

THE RELATIONSHIP BETWEEN HUMAN RESOURCE
MANAGEMENT PRACTICES, AFFECTIVE COMMITMENT, AND
KNOWLEDGE SHARING BEHAVIOR

By

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Research report in partial fulfillment of the
requirements for the degree of
Doctor of Business Administration

2007

DEDICATION

This dissertation is dedicated with gratitude and affection to my husband, Azuwir bin Mohd Nor, and to my children, Faiz bin Azuwir, Hariz bin Azuwir and Irdina bt Azuwir.

ACKNOWLEDGEMENT

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

First and foremost, I would like to thank Allah SWT for giving me the strength to finish this program and to complete this dissertation, for without Allah's blessings I would never have the willpower to do so.

I was also blessed to have an excellent supervisor like Assoc. Prof. Dr. Hajah Aizzat Mohd. Nasurdin. I was greatly indebted to her. She is a remarkable mentor, and it was a privilege to work under her supervision. Thank you, Dr. Aizzat, for your patience, guidance, constructive ideas and support throughout the duration of completing this dissertation. Your professional expertise, as well as many constructive and insightful comments has helped a lot in making this dissertation a much better work, than what it would have been if you were not there.

I would also like to express my sincere appreciation to Assoc. Prof. Dr. Yusserie Zainuddin, the Deputy Dean of School of Management, USM, who is also the former Coordinator of the MBA and DBA program. I would like to thank him for his support and for all his effort in making sure that I completed this program. I wish to thank all the academic members of the School of Management, USM, who have shared their expertise with the students of the DBA program. A note of thanks also goes to the Dean of the School of Management, Assoc. Prof. Dr. Ishak Ismail, as well as the support staff for their kind assistance.

I was fortunate to have a great family and friends who supported me throughout the entire period of my studies. To my beloved husband, Azuwir b. Mohd Nor, thank you for your patience and understanding. Thank you for being there every

time I lose faith in my ability to finish this dissertation. You will never know how much you motivated me through this period. To my children, Faiz, Hariz, and Irdina, thank you for giving me the time to be a student when you needed a mother. To my parents, Saianah bt. Jamin, and Pangil b. Jait, thank you for your unending prayer and your undying love.

Special thanks are also extended to all my friends in this DBA program. Knowing all of you have made my life richer. Very special thanks to Salniza Md. Salleh for her support and encouragement. Without her, it would be very difficult for me to get through this DBA program alone. My gratitude also goes to Universiti Utara Malaysia for granting me the scholarship and study leave to pursue this DBA degree. Last, but not least, to all those people who have taken their time to help me in distributing my questionnaire, as well as those who have filled the questionnaires up and return them to me.

To all of you, I will be forever indebted to you.

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Abstrak

Kajian ini mempunyai dua objektif. Pertama, kajian ini adalah untuk menentukan hubungan antara persepsi pekerja tentang amalan pengurusan sumber manusia (PSM) dan gelagat perkongsian ilmu mereka. Kedua, ia bertujuan untuk memastikan sama ada komitmen afektif memainkan peranan sebagai pengantara kepada hubungan ini. Sejumlah 533 borang soal-selidik telah diagihkan kepada pekerja yang melakukan kerja penyelidikan dan pembangunan (R&D) bagi 93 buah syarikat. Namun, hanya 140 soal-selidik yang dikembalikan dan 114 sahaja yang boleh digunakan untuk dianalisis. Hasil dari analisis faktor menunjukkan terdapat dua jenis gelagat perkongsian ilmu iaitu gelagat perkongsian ilmu tasit dan gelagat perkongsian ilmu eksplisit. Disamping itu, analisis faktor yang dijalankan ke atas instrumen mengukur amalan PSM menghasilkan sepuluh komponen yang mana hanya tujuh darinya digunakan untuk analisis yang seterusnya. Tiga komponen selebihnya tidak digunakan kerana tahap kebolehpercayaan adalah sangat rendah. Tujuh komponen tersebut dilabelkan sebagai perkongsian maklumat, latihan pekerja, pasukan pengurusan-kendiri, pengambilan selektif, sokongan pengurusan, pembangunan pekerja dan jaminan kerja. Analisis regresi berhiarki digunakan untuk menguji hipotesis-hipotesis kajian. Hasil kajian menunjukkan daripada tujuh komponen amalan PSM, hanya perkongsian maklumat dan pasukan pengurusan-kendiri yang menunjukkan hubungan yang signifikan dan positif dengan gelagat perkongsian ilmu tasit. Sokongan pengurusan menunjukkan hubungan yang signifikan tetapi negatif dengan gelagat perkongsian ilmu tasit. Bagi perkongsian ilmu eksplisit pula, hanya perkongsian maklumat sahaja menunjukkan hubungan yang signifikan dengan angkuabah ini. Analisis regresi juga menunjukkan perkongsian maklumat dan pasukan pengurusan-

kendiri mempunyai hubungan yang positif dan signifikan dengan komitmen afektif. Walau bagaimanapun, komitmen afektif bukanlah pengantara dalam hubungan antara amalan PSM dan gelagat perkongsian ilmu tasit. Namun begitu, komitmen afektif adalah pengantara separa kepada perhubungan antara perkongsian maklumat dan gelagat perkongsian ilmu eksplisit.

Abstract

The objective of this study was twofold. First, the study was to examine the relationship between HRM practices and employees knowledge sharing behavior. Second, it was to determine whether affective commitment plays a mediating role in this relationship. A total of 533 questionnaires were distributed to R&D employees of 93 companies. However, only 140 of them were returned, and 114 were usable for analysis. The results of the factor analysis revealed two types of knowledge sharing, which are tacit and explicit knowledge sharing. Additionally, the factor analysis on the HRM practices scale produces ten factors in which only seven were used for further analysis since the other three factors have extremely low reliabilities. These seven factors were labeled as information sharing, employee training, self-managed team, selective hiring, management support, employee development and employment security. Hierarchical regression analyses were performed to tests the hypotheses of the study. The results indicated that of the seven components of HRM practices, only information sharing and self-managed team were positively and significantly related to tacit knowledge sharing. Management support was negatively related to tacit knowledge sharing. Where explicit knowledge sharing is concerned only information sharing significantly and positively predicts this variable. The regression analysis also showed that information sharing and self-managed team were significant predictors of affective commitment. However, it was found that affective commitment was not a mediator in the relationship between HRM practices and tacit knowledge sharing. Nonetheless, affective commitment partially mediates the relationship between information sharing and explicit knowledge sharing.

CHAPTER 1

INTRODUCTION

1.0 Introduction

In recent years, the ability of organizations and individuals within them to share knowledge with each other is identified as one of the contributing factors to organizational competitiveness. Due to this reason, there is a need to study the factors that influence individual knowledge sharing behaviors in organizations. The purpose of this chapter is to provide some basic information regarding this study. This chapter starts the discussion by providing some background information surrounding the issue. Next, the problems that lead to the need for the present study are presented followed by the research questions, the research objectives, and the significance of the study. Finally, the definition of the study variables and the organization of the thesis are detailed out.

1.1 Background of the Study

Managing knowledge has become an important agenda for most organizations ever since the concept of knowledge management entered the business world, sometime just before the turn of the millennium. In this new era, knowledge is recognized as one of the organization's most important resources. The theoretical basis for this phenomenon is known as the knowledge-based view of the firm (Kogut & Zander, 1992). It can be said that knowledge-based view of the firm evolves from the resource-based view of the firm (Barney, 1991; Penrose, 1959). While the latter postulates that any organizational resources have a strategic character if it is heterogenous, nonimitable, nonappropriable and nonreplicable; the former posits that

knowledge based resources play a very important role in increasing the sustainable competitiveness of the firm due to its strategic characteristics (Spender, 1996). Hence, organizations have been trying to glean whatever advantage that they can get by using knowledge.

In general, knowledge management is the process of capturing, storing, sharing, and using knowledge (Davenport & Prusak, 1998). From the business perspective, knowledge management is defined by Bergeron (2003) as “a deliberate, systematic business optimization strategy that selects, distills, stores, organizes, packages, and communicates information essential to the business of a company in a manner that improves employee performance and corporate competitiveness” (pg. 8). Though Bergeron (2003) focuses on information, organizational knowledge is more than just information. According to Bryant (2003), organizational knowledge essentially includes all the tacit and explicit knowledge that individuals within the organization possess in relation to products, systems and processes. It also includes the explicit knowledge codified in manuals, databases and information system, as well as the tacit knowledge that is shared collectively in the firm in the form of routines, culture and know-how embedded in social process. Furthermore, as pointed out by Schultz (2003), organizational knowledge is “not a collection of isolated kernels. Instead, each individual pieces of knowledge are embedded in an interconnected network of other pieces that provide an ecological context for changes in knowledge” (pg. 440). Inadvertently, changes in knowledge occur constantly. Therefore, knowledge is not something that is tangible that can be easily manipulated by anyone and this makes managing knowledge more challenging.

Traditionally, discussions regarding knowledge management mainly occur in the area of information technology and centers around the topic of capturing

knowledge and storing them in explicit forms such as written manuals, databases and expert systems (eg; Milton, Shadbolt, Cottam & Hammersley; 1999). Although the information technology aspect of knowledge management is still popular, the people aspects of knowledge management are gaining more attention in some social science literatures (Cook, 1999; Ipe, 2003; Wiig, 1999). This may be due to the acknowledgement that knowledge cannot be totally separated from those who owned them. Anyway, the people perspective of knowledge management basically puts forward the notion that “individuals in organizations have knowledge that must move to the level of groups and the organization as a whole so that it can be used to advance the goals of the organization” (Ipe, 2003; pg. 338). This essentially is known as the process of organizational learning.

Organizational learning is important because organizations today are faced with the challenge of fulfilling the needs of today’s customers, which requires better and faster solutions for their daily problems. Furthermore, in order to sustain organizational competitiveness, firms must engage in constant self-renewal, i.e. transforming the organization, their markets and industries, by developing and exploiting opportunities for value-creating innovation (Jaw & Liu, 2003). The importance of organizational learning is even more so for Malaysian companies which are trying very hard to face the challenge of global competition. Being one of the newly developed countries, our former Prime Minister, Tun Dr Mahathir Mohamad (2003) indicated in the Mid-Term Review of the Eighth Malaysia Plan 2001-2005 that “...infrastructure wise...Malaysia is ready to receive global knowledge. However, our local inventive activity is still lagging compared with developed countries”. He also adds that our “...supply of human resource that is knowledgeable in science and technology is still lacking”.

Therefore, it can be inferred from these statements that the lack of human resources that is knowledgeable in science and technology contributes to the slow inventive and innovative activity in this country. However, there are other possible reasons that could lead to this problem. One of them may be attributed to the fact that there may not be enough knowledge sharing activities occurring among the research and development (R&D) employees themselves. According to Fernie, Green, Weller, and Newcombe (2003), knowledge sharing is important in the creation of new knowledge because it makes the employees discuss and deliberate on certain topics.

The Malaysian government has given a high priority in developing our human resources focusing on developing knowledge, acquiring skills and inculcating positive values. Tun Dr Mahathir Mohamad (2003) also calls upon the companies in the private sector to play their roles in helping the government to achieve this by building up their knowledge and become innovative. This sentiment is continued in the Ninth Malaysian Plan 2006-2010, which mainly focuses on building up the human capital for future prosperity (The Economic Planning Unit, Prime Minister's Department, 2006).

To build up knowledge, people need to continuously learn from their own experiences and from each other. According to Goh (2002), in organizations "learning occurs when knowledge in one part of an organization is transferred effectively to other parts, and used to solve problems there or to provide new and creative insights" (pg. 23). Consistently, organizational learning is a dynamic process that consists of learning at the individual, group and system level which forms into collective knowledge within an "organizational memory" that increases the organization's capacity to take effective actions (Heraty, 2004; Jerez-Gómez, Céspedes-Lorente & Valle-Cabrera, 2004). These definitions of learning and organizational learning imply

that individual learning is crucial to the success of organizational learning, and one way that individuals help one another to learn and build their knowledge bases is through knowledge sharing (Ipe, 2003).

Essentially, knowledge sharing is an important part of knowledge management efforts (Davenport & Prusak, 1998). Gold, Malhotra, and Segars (2001) indicated that many organizations have realized that effective knowledge sharing is crucial to enhance their core competencies and gain competitive advantage. In fact, Bartol and Srivastava (2002) pointed out that organizations have started to realize that knowledge sharing is critical to knowledge creation, organizational learning and performance achievement. Due to this realization, organizations are looking for ways in which knowledge sharing can be encouraged among their employees

1.2 Problem Statement

Throughout their careers, employees usually accumulate a wealth of information and knowledge about their jobs, and with that they develop efficiencies that make them more productive. However, the fact that employees are reluctant to share this job-related knowledge with their colleague has been brought up by several researchers in this area (e.g. Michailova & Husted, 2003; Riege, 2005). Due to this fact, there are three main reasons that prompted the researcher to study knowledge sharing within the Malaysian context.

First and foremost, it was found that studies conducted with regard to knowledge sharing tendency among the Malaysian workforce are very limited in number. Studies that were done in Malaysia either focus on transfer of knowledge at the unit/group level (Syed-Ikhsan & Rowland, 2004) or organizational level (Malairaja & Zawdie, 2004). Specifically, the study by Syed-Ikhsan and Rowland (2004) examines the determinants of inter-unit knowledge transfer performance and

the units' knowledge assets, mainly organizational culture, organizational structure, technology, human resources and political directives, whereas Malairaja and Zawdie (2004) looks into the conditions that would enhance the effectiveness of technology transfer via joint venture in order to promote innovation. A study at the individual level, on the other hand, is still lacking.

It is undeniable that building up knowledge is of high importance among the employees in Malaysia in order to enhance the competitiveness of Malaysian companies. One of the ways that individuals can build up on their knowledge is through knowledge sharing. This is because it allows them to discuss and deliberate on certain topics which can encourage the generation of new knowledge (Ferne, et al., 2003). However, the extent to which the employees in Malaysian are sharing knowledge with their colleague is still unknown. Therefore, this study attempts to fulfill the gap in the literature regarding knowledge sharing at the individual level in the Malaysian setting and the organizational factors that can lead to this behavior.

The second reason reason that leads to this study is that, 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).

This leads to the third reason for conducting this study. As mentioned in the background of the study, Malaysia is still considered as slow in terms of inventive activities (Mahathir, 2003). Due to the Malaysian culture of humility (Abdullah & Low, 2001), it is possible that there may not be much knowledge sharing occurring among the R&D employees in order for new knowledge to be created. Therefore,

there is a need to study the knowledge sharing behavior among the R&D employees and to find out the factors that can encourage them to share knowledge.

As such the fourth reason for conducting this study is to find out what management practices that can be implemented by organizations to encourage knowledge sharing behaviors among the employees, especially R&D employees. Although knowledge sharing within an organization is considered to be crucial in enhancing organizational knowledge, and eventually the organization's competitive advantage, it might take a lot of management effort in order to encourage it among the Malaysian workforce. Thus, the firm's management must find a way to address this problem so that the firm can gain a sustainable advantage from their employees. This is only possible if they are able to implement management practices that motivate people to share their knowledge with others, and consequently allow all organizational members to benefit from it. Moreover, since the employees are considered as one of the organization's most important strategic resources (Barney, 1991; Olalla, 1999) there is a need to determine whether specific management practices that organizations implement can encourage knowledge sharing. Specifically, the issue addressed in this study is, whether the implementation of certain human resource management (HRM) practices can encourage employees to share knowledge among them.

Indeed, HRM literatures consistently argue that human resource management practices have an impact on employee behavior and hence organizational effectiveness (e.g. Rondeau & Wagar, 2001; Zerbe, Dobni & Harel, 1998). However, literatures that specifically relate HRM practices and knowledge sharing are still limited in numbers. For example, Bock and Kim (2002) studied on the effect of expected rewards on intention to share knowledge, Currie & Kerrin (2003) studied on

the effect of teams and rewards on knowledge sharing, and Syed-Ikhsan and Rowland (2004) only focused on job positions on tacit and explicit knowledge sharing. Therefore, it is important to show that there are other human resource management practices that influence knowledge sharing behavior.

Another interesting argument of previous literatures is that organizations' human resource management practices do not usually affect organizational performance directly (e.g. Moynihan, Gardner, Park & Wright, 2001). It has been highlighted by several authors (e.g. McElroy, 2001) that there is a missing link between human resource systems and organizational outcomes. Hence, prominent researchers such as McElroy (2001), Mowday (1998) and Meyer, Stanley, Herscovitch and Topolnytsky (2002) indicated that the relationship between work experiences (in this case HRM practices) and employees' on-the-job behavior is mediated by employees' commitment, mainly affective commitment. Along the same line, Hislop (2003) also proposed that organizational commitment plays a very important role in linking organizational HRM practices and employees' motivation to share knowledge. Contrarily, Iles, Mabey and Roberson (1990) pointed out that HRM practices do not necessarily always lead to high organizational commitment and high performance. Instead, certain HRM practices such as employee development program evoke career commitment, which encourages the employee to seek better opportunity elsewhere. This is the fifth reason for conducting this study. There is a need to find out whether HRM practices actually do lead to higher organizational commitment and eventually make people behave in a more positive manner, and in this case more enthusiastic to share their knowledge with others.

1.3 Research Objectives

Based on the problems discussed, the objectives of this study are:

1. To determine whether human resource management practices have a positive impact on employees' knowledge sharing behaviors.
2. To determine whether human resource management practices have a positive impact on employees' affective commitment towards their organizations.
3. To find out whether affective commitment contributes positively to employees' knowledge sharing behavior
4. To find out whether affective commitment mediates the relationship between human resource management practices and knowledge sharing behaviors.

1.4 Research Questions

Therefore, several research questions are addressed:

1. Do organizations' human resource management practices (i.e. employment security, selective hiring, extensive training, self-managed teams, pay based on performance, reduced status distinction, and information sharing) positively influence employees' knowledge sharing behaviors?
2. Do organizations' human resource management practices (i.e. employment security, selective hiring, extensive training, self-managed teams, pay based on performance, reduced status distinction, and information sharing) have a positive impact on employees' affective commitment?
3. Does employees' affective commitment positively affect their knowledge sharing behaviors?

4. Does affective commitment mediate the relationship between organizations' human resource management practices (i.e. employment security, selective hiring, extensive training, self-managed teams, pay based on performance, reduced status distinction, and information sharing) and employees' knowledge sharing behavior?

1.5 Significance of the Study

The importance of this study can be viewed from both theoretical and practical aspects. Theoretically, this study will contribute to the knowledge sharing and HRM literatures, and provide empirical evidence in relation to the linkage between HRM practices and knowledge sharing based on the beliefs-attitudes-behavioral model (Fishbein & Ajzen, 1967). On the practical level, this study will provide some insights on some of the HRM practices that are important in enhancing employees' tendency to engage in knowledge sharing activities. As such, this will help the managers in managing their human resources towards higher performance. However, it is believed that HRM practices do not influence this behavior directly. Instead, HRM practices are thought to affect individuals' affective commitment, which eventually encourages knowledge sharing behavior among them. The findings of this study can confirm whether this notion is true or not.

1.6 Definition of Variables

The following are the variables used in this study and the how it is defined for the purpose of this study.

- *Knowledge sharing behavior.* In this study the definition of knowledge sharing behavior is adapted from the definition by Ryu, Ho and Han (2003). Hence, knowledge sharing behavior refers to the act of communicating and disseminating

one's acquired job-related knowledge, either explicit or tacit, with other members within one's organization.

- *Human resource management practices.* Based on the work of Jackson and Schuler (1995) and Pfeffer (1998) human resource management practices refers to the management activities (i.e. employment security, selective hiring, self-manage teams, extensive training, compensation based on performance, reduced status distinction and sharing of information) that help an organization utilize its human resources efficiently, in order to effectively achieve the goals and objectives of the organization.
- *Employment security.* In this study the definition of employment security was adapted from Zacharatos, Barling and Iverson (2005). It is conceptualized as the practice of providing the employees with stable employment.
- *Selective hiring.* Selective hiring was conceptualized based the work of Pfeffer (1998) and Zacharatos et al. (2005). In this study selective hiring means that the selection procedure employed by the organizations requires the applicants to go through several rounds of interviews and a rigorous selection procedure
- *Extensive training.* The definition of extensive training was developed based on the work of Jaw and Liu (2003), Pfeffer (1998), and Zacharatos, et al. (2005). In this study extensive training was defined as the provision of extensive opportunities for the employees to develop their knowledge, skills and abilities which are directly related to their current job and also those that are not directly related to their current job.
- *Self-managed team.* This study defines self-manage teams as teams that are not only responsible for getting their work done, but also for managing themselves and participating in the formulation and management of their processes, with and

emphasis on ownership of these processes. This definition was based on work of Irani, Choudrie, Love and Gunasekaran (2002).

- *Compensation based on performance.* In reference to Pfeffer (1998), compensation based on performance refers to compensation scheme that is based on how well the organizational performs, such as profit sharing, gain sharing and stock ownership plans.
- *Reduced-status distinction.* Reduced status distinction was conceptualized based on Zacharatos, et al. (2005). Reduced status distinction refers to the removal of the perceptions of differences in hierarchical status such that people across different levels were able to communicate with each other easily, and hence able understand each others' work better.
- *Information sharing.* This construct refers to the practice of two way communication between the management and the employees in which the management shares information such as financial performance, strategy, and operational measures, and the employees share information regarding their work activities with the management. This conceptualization was developed based on Pfeffer (1998) and Zacharatos et al. (2005).
- *Affective commitment.* For the purpose to the current study, the conceptualization by Allen and Meyer (1990) were used in defining affective commitment. Hence, affective commitment refers to an individual's emotional attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in, the organization.

1.7 Organization of the Thesis

In this introductory chapter, the statement of the problem, research questions, research objectives, and significance of the study have been presented. Chapter 2 will review selected literatures on knowledge sharing, and human resource practices. Besides that, a literature review on affective commitment as the mediating variable is also provided. Chapter 3 will discuss the methods for conducting this study, the instrument used, and the distribution of the questionnaire. Chapter 4 discusses the methods used for analyzing the data collected and the overall results of the study. Finally, Chapter 5 discusses the findings and provides some recommendations on future research and management practices.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of literatures on the topic of knowledge, knowledge sharing, organization's HRM practices and organizational commitment. The purpose of this chapter is to provide an understanding of the variables used in this study and how they contribute to the study. Towards the end of the chapter, the proposed conceptual framework, along with the hypotheses for this study is presented.

2.1 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.

2.1.1 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.

2.2 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.

2.2.1 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.

2.2.2 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).

2.2.3 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 what are some of the factors that influence knowledge sharing behavior.