

Table 1 – Staff Distribution by Function and Region

CharityCorp was an ideal research site for several reasons. First, the organization was highly dispersed in that its work activities were distributed across multiple geographical regions. While most national services personnel were located in the central head office in London Ontario, the field staff were located in five Canadian regions from coast to coast, or distributed overseas across five countries (furthermore, people working within the same region were frequently located in distant cities). Second, the staff was already reliant on information technologies for communication. Everybody had access to computer resources, and an official e-mail address. CharityCorp had a public website, as well as a private staff intranet. Third, organizational leaders recognized that knowledge was a critical organizational asset for staff, engaged in a plethora of practical activities related to developing deep interpersonal relationships with others.

At the time of this study CharityCorp had been successful in expanding its presence to 19 campuses, 20 community settings, and 17 overseas locations. However, in the recent years the organization had recognized significant organizational weaknesses related to intra-organizational collaboration and communication. One employee explained the problem this way: *"I need a way to connect to other campus staff to gain their insights and expertise … communication is not effective, so we don't feel like part of a team. Everyone is operating as a satellite. There is very little synergy now because everyone is so spread out … I'd like to know what is working and not working on people's campuses."* CharityCorp wished to investigate the ways that knowledge sharing currently occurred across different locations, and hoped to find ways to facilitate more effective knowledge sharing processes among its staff.

DATA COLLECTION

Data sources include in-depth semi-structured telephone interviews, organizational documentation, and observation of headquarters meetings over a four-month period. Twenty interview subjects were selected so as to maximize functional and geographic diversity (including six staff from the campus stream, five from the community stream, five intercultural staff, and four members of the national office.

Region / Function	British Columbia	Prairies	Ontario	Quebec	Atlantic	Overseas	Total
Campus	1	1	3		1		6
Community	1	1	1	1	1		5
Intercultural	1		1	1		2	5
National Office	1		3				4
Total	4	2	8	2	2	2	20

Table 2 – Interview Subjects by Function and Region

Nineteen subjects accepted our e-mail invitation for an interview. Interviews were conducted by the two authors via telephone, and lasted on average 45 minutes each. All interviews were all audio-taped and subsequently transcribed. Most headquarters meetings attended were also audio-taped. As we were interested in how the respondents learn and perform in their everyday work, the interview protocol remained broad, covering topics such as work objective, major work activities in formal and informal groups, interaction with colleagues, use of information technologies. Most interviews followed a natural course, allowing the respondents to fully express their topics of interest.

Regarding data analysis, we believe that respondents' interpretations of their own experience in highly dispersed organizations are likely to be a valuable foundation for developing a better understanding of situated learning and performing within their social context. Hence, we are using a grounded-theory approach (Glaser and Strauss 1967) and expect to inductively generate themes of knowledge sharing that are relevant to the respondents and their work practice and are tightly grounded with the data. The emergence of the themes must be based on the iterative interaction between the theoretical perspective we use and the qualitative data we obtained. Interview data are the major data source and are being coded and re-coded to let themes emerge. Organizational documentation and observation of headquarter meetings serve as complementary data sources and they could help triangulate findings from multiple sources (Yin 2003)

RESULTS AND ANALYSIS

We are in the process of analyzing the qualitative data and results will be available by August 2006.

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