TACIT KNOWLEDGE MANIFESTATIONS IN AN INSTITUTE OF HIGHER LEARNING

Haryani Haron
Prof. Dr. Rose Alinda Alias
Faculty of Computer Science and Information Systems
Universiti Teknologi Malaysia (UTM), 81310 UTM, Skudai, Johor
Tel:075532212, Fax : 075532210
Email : harya265@salam.uitm.edu.my
Email : alinda@utm.my

ABSTRACT

Organizational knowledge, the most important resource in an organization, constitutes of many types of knowledge. The objective of the study is to understand the nature of organizational tacit knowledge, focusing on its manifestations in an institute of higher learning. This paper viewed organizational knowledge in taxonomy of the diffusion of knowledge and the degree of tacit ness. Both dimensions are viewed along a continuum. A conceptual organizational tacit knowledge framework is used in collecting the data for this study. Data are collected through interviews with scholars in an academic institution. This study uses the if-then-because methodology in analyzing the data. A total of twenty one items, served as indicators of tacit knowledge is identified. Seven categorizations of tacit knowledge manifestations in an institute of higher learning are extracted from the indicators collection.

Keywords

Organizational Tacit Knowledge, Tacit Knowledge Manifestation, Organizational Tacit Knowledge Taxonomy, Organizational Tacit Knowledge Framework

1.0 Organizational Tacit Knowledge

In the knowledge-based theory of the firm, the most important strategic resource for an organization is knowledge. The application of knowledge in an organization creates new knowledge that leads to competitive advantage for an organization (Grant, 2002; Zack, 1999). However, knowledge within a firm or organizational knowledge is a wide-scope concept. It involves people and context, depends on people's value and assumptions that leads to its behavior, decision and action in a specific context (Guzman and Wilson, 2005). Nonaka and Takeuchi (1995) define organizational knowledge as what is commonly known within a group of people associated with the organization. Common knowledge is knowledge shared among members of society entity, and also known as "collective knowledge" (Baumard, 2001) and originates from the experiences of those in an organization (Dixon, 2000).   For Liebotwitz (1999), knowledge in an organization resides in human mind, organization, documents and can either be personalized or diffuse and distributed.

Organizational knowledge are made up of various types of knowledge within the organization Choo(1998).   Blackler (1995) suggested five images of organizational knowledges, which are embodied, embedded, embrained, encultured and encoded knowledge. Meanwhile, Boisot's (1995) topology of knowledge, consists of proprietory, public, personal and commonsense knowledge. Choo(1998) proposed three types of knowledge in an organization, tacit, explicit and cultural knowledge.   For Nonaka and Takeuchi (1995), there are tacit and explicit knowledge in an organization. Scharmer(2000), an organizational learning theorist, argues that there are self-transcending knowledge besides tacit and explicit knowledge. Spender (1996) recognizes Nonaka and Takeuchi's division of knowledge, tacit and explicit but argues that both knowledge can be viewed through the psychological or sociological perspective. Table 1 listed all the knowledge which contains more tacit than explicit elements, with theirs characteristics and authors.

Author	Knowledge	Characteristics
Blackler	Embodied	Action-oriented, Practical thinking,
	Embedded	Organizing routines, Shared norms, Relation-specific
	Embrained	Conceptual skills, Cognitive abilities.
	Encultured	Process for shared understanding.
Boisot	Personal Knowledge	Individual Knowledge
	Common sense Knowledge	Diffuse knowledge, acquired through socialization
Choo	Tacit Knowledge/ Implicit Knowledge	Individual knowledge, expressed through action-based skill
	Cultural Knowledge	Diffused knowledge, Shared beliefs, norms and values of individuals in an organization.
Nonaka & Takeuchi	Tacit Knowledge	Personal, cognitive and technical skill
Scharmer	Self-transcending knowledge	Reflection, imagination, inspiration, intuition in action.
	Tacit knowledge	Human action
Spender	Individual implicit knowledge	Individually-owned, ability of solving complex problem.
	Social/Collective Implicit Knowledge	Collective, enable organizational learning
Wiig	Goal-setting/Idealistic Knowledge	Determine goal and values.
	Automatic	Individually

	Knowledge	owned, unconscious, used to do jobs
Baumard	Implicit Knowledge	Articulated, can be collective or individual, do not wish to express
	Tacit Knowledge	Know but cannot be express.

Table 1 : Organizational Tacit Knowledge and its characteristics according to authors

Information in table 1 also shows the varying diffusion possibility among the knowledge. Some knowledge have a low possibility of diffusion and stays in individuals whereas some are the opposite and become collective. After critically analyzing organization tacit knowledge, this paper proposes an organizational tacit knowledge taxonomy based on the diffusion possibility and the degree of tacit ness of the knowledge. The framework x-axis, tacit ness should be viewed as a continuum, and not as a clear separation between the knowledge. The y-axis is the possible diffusion of the knowledge, also viewed in a continuum. Categories of tacit knowledge are based on the concepts of the tacit knowledge. There are four categories identified, practical tacit knowledge, cognitive tacit knowledge, social abstract tacit knowledge and social concrete tacit knowledge. Figure 1 shows the four types of organizational tacit knowledge along the tacit ness and diffusion axis.

DIFFUSION	Social Concrete Tacit Knowledge Shared practices, norms, shared behavior, shared expertise	Social Abstract Tacit Knowledge Shared values, shared meanings, shared beliefs
	Practical Tacit Knowledge Expertise in relation to know how, skill, practical know how, motor skill.	Cognitive Tacit Knowledge Mental models, insights, intuition, beliefs, values, ideals, schemata, vision, goal

Low   High
TACITNESS

Figure 1 : Organizational Tacit Knowledge Taxonomy Matrix

Organizational knowledge with high tacit ness need to be understood as it is the enabling knowledge in performing a task (Polanyi, 1962). Sveiby (1997) explains that the accomplishment of an activity requires focal and tacit knowledge, where tacit knowledge functions as the background knowledge in accomplishing a task. He treats tacit knowledge as a personal and socially constructed knowledge. Tacit knowledge has the goal-attainment values, the critical force that determines the success of a job performed (Wagner and Sternberg, 1985; Collins, 2001). Furthermore, Baumard (2001) stresses that expertise rests on tacit knowledge and is critical to daily management activities. Nonaka and Takeuchi (1985) summarizes that tacit knowledge is the root of organizational knowledge and must be shared within an organization for innovation.

The acquisition of organizational tacit knowledge is done informally and unconsciously or semi-consciously (Leonard-Barton & Sensiper, 1998). Many authors agreed that the acquisition of tacit knowledge is through experiencing and doing in the pursuit of knowledge performing different tasks and duties in different contexts and situations of his life. (Wagner and Sternberg, 1985; Koskinen, 2003 ; Reuber et. al., 1990; Choo, 1998). Tacit knowledge is the result tacit knowledge is the result of subconscious integration of explicit and tacit knowledge (Gore and Gore 1999; Johnson et. al., 2002).

Organizational tacit knowledge is expressed through action-based skills (Choo, 1998; Stenmark, 2000). Tacit knowledge manifestation can also be an ability in working as a group Collins (2001), or ability in solving complex problems (Gore and Gore, 1999). Van Krogh and Roos (1996) has the same opinion as Collins (2001) as they believe that tacit knowledge manifests in relationship, attitudes, information flows, and ways of making decisions that shape people's dealings with each other. As for (Koskinen, 2003), manifestation of tacit knowledge is in the form of evaluations, attitudes, views, commitments and motivation. Gore and Gore (1999) added that tacit knowledge expresses itself through perception or behavior of individuals.

Skills, abilities, personal characteristics and knowledge are the underlying attributes of a person which determines competency (Hoffman,

1999).   Pandza et. al. (2003) is in agreement with the opinion that individual skills, tacit knowledge and social relations that are embedded in an organization make up competencies. For Van Krogh and Roos (1996), competency has two dimensions, individual and social.   Individual competence requires individual knowledge to identify a task, and skills and abilities to solve it. Competence on the social level is attended by using social knowledge, shared on a group, and resolved using skills commonly available throughout a group. Therefore competence evolves through interplay between task execution and knowledge acquisition (Van Krogh and Roos, 1996). Drejer (2001) mentioned that the process of learning to become better develops competency. He added that individual or organizational learning is mostly informal (experiential and non-institutional) or incidental (unintentionally or by-product of other activities). Grant (2002) however views competency as collectively held knowledge and arises from integration of specialized knowledge.
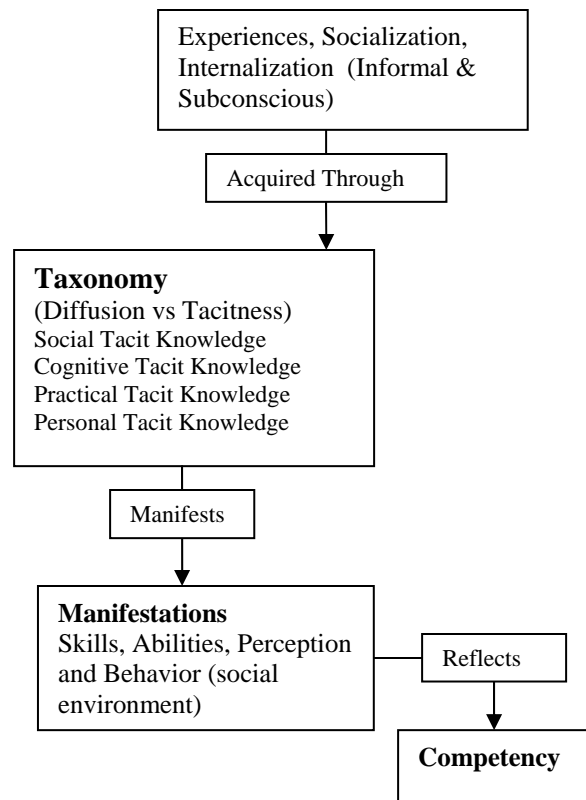

Figure 2 : Organizational Tacit Knowledge Conceptual Framework

2.0 Conceptual Framework Of The Study

Organizational knowledge constitutes of many types of knowledge, it has its own taxonomy. Taxonomy of organizational knowledge are based on two dimensions, the degree of tacitness and explicitness, and the degree of diffusion of the knowledge, both viewed along a continuum. Organizational tacit knowledge are acquired informally and subconsciously through experiences, socialization and internalization in the process of performing tasks. Manifestations of tacit knowledge are the skills, abilities, behaviors and perceptions of individuals in a social environment. This paper views competency as a reflection of the manifestation of organizational tacit knowledge. Based on the conceptual framework proposed, this study investigates the manifestation of organizational tacit knowledge in an institute of higher learning environment.

3.0 Methodology

This study investigates the organizational tacit knowledge manifestations in a public institute of higher learning environment. The design of the study is qualitative, where interviews are the primary data collection tool. Differing from the other qualitative nature studies, the analysis of the data collected utilizes a specific methodology in measuring tacit knowledge, the "if-then-because" methodology, which is developed by Horvath et. al. (1994) (in Tschannen-Moran and Nestor-Baker, 2004).

3.1 Data Sources

The population frame of the study is the professors in a public institute of higher learning. The population is chosen as it is recognized as the highest position in an academics environment and are considered scholars in an academic institutions. The interview process does not restrict the interviewee to speak only in English, because in expressing themselves, some prefers to use "Bahasa Melayu". Five academicians with the title of professors are interviewed in an informal, face-to-face, semi-structured interview which lasted between 45 to 90 minutes. They were asked to recall specific situations or incidents in their professional life that shaped their understanding, perception, views and behavior as a scholar. Among the issues discussed during the interviews are the actions taken to overcome or handle the situations and the underlying reasons for their actions. They were also asked to elaborate on the critical elements that contributed to their success or failure in their career.

A validation process is done immediately after the interviews ended. The process is done by paraphrasing the interviewee's comments in a scenario which consists of situations, actions taken and reasons for the actions taken. The validation process also allows a deeper probing in the comments given.

3.2 Data Analysis

The analysis process starts with the coding of the interviews. As mention earlier, this study uses the "if-then-because" methodology which extracts scenarios from the interview. The "if" portion of the methodology represent the condition or situation, the "then" part is the action resulted from the condition and the "because" explains the reason for the action taken (Horvath et. al, 1994). As mentioned in the conceptual framework, organizational tacit knowledge exists across a continuum from explicit to tacit. Tschannen-Moran and Neston-Barker (2004) supported the usage of the "if-then-because" methodology in evaluating the concept of tacit knowledge. Furthermore, the structural coding is helpful when dealing with tacit knowledge, a concept consists of individual and social processes in understanding and dealing with other people and psychology elements (Tschannen-Moran and Neston-Barker, 2004). In using the "if-then-because" methodology, scenarios are created based on the comments of the interviewee. The if-then-because wordings does not appear in the interviews but rather it is extracted from the interviewees' comments. Sternberg and Horvath (1999) stated that the comments are indicators of embedded tacit knowledge, but are not the exact representations of it.

An example of an interview caption is as follows, but it is an example of a more explicit caption. Most of the captions are very implicit in nature and spread out in long paragraphs.

> When I first started working, I was posted to a branch campus. The environment was focused only on teaching. Teaching is the focus, the main concern. There is

no research work. I come from a research background, having completed my Masters and later my PhD, research is my interest. I believe if you keep doing teaching, there is no progress. Academicians should do research to perform. I tried to ask for a transfer to the main campus, because I know research activities are quite active there. I tried many times but failed. Then I decided to find friends in the areas to do research. They are not only in the campus but also other organizations. I cannot really find people who want to do research. Most of them prefer teaching. The organizational environment also focus on teaching, your teaching load is like 18 hours to 23 hours. How do you squeeze in the research? I really wanted to do research, so I have to offset the time, find time after office hours to do research. I learned to surpass myself, and keep on working hard. In short, I have to prove myself that I can do it. Later, the research culture starts to come in. I managed to find some people from other organization who shared the same interest and started doing research. Meantime, I still applied for a transfer as I believe that I am better off in the main campus, in pursuing my research interest. Meantime, I don't waste time, I write books, I utilize my time in trying to do research. I still want to pursue my interest and try various ways in doing it. I know I have the constraints but for me, I decide for myself but the environment surrounding me.

Two scenarios of situation, action and reason are identified in the caption.

Situation : In a situation where focus is in teaching, very much wanting to do research but not many opportunity or channel to pursue the interest
Action: Apply for transfer, find friends to do research, meantime write books
Reason : Believe I decide for myself not the environment

Situation : In a situation where interest is not inline with the organizational culture
Action : Keep pursuing, learn to surpass and discover yourself
Reason : You must prove yourself first then people will recognize you

The scenarios are later converted into the if-then-because structure as follows.

IF in a situation full of constraints
THEN create opportunities through various ways
BECAUSE the way forward depends on you not the surrounding environment

IF have differences with the organizational culture
THEN stay true to your interest and learn to surpass yourself
BECAUSE you must prove yourself for people to recognize you

The if-then-because structures are later grouped together based on the themes that they reflect.

4.0 Findings And Discussion

The result of the study reflects a very rich collection of tacit knowledge in an institute of higher learning. A total of twenty-one scenarios or indicators of organizational tacit knowledge are identified in the study. The scenarios are categorized according to themes. A total of seven categorizations are identified. The categorizations are pursuing self-satisfaction, overcoming obstacles, establishing social relationship, coping with institutional expectation, coping with the professional demand, coping with constraints and coping with conflict.

One of the tacit knowledge manifestations among the professors is in pursuing self-satisfaction. Nineteen percent of the tacit knowledge indicators are in this category. Self-satisfaction is the reason most scholars seek new knowledge, make connections with other scholars and wanting to improve themselves.

Overcoming obstacles reflects the focus and dedications of the scholars in handling obstacles in their career. This manifestation contributes about twenty four percent of the tacit knowledge indicators.

The third tacit knowledge manifestation in an academic institution is in establishing social relationship. In this manifestation, scholars have the ability in identifying potential and collaborations. This tacit knowledge

manifestation comprises nineteen percent of the tacit knowledge indicators.

Coping with institutional expectation is another manifestation of tacit knowledge among the scholars interviewed. The professors have to adapt with the institutions expectations, norms or setting that might not support their scholarly work. About five percent of the indicators belong to this manifestation.

In coping with professional demand, professors have to stay abreast of the discipline. They must have the ability to find ways and means to be well-informed of their subject-matter. Fourteen percent of the indicators are in this group.

Constraints exist in any situation. Coping with constraints is one of the manifestations of tacit knowledge in an institute of higher learning. Most of the professors interviewed do not treat constraints as a hindrance but work around it to achieve their goal. Only four percent of the indicators make up this group.

The last manifestation is coping with conflicts. They do have differences with other members in the organization. Scholars in an academic institution usually are assigned administrative work. Most of the conflicts happened when making decisions, and in following orders from the higher authority. Fourteen percent of the indicators are in this group.

5.0   Conclusion

The manifestations of tacit knowledge in this study are based on the comments made by five interviewees only. This may be a limitation for the study however as a pilot study, the results reflect a very rich knowledge in understanding tacit knowledge especially its manifestations in a public institute of higher learning. From the beginning process of interviewing, the interviewer faces the challenge of guiding the interviewee in narrating their story. Further probing helps in clarifying elements involved. In a qualitative nature of collecting data, the researcher realizes that she has to become an instrument in collecting the data, by narrowing down the information collected through a validation process. The validation process is done during the interview, rather than after the interview is transcribed. Lessons learned from capturing the elusive tacit knowledge among the

interviewees give important insights for the researcher in collecting data for the whole study.

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