

Knowledge and the Importance of Knowledge Sharing in Organizations

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ABSTRACT

The purpose of this paper is to discuss knowledge and the importance of knowledge sharing in organizations. Hence, this paper discusses in detail the different types of knowledge that are important in organizations and the definition of knowledge sharing. Besides that, this paper also details out the benefits of knowledge sharing in organizations and various factors that could influence knowledge sharing in organizations.

1. INTRODUCTION

The ability of organizations and individuals within them to share knowledge with each other, particularly organizational knowledge, is identified as one of the contributing factors to organizational competitiveness. Sharing of knowledge helps individuals and organizations build up knowledge. This is because it allows them to discuss and deliberate on certain topics which can encourage the generation of new knowledge (Fernie, et al., 2003).

Despite the importance of knowledge sharing in building up a firm's organizational knowledge, which eventually improves the firm's competitive edge, there are reasons to believe that employees are not willing to share their knowledge voluntarily. For example a study by Michailova and Husted (2003) revealed that there are five reasons why employees are reluctant to share knowledge. The reasons includes (i) the fear of decrease personal value, (ii) cost involved, (iii) uncertainty of how the receiver will use the shared knowledge, (iv) accepting and respecting a strong hierarchical and formal power, and (v) actual negative consequences of sharing knowledge with subordinates. Although this study was conducted in Russia, a country where the authors themselves describes as hostile to knowledge sharing, it is quite relevant in other parts of the world. This is because it seems that the reluctance to share knowledge is also occurring elsewhere such as in Australia (Irmer, Bordia & Abusah, 2002), China (Hutchings & Michailova, 2004), Taiwan (Wang, 2004) and the United States of America (Jones & Price, 2004). Based on these findings one could expect this phenomenon to prevail in Malaysia given its cultural values concerning humility (Abdullah & Low, 2001).

Still, Hofstede's (1983) study indicated that the Malaysian society is collectivistic in nature. In such a society, knowledge sharing should happen naturally because it is the tendency of a collectivistic society to help each other. Abdullah and Low (2001), on the other hand,

maintained that the Malaysian workplace is characterized with unique values and work culture. The Malaysians are often considered as very shy people and are very concern about saving 'face', or should we say afraid of 'losing face'. Most of us are afraid of making mistakes and receiving negative feedback, even though we are not sure that we will be getting one. Furthermore, the idea of giving and receiving praise also makes some of us feel ill at ease. Therefore, when it comes to sharing knowledge, some of us can be quite reserve in expressing our ideas and opinions, much less voluntarily offering our knowledge to other people. Besides, there are other countries which are also considered as having a collectivistic culture but having problems where knowledge sharing is concerned, for example China (Hutchings & Michailova, 2004). Hence it is the objective of this paper to discuss knowledge sharing and the importance of knowledge sharing within an organization.

2. KNOWLEDGE AND TYPES OF KNOWLEDGE

Knowledge is not an easy concept to discuss. In order to understand what knowledge is, it is important to understand how it relates to data and information. In general, past literatures have identified the distinctions between data, information, and knowledge. Data is commonly described as a set of discrete, objective facts about events; while information is a collection of data and associated explanations, interpretations, and other textual material concerning a particular object, event, or process. Knowledge on the other hand, is a more complex concept to define. Bergeron (2003) defined it as information that is organized, synthesized or summarized to enhance comprehension, awareness, or understanding. Similarly, Karlsen and Gottschalk (2004) defined knowledge as information combined with experience, context, interpretation, reflection, intuition and creativity. Likewise, Davenport and Prusak (1998) sees it as:

“a fluid mix of framed experience, values, contextual information, and expert insight that provides framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms.” (p. 5)

In short, knowledge by far is more comprehensive and more valuable compared to information and data. It is mainly attached to the individual who owns and uses it, and manifests itself in many different ways. For example, we can see knowledge at work by the way people make decisions, by a certain peculiar way people do their jobs, and through people's creativity in completing their work.

There are several ways in which knowledge is categorized. For example, knowledge can be categorized into declarative and procedural knowledge. Declarative knowledge is basically the 'knowing that' type of knowledge which relates to factual information, while procedural knowledge is the 'knowing how' type of knowledge which concerns the process underlying actions (Leach, Wall & Jackson, 2003). However, most literatures categorize knowledge into two major forms; tacit and explicit (Nonaka & Takeuchi, 1995). Nevertheless, there are others who identified a third form of knowledge known as implicit knowledge (Bergeron, 2003). According to Bergeron (2003), explicit knowledge is the type that can be easily explained and codified, and are available in books, manuals and other types of publications. Tacit knowledge, on the other hand, is the type that is difficult to verbalize and codify because it is ingrained at a subconscious level. Implicit knowledge is the type of knowledge that is somewhere between tacit and explicit. Like tacit knowledge, implicit knowledge exists at the subconscious level, but it can be extracted through the process of knowledge engineering (Bergeron, 2003). Despite this distinction, most discussions focus on tacit and explicit knowledge only because most of the time, implicit knowledge is treated as explicit knowledge due to its codifiable nature.

Organizations are like seas of knowledge. There is no limit to the amount of knowledge that an organization has. However, where the issue of knowledge sharing is concerned, it is most important that employees share their job-related knowledge with each other, so that they will be able to perform their job better and eventually lead to higher organizational performance.

2.1 Job-Related Knowledge

The knowledge that individuals possess in relation to the jobs they are doing is known as job-related knowledge or job knowledge. Job-related knowledge encompass job related entities, such as operational thoughts, behaviors, standard operation procedures, organizational routines, and competitor and customer knowledge, as well as individuals' insights and their past working experience which is relevant to the current job (Yang, 2004). Job-related knowledge can be in explicit or tacit form, but Swart and Kinnie (2003) make a distinction between practice-based tacit knowledge and technical tacit knowledge. Practice-based tacit knowledge refers to the application of the knowledge, i.e. knowing the short-cuts when completing a certain tasks and how to apply it in a way that adds value to the customer. On the other hand, technical tacit knowledge is similar to explicit knowledge, only that it is impossible to capture all of them in a written form, and as such could only be taught through shared practice (learning-by-doing with others). Regardless of the distinction made, job-related knowledge is the most important knowledge that individual employees need to share with their colleagues and the rest of the organization. Henceforth, from this point onwards the term 'knowledge' refers to 'job-related knowledge'.

Sharing of job-related knowledge will transform the knowledge from being an individual knowledge into organizational knowledge (Huysman & De Wit, 2001). When individual knowledge has been transformed into organizational knowledge, it has a better chance of being retained within the organization. Retaining knowledge is crucial in order to ensure that the organization can continue to benefit from the knowledge. Moreover, it can prevent a phenomenon known as "reinventing the wheel" from occurring. This phenomenon occurs when knowledge or a certain method that has been widely accepted or implemented in a certain area within an organization is recreated in another area. Reinventing knowledge that has been around in other parts of the organization is not only a waste of time, but also pointless and adds no value to the products or services delivered.

In most organizations, there have been considerable efforts to urge employees to share their job-related knowledge. One way that this was done is through the development of manuals and standard operating procedures (SOPs), so that all procedures involved in getting a certain job done are documented. This will enable anybody who needs to do a certain job to complete the job correctly just by following the operating procedures, even though he/she has never done the job previously. Needless to say, writing operating procedures may be very tedious and requires a lot of extra effort from the employees. However, if it can be done thoroughly and the operating procedures can be updated periodically, it can be very beneficial for the organization.

However, writing SOPs is not enough. It only fulfills one purpose of knowledge sharing that is to retain knowledge within an organization. Another purpose of knowledge sharing, which is to encourage discussion among the employees in order to develop new knowledge, cannot be achieved through writing SOPs. Furthermore, with SOPs, only explicit knowledge can be retained. Tacit knowledge requires a more sophisticated way to be retained, that is through personal teaching-learning experiences. Therefore, people need to interact with each other and voluntarily help those who do not know how to complete a certain job so that performance can be improved. In short, people need to share knowledge.

3. KNOWLEDGE SHARING

There are vast literatures discussing knowledge sharing at various levels of the organization and from different points of view. From these literatures it can be concluded that knowledge sharing behavior was studied from the organizational perspective (Argote, & Ingram, 2000; Giroud, 2000), department or group perspective (Hansen & Haas, 2001; Kane, Argote & Levine, 2004; Koskinen, Pihlanto & Vanharanta, 2003), and also at the individual perspective (Ipe, 2003). Studies on knowledge sharing from the organizational perspective commonly focused on 'knowledge transfer' or 'technology transfer'. Technology transfer is basically the transfer of technology and know-how from one firm to another or any possible benefit through their long-term relationship and the exchange of information (Giroud, 2000). Studies on technology transfer are mainly interested on how much knowledge is being transferred from one organization to the other, and what are the factors that contribute to this process. Similarly, studies from the group perspective are looking at factors that ease the transfer of knowledge from one group to another. Finally, studies from the individual perspective, which is the main interest of this study, simply relate to the behaviors of individuals. Specifically, these studies examined the factors that make individuals share or hoard knowledge, and seek to identify what motivates individuals to share knowledge.

3.1 Knowledge Sharing Behavior Defined

In general, knowledge sharing occurs when people who share a common purpose and experience similar problems come together to exchange ideas and information (Storey, 2001; as cited in MacNeil, 2003). The process of knowledge sharing between individuals involve the conversion of the knowledge held by an individual into a form that can be understood, absorbed and used by other individuals (Ipe, 2003). It is basically a mechanism by which knowledge is transferred from one individual to another.

Knowledge sharing has been defined in several different but similar ways by different researchers. In general knowledge sharing has been defined as the action of individuals in making knowledge available to others within the organization (Ipe, 2003). Similarly, Bartol and Srivastava (2002) viewed knowledge sharing as the sharing of organizationally relevant information, ideas, suggestions, and expertise with one another. Along the same line, Ryu, Ho and Han (2003) defined knowledge sharing as the behavior of disseminating one's acquired knowledge with other members within one's organization. Lee (2001), on the other hand, gave a broader definition of knowledge sharing indicating it as involving activities of transferring or disseminating knowledge from one person, group or organization to another. In short, all these definitions agree that knowledge sharing is a mechanism to disseminate information and knowledge from one individual, group, or organization to another.

Even though most studies defined knowledge sharing at the individual level as a single dimension construct, there are also those who proposed a two dimensions perspective. For example, van den Hooff and de Ridder (2004) defined knowledge sharing as the process where individuals mutually exchange their knowledge and jointly create new knowledge. This definition implies that knowledge sharing process consists of 'donating' and 'collecting' aspects of sharing. According to van den Hooff and de Ridder (2004), knowledge 'donating' means communicating to others what one's personal intellectual capital is, while knowledge 'collecting' means consulting colleagues in order to get them to share their intellectual capital. Similarly, Renzl (2008) defined knowledge sharing as a reciprocal process of knowledge exchange, and thus entails contributing, as well as accumulating knowledge from the mass.

The knowledge 'donating' aspect essentially is similar to the mainstream definitions of knowledge sharing. However, the knowledge 'collecting' aspect seemed to receive less attention from the researchers in this area. This is because most of the time knowledge 'collecting' or knowledge 'acquisition' occurs naturally, whereas knowledge donating or sharing requires effort and some people are even reluctant to share knowledge for various

reasons. Therefore, like many other studies, this study defines knowledge sharing behavior as a voluntary act of communicating and disseminating one's acquired job-related knowledge with other members within one's organization.

Referring to the job-related knowledge being shared, as discussed earlier that there are two general types of knowledge; tacit and explicit. The sharing of tacit knowledge and explicit knowledge requires different medium and effort. This is discussed in the next section.

3.2 Explicit vs. Tacit Knowledge Sharing

It is commonly agreed that disseminating and communicating explicit knowledge is easier than sharing of tacit knowledge (Ipe, 2003). That is why most studies focused on either knowledge sharing behavior in general (eg. Galletta, McCoy, Marks & Polak, 2002; Hong, Doll, Nahm & Li, 2004) or tacit knowledge sharing alone (eg. Evans & Kersh, 2004; Koskinen, et al., 2003; Selamat & Choudrie, 2004). It is rare to see studies that look at explicit knowledge sharing alone. This is probably because sharing of explicit knowledge can be done by means of books, manuals, video clips, databases and expert system, as well as through formal training. Therefore, the sharing of explicit knowledge can be done easily and requires not much encouragement for it to happen. Yet, by no means can it be neglected. Sharing of explicit knowledge is beneficial to the organization because it can improve employees' ability to complete their work more efficiently in terms of time (Hansen & Haas, 2001).

Sharing of tacit knowledge, on the other hand, is more challenging (Hendriks, 1999). This is because according to Koskinen et al. (2003), tacit knowledge represents "knowledge based on the experience of individuals. It expresses itself in human actions in the form of evaluations, attitudes, points of view, motivation, and etcetera. Usually it is difficult to express tacit knowledge directly in words and often the only way of presenting it is through metaphors, drawings and different methods of expression not requiring a formal use of language" (pg. 218). As such, the tacitness of knowledge is a natural impediment to the successful sharing of knowledge between individuals in organization (Ipe, 2003). Therefore, it is a more interesting area of research.

Tacit knowledge sharing is argued to be a product of socialization and dialectic debate among employees (Fernie, et al., 2003) and it requires face-to-face interactions (Fernie, et al., 2003; Koskinen, et al., 2003). Furthermore, as proposed by Selamat and Choudrie (2004), the diffusion of tacit knowledge requires organizations to encourage the development of individual's meta-abilities, i.e. personal, acquired abilities that underpin and determine how and when knowledge will be practiced within the organization. Thus, sharing of tacit knowledge requires a lot effort and determination.

Nonetheless, tacit knowledge sharing is important to the organization because a study by Hansen and Haas (2001) revealed that it improves quality of the employees work outcomes and it signals competence to clients. Furthermore, as Selamat and Choudrie (2004) pointed out in their literature review, the presence of explicit knowledge is meaningless without tacit knowledge to augment it. This is because only with tacit knowledge that we can put the explicit knowledge into practice.

Regardless of the types of knowledge being shared, this study does not make any distinction between the two types of knowledge sharing because both are important to organizations and their employees. However, this study does emphasize the importance of knowledge sharing at the individual level. Although the importance of knowledge sharing at the organizational and group level cannot be denied, the sharing of knowledge between individuals is considered to be more important since it serves as the foundation for knowledge sharing at other levels (i.e. group and organizational).

4. THE IMPORTANCE OF KNOWLEDGE SHARING AT THE INDIVIDUAL LEVEL

Essentially, knowledge sharing at the individual level is important because there are many ways in which knowledge sharing can benefit the organization. One of them is that the dialogue involved during sharing often lead to the generation of new ideas, which is considered as having the potential for the creation new knowledge (Nonaka, 1994). As a result, it leads to marketing effectiveness (Chen, 2006) and improved organizational innovativeness (Hong, et al., 2004).

Besides, knowledge sharing can also benefit the organizations in less tangible ways. First of all, Hislop (2003) pointed out that the success of any knowledge management initiative is highly dependent on the workers' willingness to share their individual information and knowledge. Knowledge management involves activities that focused on capturing knowledge, and disseminating it accurately, consistently, concisely and in a timely manner to all who need it (Bollinger & Smith, 2001). Therefore, it requires the employees to share their experiences and personal interpretation of information in order to be successful.

Knowledge sharing also assists in organizational learning, and in its absence, the gap between individual and organizational knowledge widens (Ford & Chan, 2003). Central to organizational learning is the conversion of individual knowledge into organizational knowledge, and this can happen if individuals share their knowledge with the rest of the organizational members.

In addition, if an organization's employees engage in knowledge sharing, the organization can avoid redundancy in knowledge production, and at the same time ensure the diffusion of best practice throughout the organization (Husted & Michailova, 2002a). Besides that, Husted and Michailova (2002a) also claimed that the systematic sharing of knowledge among organizational members enables the organization to solve problem by making relevant personal knowledge available to the problem solving process regardless of where the knowledge is originally obtained and stored in the organization.

However, most importantly, the beauty of knowledge sharing is that knowledge grows when it is used and shared with another, and it depreciates in value when it is kept to oneself (Syed-Ikhsan & Rowland, 2004). Finally, as a result of knowledge sharing, the intellectual capital locked up in their hearts and minds can be retained within the organization (Gold et al., 2001; Hong et al., 2004). Therefore, it is important to know some of the factors that encourage knowledge sharing behavior among employees.

5. FACTORS THAT COULD ENCOURAGE KNOWLEDGE SHARING BEHAVIOR

Extant literatures in this area have shown that there are many factors that influence knowledge sharing behavior of employees at work. These factors can be grouped into three categories which are individual, group and organizational factors.

5.1 Individual Factors

Individual factors basically are personal characteristics that affect the knowledge sharing behavior of individuals. Some of the factors that have been identified include individual motivation (Hendriks, 1999; Kalling, 2003; Käser & Miles, 2001; Kwok & Gao, 2004; Osterloh, & Frey 2000), organizational commitment (van den Hooff & de Ridder, 2004), perceptions of information ownership (Jarvenpaa & Staples, 2001; Kwok & Gao, 2004), complementary knowledge or individual absorptive capacity (Sakakibara, 2003; Szulanski, 1996), evaluation apprehension (Ardichvili, Page & Wentling, 2003; Irmer, et al., 2002),

perceived benefits (Bock & Kim, 2002; Hendriks, 1999; Irmer, et al., 2002; Kankanhalli, Tan & Wei, 2005; Käser & Miles, 2001; van den Hooff & de Ridder, 2004), self efficacy (Bock & Kim, 2002; Kankanhalli, et al., 2005), trust in management (Renzl, 2008) and ethics and self interest (Wang, 2004). Except for evaluation apprehension and self-interest, all of the individual factors have positive relationships to knowledge sharing behavior. In contrast, evaluation apprehension and self-interest have negative relationships with knowledge sharing behavior.

5.2 Group Factors

Group factors refer to factors that relate to the relationship between the individual that is sharing his or her knowledge and the individual who is receiving the knowledge. Some of the group factors include social networks and group membership (Hutchings & Michailova, 2004; Jones & Price, 2004; Thomas-hunt, Ogden & Neale, 2003), group identification (Galletta, et al., 2002), interpersonal trust (Abrams, Cross, Lesser & Levin, 2003; Ardicvili, et al., 2003; Zárrega & Bonache, 2003), and expert status (Thomas-Hunt, et al., 2003). Except for group membership, all other factors were found to have a positive relationship to knowledge sharing behavior.

It should be noted that group membership is not team membership, which is considered as important in knowledge sharing. Strong group affiliation is detrimental to knowledge sharing because it creates a rigid structural configuration that is predetermined and maintained over time. In addition, it encourages the achievement of the groups' own tasks and goals without grasping the idea of the company as a whole, since its members are strongly attached to the groups, and hence they tend to resist new ideas coming from outside (Husted & Michailova, 2002). These are the reasons why group membership is negatively related to knowledge sharing.

5.3 Organizational Factors

Finally, organizational factors are essentially the characteristics of the organizations that provide an environment for knowledge sharing. Some of organizational factors that have been found to influence employees' knowledge sharing behavior are organizational culture (Bock, Zmud & Kim, 2005; Lee & Kim, 2006; Syed-Ikhsan & Rowland, 2004; van den Hooff & de Ridder, 2004), HRM practices (Currie & Kerrin, 2003; Syed-Ikhsan & Rowland, 2004), capacity to learn from failure (Jones & Price, 2004; Taylor & Wright, 2004), leader support (Bryant, 2003; DeTianne, Dyer, Hoopes & Harris, 2004; Lin & Lee, 2004; McNeil, 2003; Zárrega & Bonache, 2003), management control (Galletta, et al., 2002), communication climate (van den Hooff & de Ridder, 2004), collaborative climate (DeTienne et al., 2004), institutional-based trust (Ardichvili, et al., 2003) and information technology (Syed-Ikhsan & Rowland, 2004; Hendriks, 1999; van den Hooff & de Ridder, 2004). Of all these factors, only information technology shows either a non-significant relationship (van den Hooff & de Ridder, 2004) or very weak relationship (Syed-Ikhsan & Rowland, 2004). Hendriks (1999) argued that information technology is necessary during the process of knowledge sharing, but it is not sufficient to improve the sharing of knowledge.

6. CONCLUSION

Indeed, there are many factors that influenced the knowledge sharing behaviors among employees. Organizational management authorities need to develop management strategies and implement practices that encourage knowledge sharing. Focusing on management strategies and practices is crucial since any actions taken by the management can influence employees' behavior, especially when those actions are directly aimed at the employees themselves.

An organization's work force and the knowledge, skills, and abilities (KSA) that these human resources possess are sources of competitive advantage for the organization. The employees of an organization are by nature heterogeneous resources that are difficult to replicate, not readily mobile, and not easily duplicated (Barney, 1991). This provides a basis for organizations to develop these internal assets by employing practices, specifically human resource management practices that can encourage employees to behave positively including sharing knowledge with their colleague so that organizational knowledge is enhanced. The focus is on human resource management practices because in order to foster positive behaviors from the employees, organizations must be able to provide positive working conditions. This can be explained in the theory of social exchange that was developed by Blau (1964).

Basically, this theory posits that all human relationships are formed by the use of a subjective cost-benefit analysis and the comparison of alternatives. For example, when a person perceives the costs of a relationship as outweighing the perceived benefits, then the theory predicts that the person will choose to leave the relationship and vice versa. Therefore, in a social interaction, people often engage in a social exchange whereby the exchange relationship between specific actors is viewed as "actions contingent on rewarding reactions from others" (Blau, 1964; pg. 91). Although, this theory primarily refers to the action of individuals, Zafirovski (2003) argued that the actors in an exchange can be not only individuals, but also groups. and the organizations they work for.

In relation to human resource management, social exchange theory (Blau, 1964) suggests that human resource activities affect the development of employees' trust, and commitment. Therefore designing organizational human resource management practices that can build trust and commitment among the employee can result in positive employees' behavior which leads to improved organizational effectiveness (Whitener, 1997). Furthermore, as proposed by Thite (2004) human resource management has a critical role to play in the knowledge economy since it creates people centric partnerships which is important in the creation and sharing of knowledge.

References

- Abrams, L. C., Cross, R., Lesser, E., & Levin, D. Z. (2003). Nurturing interpersonal trust in knowledge sharing networks. *Academy of Management Executive*, 17 (4), 64-77.
- Ardichvili, A. Maurer, M., Li, W., Wentling, T., & Stuedemann, R. (2006). Cultural influences on knowledge sharing communities through online communities of practice. *Journal of Knowledge Management*, 10, 94-107.
- Ardichvili, A., Page, V., & Wentling, T. (2003). Motivation and barriers to participation in virtual knowledge-sharing communities of practice. *Journal of Knowledge Management*, 7, 64-77.
- Argote, L., & Ingram, P. (2000). Knowledge transfer in organizations: learning from the experience of others. *Organizational Behavior and Human Decision Processes*, 82, 1-8.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120.
- Bartol, K. M., & Srivastava, A. (2002). Encouraging knowledge sharing: The role of organizational reward systems. *Journal of Leadership & Organizational Studies*, 9, 64-76.
- Bergeron, B. (2003). *Essentials of knowledge management*. Hoboken, New Jersey: John Wiley & Sons, Inc.
- Blau, P. M. (1964). *Exchange and Power in Social Life*. New York: Wiley.

- Bock, G. W., & Kim, Y. G. (2002). Breaking the myths of rewards: an exploratory study of attitudes about knowledge sharing. *Information Resources Management Journal*, 14, 14-21.
- Bock, G. W., Zmud, R. W., & Kim, Y. G. (2005). Behavioral intention formation in knowledge sharing: examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, 29, 1-26.
- Bollinger, A. S., & Smith, R. D. (2001). Managing organizational knowledge as a strategic asset. *Journal of Knowledge Management*, 5, 8-18.
- Bryant, S. E. (2003). The role of transformational and transactional leadership in creating, sharing and exploiting organizational knowledge. *Journal of Leadership and Organizational Studies*, 9, (4), 32-44.
- Cabrera, A., Collins, W. C., Saldago, J. F. (2006). Determinants of individual engagement in knowledge sharing. *International Journal of Human Resource Management*, 17, 245-264.
- Chen, L. Y. (2006). Effect of knowledge sharing to organizational marketing effectiveness in large accounting firms that are strategically aligned. *The Journal of American Academy of Business*, 9, 176-182.
- Currie, G., & Kerrin, M. (2003). Human resource management and knowledge management: enhancing knowledge sharing in a pharmaceutical company. *The International Journal of Human Resource Management*, 14, 1027-1045.
- Davenport, T. H., & Prusak, L. *Working Knowledge*. Boston: Harvard Business School Press.
- DeTienne, K. B., Dyer, G., Hoopes, C., & Harris, S. (2004). Toward a model of effective knowledge management and directions for future research: Culture, leadership and CKOs. *Journal of Leadership & Organizational Studies*, 10 (4), 26-43.
- Evans, K. & Kersh, N. (2004). Recognition of tacit skills and knowledge: Sustaining learning outcomes in workplace environments. *Journal of Workplace Learning*, 16, 63-74.
- Fernie, S., Green, S. D., Weller, S. J., & Newcombe, R. (2003). Knowledge sharing: context, confusion and controversy. *International Journal of Project Management*, 21, 177-187.
- Ford, D. P. & Chan, Y. E. (2003). Knowledge sharing in a multi-cultural setting: a case study. *Knowledge Management Research & Practice*, 1, 11-27.
- Galletta, D. F., McCoy, S., Marks, P. V., & Polak, P. (2002). What leads us to share valuable knowledge? An experimental study of the effects of managerial control, group identification, and social value orientation on knowledge sharing behavior. *Proceedings of the 36th Hawaii International Conference*.
- Giroud, A. (2000). Japanese transnational corporations' knowledge transfer to Southeast Asia: the case of the electrical and electronics sector in Malaysia. *International Business Review*, 9, 571-586.
- Goh, S. C. (2002). Managing effective knowledge transfer: An integrative framework and some practice implications. *Journal of Knowledge Management*, 6, 23-30.
- Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge Management: an organizational capabilities perspective. *Journal of Management Information Systems*, 18, 185-214.
- Guest, D. E. (1997). Human resource management and performance: A review and research agenda. *The International Journal of Human Resource Management*, 8, 263-276.

- Hansen, M. T., & Haas, M. R. (2001). Different knowledge, different benefits: Toward a productivity perspective on knowledge sharing in organizations. *Academy of Management Proceedings*, MC:C1-MC:C6.
- Hendriks, P. (1999). Why share knowledge? The influence of ICT on the motivation for knowledge sharing. *Knowledge and Process Management*, 6 (2), 91-100.
- Hislop, D. (2003) Linking human resource management and knowledge management via commitment: A review and research agenda. *Employee Relations*, 25 (2), 182-202.
- Hofstede, G. (1983). National cultures in four dimensions: A research-based theory of cultural differences among nations. *International Studies of Management and Organizations*, 13, 46-74.
- Hong, P., Doll, W. J., Nahm, A. Y., & Li, X. (2004). Knowledge sharing in integrated product development. *European Journal of Knowledge Management*, 7 (2), 102-112.
- Husted, K., & Michailova, S. (2002a). Diagnosing and fighting knowledge sharing hostility. *Organizational Dynamics*, 31, 60-73.
- Husted, K., & Michailova, S. (2002b). Knowledge sharing in Russian companies with Western participation. *Management International*, 6 (2), 17-28.
- Hutchings, K., & Michailova, S. (2004). Facilitating knowledge sharing in Russian and Chinese subsidiaries: The role of personal networks and group membership. *Journal of Knowledge Management*, 8 (2), 84-94.
- Huysman, M. & De Wit, D. (2001). *Knowledge Sharing in Practice*. Boston, Massachusetts: Kluwer Academic Publishers.
- Iles, P., Mabey, C., & Roberson, I. (1990). HRM practices and employee commitment: Possibilities, pitfalls and paradoxes. *British Journal of Management*, 1, 147-157.
- Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *Human Resource Development Review*, 2, 337-359.
- Irmer, B. E., Bordia, P., & Abusah, D. (2002). Evaluation apprehension and perceived benefits in interpersonal and database knowledge sharing. *Academy of Management Proceedings*, OCIS:B1-OCIS:B6.
- Jarvenpaa, S. L., & Staples, D. S. (2001). Exploring perceptions of organizational ownership of information and expertise. *Journal of Management Information Systems*, 18, 151-183.
- Jones, M. C., & Price, R. L. (2004). Organizational knowledge sharing in ERP implementation: *Lessons form industry*. *Journal of Organizational and End User Computing*, 16, 21-40.
- Kalling, T. (2003). Organization-internal transfer of knowledge and the role of motivation: A qualitative case study. *Knowledge and Process Management*, 10, 115-126.
- Kane, A. A., Argote, L., & Levine, J. M. (2005). Knowledge transfer between groups via personnel rotation: effects of social identity and knowledge quality. *Organizational Behavior and Human Decision Processes*, 96, 56-71.
- Karlsen, J. T. & Gottschalk, P. (2004). Factors affecting knowledge transfer in IT projects. *Engineering Management Journal*, 16, 3-10.
- Kankanhalli, A., Tan, B. C. Y., & Wei, K. K. (2005). Contributing knowledge to knowledge repositories: An empirical investigation. *MIS Quarterly*, 29, 113-143.
- Käser, P. A., & Miles, R. E. (2001). Knowledge activists: The cultivation of motivation and trust properties of knowledge sharing relationship. *Academy of Management Proceedings*, ODC:D1-OCD-D6.

- Kim, S. & Lee, H. (2005). Employee Knowledge Sharing capabilities in public and private organizations: Does organizational context matter. *Proceedings of the 38th Hawaii International Conference on System Sciences*.
- Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42, 58-74.
- Kleiner, M. M., & Bouillon, M. L. (1988). Providing business information to production workers: Correlates of compensation and profitability. *Industrial & Labor Relations Review*, 41, 605-617.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities and the replication of technology. *Organization Science*, 3, 383-397.
- Koskinen, K. U., Pihlanto, P., & Vanharanta, H. (2003). Tacit knowledge acquisition and sharing in a project work context. *International Journal of Project Management*, 21, 281-290.
- Kwok, S. H., & Gao, S. (2006). Attitude towards knowledge sharing behavior. *Journal of Computer Information System*, 45-51.
- Kwok, J. S. H., & Gao, S. (2004). Knowledge sharing community in P2P network: A study of motivational perspective. *Journal of Knowledge Management*, 8, 94-102.
- Lam, Y., Zhang, H. Q., Job satisfaction and organizational commitment in the Hong Kong fast food industry. *International Journal of contemporary Hospitality Management*, 15, 214-220.
- Leach, D. J., Wall, T. D., & Jackson, P. R. (2003). The effect of empowerment on job knowledge: An empirical test involving operators of complex technology. *Journal of Occupational & Organizational Psychology*, 76, 27-52.
- Lee, J. H., & Kim, Y. G. (2006). Effects of managerial drivers and climate maturity on knowledge management performance: Empirical validation. *Information Resources Management Journal*, 19.
- Lee, J. N. (2001). The impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success. *Information & Management*, 38, 323-335.
- Lin, H. F., & Lee, G. G. (2004). Perception of senior managers toward knowledge-sharing behavior. *Management Decision*, 42, 108-125.
- McNeil, C. M. (2003). Line managers: facilitators of knowledge sharing in teams. *Employee Relations*, 25, 294-307.
- Metlen, S., Eveleth, D., & Bailey, J. J. (2005). Management support and perceived consumer satisfaction in skilled nursing facilities. *Health Services Management Research*, 18, 198-210.
- Michailova, S., & Husted, K. (2003). Knowledge-sharing hostility in Russian firms. *California Management Review*, 45 (3), 59-77.
- Miller, D. L., & Karakowsky, L. (2005) Gender influences as an impediment to knowledge sharing: When men and women fail to seek peer feedback. *Journal of Psychology*, 139, 101-118,
- Morishima, M. (1991). Information sharing and firm performance in Japan. *Industrial Relations*, 30, 37-61.
- Ng, T., W. H., Butts, M. M., Vandenberg, R. J., DeJoy, D. M., & Wilson, M. G. (2006). Effects of management communication, opportunity for learning, and work schedule flexibility on organizational commitment. *Journal of Vocational Behavior*, 68, 474-489.

- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5, 14-37.
- Nonaka, I., & Takeuchi, H. (1995). *The Knowledge Creation Company*. New York, USA: Oxford University Press.
- Osterloh, M., & Frey, B. S. (2000). Motivation, knowledge transfer, and organisational forms. *Organization Science*, 11, 538-550.
- Renzi, B. (2008). Trust in management and knowledge sharing: The mediating effects of fear and knowledge documentation. *Omega*, 36, 206-220.
- Ryu, S., Ho, S. H., & Han, I. (2003). Knowledge sharing behavior of physicians in hospitals. *Expert Systems with Applications*, 25, 113-122.
- Sakakibara, M. (2003). Knowledge sharing in cooperative research and development. *Management Decision Economics*, 24, 117-132.
- Shaw, J. D., Delery, J. E., & Abdulla, M. H. A. (2003). Organizational commitment and performance among guest workers and citizens of an Arab country. *Journal of Business Research*, 56, 1021-1030.
- Selamat, M. H., & Choudrie, J. (2004). The diffusion of tacit knowledge and its implications on information systems: The role of meta-abilities. *Journal of Knowledge Management*, 8, 128-139.
- Swart, J., & Kinnie, N. (2003). Sharing knowledge in knowledge intensive firms. *Human Resource Management Journal*, 13, 60-75.
- Syed-Ikhsan, S. O. S., & Rowland, F. (2004) Knowledge management in a public organization: a study on the relationship between organizational elements and the performance of knowledge transfer. *Journal of Knowledge Management*, 8 (2), 95-111.
- Szulanski, G. (1996). Exploring internal stickiness: impediments to the transfer of best practise within the firm. *Strategic Management Journal*, 17(4), 27-43.
- Taylor, W. A., & Wright, G. H. (2004). Organizational readiness for successful knowledge sharing: challenges for public sector managers. *Information Resources Management Journal*, 17 (2), 22-37.
- Thite, M. (2004). Strategic positioning of HRM in knowledge-based organizations. *The Learning Organization*, 11 (1), 28-44.
- Thomas-Hunt, M. C., Ogden, T. Y., & Neale, M. A. (2003). Who's really sharing? Effects of social and expert status on knowledge exchange within groups. *Management Science*, 49, 464-477.
- Tsaur, S. H., & Lin, Y. C. (2004). Promoting service quality in tourist hotels: The role of HRM practices and service behavior. *Tourist Management*, 25, 471-481.
- Van den Hooff, B., & de Ridder, J. A. (2004). Knowledge sharing in context: The influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8 (6), 117-130.
- Van den Hooff, B., & van Weenen, F. L. (2004). Committed to share: Commitment and CMC use as antecedents of knowledge sharing. *Knowledge and Process Management*, 11, 13-24.
- Wang, C. C. (2004). The influence of ethical and self-interest concerns on knowledge sharing intentions among managers: An empirical study. *International Journal of Management*, 21, 370-381.

- Whitener, E. M. (1997). The impact of human resource activities on employee trust. *Human Resource Management Review*, 7, 389-404.
- Yang, J. (2004). Job-related knowledge sharing: Comparative case studies. *Journal of Knowledge Management*, 8, 118-126.
- Zafirovski, M. (2003). Some amendments to social exchange theory: A sociological perspective. *Theory & Science*, Retrieved on January 15, 2007 from http://theoryandscience.icaap.org/content/vol004.002/01_zafirovski.html