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THE MOTIVATORS AND EFFECTS OF FORMALIZED KNOWLEDGE SHARING BETWEEN EMPLOYEES *VIA* KNOWLEDGE MANAGEMENT INITIATIVES: A CASE STUDY APPROACH

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Introduction

In an attempt to achieve a sustainable advantage that will set them apart from their competitors, organizations are adopting the principles and concepts of knowledge management (KM) (Nonaka & Takeuchi, 1995; Lloyd & Whitehead, 1996; Skyrme & Amidon, 1997; Nahapiet & Ghoshal, 1998). While there is no standard definition for KM, most working definitions in the literature point to the same fundamental ideas, which is that KM can incorporate any/all of the following four aspects: information technologies, business processes, knowledge repositories and individual behaviors (Katzer et al., 1998). With the aim of improving organizational productivity and competitiveness, the four aspects permit the organization to methodically acquire, store, access, share, maintain, and reuse knowledge from different sources.

One of the direct consequences of the KM effort has been an impetus toward discretionary knowledge sharing (Nonaka & Takeuchi, 1995; Prusak, 2000; Alavi & Leidner, 2001). Consequently, this study seeks to investigate this phenomenon of knowledge sharing.

Different organizations continue to implement KM in different ways, and at different depths and levels. According to a survey conducted by Davenport and colleagues (1998), there are four prevailing objectives within KM projects. These include the creation of knowledge repositories, the improvement of knowledge access, the enhancement of the knowledge environment, and the development of knowledge as a corporate asset. Bennett and Gabriel (1999) compiled a list (Table 1) of the 12 most common examples of KM practices. These are still prevalent today.

Table 1. Knowledge Management Methods

Knowledge maps, atlases and inventories	Executive master classes
Communities of practice	Decision audit programs
Knowledge resource pools	Forums and discussion databases
Expert networks	Technical libraries
Video conferencing	Learned lessons databases
Identification and analysis of internal/external best practices	Knowledge thesauri and company encyclopedias

The list suggests that organizations that implement knowledge management in a useful way must be open to the idea of information/knowledge sharing. The notion of information sharing within organizations has been implemented for several years now, especially enabled by the concepts of total quality management and the new organization (Drucker, 1988). Research shows that increased information sharing can lead to improved organizational efficiency, innovation, flexibility, and learning (Sproull & Kiesler, 1991). Until recent KM initiatives, information sharing has occurred in an *ad hoc* fashion, using mechanisms that are invented afresh with each dialogue. As the volume and frequency of information sharing increases, organizations seek permanent mechanisms that can function repeatedly and serve a variety of purposes. The emphasis on multi-use, multi-purpose mechanisms is manifested in some of the tools and processes of knowledge management.

Background of the Problem

The KM literature distinguishes between two kinds of knowledge. Tacit knowledge is undocumented personal experience whereas explicit knowledge is documented and hence public. Utilization of KM tools/processes such as the corporate yellow pages (CYPs),[1] a community of practice (COPs),[2] and publications such as white pages provide access to tacit knowledge that may have gone unnoticed or may have been difficult to identify. Thus, such KM tools/processes are attempts to capture the tacit knowledge that resides in the employee's head.

Several organizations have been successful in capturing explicit knowledge and have made it available to users. However, efforts to capture, synthesize, and re-use tacit knowledge have been less successful (Alavi & Leidner, 2001). Identifying sources of internal expertise and getting people to use these sources or enabling the creation and maintenance of COPs are useful ways of eliciting tacit knowledge and enabling knowledge sharing. Such tools/processes also allow users to be current on explicit knowledge. Despite an increased interest in KM and hence knowledge sharing mechanisms, little empirical research has actually been performed on such knowledge sharing, particularly from the viewpoints of the individuals who share knowledge. We have little research on why employees share knowledge and even less research on what the effects of these knowledge-sharing sessions are on the employees.

Several KM tools/processes enable and/or promote knowledge sharing. For instance, in a CYP environment, the following may be a typical scenario: An employee in need of information on a specific topic will typically have several sources to draw from. With the CYP, s/he has the added option of finding an expert instead of searching for information in a serendipitous fashion. For the CYP system to truly work, four things have to happen: 1) There has to be an information need, 2) The seeker must use the KM tool/process, 3) The seeker has to contact the expert, and 4) The expert has to communicate with the seeker and participate in a knowledge sharing interaction. Thus, this process formalizes traditional information/knowledge sharing. This also implies that employees choose to share their knowledge, when called upon, despite it not being part of their job contract.

Similarly, in a COP setting, people possessing different levels of expertise and in different areas share ideas, insights, and experiences. As part of the KM initiative, organizations try to formalize COPs by providing resources to nurture its continued existence.

Participation in KM tools/processes is not mandated in some organizations. In others, it may be mandated but is not part of the employee's core responsibilities. Consequently, this study seeks to understand why an employee would share knowledge with someone they might not know.

Problem Statement

There are many aspects of the knowledge sharing behavior that merit further research. However, in this study, the purpose is twofold. First, it investigates the reasons why an employee would share knowledge. Second, it explores the effects of the knowledge sharing on the sharer.

A review of the literature suggests that people may share knowledge for several reasons. Some of the salient reasons people may share knowledge are to display citizenship-like behaviors, because they want to manage other's impressions of them, because their culture is conducive to sharing, because there are rewards or recognition attached to such behavior or because knowledge sharing may be integrated in their day-to-day activities.

Consequently, the present study will employ literature from the fields of Organizational Citizenship Behavior (OCB), Impression Management (IM) and Department/Individual Culture to help understand the employee's motivations. The second part of this thesis will explore the perceived effects of the knowledge sharing on the sharer.

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[1]*Corporate yellow pages* (CYP) are an online or print listing of personnel, their competencies, and their contact information. Within a KM environment, the yellow pages consist of a profile of each employee's experiences and areas of expertise. Queries on the profiles typically result in a list of individuals who should possess knowledge (explicit and tacit) on the query's subject matter (Delphi group, 2000).

[2]*A community of practice* (COP) "is a group across which know-how and sense making are shared. It is a group which works together for its dispositional know-how to be put into practice." (Brown, 1998)

Theoretical Perspective

Research in traditional non-formalized knowledge sharing is limited in scope when considering today's needs. With the influx of knowledge management processes, formalized knowledge sharing is on the rise, yet, little attention has been paid to how and why this sharing occurs and what environments and mechanisms are conducive to such sharing. Empirical research in the area of knowledge management is being done even as this study is being written, but most of it seems to be concentrated in the systems area. According to Wenger (1998), traditional knowledge management tactics try to capture existing knowledge by using IT systems, such as databases. However, since useful knowledge is dynamic, it is imperative that there be active participation from people who are involved in the process of creating, sharing and utilizing knowledge. There is no doubt that the knowledge sharing behavior contributes to the knowledge management initiative. As such, this study is grounded in knowledge management and so will need to delve into the area of KM to get an understanding of the current state of KM as well as to identify concepts that will aid in the design and implementation of this study.

Most knowledge management surveys indicate that identifying where knowledge resides and then designing processes to capture or share this knowledge is important (Bennett and Gabriel 1999). Most surveys conducted on upper management also indicate that such processes are expected to bring about competitive advantage and increase operational efficiency (Bennett and Gabriel 1999). The rationale behind this is that by identifying human sources of knowledge and then making these available to co-workers, organizations prevent the reinvention of the wheel. Second, knowledge that is otherwise difficult to identify or codify has a chance of being transferred to another human being thereby enabling the creation of new knowledge. Third, a work environment where there is a culture of sharing of knowledge is very attractive to existing workers as well as potential new workers

The study will investigate the motivating factors on the employee to participate in the formalized knowledge sharing. Identifying all the factors that motivate the employee is beyond the scope of this study. Instead, it should be viewed as a preliminary effort to understand some of the motivation. The knowledge sharing that is under investigation here is not a specific component of the employee's job contract. This behavior depicts organizational citizenship behavior, a concept that has been well studied in the organization behavior literature. OCB is defined as "contributions to the maintenance and enhancement of the social and psychological context that supports task performance (Organ, 1997, p. 91)."

Several empirical studies (Bateman & Organ, 1983; Bolino, 1999; Karambaya, 1991; Konovsky & Organ, 1996; Moorman, 1991; D. Organ, 1988; D. W. Organ, 1990; Dennis W Organ, 1997; D. W. Organ & Ryan, 1995; Smith et al., 1983) have identified four main types of characteristics that motivate OCBs. These are individual characteristics, task characteristics, organizational characteristics and leadership characteristics (Podsakoff et al., 2000). Given the similarity between OCB and the phenomenon being investigated, this study will investigate whether the antecedents of OCB are also antecedents of the discretionary knowledge sharing. As such, this study will delve into the OCB literature.

Another body of literature called Impression Management from the field of psychology will be used to understand the knowledge sharing behavior. IM is mainly concerned with how people try to affect the images others have of them (Rosenfeld et al., 1995). IM typically looks at behaviors that are self-serving or impression enhancing. Research conducted by Eastman (1994) and Schnake (1991) states that if researchers do not know the motive behind a discretionary behavior, they may mistakenly code it as citizenship behavior when it may be a political tactic.

Finally, this study will also employ some of the variables identified in the knowledge sharing culture area. Leidner (1998) and Gruber (2000) demonstrate that a person's inherent characteristics as well as norms and practices within a department play a role in the knowledge sharing behavior.

The second part of this study explores the perceived effects of the knowledge sharing on the sharer. In particular, it will identify how the knowledge sharing affects the sharer's internal (cognitive and affective) and external (social and environmental) situational factors. Thus, this study may provide an understanding of how the internal and external factors are affected when the employee shares knowledge. The study is particularly interested in providing evidence on the association between social factors and the behavior of knowledge sharing on the part of the sharer. The relationship between the three areas and the phenomenon of knowledge sharing can be illustrated by the following conceptual framework. It posits that the antecedents of OCB, IM and the indicators of certain types of culture will help explain the knowledge sharing behavior.
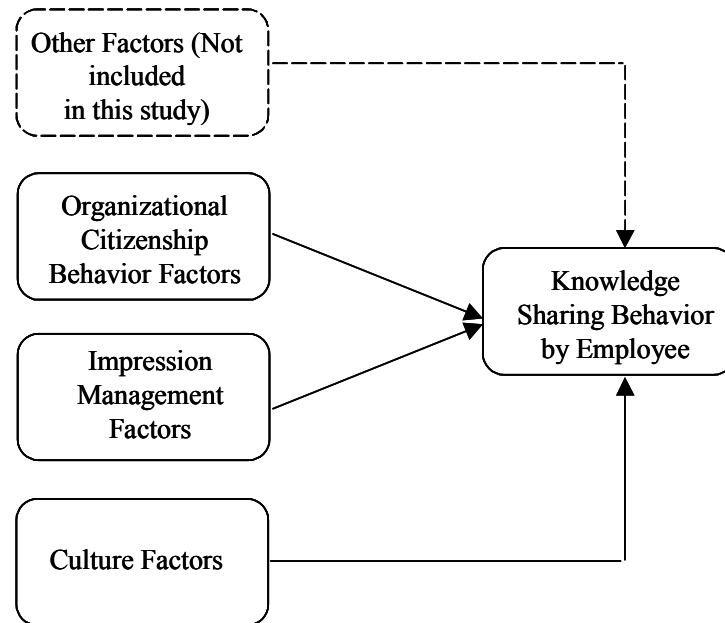
Figure 1. Factors Motivating Employees to Share Knowledge

Research Questions

In light of the above discussion, there are two main research questions in this study.

1. What are the sharer's perceived motivators for sharing knowledge with co-workers (recipients) in a formalized setting?
    a. What factors of Organizational Citizenship Behavior are antecedents of the sharer's motivations to share knowledge with the recipient?
    b. What factors of Impression Management are antecedents of the sharer's motivations to share knowledge with the recipient?
    c. What factors of Individual/Departmental Culture are antecedents of the sharer's motivations to share knowledge with the recipient?

2. How does the knowledge sharing affect the sharer's internal (cognitive and affective) and external (social and environmental) situational factors?

Methodology

This study will use a single case study approach. The case study approach is a preferred strategy in the social sciences when "how" or "why/what" questions are being investigated. Yin (1984) defines the case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used (p. 23)."

In keeping with the case study approach, this study will use three complementary modes of data collection. The researcher will review documentation from the data site. The documentation familiarizes the researcher with the firm's mission, organization, culture, and formal KM practices. For research question 1 (perceived motivators for sharing knowledge with co-workers), data will be elicited via a self-administered, close-ended questionnaire. For research question 2 (effect of knowledge sharing on the sharer), data will be elicited via face-to-face or telephone interviews.

Significance of the Study at the Theoretical Level

Current empirical research and organizational effort have revealed the significance in comprehending and promoting knowledge management and the knowledge sharing that ensues from it (Brown & Duguid, 1991; Leidner, 1998; Nonaka & Takeuchi, 1995). This, in and of itself, calls for a study that will exclusively study the phenomenon of knowledge sharing. This study sheds light on a complex area of human behavior i.e. the sharing behavior. In seeking motivators and the effects of such a behavior on the sharers themselves, the study will provide a rich description of the phenomenon of sharing, thereby, extending and informing research conducted in the area of KM .

The study will identify the internal (cognitive and affective) and external (social and environmental) situational factors that sharers perceive are affected when they partake in this knowledge sharing behavior. This will lead to a preliminary taxonomy of "effects" that is missing in current research.

The OCB literature has recently gone through a fundamental change in the form of a new OCB definition. The literature needs studies that implement the newer OCB theory in order to refine and develop the newer ideas. In providing an improved understanding of what motivates employees to partake in the sharing of knowledge, this study uses and extends OCB theory. This study will also extend theories in the areas of IM and Knowledge Sharing Culture.

The theory of reasoned action[3] (Ajzen & Fishbein, 1980) is the over-arching theory that will be used to juxtapose the various variables in this study. Consequently, this study will validate the theory by using it in the current context.

Significance of the Study at the Pragmatic Level

By delving into knowledge sharing behavior, this study will explain the process of implementing and evaluating various KM initiatives such as COPs, CYPs, Knowledge Databases, and Publications of White Pages. In doing so, it evaluates the viability of KM and KM-initiated knowledge sharing. It also helps organizations build a realistic environment that is conducive to knowledge sharing.

In providing an understanding of how the knowledge sharing affects the sharer, this study may provide a deeper understanding of how realistic it is for employees to participate in KM tools/processes while continuing to do their regular job tasks. This could be used in practice by organizations to improve the work life of employees. Next, we will better understand what knowledge sharing tools are and their impact on the lives of the sharers. Understanding the formalized knowledge sharing system better may lead to the development of more effective reward mechanisms.

It could also indicate what aspects of the knowledge sharing should be emphasized in future knowledge management literature. Lastly, this study might suggest to key KM stakeholders more comprehensive ways to evaluate the effectiveness of the processes they design and maintain.

Limitations of the Study

This study is confined to surveying and interviewing knowledge sharers. Other players involved in the knowledge sharing interaction such as the user and management will not be directly investigated.

It is limited to capturing only some of the motivating factors. Only a certain amount of the variance in the dependent variable (knowledge sharing) will be explained by the antecedents of OCB, IM and culture. Further, the findings may be limited to certain organization sizes or certain industries. It may also be restricted to certain modes of knowledge sharing such as face-to-face or email based sharing.

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[3]The theory of Reasoned Action posits that a person's behavior is influenced by his/her intention to perform the behavior and that this intention is, in turn, a function of his/her attitude toward the behavior.

Since this research effort uses a case study approach, generalizability of findings is limited. The researcher will have to contend with common method variance bias since the sharer will be asked to express their motivation for participating in the knowledge sharing as well as asked to evaluate the effect of this interaction on them.

Despite the limitations, this study is important as a step toward a deeper understanding of KM enabled knowledge sharing.

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