The Tacit Knowledge Dimension for Knowledge Management in Higher Education Organizations

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ABSTRACT

Knowledge is the icon of the new economy. It is now touted as the most likely source of competitive advantage. Therefore, knowledge management (KM) is seen as an innovation with the potential to affect the whole of an organization's business. Being in the knowledge business, higher education organizations (HEOs) are not an exception to this imperative, more so when there is a long history of HEOs successfully adopting management philosophies from the business world. However, KM in HEOs has not caught the attention of mainstream KM researchers and this qualitative study was an attempt to fulfill this research niche. The purpose of this paper is to explore the nature of knowledge to be incorporated in the knowledge base of HEOs. A major mode of data collection in this study was through face-to-face interviews. Twenty lecturers were interviewed. The results demonstrate that the nature of explicit knowledge in HEOs relates to the organization, the people in authority, the various offices, bursary, library, faculties, staff portal, student portal, and other relevant information. Tacit knowledge is concerned with issues and matters relating to students, lecturers' beliefs towards teaching, interacting with members in the organization and managing organizational constraints.

Keywords: Knowledge Management, Higher Education, Knowledge, Tacit Knowledge
Introduction

KM constitutes an emerging discipline aiming to support enterprises in the new business environment where the notion of economics of ideas seems to be an important prerequisite for success and viability (Wiig, 1997). It is a management approach which is portrayed in the business literature as an innovation with the potential to affect the whole of an organization's business (Gooijer, 2000).

With the advent of the 21st century, it is virtually taken for granted that the socio-economic development of a society is becoming more and more dependent on the way knowledge is produced, transferred, and handled by that society. In view of their traditional role in the production, transfer, dissemination and handling of knowledge, higher education organizations (HEOs) are key socioeconomic organizations in any society. They are expected to come to grips with the need to develop new notions of learning and new structures for doing research as traditional notions and structures have gradually become perceived as outdated and inadequate for satisfying the needs of knowledge-based societies (Gornitzka & Maassen, 2000). This therefore, demands a new kind of higher education management; a management that is based on a solid understanding of the vital role of higher education and on management thoughts and practices prevalent currently in higher education systems in democratized and market environments (Mumford, 2004). One solution that has emerged to supplement this effort is the belief that business leadership and management models would improve the situation and give a stronger backbone to academic operations. If true, one has to look to solutions based on the experiences of knowledge-intensive organizations and specialist organizations.

If KM follows previous attempts to adopt business strategies then there should be some evidence of it in HEOs (Coukos-Semmel, 2002). It might therefore be reasonable to suppose that KM might have something to offer HEOs.

This paper is an attempt to fill the gap in KM research in HEOs which is rarely dealt with in the literature, with a view to setting a KM agenda for the future as “there is as yet no agreement on a model which distills the essence of KM, as “approaches with their roots respectively in information management and knowledge processing, and the social construction of knowledge and organizational learning converge rather untidily” (Rowley, 2000: 325). Moreover, the case of KM in the HEO sector in Malaysia is also something that is rarely dealt with in the literature. This research was an endeavor to bridge this gap too. Furthermore, an effective KM system can provide substantial competitive advantage for local HEOs. In this regard the results of this study are expected to serve as a reference guide for HEOs involved in KM projects or considering employing a KM initiative. As such, some pressing questions that would require urgent attention would be: What is the nature of knowledge that is to be incorporated into the knowledge base of HEOs? How is knowledge created,
shared and used in HEOs? What are appropriate people management strategies to be employed in HEOs for effective implementation of KM? In this paper the first of these is addressed.

**Literature Review**

For the purpose of this study, KM is defined as a framework or an approach that enables the faculty within HEOs in Malaysia to develop a set of practices to collect information and share what they know, leading to actions that improves teaching, learning and other related services. KM is described here as a process of collection of knowledge on best practices or lessons learned; the sharing of this knowledge with those who can use them; and the application of this knowledge for subsequent learning and innovation within and outside the classroom and/or the HEO.

In order to begin the KM process we first need to track down or acquire the knowledge that is available in an organization (Lee & Yang, 2000). In other terms, organizational knowledge should be the major constituent of the KM infrastructure which should be established within a company in order to facilitate knowledge leveraging activities (Mentzas, et al., 2001). Organizational knowledge exists in two basic forms: tacit and explicit knowledge (Blaauw & Boersma, 1999; Gottschalk, 1999; Herschel et al. 2001; Marwick, 2001; Nonaka & Takeuchi, 1995). From a KM perspective, both forms of knowledge are important for organizational effectiveness, meaning, an integrative framework that will enable a firm to effectively manage knowledge regardless of its dimensionality is required and because knowledge is industry specific, meaning different industries possess different kinds of knowledge, there is a need to find out the nature of both explicit knowledge and tacit knowledge in HEOs. Nonaka and Takeuchi (1995) divide human knowledge into two types: explicit knowledge and tacit knowledge. Explicit knowledge is systematic and easily communicated in the form of hard data or codified procedures. It can be articulated in formal language including grammatical statements. Others say that explicit knowledge can be expressed in words and numbers and shared in the form of data, scientific formulae, specifications, manuals and the like (e.g. Gottschalk, 1999); it is represented by some artifact, such as a document or a video, which has typically been created with the goal of communicating with another person (Marwick, 2001); it is knowledge that is observable and which can be embedded in tools, processes and rules; it is knowledge that is more tangible and which can be found in written documents (Roth, 2003).

In contrast to explicit knowledge, tacit knowledge resides in the human mind, behaviour, and perception (Duffy, 2000); it refers to hunches, intuitions and insights (Guth, 1996); it is personal, undocumented, context sensitive, dynamically created and derived, internalized and experience based (Duffy,
2000); it is mainly people bound and difficult to formalize and therefore difficult to transfer or spread. It is mainly located in peoples’ hearts or heads (Beijerse, 2000); tacit knowledge evolves from people’s interactions and requires skill and practice. Tacit knowledge is not available as a text and may conveniently be regarded as residing in the heads of those working on a particular transformation process or as embodied in a particular organizational context. Tacit knowledge is what the knower knows, which is derived from experience and embodies beliefs and values.

**Methodology**

In terms of the philosophical stance, this study is planted in a constructivist/interpretivist paradigm. In terms of ontology, this study is constructivist/interpretivist. Reality within this perspective is subjective and influenced by the context of the situation, namely the individual’s experience and perceptions, the social environment and the interaction between the individual and the researcher (Schwandt, 1994, cited in Punterotto, 2005). We believe that the participants – lecturers in HEOs in Malaysia - construct their reality and that there are multiple, equally valid, socially constructed versions of “the truth” in implementing KM in HEOs. In terms of epistemology, this study takes the constructivist/interpretivist stance. This position maintains that meaning is hidden and must be brought to the surface through deep reflection. Thus, a distinguishing characteristic of constructivism/interpretivism is the centrality of the interaction between the investigator and the object of investigation. This reflection can be stimulated by the interactive researcher-participant dialogue. The researcher and the participants jointly create or co-construct findings from their interactive dialogue and interpretation (Punterotto, 2005).

Further, proponents of the constructivism/interpretivism perspective emphasize the goal of understanding the lived experiences from the point of view of those who live it day to day (Schwandt, 1994, cited in Punterotto, 2005). This perspective advocates a transactional and subjective stance that maintains that reality is socially constructed and, therefore, the dynamic interaction between researcher and participant is central in capturing and describing the lived experience of the participant. Every lived experience occurs within a historical social reality. These experiences may be outside the immediate awareness of the individual but could be brought to consciousness (Herman, 1997, cited in Punterotto, 2005).

In this study, the researcher and the participants are viewed as having mutual influence on each other. The participant enlightens the researcher about the phenomenon under study and the researcher influences the participants through the probes used to help the participant explore his/her experiences.
The researcher's role is typically as a trustworthy reporter trying to uncover what the participant truly believes.

Constructivists/interpretivists maintain that the researcher's values cannot be divorced from the research process. The researcher should acknowledge and describe his or her values as a means to dialogue with the participants and not eliminate them (Ponterotto, 2005). Therefore, in terms of axiology, this study is constructivist/ interpretivist as it is believed that the researcher's biases are inevitable and do influence the understanding and analysis of data. The researcher intends to faithfully represent how the participants describe their experiences rather than communicate how the researcher experiences it.

Finally, with regard to the methods, this study takes the constructivist/ interpretivist stance. This study relies on naturalistic, highly interactive data collection methods given the need for intense researcher-participant dialogue and the need to be immersed over long periods of time in the participants' world. It strives to uncover meaning through words and text.

The nature of the research question posed is such that it cannot employ experimental or quasi experimental methods nor can it use quantitative techniques.

As stated earlier, constructivists/interpretivists, given their stance on the centrality of intense researcher-participant interaction and on the need to be immersed over long periods of time in the participants' world more often embrace naturalistic designs in which the researcher is placed comfortably in the community and day-to-day life of his or her research participants. Understandably, the constructivism-interpretivism paradigm provides the primary foundation and anchor for qualitative research (Ponterotto, 2005). This study employed a multiple case study design as it involved interviews with twenty lecturers from four HEOs. These multiple studies provided for exploring possible similarities or differences that would give insights into the basics of the variables under study.

Results

Explicit Knowledge

The data obtained revealed that the explicit knowledgebase of HEOs may consist of information about the HEO, the people who make up the top management of the HEO, the various offices, bursary, library, faculties, staff portal, student portal, and other relevant information. The results indicate that explicit knowledge in HEOs is characterized by its ability to be expressed as a word or number, in the form of hard data, computer files, documents, and standardized procedures and can be easily transferred and spread (Beijerse, 2000); can be easily stored outside the human mind (Martensson, 2000); can be specifications, manuals
and the like (Gottschalk, 1999); is more tangible and which can be found in written documents (Kogut & Zander, 1992 cited in Roth, 2003); can be captured and shared through information technology with reasonable accuracy (Seng et al. 2002); it remains with the organization even after its inventors or authors leave the organization (Choo, 2000).

**Tacit Knowledge**

All the participants had difficulty in articulating the tacit knowledge that they possessed, thus concuring with previous findings (e.g. Baumard, 1999, cited in Roth, 2003; Hansen, 1999; Kogut & Zander, 1992; Koh et al, 2005). This difficulty lay in the inability of the lecturers to determine whether or not the knowledge that they possess in relation to working in HEIs is explicit knowledge or tacit knowledge. The analysis allowed for the examination of multiple categories of tacit knowledge, and basically tacit knowledge, is concerned with matters relating to how to deal with students; lecturers’ beliefs towards teaching and learning; and interacting with members in the organization and managing organizational constraints. Some of the salient features related to the nature of such knowledge are given below.

**Students**

Students’ inability to communicate in public is one dimension of the tacit knowledge category, as a lecturer said, “I finish lectures 20 minutes earlier to provide opportunities for my students to see me personally at my office, to seek clarification on the material taught, knowing that they are too passive and shy to put forward questions in class. Dealing with them when they eventually come requires decisions that are context, culture and student specific, for instance, some students wouldn’t want me to look them in their eyes when I speak to them and if I do I would not get the response that I expect. This is not something that is learned from books, as it cannot be prescriptive.”

It was also pointed out that, “Lecturers need to find ways or strategies to minimize anxiety among students to get them into the right environment for learning, with a repertoire of experiences, insights, jokes and stories, maybe. This, we very often forget. Teaching students in a university doesn’t mean that the joy in learning should be sacrificed. It is not only important to know these but knowing when to use them is even more useful.”

Also stated was understanding that students possess and use different strategies to learn, as another lecturer said, “Students possess different learning strategies, knowing and realizing that students learn things differently from the rest of their friends is crucial. I have to know which strategy suits which student best in accomplishing a task. For instance, when writing their research report, many students do not have an idea of the structure and or content of a thesis.
But once they browse through a few theses the task becomes a lot easier. This, they don’t teach students in the research methodology class.”

Another dimension of tacit knowledge related to students is that, “Students have different reasons for sitting in the class. What motivates them is not similar across the board. Knowledge of what motivates my students helps me formulate my teaching and learning strategies.” Also, “Lecturers need to have interpersonal communication skills to get the learning material across to students. This requires a good understanding of learner psychology of course, but it has to be intertwined with personal insights gained through constant interaction with students.”

Other than that, reasons why students choose a particular university to continue their studies, knowledge of what is it that students specifically expect from lecturers, understanding of students’ culture and mapping it on the teaching and learning process, joy of learning from previous experiences as a student; from past teachers who were able to attract and sustain interest, and awareness that individuals come to class with a range of knowledge, deficiencies and varying attitudes were also mentioned as knowledge that is tacit. One lecturer said, “International students are more often overwhelmed by first impressions and find the different cultures here different but fascinating. Initially they may find the behaviour of the people unusual and unpredictable but with time they develop a sense of belonging, self-confidence and even humour.”

Apart from that, knowing, “Students have problems concentrating in a classroom, but they have no problem concentrating for hours on computer games on television and other interests. Perhaps they see no relevance in what they are expected to learn. These students therefore, have to be addressed as an individual, and this calls for a different approach”, was also said to be tacit.

When pressed with this question, another lecturer was of the opinion that, “My success in being able to promote a positive change in my students’ behaviour at the end of the day is a reflection of the effort that I have put in. This effort begins with the sincere desire to help my students. The desire originates from my heart and I extend it through the action and specific words I say to my students. This effort does not happen overnight. For some of us, this effort is a result of years of knowledge that we gather from our teaching experience. Therefore, we need to understand that learning is required not only of students but us as well. Those in the teaching profession have to understand that learning has to be embedded in a teacher and lived from day to day.”

It was also noted that, “When I was a post-graduate student I felt like my lecturers were speaking a different language. They wrote better than I did, obviously because they came from a larger experience base and exposure. So they were talking about experiences, and I can remember sitting in class and feeling like they were talking over my head. And the way the other students were maneuvering, I had no clue and that’s when I think that I really lost my confidence and was really scared and anxious. The whole first year I kept
thinking and I had no clue as to what I was doing. Many of my present students
are in the same predicament. If I don’t reflect on my time as a student and the
difficulties I had faced, I will definitely not be able to deliver effectively.”

Lecturers’ Beliefs Towards Teaching

It was mentioned that, “Most lecturers are not aware of the critical need to
explain the principles underpinning the theories that they expose their students
to. The reason for this is, the teachers having been taught badly themselves.
Education is a lot more than just obtaining a qualification. Experiences gained
while studying help build a student’s character which can be a huge asset when
trying to enter the workforce.”

The knowledge of specific approaches to teaching that are applicable to
particular classroom situations, for instance, “When I teach writing, I draw
upon my personal experience as a writer in the academic context where one has
to make many, many, decisions quickly drawing upon not only the knowledge
of the language but the conventions of academic writing – when I can deviate
from the norm and when I should not.”

It was felt that knowledge of what it takes to complete a course successfully
is also tacit. “I have an MBA and only I know what it takes to successfully
complete the course because I have ‘gone through the mill’, so to speak, and
this knowledge is not described in the course content and neither do they tell
you about it at the registration briefing.” Another form of tacit knowledge is,
“Teachers need to be trained in the psychology of control, to introduce
incentives and rewards for acceptable student behaviour. The incentive of
exam success alone does not work.”

Another lecturer said, “We need to re-examine our priorities. We must take
teaching a step further, to improve the depth and quality of instruction, not
increase quantity of hours. A student’s achievement should be based on 50% on
exam results and 50% on practical application of knowledge. There should
be field trips and excursions and experiments with technology. We must make a
paradigm shift to produce creative graduates. If the present situation persists
we will not be able to produce an Einstein, let alone see a Malaysian winning a
Nobel prize. We cannot change our classrooms until we change our vision,
until we change the slanted perception of exams. We need to forget about the
horse race and about who came in first and who came in last.”

Also, the role of teaching has to switch from imparting knowledge to
preparing our students for employment. “We should be responsive to the
changing demands of work and life in the 21st century. We hear complaints that
universities prepare students for exams but not for real life and work. You know
employers are after people who can build and maintain relationships, work
productively in teams and communicate effectively. They want problem solvers,
people who take responsibility and make decisions and are flexible, adaptable and willing to learn new skills.

Managing classroom constraints, especially related to time and student inability to comprehend subject matter was also thought to be tacit. "The usual problem of not having enough time to cover the syllabus, compounded with the fact that many students are incapable of comprehending the material requires careful handling. This calls for anticipation on the part of the lecturer in preparing the materials and managing them in the classroom." In other words, it is about "managing student limitations and expectations."

**Interacting with Members in the Organization and Managing Organizational Constraints**

The participants also voiced out that knowing how to work their way up the career ladder is tacit, as one lecturer said, "In an organization as large as this, I must know how to strategize for promotions. Many people do many different things and are doing it fast. If I am to beat them to it then I must know what exactly people up there are looking for. This, they don't tell you explicitly. You need to get to the right person and at the right time to know it."

Interacting with other lecturers is also believed to be tacit, as noted by one lecturer, "We have different types of people whom we interact with everyday. Knowing how to interact with them is of course very important. For instance, when I speak to a professor I can't be talking the way I do with you. There are certain 'conventions' that you pick up along the way and these cannot be applied to all professors in a blanket way, because many of them are very particular about protocol. I need to understand these people as 'distinct' human beings. I need to employ separate, distinct, interaction strategies. These, I can't read from books."

In the same regard, "To gain the trust of my colleagues and their confidence in wanting to work with me is something that we require earnestly. It is established as we live our daily lives in the university. Some days we agree, we give and take, some days we don't. Choosing the right people to work with is also important. Accepting them, understanding them -- their strengths, their weaknesses -- calls for tact and diplomacy. These are real world conflicts that we need to encounter and solve. These are intricacies that we need to master and it is learnt in the real world, not in classrooms. These are things we teach and learn from each other in real time. These are things we need to impart to our students and colleagues in real time and in the real world."

It was also mentioned that, "One of the difficulties I have is that I very often find myself not having much in common with my senior colleagues who consider themselves entitled to the privileges that they are enjoying. Life is hard. And I have to somehow, with hard work and breaks, just try and hold my own in this organization. These people are privileged, have an easier trail and
can adopt an attitude of superiority pretty quickly and not recognize how hard it is for many people like me to stay above water and achieve success. But I have to learn how to cope by being patient and working even harder with more determination and persistence. I have learned how to act as if it is not important to be a senior and being one is not important to me but deep inside I pursue my ambitions with a vengeance.”

One lecturer said, “Experience teaches me that in dealing with undesirable conditions I must come to terms with myself and learn to deal with my failures and frustrations; a challenging task indeed. Yet, I believe this to be the very foundation of a more productive life. I accept that not everything can go my way. I recognize the fact that as a working member of a university I am bound by its vision and mission not mine. I learn to accept that I cannot make others give me what I desire and that not getting what I want is part of life and living.”

The lecturers also mentioned “managing organizational constraints,” especially those related to infrastructure. “We normally do not get what we want when we need it.” For instance, as one lecturer noted, “I do not have access to a printer in my room. I know people who use it as a reason for delaying work that needs to be done. I have organized two conferences using the printer in the lecturers’ common room. I did not use the absence of a printer in my room as an excuse not to get the job done.” This attitude or knowledge if you want to call it comes with experience. The usual complainants are the newer lecturers, if you care to note.”

**Conclusion**

The nature of tacit knowledge extracted from these HEOs supports existing theory in the literature about the existence (Clark & Rollo, 2001) (that there is this knowledge that is tacit residing in lecturers in HEOs) importance (Baumard, 1996; Nonaka & Takeuchi, 1995) (it is an important source of HEO excellence) context dependant (Marakas, 1999) (it is not independent of the HEO and its members) resides in the human mind, behaviour, and perception (Duffy, 2000) (it is a result of insights gained over a long period of time and is latent in lecturers in HEOs), located in peoples’ hearts or heads (Beijerse, 2000) and not found in manuals, books, databases or files (Smith, 2001), subjective insights, intuitions, and hunches (Guth, 1996; Nonaka and Konno, 1998) (tacit knowledge residing in lecturers is subjective in the sense that no two lecturers perceive the knowledge about the various dimensions in HEOs similarly at the same time), typically takes the form of “know how”, as opposed to “knowing that” or “knowing what.” (Sternberg et al. 1995) (tacit knowledge residing in lecturers relates to matters pertaining to the manner by which a problem is overcome). The results also conform to nine categories of tacit knowledge as outlined by Prasarnphanich (2005), specifically, establishing trust, establishing credibility,
managing constraints, managing expectations, selecting internal team members, resolving conflicts, communicating, tasks administering, and eliciting cooperation.

From the discussion in this section, it is evident that the nature of tacit knowledge in HEOs, as envisaged by the respondents, relates to students, lecturers' beliefs towards teaching, interacting with members in the organization and managing organizational constraints. It has to be noted also that a technical orientation or subject matter/disciplinary knowledge is absent from the tacit knowledge dimension obtained from the interviews, meaning, lecturers did not articulate subject matter or discipline specific issues as related to the tacit knowledge domain. This may probably be due to the fact that students' inability to master the fundamentals of learning, lecturers' beliefs about teaching and learning and how organizational members interact and manage organizational constraints are viewed as requiring urgent attention and as crucial in HEO KM efforts.

References


