FACTORS AFFECTING TACIT KNOWLEDGE TRANSFER WITHIN AN ORGANIZATION

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FACTORS AFFECTING TACIT KNOWLEDGE TRANSFER WITHIN AN ORGANIZATION

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A dissertation submitted in partial fulfillment of the requirements for the degree of Corporate Master in Business Administration

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I hereby declare that this research study is the result of my own investigation, except where otherwise stated. Other sources are acknowledged by footnotes giving and explicit references are appended.

Signature:

Date: 30 June 2011

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Finally, the findings of this study hope to have contributed to a clearer understanding of the tacit knowledge transfer phenomenon within organizations.
ABSTRACT

This research paper aims to identify the relevant factors for tacit knowledge transfer within a public utility organization – Sarawak Energy Berhad (SEB) and to determine the demographic classification of SEB staff and their perception towards tacit knowledge transfer within their workplace. The methodology in this research analyses the literature concerning tacit knowledge transfer within organizations and using a quantitative approach based on exploratory factorial analysis. It seeks to collect facts in order to identify relevant factors for tacit knowledge transfer within the organization studied. The research findings demonstrated that four most relevant factors affecting tacit knowledge transfer within an organization are knowledge management strategy, work culture and environment, individual traits and organizational structure and there is no significant different generally on the employees’ perception on tacit knowledge transfer based on their demographical factors. One of the limitations on the research is that the research is done on SEB that causes the external validity cannot be tested. Another limitation is the subjective perception of the employees involved in relation to tacit knowledge transfer. The lack of information available while answering the questionnaire and the fact that the respondents work in a state-owned, rather than a public or private company may lead to the biased perception of the respondents. The value of the study is that the factors affecting tacit knowledge transfer identified are useful for further study in implementing the tacit knowledge management on its transferring program for SEB and other similar organizations.

Keywords: Knowledge management, tacit knowledge, knowledge transfer.
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1.1 Introduction

Knowledge and its management have been studied broadly for some time. The knowledge driven economies of today dictate that successful companies of the future will be those who are able to develop new capabilities by creating organizational knowledge and implementing new technologies and practices, rather than those who compete on their existing capabilities (Nonaka & Takeuchi, 1995). Knowledge therefore become a very valuable competitive resource, since it fosters innovation and creates a sustainable competitive advantage for the company (Davenport & Prusak, 2003; Leonard & Sensiper, 1998). Thus, organizations should study and focus on their knowledge management.

Knowledge can be divided into two distinctive categories, which are explicit knowledge and tacit knowledge. Explicit knowledge is expressed in formal language, words, symbols and numbers and can be stored in a database that allows the data to be transmitted, conventionally and easily (Joia & Lemos, 2009). Tacit knowledge, which is difficult to express in formal language, comes from personal experience, perceptions and individual values and depends on the context in which it is generated (Davenport & Prusak, 2003). These characteristics of tacit knowledge makes it a source of sustainable competitive advantage, on the other hand, they restrict the transfer of tacit knowledge within an organization. As a consequence, it is significant for the tacit knowledge to be accessible and transferrable within the organization. As compared to explicit knowledge, tacit knowledge is more difficult in access and transfer and thus it is worth to study on it.
1.2 Problem Statement

In Sarawak, power growth is driven by three demand sectors, which are the normal load of 6% to 8% annually, energy-intensive industries investing in Sarawak (SCORE) and power export to Sabah and neighboring countries. In view of the increased growth in the Sarawak power demand, the state-owned public utility electricity service provider, SEB will have increased output from 5921GWH to 54947GWH between 2010 and 2020, which is 9 times increase in just 10 years. The competency gaps in SEB to meet the company’s targets in the short time have been critical after the relevant human capital sourcing has failed. Thus, in order to support the immediate needs, a partnership with Hydro Tasmania with SEB has been formed to facilitate knowledge transfer.

However, despite the practical problem in SEB, it is difficult to transfer one’s tacit knowledge to the other, furthermore, with the difference in culture that leads to different perceptions and individual values. Tacit knowledge, which is difficult to express in formal language, comes from experience, perceptions and individual values and depends on the context in which it is generated (Davenport & Prusak, 2003; Haldin-Herrgard, 2000; Leonard & Sensiper, 1998). Thus, in order to create an effective source of sustainable human capital and competencies, tacit knowledge is essential to be transferable within the organization.
1.3 Objectives

The general objective of this study is to study the factors for tacit knowledge transfer within an organization, in an exploratory and empirical approach. Sarawak Energy Berhad was selected to be studied as the targeted population for specific reasons as numbered below:

1. It is a state-owned monopoly electrical power provider in Sarawak and also in the region in the near future;
2. It needs to adapt to the changes in the regulatory environment of the Sarawak power industry in generation, transmission and distribution, which has major impact on the state development;
3. It is going through an organizational restructuring process and involving knowledge transfer from working with foreign expertise under the agreed partnership with foreign organization.

The specific objectives of this research are as below:

i. To identify the relevant factors affecting tacit knowledge transfer in SEB,
ii. To determine and distinguish the demographic classification of SEB staff and their perception towards tacit knowledge transfer within their workplace.
1.4 Theoretical Framework

**Independent variables**

Demographical characteristics
- Gender
- Age
- Length of service
- Job designation
- Level of education

Other independent variables
- Individual time management
- Common language
- Mutual trust
- Type of valued knowledge
- Relationship network
- Hierarchy
- Power
- Job rotation
- Reward
- Type of training
- Knowledge transference
- Organizational awareness
- Knowledge storage
- Environment for questioning
- Resistance to change
- Encouraging work culture on training and learning

**Dependent variable**

Tacit Knowledge Transfer within an Organization

Figure 1: Theoretical framework showing independent variables affecting tacit knowledge transfer within an organization
1.5 Research Hypotheses

The research hypotheses are listed down as below:

H1: There is significant correlation between individual time management and tacit knowledge transfer within an organization.

H2: There is significant correlation between common language and tacit knowledge transfer within an organization.

H3: There is significant correlation between mutual trust and tacit knowledge transfer within an organization.

H4: There is significant correlation between type of valued knowledge and tacit knowledge transfer within an organization.

H5: There is significant correlation between relationship network and tacit knowledge transfer within an organization.

H6: There is significant correlation between hierarchy and tacit knowledge transfer within an organization.

H7: There is significant correlation between power and tacit knowledge transfer within an organization.

H8: There is significant correlation between job rotation and tacit knowledge transfer within an organization.

H9: There is significant correlation between reward and tacit knowledge transfer within an organization.

H10: There is significant correlation between type of training and tacit knowledge transfer within an organization.

H11: There is significant correlation between knowledge transference and tacit knowledge transfer within an organization.
H12: There is significant correlation between organizational awareness and tacit knowledge transfer within an organization.

H13: There is significant correlation between knowledge storage and tacit knowledge transfer within an organization.

H14: There is significant correlation between environment for questioning and tacit knowledge transfer within an organization.

H15: There is significant correlation between resistance to change and tacit knowledge transfer within an organization.

H16: There is significant correlation between encouraging work culture on training and learning and tacit knowledge transfer within an organization.

H17: There is no significant difference in the independent variables towards tacit knowledge transfer within an organization between genders.

H18: There is no significant difference in the independent variables towards tacit knowledge transfer within an organization between age groups.

H19: There is no significant difference in the independent variables towards tacit knowledge transfer within an organization between lengths of service.

H20: There is no significant difference in the independent variables towards tacit knowledge transfer within an organization between job designations.

H21: There is no significant difference in the independent variables towards tacit knowledge transfer within an organization between levels of education.
1.6 Significance of Study

After understanding the critical impact of losing tacit knowledge in this demanding moment, it is important for the organization to start finding the possible solutions to it. Companies are increasingly intensifying their search for ways to transfer knowledge among their employees and prevent the loss of organizational knowledge (Bou-Llusar & Segarra-Cipres, 2006; Murray & Peyrefitte, 2007). However, without identifying the factors affecting the tacit knowledge transfer within the organization, employees will carry on with the current business operations as usual and continue following the past practices. Therefore, the findings of the study would be resourceful knowledge for the organization in further implementing the tacit knowledge transfer processes.

1.7 Limitations

The study is conducted in Head Office of Sarawak Energy Berhad, thus external validity cannot be tested. Another limitation is the subjective perception of the employees involved in relation to tacit knowledge transfer. The respondents were not necessarily conscious to view the organization in a whole picture while answering the questionnaire as they could be working under one section or doing the same scope of work all the while. This may lead to subjective perception of the employees towards the knowledge transfer situation in reality. In addition, the limitations of information available for the respondents while answering the questionnaire and the fact that the respondents work in a state-owned, rather than a public or private company may lead to the biased perception of the respondents. This could be caused by the norm of lacking in transparency in knowledge sharing or transfer within a state-owned organization.
Chapter 2  Literature Review

There are several definitions for knowledge. Some authors, such as Davenport & Prusak (2003), Glazer (1998) and Roberts (2000), maintain that knowledge is derived from information, in the same way that information is derived from data (Joia & Lemos, 2009). The data or information derived has to be stored properly for transference among users. However, the human being plays an essential role in transforming information into knowledge and this involves a level of understanding obtained via experience, familiarity and personal learning (Davenport & Prusak, 2003; Grover & Davenport, 2001; Leonard & Sensiper, 1998; Roberts, 2000). Since tacit knowledge is acquired through inner individual processes such as experience, reflection, internalization and individual talent (Grant, 2007; Haldin-Herrgard, 2000; Kim, 1993; Leonard & Sensiper, 1998; Nonaka & Takeuchi, 1997; Szulanski, 1996), the personal component is the determining factor for the sharing of tacit knowledge such as their demographical factors.

Hierarchical and bureaucratic organizational structures hinder communication, the sharing of information and consequently the transference of knowledge (Disterer, 2003; Collison & Parcell, 2004). As people work and integrate within an organization, organizational components can facilitate the spread of tacit knowledge (Disterer, 2003; Hansen et al., 1999; Nonaka & Takeuchi, 1997; O’Dell & Grayson, 1998; Sun & Scott, 2005). Therefore, factors associated to tacit knowledge transfer in an organization will be analyzed in accordance with the research and conceptual references adopted.
2.1 Individual Time Management

Time, as a scarce resource, should not be wasted, unless its application brings sufficient compensation to the organization (Davenport & Prusak, 2003). In fact, the transfer of knowledge requires the availability of time, which is lacking in today's rush business hours. Although working hours in organization is in increasingly short supply, technology makes an abundance of data and information available (Grover & Davenport, 2001). Consequently, individual management of time during office hours and after office hours becomes an important indicator for tacit knowledge transfer. This is also because of tacit knowledge is a direct result of experience and individual networking, which requires time. This knowledge transfer requires time for the exchange to be experienced and reflected upon (Fahey & Prusak, 1998; Haldin-Herrgard, 2000). Consequently, the first independent variable associated with tacit knowledge transfer is included in the study to find out whether or not people have enough time to share their tacit knowledge within the organization.

2.2 Common Language

Another significant factor associated with tacit knowledge transfer is the language used during personal interactions and conversations. There cannot be a breakdown of communication between receiver and source during tacit knowledge transfer (Szulanski, 1996). For a successful knowledge transfer, there has to be a common language used by both receiver and source. On the other hand, as tacit knowledge is stored in a non-verbal form, people are often unaware of the knowledge they possess or are incapable of expressing something that for them is natural and obvious, however qualified and experienced they are (Davenport & Prusak, 2003; Haldin-Herrgard, 2000; Leonard & Sensiper, 1998). Despite
that, the greater the experience the more tacit this acquired knowledge becomes, which increases the difficulty of putting it into words (Haldin-Herrgard, 2000). Thus, the second independent variable to be studied is to find out the ability of the people in the organization to express their tacit knowledge via a common language.

2.3 Mutual trust

In order for the tacit knowledge to be transferred successfully within an organization, it is important that a relationship of trust exists between the individuals, which must be developed within the social and cultural context in which they find themselves (Joia, 2006; Foos et al., 2006). The greater the trust between individuals, the lower the level of risks and uncertainties in tacit knowledge transfer will be (Davenport & Prusak, 2003; Roberts, 2000). Therefore, the establishment of the trustworthy relationship between colleagues is important in an organization. The third independent variable was created and included in this study to test the existence of mutual trust among individuals or colleagues that facilitates the tacit knowledge transfer within the organization.

2.4 Type of valued knowledge

Several forms of tacit knowledge, such as intuition and personal skills, are not considered of value by many organizations and their employees (Joia & Lemos, 2009). In some business areas, the more traditional forms of decision making related to logic and reason are preferred (Haldin-Herrgard, 2000; Leonard & Sensiper, 1998). This restrains the transfer and building up of tacit knowledge within an organization (Leonard & Sensiper, 1998). Likewise, many organizations value technical knowledge and the acquisition of knowledge, instead of sharing
it and disseminating it within the organization (O’Dell & Grayson, 1998). Therefore, the research aims to study the type of valued knowledge by checking the acceptance by the members of the organization of the ideas and suggestions that are not supported by data and facts.

2.5 Relationship Network

The form of communication within the organization depends on the internal relationship network. The increasing interest in knowledge in recent years is also due to the difficulty encountered by organizations in discovering the whereabouts of the knowledge they need in order to be able to use it (Davenport & Prusak, 2003). Neither the receiver nor the source of the knowledge knows who might be needed or interested in the knowledge they process or who possesses the knowledge they needed or interested in. This may be associated with the difficulty of individuals to evaluate whether the knowledge they possess is valuable for their colleagues or not, mainly if they are less experienced. Therefore, the independent variable relationship network is included in the study to identify the individual in the organization that have the knowledge they need and those that need the knowledge.

2.6 Hierarchy

Some organizational bureaucratic factors can hinder the knowledge transfer process, such as a hierarchical chain of command, job specialization and standard procedures for each function, as well as inflexible organizational structure (Joia, 2006). The complexity of the formality in hierarchical levels in an organization makes the knowledge transfer and decision making processes inflexible and lengthy, hence, wasted time and resources. In this type of
organization, each division acts to achieve its own targets or Key Performance Indexes (KPIs) and rewards, obstructing the knowledge sharing. For tacit knowledge transfer to take place, people must be accessible when their knowledge is required, irrespective of their hierarchical position in the organization (Fahey & Prusak, 1998). This is what the new SEB foreign top management is highlighting and it emphasizes the weakness of our organizational culture. Hence, the accessibility or availability of people who possess tacit knowledge in an organization without considering their hierarchical position can be another independent variable in the study.

2.7 Power

The proverb “knowledge is power” is well-known, especially in current society where knowledge is a valuable asset in workplace and it often leads to situations where people who have rare or relevant knowledge enjoy a privileged reputation among their colleagues (Davenport & Prusak, 2003; Haldin-Herrgard, 2000). For those who transfer knowledge they possess, it could mean a loss of influence, superiority, professional respect and job security (Davenport & Prusak, 2003; Disterer, 2003; Szulanski, 1996). Thus, some people believe that they have more to gain by holding their knowledge than by sharing it (Davenport & Prusak 2003). However, the truth is that the value of knowledge is in its accessibility and use, rather than its ownership and control (Glazer, 1998). Thus, another independent variable is created to measure its relevance to the tacit knowledge transfer, which is to analyze the knowledge as a source of power within the organization.
2.8 Job rotation

The approach of rotating employees around the divisions, units or different departments is significant in transferring knowledge within an organization among its human power. The job rotation can help the staff not only develop social capital in the way of relationships, but also help them experience other work practices, which in turn can help them break out of silo mentalities (Haji, 2006). Thus, the research has included job rotation as one of the independent variables in the study.

2.9 Reward

In order to encourage employees to share their knowledge, they need to be adequately rewarded (Disterer, 2003; Szulanski, 1996). It is important to develop performance appraisal systems that take knowledge sharing into consideration (Joia, 2006). In order to establish a consistent culture of knowledge sharing, the use of financial incentives such as substantial gratuities, wage increases, promotion and so forth are necessary (Davenport & Prusak, 2003). On the other hand, systems that penalize those who make mistakes discourage innovation, which is the basis for the generation and transfer of tacit knowledge (Leonard & Sensiper, 1998). Therefore, the reward from the organization to members among the tacit knowledge transfer should be one of the independent variables to be studied.

2.10 Type of training

The recruitment of new employees, transfer of employees between divisions and the promotion of employees demand appropriate training, as early as possible, such that these employees become familiarized with their new activities (Joia, 2007). Organizations and
people often make mistake by establishing direct correlation between learning and training. Formal training, with classes and presentations facilitates the exchange of explicit knowledge (Nonaka & Takeuchi, 1997; Murray & Peyrefitte, 2007). This type of training is appropriate for codified knowledge transference, such as rules and procedures (Murray & Peyrefitte, 2007). On the other hand, more tailored strategies, based on personal contacts and demand more time, such as coaching and mentoring, are more appropriate for transmission of tacit knowledge (Disterer, 2003; Leonard & Sensiper, 1998). Hence, they are actually different in the sense that formal training under teaching is suitable for explicit knowledge transfer while learning under coaching and mentoring is suitable for tacit knowledge transfer. In this study, the relevance to tacit knowledge transfer with independent variable, which the organization prioritizes personal learning through appropriate type of training for its employees is to be tested.

2.11 Organizational awareness

Research study on level of knowledge awareness is important in every organization as it enables organizations to judge as to whether they are maximizing the potential of their knowledge (Haji, 2006). Without the sensitivity in knowledge awareness from the whole organization, the individual effort from the minorities in the organization would lack effectiveness and efficiency. Thus, the research questionnaire includes a study on the independent variable, organizational awareness on the importance of knowledge sharing.
2.12 Knowledge transference

The organizational strategy for knowledge transference can be focused on people or on the reutilization of codified knowledge (Hansen et al., 1999). The reutilization of codified knowledge requires the knowledge to be stored in a database so that the people within the organization have access and may use it (Hansen et al. 1999). In order to adopt this strategy, it should be stressed that technology does not work without the involvement of people, although it is important to be able to rely on technical support for the storage and transference of knowledge (Joia, 2007; O’Dell & Grayson, 1998). Thus, the study aims to test whether the independent variable, knowledge transference in the organization occurs mainly through the interaction of people.

2.13 Knowledge Storage

It is not surprising that most of the people today still think that technology is the answer to knowledge management and sharing (Syed-Ikhsan & Rowland, 2004b). When the management strategy on tacit knowledge transfer is geared toward explicit knowledge, the focus is on the knowledge storage in electronic database available to all the staff in the organization (Hansen et al., 1999). This strategy requires high investment in database systems. However, investment in information technology is not really appropriate for the personalized strategy as tacit knowledge is seldom open to codification (Joia & Lemos, 2009). Organizations mostly rely on the accumulated experienced of their employees, since knowledge is related directly to the person who developed it (Joia, 2007; Hansen et al., 1999; Leonard & Sensiper, 1998; Nonaka & Takeuchi, 1997). Therefore, it is significant to study the impact of independent variable, knowledge storage that seeks to check if the
organizational knowledge is effectively stored in the people in the same work culture and environment.

2.14 Environment for questioning

Working under a discouraging environment to express and try out different opinions and ideas can jeopardize the tacit knowledge transfer within an organization. Since tacit knowledge is obtained through personal experience and interaction between people, this type of work culture and environment jeopardizes the emergence of innovative ideas (Disterer, 2003). As the member of the same work culture or environment get to know each other well and develop a trustworthy relationship among themselves, they manage to deal with conflicts and different views better, thereby enriching knowledge (Sun & Scott, 2005). Besides, an environment where people can admit that they do not have certain adequate knowledge and where they can also disagree with the others’ views is important for knowledge transfer (Cross et al., 2001). Thus, the environment for questioning also included in the study as one of the independent variables.

2.15 Resistance to change

People analyze their environment support when forming the organizational culture is a critical factor that affects knowledge transfer (Donaldson et al., 2005). Research supports that persuasion or support through social environment leads to effective knowledge transfer (Donaldson et al., 2005; Jashapara, 2003). When individuals are embedded in a strong work culture or environment, they are motivated to share knowledge more freely (Wasko & Faraj, 2005). Therefore, changing people’s behavior to share knowledge is one of the most difficult
issues in managing knowledge in an organization (Syed-Ikhsan & Rowland, 2004b). In addition, the study is aimed to include the resistance to change as one of the independent variables in affecting tacit knowledge transfer.

2.16 Encouraging work culture on training and learning

Organizations should facilitate employees drawing on their own past experiences to harness and share knowledge (Das, 2003). For instance, effective training programs may promote sharing past successful knowledge, sharing experiences and uncovering related skills that can enhance tacit knowledge transfer, such as emotional intelligence, empathy and active listening skills (Endres et al., 2007). Thus, encouraging working culture or environment on training and learning is important in tacit knowledge transfer within an organization and also included as one of the independent variables in the study.

Table 1 shows the independent variables created by previous researchers that will be used in this research to evaluate the relevancy of affecting tacit knowledge transfer within an organization and the bibliographic references that support the choice of independent variables.

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