Sharing is Caring. Why do We have Barriers in Knowledge Sharing?

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ABSTRACT

Knowledge can be seen as an intangible asset which is unique, path dependent, causally ambiguous and hard to imitate or substitute. It grows and multiplies when it is shared, and these characteristics make knowledge a potential source of competitive advantage and, consequently, the target of managerial attention. However, barriers in knowledge sharing are commonly occurring issues in any knowledge management initiatives organization. Often they are manifested in different ways either from internal or external factors or from human to physical aspect. The purpose of this study is to explore what deters individuals from sharing and why it occurs in the light of teaching profession in the context of schools. A qualitative method is used to seek for the answers involving in depth interviews to twenty secondary school teachers. The analysis provides some evidence for barriers to knowledge sharing which were not restricted to technology but also included the social and physical environment of schools. Essentially it may enhance understanding of the complexities of knowledge sharing behaviour.

Keywords: Knowledge sharing, sharing barriers, teacher, school

INTRODUCTION AND BACKGROUND

Knowledge can be seen as an intangible asset which is unique, path dependent, causally ambiguous and hard to imitate or substitute. It grows and multiplies when it is shared, and these characteristics make knowledge a potential source of competitive advantage and, consequently, the target of managerial attention. However, barriers in knowledge sharing are commonly occurring issues in any knowledge management initiatives organization (Walsham, 2001; Riege, 2005; Evgeniou & Cartwright, 2005). Often they are manifested in different ways either from internal or external factors or from human to physical aspect. As knowledge management becomes more important, there is an increasing number of initiatives and studies of the obstacles to knowledge management. The impediments to knowledge management have been analyzed under a wide range of headings and suggest that problems in implementing knowledge management are substantial. Some researchers for example note the barriers as organizational, team/group, and individual (Jordan & Jones, 1997; Bollinger & Smith, 2001; Walsham, 2001; Peter & Scott, 2005), knowledge and power (Quinn, Phillip & Sydney, 1996; Walsham, 2001, McKinlay, 2002). Others categorize the pitfalls into behavioural, process and organizational categories (Evgeniou & Cartwright, 2005). Several other studies would prefer to classify as technology, cultural, content and structure (Chua & Lam, 2005; Adel, Nayla & Yasmeen, 2007), culture (McDermot, 1999), individual, organizational and technology (Riege, 2005; Tsung-Yi-Chen, 2009).

Knowledge and power, inequalities of status, and perceived lack of job security are some examples of potential knowledge sharing barriers (Reige, 2005). According to Walsham (2001), Foucault noted the inseparability of knowledge and power. Knowledge is linked to power due to its ability to make individuals influential and enjoy status in the organization. Individuals may be reluctant to share their views openly because they are concerned that sharing knowledge will reduce their job security, and they may be uncertain about the sharing objectives and the intentions of senior staff (Lelic, 2001). However workers who felt threatened by competition from colleagues might reduce their knowledge sharing. Conversely, employees might develop guilt if they refused to share their knowledge (Wang, 2004). At some point, lower and middle level employees would rather reserve their knowledge than share it with others, due to fear of not being promoted by their superior if they appeared to be more knowledgeable than them (Reige, 2005). This may happen with people who are operating in their "comfort zone" (Peter & Scott, 2005) or within the limits of their economic and psychological well-being and their social status.

Suzlanski (2003) similarly provides an example from the point of view of givers and recipients. People on the source side may hesitate to share their knowledge for fear of losing ownership, a position of privilege, superiority, the lack of sufficient rewards, or because they lack of time to communicate. On the other hand, recipients are reluctant to accept new knowledge from external sources, if they think it will bring threats or burden them. Other reasons could be; the inability to exploit outside resources of knowledge, which refers to the individual's absorptive capacity or the inability to retain the newly acquired knowledge within the organization. These in the end will increase the "stickiness" of knowledge sharing among members, and will more quickly impede managing knowledge in the organization.

Evgeniou and Cartwright (2005) highlighted the problem of "newcomer syndrome" in knowledge sharing. The good things about newcomers are generally that they are enthusiastic and likely to bring fresh ideas into an organization. Some of them are eager to try new theories and put them into practice. Certainly, they have good intentions and creativity but they maybe lacking the bigger picture whereby information can be abused, possibly unintentionally. New findings or outcomes could be a danger to the organization and jeopardize operations. On the other hand, individuals may not want to share what they know due to insufficient understanding of the benefits of doing so, or because they cannot manage to integrate such tasks into their experiences, or learn to use the available information systems. Some may fail to see a personal benefit from sharing their knowledge and also may perceive insufficient support from top level management to apply new ideas to their work (Carbrera & Carbrera, 2002). Another common impediment to knowledge sharing is time constraints (O'Dell & Grayson, 1998). Most people at work have restricted time due to the amount of work and tasks that they have to complete on a daily basis. This has become a very strong reason for their not spending time with others to share knowledge. As such, the time to share knowledge can be seen as a cost factor, if they are not busy doing something, they are perceived as not working productively (Reige, 2005).

Impediments to knowledge sharing can also be viewed from an organizational perspective. On an organizational level, barriers are primarily bound in the entire system of the organization. For example, some studies have shown that an open and flexible organizational structure supports the sharing of knowledge (Nonaka & Takeuchi, 1995; de Long & Fahey, 2000). Knowledge sharing seems less likely to occur in a highly structured, multi-layered hierarchy as compared to a flat organization structure, or focused on project teams where communication flow is not restricted in one direction (O'Dell & Grayson, 1998). Other studies postulate the lack of informal and formal mechanisms in sharing strategies in the organization. Some argue that people tend to share their knowledge in small and formal groups of people because they are self-contained and can discuss specific topics in detail. With this mechanism people have more responsibility to conduct and share their knowledge (Marinah, Ramlee & Omar, 2013). In contrast, knowledge sharing does not necessarily need to take place in a formal group to succeed, because many people can collaborate, share information and teach one another naturally in an informal environment. They have more freedom and no fear to express, talk about and share their ideas and thoughts when not in the presence of superordinates (McDermot 1999; McDermott, Carlin & Womack, 1999; McDermot & O'Dell, 2000).

Another aspect of organization which could become an impediment to knowledge sharing is culture. Culture refers to basic assumptions, values, norms, attitudes and convictions that people hold throughout their long learning process. Once individuals join any organization, they have to adapt to the culture of the workplace. The behavioural patterns that are encouraged, discouraged or allowed in an organization also reinforce a certain set of values. It is rare for an organization to have a single uniform culture because every person is exposed to a range of incidents and influences which reinforce or discourage certain behaviours and values. People who wish to belong and to be accepted will work towards acceptance and those who do not will just be ignored (Debowski, 2006). This is one of the reasons why in every organization a range of subcultures will emerge. These subcultures operate independently of the overall publicly stated culture, making it more difficult to build collective practices and processes. This is consistent with de Long and Fahey's (2000) study in which they concluded that subcultures often guide members to define and value knowledge differently and may result in miscommunication and conflict between groups or teams. Team members may be reluctant to share knowledge if they fear criticism from their peers or recrimination from their management. Sometimes group efforts tend to be subverted due to lack of respect, trust and common goals (Bollinger & Smith, 2001).

Lack of managerial direction and leadership are also a contributory factor to knowledge sharing limitation. It is a challenge to leaders to create a knowledge sharing environment where people may want to share what they know. A leader cannot expect people to share their thoughts and ideas just because it is the "right thing to do". They need to encourage subordinates not to hoard ideas, especially tacit knowledge, for fear of their being stolen (Reige, 2005). Giving incentives and recognition encourages people to share their knowledge. Based on this assumption some profit making companies introduce it as a criterion of performance evaluation. Even non-profit organizations may apply the same trend in their systems to function as a motivation for their employees. Some would argue (for example, O'Dell & Grayson, 1998; McDermott, 1999; Michailova & Husted, 2003) that the reward system rarely has an effect on

enhancing knowledge sharing because this process needs to be spontaneous. The use of encouragement, stimulation or incentives is inadequate in an environment that is hostile to sharing, due to the fact that these reward systems are intermittent and do not increase motivation for knowledge sharing in the long run. Another potential backlash of this kind of reward competition is when individuals or groups have developed a high degree of recognition; sometimes it can restrict new ideas or knowledge sharing across the organization, simply because of self-interest, conflicting goals or competing interests (O'Dell & Grayson, 1998; Michailova & Husted, 2003; Sayyed Mohsen Allameh et al., 2012).

Regardless of the size of firms, or of the type of technologies that they have, knowledge sharing practices will depend on information technology infrastructures which include numerous options of software and providers. Technology's role as an enabler is undeniable and it offers a lot of enhancement to support data capture, storage, retrieval, search, presentation, dissemination and reproduction. However, mismatches between software offered and employees' needs could defeat the purpose of having technology (O'Dell & Grayson, 1998). The decision to use types of software in the organization is determined by the top management, however, it would be the end users who have to deal with any uncertainty that arises from using the technology. This too could create tension because sometimes the software used is not user friendly, or not compatible. These problems occur when existing hardware and software components suited for one purpose need to be used in conjunction with another system or in another location. Although most people are eager to use technologies, the familiarity or unfamiliarity of the systems could hinder the user. People may be caught in confusion as to what technology can or cannot do (Reige, 2005). It appears that sometimes the existing hardware just cannot support the newly produced software. System crashes can be just as frustrating as they are time-consuming and expensive. As everyone is aware, technologies develop at a rapid speed and maintenance and systems upgrading require a lot of financial support. As a result, malfunctioning technologies will inhibit people from using them as a medium of choice in sharing knowledge.

Thus, it is the intention of this study to explore the impediments to knowledge sharing activity particularly among teachers. Despite the way that teachers saw the school as an environment open to knowledge exchange, there were negative aspects of the ways in which managerial, technological and cultural factors could act as a barrier to managing knowledge. Because knowledge is possessed by individuals, barriers come from them might be in terms of fears about other people using their knowledge and uncertainties about how they should behave when passing on knowledge. Barriers to managing knowledge partly reflect basic issues of management, technology and culture, but though some of the barriers fit well into the basic issues others are an overlapping or a causal effect from one issue to another.

METHODOLOGY

The purpose of this study is to explore what deters individuals from sharing and why it occurs in the light of teaching profession in the context of schools. By using a purposive sampling, a total of 20 teachers were selected to participate in this study. Respondents were selected from various schools in the state of Perak, Malaysia. The interview approach is used to gain insight into teachers' understanding, rationalizations and arguments on the barriers to knowledge sharing. The protocols are using semi-structured questions that help the respondents to focus in the issues of knowledge sharing. Background profiles of the interviewees were presented in Table 1. There were ten males and females respectively. Each of them has a vast experience in teaching ranging from six years to 32 years or working experience. The interview duration took place roughly from 60 minutes to 90 minutes per individual.

Table 1: Respondents Background

No	Position held	Working Experience (years)	Age	Gender	Duration (minutes)
1	Physical Exercise Teacher	9	32	Female	51
2	Senior Assistant (co curricular)	25	47	Male	78
3	Senior Principal	32	56	Female	90
4	Subject coordinator	32	56	Male	82
5	Language Teacher	5	27	Male	58
6	Head of Department	18	43	Female	65
7	Senior Principal	32	56	Male	75
8	Geography teacher	20	42	Male	55
9	Senior Assistant (Student's affair)	25	47	Male	63
10	Head of Department	6	32	Female	58
11	Religious study Teacher	13	37	Male	50
12	Principal	31	55	Female	70

13	Head of Department	18	45	Female	70
14	Language Teacher	7	30	Female	60
15	Science Teacher	15	40	Male	75
16	Geography teacher	10	38	Male	68
17	Subject Coordinator	16	40	Female	80
18	History Teacher	13	39	Female	60
19	Subject Coordinator	20	43	Male	62
20	Science Teacher	16	40	Female	65

FINDINGS AND DISCUSSIONS

Data from the interviews has revealed a few evidences showing how management, technology and culture can have a deterrent effect on knowledge sharing activity. Such barriers may exist in any working environment and constitute the pitfalls that arise out of various work pressures. Teaching as has been indicated involves high pressure activities in relation to getting through the syllabus. Students needed this for exams and these pressures could affect knowledge activities like sharing. The interviews data also postulated some emerging patterns which can be categorized as functional boundaries; technology and bureaucracy; culture and knowledge uncertainty.

Functional boundaries

Functional boundaries are likely perceived as barriers in knowledge sharing activity in knowledge management initiatives. Although the impact seems to be minimal yet it still contributes in its own way. The main barrier for functional boundaries is related to the use of space in a school's environment. It is a normal practice in schools that teachers are grouped or put together according to the department that they are attached to. Seating arrangement in staff rooms is quite important as it may affect the social interaction and knowledge activities among teachers. For those who are teaching more than one subject, they have the choice to be in which department they want. There is also a surprisingly strict degree of social structuring that occurs in staff rooms in terms of the patterns in which teachers sit together in groupings dictated by subject. This concentrates their communication within subject specialisms, but restricts wider interaction. This is important because staff rooms are probably the main area for social and work communication among teachers.

Nevertheless, the seating arrangement in staff rooms is basically not a mandatory administrative decision, instead it was an example of unwritten rule created by the school administrators for the convenience of the respective teachers. As mentioned earlier, seating arrangements may serve as a platform to teachers who teach the same subject because they might take the opportunity to discuss, learn and share information and knowledge. On the other hand, departmentalization may also create a functional boundary which in a way restricts the social interaction among teachers especially across subjects. Furthermore, teachers are always busy with their workload of teaching and administration work and being in a different room will not make things any better.

Similar to other schools, this school has a unique sitting arrangement where they are so compartmentalized. We are placed according to gender, seniority, position so everyone has their places or separate rooms. As a result, the teachers in the staffroom tend to feel clustered so they would choose to sit with their clique. In addition, when they want to speak or discuss with their superiors, these teachers would find it a hassle to go to their respective rooms or office and it disheartens them whenever the person is not there. So, they rather share there problems with their colleagues or person seated next to them, and these create limitations to knowledge sharing (# 8).

Thus, apart from having busy and tight teaching schedules, teachers have to abide by protocols and procedures due to the hierarchy of power. Individuals were seated according to their hierarchical position by locating them in a separate private room. This pattern continues reflecting the seniority, subject and peer segregation in the big staff rooms where the rest of the teachers were seated. Therefore, the effect of bureaucracy uses special arrangements to decrease the possibility of social interaction and knowledge sharing among staff.

Technology and Bureaucracy

Investing in a knowledge management system is indubitably expensive. However, due to the demand to accelerate information processes and knowledge driven, there is a great need for schools to comply with these changes. Simultaneously, schools need to intervene in order to control resource usage. This can create tension and inconvenience among users. It is a common feature for the public sector to be portrayed as being rigid, having lots of red tape and run in strict accordance with rules and regulations. In a management environment, bureaucratic and maintenance costs can be perceived as major obstacles. Most of the equipment such as the computers, notebooks and printers have a limited warranty period. Any expenses for repairs or breakdown of parts after the warranty period are usually borne by the Ministry of Education as well as the school. Computers that need to be repaired should be

sent to the registered computer vendors only. If the Ministry does not approve the computer vendor, payment cannot be made and it will delay the process. Sometimes because of red tape, even the registered computer vendors also had to delay their job.

As for maintenance of the computer our school appointed one particular company to handle it. According to the procedure they will do maintenance, service and repairs of the computers within 48 hours after receiving any complaints. However, it has been three months since our last complaints but they still have not turned up. The bureaucratic red tape to maintain the computers that usually take time and incur delays are disruptive to our work. On top of that, many of the computers are out of order leaving only 16 units that are usable (#5).

There were not enough computer rooms or labs. Then, the Ministry of Education gave us financial aid to upgrade our rooms and buildings to accommodate a computer lab. However, it is not as easy as it sounds, there is a lot of red tape and bureaucratic elements behind the scene. The next barrier was the expertise. It took some time to train teachers to be skilled in computers and activate the teachers to function the smart way. Then, just like other schools, in between, we had our core business and responsibilities such as teaching, co-curriculum and administrative work to complete which caused us to be quite exhausted by the end of the day. It is so frustrating for me as the ITC to see how things are going (#16).

Therefore it is interesting to see how technology is not perceived as always providing the positive impact it is meant to, but paradoxically it can be seen as a burden (Ramlee & Marinah, 2012). This seemed to be a dilemma for schools and teachers as the main users. Teachers were divided along the lines of using the technology and dealing with the constraints. Result form the interview data noted that *"lack of time allocated to staff due to workload"* (#19, #11, #7) appeared to be the greatest impediment to knowledge management initiatives. The effects of time constraints and workloads both directly and indirectly was observable for teachers and schools as a whole and was likely related to the implementation of technology (Marinah, Ramlee, Flett & Curry, 2011). Teachers' views on not being able to create and share knowledge run parallel with the argument of there being two main reasons behind poor knowledge sharing: structural and normative (Fullan, 2002). A study on perceived barriers to sharing by Andriessen (2006), for example, also noted "*pressure of time*" as the main structural barrier to sharing. The finding indicates that when employees were under pressure of finalizing their work, sharing was more likely to be postponed to another time or even completely forgotten, even though they seemed to be motivated and capable of sharing. From the survey in this study, evidence of *"lack of time due to workload"* was noted from time to time by the interviewees. This was either due to pressure from trying to meet the "*needs of the curriculum and the co-curriculum*" *(#1)*, the *"unfriendly system"* (#20) or *"to cater for different needs and tasks from higher authority" (#4)*.

The normative reasons behind the barrier to sharing refer to the norms and values of the respective communities of practice, and here the picture becomes more interesting. Teachers have many similar competences because every teacher undergoes a similar training, receiving the same curriculum and most likely using similar methods of teaching to deliver the subject content. Thus teachers' skills are relatively homogenous due to the basic work knowledge that they have and the working environment that they are in. Based on that assumption, each teacher was expected to know their subject knowledge, hence need not to ask or share unless it is necessary. As noted by the interviewees in this study, some teachers will only *help when they are asked to* and they *share knowledge when there is a request* from others particularly from their superior. Being homogenous is considered standard and normal in schools but if teachers wanted to be distinguished from others they have to have additional knowledge than the basic subject knowledge. In contrast with situations where expert groups that have different skills, they have to interact and act jointly to perform well in their job. In such situations of mixed expertise there is often a conscious effort to integrate their knowledge and skills so they can share and learn more (Carlile, 2002). The school setting in contrast produced not really strong awareness in teachers that they were required to share knowledge, might be due to the relatively homogenous skills and knowledge they held.

However, there is also some resistance or apathy to sharing among teachers, even though they knew how important knowledge sharing was in facilitating their daily work. To some individuals knowledge was a valuable personal asset that has to be protected not shared. It can be used as a tool to develop and upgrade a person's career or to show superiority among the communities of practice. So whatever knowledge is given or discussed it was not always the full extant of knowledge.

Sometimes, some people do not want to share any knowledge at all. If they do, they do not give one and hundred percent of it. We are teachers, we can tell, whatever knowledge that they shared are knowledge that is universal or just common sense. They don't want to reveal too much. This is because they probably want to protect their patent or idea so that they are more superior to others. This is human nature and it is beyond our control (#6).

The basic reason for this attitude of protecting their knowledge is fear that someone might steal their ideas. Sometimes knowledge can also be a shield to protect the individual from being mistaken as ignorant. Some would

have the notion that they will lose their knowledge if they let it out so it is better to be quiet. Others would think to avoid voicing their suggestions or ideas no matter how good for fear of being asked to do the job. Teachers can only feel that they are different from the rest of their colleagues if they have something different to offer for instance having different skills in a special area (Friehs, 2003). As a result it would secure their position and maintain their reputation among their colleagues.

The trend among teachers is that they do only when they are asked to; they help only when they are asked to and they share knowledge only when requested to. Not many teachers are willing to share their knowledge voluntarily unless they are unselfish. In this school, teachers do not confide in each other so they would use their own knowledge in their own teaching in class (#9).

However, this certainly does not mean there is no sharing activity among teachers. It only means that there are certain limits to knowledge sharing. They are also, after all, influenced by a moral injunction which sees knowledge as a public good. They may not want to be labeled as judgmental by their colleagues for not sharing their skills and experiences, when at the same time the school community is regarded as a close-knit unit that should be rather like a family. Teachers' hesitation about sharing might be due to fear of losing ownership, or to contain kinds of superiority or positions of privilege (Szulanski, 2003).

Knowledge uncertainty and culture

A majority of interviewees were trapped in the situation of knowledge uncertainty. A culture of uncertainty is about whether it was polite or acceptable to offer a solution especially in cases where they were junior or a new teacher up against senior teachers. For some reason they were in a state of apprehension which led them to be skeptical towards other parties over knowledge possessed either by themselves or others. This almost suggests an inbuilt assumption about knowledge that it has to be the right knowledge at the right time and provide correct solutions. Otherwise it is not "knowledge". These respondents were anxious about giving the "wrong knowledge" at the "wrong time" and an "incorrect solution" due to certain circumstances. Unlike in the case of altruistic behaviour, seniority was seen as part of this behaviourial relationship between junior and senior teachers. Junior teachers were more worried about their suggestions not being accepted due to lack of experience and being novices in the teaching profession. Junior teachers would feel inferior speaking in front of their seniors for fear of ridicule and criticism. As for the subordinates, they felt that their knowledge might be a "threat" either to themselves or their superiors. This was manifested in many ways as explained by these interviewees.

The junior teachers tend to be more reserved and careful even if they are more skilful and knowledgeable. This is because of our own undoing. The younger teachers fear that they may put off the senior teachers whenever they show new knowledge or skill. The juniors think that the seniors might get too upset with them for showing off just because they are new and fresh graduates from varsities. They are afraid that things could get worse when they produce good ideas that cause more work for the seniors. In this case, it is up to the ingenuity of the administrators to handle these juniors and control the situation (#12).

I am not sure if this is their natural way, faked or which teachers do not want to share their knowledge. In most schools there are two types of junior teacher. The first type of junior teachers are those who have just graduated from varsity while the others are the younger teachers transferred from other schools. Normally, the junior one would be treated as new, ignorant and young people who know book theories but lack experience. Their suggestions would be rarely heard or accepted. So they would rather be quiet no matter how much they think they know, except for a few bold ones who do speak up to be heard. While the second ones, are the quieter types or follow to suit the rhythm of the seniors without much questioning as they do not dare to rock the boat. They fear they might get comments like their suggestions might work in their previous schools but not in this school or that the suggestion is not the way things are done in this school. Such remarks dampen their spirits and put them off thinking further or give more suggestions (#15).

Data on reasons for not sharing knowledge identified some factors which may enhance understanding of the complexities of knowledge sharing behaviour. There appeared to be a tendency among teachers to sometimes resist or to be apathetic towards sharing knowledge although their members knew how important the knowledge was in facilitating their work. What made teachers fall into this trap appeared to be fear of criticism and feelings of insecurity about the value of the knowledge that they held. They were sometimes unsure about whether their contributions were important, accurate and relevant to the management and organization of their work. This seemed to lead to ambivalence towards knowledge and authority which occurred particularly in situations where the juniors or novices met senior teachers. This could be the problem of "newcomer syndrome" (Evgeniou & Cartwright, 2005) whereby juniors are eager and enthusiastic to put theories into practice and tend to forget that doing so can be very hard. As the interview data indicated, the senior teachers, who considered themselves as having advantages of experience and tacit knowledge, tended to prefer more concrete, reliable and workable kinds of knowledge, as against randomly

introducing fresh or regurgitated ideas. Hence, culture plays a role in influencing knowledge uncertainty between junior and senior teachers.

In this case, knowledge trepidation occurs as soon as individuals recognized their position or status in the social structure of schools. Knowledge becomes uncertain as a consequence of social status and of when and where knowledge could be considered as "right" or "wrong". Knowledge trepidation is likely to reflect a feeling of being "trapped" so much so respondents wanted to share their tacit knowledge but at the same time they often felt agitated in doing so.

CONCLUSION

Knowledge can be seen as an intangible asset which is unique, path dependent, causally ambiguous and hard to imitate or substitute. It grows and multiplies when it is shared, and these characteristics make knowledge a potential source of competitive advantage and, consequently, the target of managerial attention. Although sharing is portraying caring behavior but still there are myriad barriers to knowledge sharing across time and space. Barriers exist not just in the highlight of technology but also human and cultural aspect and simultaneously become potential levers of knowledge management initiatives in organization. Essentially it may enhance our understanding of the complexities of knowledge sharing behaviour.

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