Do Australian Universities Encourage Tacit Knowledge Transfer?

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Abstract: The purpose of this paper is to explore whether Australian universities encourage tacit knowledge transfer. In doing so, the paper also explores the role of managers (academics' supervisor) in promoting or hampering tacit knowledge transfer and the value given to new ideas and innovation. This study collected data by conducting interviews of academics in four universities and a qualitative narrative analysis was carried out. The findings suggest that universities generally encourage and facilitate the transfer of tacit knowledge; however there are some areas that require improvement. Avenues for improving tacit knowledge transfer call for open communication, peer-trust and unrestricted sharing of knowledge by managers. The study was conducted in four universities, hence limits the generalisability of the findings. This paper will contribute to further research in the discipline of tacit knowledge, provide understanding and guide universities in their tacit knowledge transfer efforts and in particular, encourage the transfer of tacit knowledge.

1 INTRODUCTION

Universities are knowledge institutions with knowledge embedded in people and processes. Universities are, also, an integral part of society and play a key role in knowledge transfer. In universities, knowledge is often tacit in the minds of academics thus making it difficult to spread through the university and its internal stakeholders, not limited to students and other academics, because of time and resource constraints. Tacit knowledge can be defined as skills, ideas and experiences that people have in their minds and are, therefore, difficult to access because it is often not codified and may not necessarily be easily expressed e.g. putting together pieces of a complex jigsaw puzzle, interpreting a complex statistical equation (Chugh, 2013). The role of academics is to convey and transfer their tacit knowledge into more explicit forms so that it is available for further reuse by the stakeholders.

A report prepared by PhillipsKPA (2006) for the Department of Education, Science and Training in 2006 showed universities are doing a lot for knowledge transfer through commercialisation of research, but less importance is placed on knowledge transfer efforts made by universities in passing their tacit knowledge to internal stakeholders who could be students and academic peers. If knowledge remains only tacit in the heads of a few individuals in an organisation, then the organisation is putting itself at risk and it is not always possible to move those few individuals around. However once tacit knowledge is converted into explicit, an organisation has a lower risk of losing its intellectual capital when employees leave the organisation (Davenport and Prusak, 1998).

Hence, knowledge management can be seen as a viable approach to resolve organisational issues such as competitive pressure (Cepeda, 2006; Prusak, 2006) and the need for innovation (Parlby and Taylor, 2000). Effective knowledge management (KM) also leads to reduced time to market, improved innovation, and improved personal productivity (Miller, 1996). The message that emerged from Loermans (2002) is that 'KM should focus more on the tacit component of KM rather than on its contemporary emphasis on explicit knowledge' (p.293). The focus on tacit knowledge is an indicator of its importance in modern organisations who have constantly concentrated their efforts on explicit knowledge alone. Social and human factors are seen as key indicators of the preparedness of individuals to share tacit knowledge (Goh and Sandhu, 2013).

It is evident that tacit knowledge sharing is important for universities. In a variety of contexts, researchers have recognised the role of organisations in encouraging the transfer of tacit knowledge (Smith,

2001), the role senior managers and leadership can play in promoting tacit knowledge transfer (Lin and Lee, 2004), and significance provided to innovation (Foos et al., 2006). However, such research around academics' views in universities is still in its infancy. Accordingly, this paper seeks to contribute to the existing scant literature and fill the gap by enhancing our understanding of the extent to which academics' workplaces (universities) encourage the transfer of tacit knowledge, specifically in an Australian context, and identify some of the associated challenges.

Since most organisational knowledge is tacit in nature, the sharing and communication of tacit knowledge can be difficult. From both a research and applied perspective, negligible studies currently exist that explore academics' perception about whether universities (their workplaces) encourage the sharing of tacit knowledge. This paper will aim to qualitatively address the research question that aims to explore the extent to which academics' workplaces (universities) encourage the transfer of tacit knowledge. In order to address the main research question, three specific questions will be focussed upon - assessing the role of universities/workplaces in encouraging tacit knowledge transfer, role of the manager (academic's supervisor) in promoting or hampering tacit knowledge transfer and finally, value given to new ideas and innovation. For this purpose, four post 1992 Australian universities were selected.

The remainder of this paper is organised as follows. The next section presents a review of the literature. The paper then provides an insight into the research method adopted for the study and the characteristics of the participants. Findings and discussion then follow in section four. Finally, the key premises of the research have been summarised in the conclusion section and limitations are explicitly stated with an outlook for possible further research.

2 LITERATURE REVIEW

Tacit knowledge is considered as personal knowledge that is difficult to express, formalise or share and exists in an intangible format (Sveiby, 1997). Tacit knowledge has been defined as 'what people carry around with them, what they observe and learn from experience, and what is internalized and, therefore, not readily available for transfer to another' (Muralidhar, 2000, p. 222). Hislop (2009) indicates tacit knowledge may not only be difficult to articulate, it may even be subconscious. This characteristic of tacit knowledge makes it difficult to disembody from people and further codify it. Tacit

knowledge is reflected in human actions and their interactions with the social environment (Nonaka, 1994; De Long and Fahey, 2000). Busch (2008) has defined tacit knowledge as knowledge that cannot be codified, is implicit in nature and not necessarily written anywhere and not able to be readily expressed. This implies that tacit knowledge would include peoples' skills, experiences, insight and judgement. Tacit knowledge could also be termed as 'sticky' knowledge as it stays in the minds of people. It is often known as preconscious knowledge based on an understanding of the fitness of things, instinctive actions and so forth. The epistemic value of tacit knowledge is also a contentious issue and it is difficult to study. Research suggests that 75 percent or more of an organisation's knowledge can be categorised as tacit knowledge (Frappaolo and Wilson, 2002; O'Dell, 2002). Often universities operate in a turbulent and dynamic environment and hence, it is crucial for universities to cater for tacit knowledge transfer.

Converting tacit knowledge to explicit knowledge becomes really important as Hislop (2009) states that knowledge is primarily cognitive but is ultimately codifiable. It is necessary to root out the knowledge held in peoples' heads to a tangible form. DeLong (2004) proposes that 'humans have been creating and losing knowledge for thousands of years' (pg. 20). Housel and Bell (2001) assert that 'knowledge resides primarily within human heads; when 'head count' is reduced, inevitably the sum of knowledge within the organization is reduced, sometimes critically so' (pg. 5). This problem of loss of head count could imply different situations such as downsizing or when aging employees leave the organisation with a lot of tacit knowledge in their heads.

A study by Foos et al., (2006) collected data from various individuals, representing three companies charged with integrating external technology, revealed that the subject of tacit knowledge transfer, content, and process is poorly understood. The critical factors which influence construction employees' knowledge sharing behaviour were trust, creativity, motivation, ability, and learning (Nesan, 2012). Identifying and overcoming diverse knowledge transfer barriers is vital in order to assist senior and middle management in creating a systematically driven collaborative environment where knowledge sharing takes place easily (Riege, 2007). Finally, knowledge management efforts should not be restricted to one discipline only (Karlsen and Gottschalk, 2004) thus it is important to assess the role of universities in encouraging tacit knowledge transfer.

Universities can be classified as knowledge intensive organisations because they are coherent with the definition of knowledge intensive firms provided by Alvesson (2000, pg. 1101) as 'companies where most work can be said to be of an intellectual nature and where well qualified employees form the major part of the workforce.' Other features of a knowledge intensive firm are their workforce is typically highly qualified and the knowledge and skills of their workforce is a source of competitive advantage (Swart and Kinnie, 2003). Considering their characteristics, universities can undoubtedly be considered as knowledge intensive firms and their workers as knowledge workers. Hislop (2009) has defined knowledge worker as a person who is involved in primarily intellectual, creative and non-routine work, and involves the creation and use of abstract/theoretical knowledge. Academics, as knowledge workers, possess and utilise different types of knowledge to complete their work. Knowledge transfer activities have not been institutionalised and attention is required to their management in universities (Geuna and Muscio, 2008).Various researchers (Baumard, 1999; Blair, 2002; Laupase, 2003) have identified obstacles to tacit knowledge transfer but with little focus on university academics or the role workplaces play in encouraging the transfer of tacit knowledge. It is also vital to understand how academics react to internal and external factors when deciding whether to participate in knowledge sharing activities or not (Cheng et al., 2009). In similar vogue, Jain et al., (2007) have called out for the need to explore academics' views to encourage knowledge sharing amongst them.

Workplaces play an important role in providing the right environment for tacit knowledge transfer (Smith, 2001; Chugh, 2013). Employees associate knowledge with power and this can often make knowledge sharing difficult (Liebowitz and Chen, 2003) and organisational leadership is also a barrier to knowledge sharing (Seba et al., 2012). Poor management practices such as hoarding tacit knowledge, allocating insufficient time for knowledge transfer and limiting relationships were identified as barriers to achieving effective knowledge transfer (Clayton and Fisher, 2005). The transfer of tacit knowledge in an organisation can largely be driven by motivation and encouragement by senior management (Chugh et al., 2014). Utilising tacit knowledge also effectively indicates an organisation's innovativeness (Subramaniam and Venkatraman, 2001) and can lead to competitive advantage. Hence, the role of managers is crucial in providing the right conditions for tacit knowledge transfer to take place effectively.

Bartol and Srivastava (2002) have suggested that knowledge sharing is vital to knowledge creation, organisational learning, and performance achievement. The intricate nature of tacit knowledge is particularly perplexing for researchers and practitioners, and this adds to the complexity in readily being able to transfer tacit knowledge. Studies (Empson, 2001; Bechina and Ndlela, 2007) have found human, social and cultural factors were important in determining the impact (success or failure) of knowledge management initiatives.

Examining the impact of social dynamics in sharing tacit knowledge processes between employees is necessary to understand and recommend improved facilitation measures. Since most organisational knowledge is tacit in nature, the sharing and communication of tacit knowledge can be difficult. Hence it was considered necessary to assess whether universities encourage the sharing of tacit knowledge.

3 METHOD

Four post 1992 Australian universities (names withheld for confidentiality reasons) have been selected for this study, based on their long history in the education sector as they evolved from colleges of advanced education and institutes of technologies. These four universities are undergoing a lot of change, both in terms of organisational structure and introduction of new programs, and are rapidly strengthening their position towards the provision of learning and teaching services to national and international students. It is their uniqueness in the education sector that makes them ideal for this study.

The study focussed on academics in universities because academics can be classified as knowledge workers who deal with tacit knowledge on a daily basis. Academics produce knowledge, disseminate it to a variety of stakeholders and utilise knowledge to carry out their day-to-day tasks. Academics are very important in the process of knowledge sharing and reuse. Moreover, the solitary research instrument that can reveal and build on tacit knowledge is the human (Lincoln and Guba, 1985), hence academics were considered to be suitable for data collection.

As qualitative methods, such as interviews, aim at understanding the rich, complex and idiosyncratic nature of human phenomena (Cavana et al., 2003), a qualitative method namely in the form of interviews was adopted. Qualitative research usually emphasises

the socially constructed nature of reality and researchers are involved in achieving a rich understanding of people's experience and not necessarily in obtaining information which can be generalised to larger groups (Flick, 2006). Hence, interviews were considered relevant to record, analyse and uncover the meaning of academics' experiences in tacit knowledge sharing. The views provided by the respondents paint a picture of the reality as reported 'from the ground'.

In this study, interviews were deemed to be important as they would provide an in-depth opportunity to ask a series of open-ended questions, which would reveal whether universities encouraged tacit knowledge transfer, in an unconstrained environment providing the opportunity to clarify and explain information. Various questions were asked as part of the interview but for the purposes of this paper only three questions that are within the scope have been analysed. The three specific questions focussed upon - assessing the role of universities/workplaces in encouraging tacit knowledge transfer, role of the manager (academic's supervisor) in promoting or hampering tacit knowledge transfer and finally, value given to new ideas and innovation.

Sample sizes in qualitative research should not be too large otherwise it becomes difficult to extract thick, rich data (Onwuegbuzie and Leech, 2007). Since the aim of this study is not to estimate the prevalence of a phenomenon or to make generalisations but to provide an understanding, to develop explanations and to generate ideas, only a small number of respondents were required. Thus for the interviews, this study primarily employed a stratified purposeful sample to identify academics (a lecturer or senior lecturer and an associate professor or professor from each university). A total of eight interviews were conducted, which involved two academics from each university.

After data collection, the data was open-coded and analysed. The coding involved transcription of the digital recordings and then multiple reviews were carried out to identify and interpret repeating themes and ideas. The hermeneutic paradigm was adopted for analysis as it helps to explain relationships based on a personal interpretative approach (Gummesson, 2000). The analysis of qualitative data in the next section is based on a structured interpretative approach drawing illustrative examples from each interview transcript as required and a narrative has been woven. Short direct quotes from the participants have been included to aid in the understanding of specific points of interpretation and a smaller number of more extensive passages of quotations to provide a flavour of the original texts have also added.

4 FINDINGS AND DISCUSSION

It appears universities have gone in a much mechanised direction in recent times with little emphasis on rooting out tacit knowledge. In support of this statement, one of the interviewee revealed that *'universities are more bent upon bean-counting these days, which is totally contrary to the philosophy of transfer of tacit knowledge.'* This respondent's feeling also touches on the way universities should value altruism, and how the current outlook is incorporated into employment, promotion, rewards and so forth. Most respondents believe their university encourages and facilitates the transfer of tacit knowledge however there are many deterrents that came to the forefront. A lack of openness in communication was seen as a deterrent with one interviewee pointing out that *'everyone is playing safe and playing safe leads to disaster.'*

Interviewees from one university felt that there are certain cultural traits which in fact work against tacit knowledge transfer. An interviewee noted that *'the culture of the university – both at the faculty level and at the university level totally undervalued, and it did not trust, experience gained elsewhere.'* The whole idea of tacit knowledge transfer is utilising the skills and experience of people which they have gained over their lifetime and it is these skills and experience that can be used to provide value for universities.

Managers play an important role in facilitating the transfer of tacit knowledge. Apart from being facilitators, they are themselves in an important position of transferring tacit knowledge to others reporting to them. However, most interviewees saw their managers as being a deterrent in the transfer of tacit knowledge. They perceived their managers as information gatekeepers who were mostly very reluctant to impart their tacit knowledge to others. This result is similar to a study by Clayton and Fisher (2005), which found that locking up tacit knowledge was a barrier to achieving effective knowledge transfer. One of the interviewee remarked their manager lacked skills that would have promoted tacit knowledge transfer. To this effect, the interviewee said *'Managers like these create a very tense work environment. Which then doesn't allow us to believe in tacit knowledge transfer because if you're going to be reprimanded for every small thing that you are trying to do, why would you do it?'* Undoubtedly different types of leaders make different decisions

that can either hamper or enhance the sharing of knowledge. Transformational leadership style is considered a key driver of knowledge management initiatives in an organisation. Transformational leadership places greater emphasis on motivating people and develops long term strategic visions and further inspires people to work towards achieving that vision (Vera and Crossan, 2004; Hislop, 2009). Nonaka et al., (2006) have argued that leaders need to enable the creation of knowledge. Transformational leaders can be seen as enablers of knowledge management initiatives in an organisation. Senior management can help to create a valuable knowledge sharing culture by being proactive and driving a cultural change (Pan and Scarbrough, 1999). Micromanagement is not seen as conducive to tacit knowledge sharing efforts. The focus of micro-management is towards day-to-day activities, short term goals and operationally focussed rather than being strategically focussed as in transformational leadership.

The display of the information gatekeeper characteristics by a manager led one interviewee to comment that *'I just couldn't get anything out from him (immediate manager) and that frustrated me a lot and lured me into a few mistakes I made, which I could have avoided if information was passed on to me, even just a little bit of it.'* This implies that frustration and unnecessary mistakes can be reduced if staff is provided access to information and managers freely share their knowledge with staff reporting to them. One of the interviewees commented that displaying the traits of an information gatekeeper by a manager as *'the antithesis to creativity. When people feel humiliated there isn't a worse emotion to kill and curb motivation than humiliation.'*

The issue of power was also evident in the responses provided by the interviewees. Managers see themselves as the power-holders and are hence prone to say that *'don't come to me, I don't want to tell you, you do it on your own'* (Interviewee). This notion of information gatekeeper could be seen *'as a red flag in communication. This could also imply that tacit skills are not being passed'* (Interviewee). Knowledge sharing can sometimes be seen as threatening and managers may be reluctant to share as it impacts their status, esteem and power in the university. Baumard and Starbuck (2005) have argued that senior management are often responsible for creating an unconducive environment for employees' unwillingness to share knowledge. Some of the conditions in an unconducive environment could be a culture where employees are reprimanded

for sharing, experimentation and risk taking is not encouraged and inquiry of existing business practices is seen as a threat.

In the case of an interviewee who saw their manager as being a person who was not an information gatekeeper, it was evident that trust was an important part in the display of this trait. This interviewee noted that *'my manager would pass any information to others, especially me, provided that I keep it confidence, which I'll always do. So I do prefer this practice because it means I'm a trustworthy person. More importantly, it certainly helps me to make decisions and better or do my job more efficiently and effectively. It especially helps me to increase the accuracy of the work when information is clear, is right in front of you.'* One of the interviewee very aptly put that being an information gatekeeper *'depends from person to person'* and managers need to *'understand the importance of the dissemination of information.'*

The interviewees displayed a very equally divided response to the value that their managers' displayed towards new ideas and innovation. One on the interviewee remarked that *'it is rhetoric in reality and theory in practice.'* However it is evident that academics generally prefer an open door policy that promotes communication. One of the interviewees noted that *'We don't see the managers. We don't - there's no interaction. They take advice from a select few people, which means that you don't get the chance.'* This comment could also imply that managers need to involve more staff in decision making rather than a select few and create a more democratic workplace.

Table 1 summarises the results and conceptual relationships that arose from the analysis.

As one respondent pointed out that the transfer of tacit knowledge is *'a pretty tough gig. It's a tough, tough call and it's easier said than done.'* This interviewee also commented that *'I don't believe they've (the university) got a formal strategy for transfer of tacit knowledge.'*

The findings resonate with previous studies in Malaysia, Singapore and UK, which have highlighted that a knowledge sharing culture exists in tertiary educational institutions however challenges such as motivation, lack of reward mechanisms, knowledge hoarding, dearth of open-mindedness and inadequate support and encouragement from leaders exist (Wah et al., 2007; Cheng et al., 2009; Fullwood et al., 2013; Goh and Sandhu, 2013). Universities are places where the transfer of tacit knowledge should be the primary mission but as the analysis demonstrates there are anecdotes in which the elicitation,

Table 1: Results and conceptual relationships.

Repeating Ideas	Theme	Recommendations
-General agreement that universities encourage and facilitate tacit knowledge sharing. -Lack of open communication. -Untrusting work environment. -Manager's reluctance to share knowledge (seen as information gatekeepers).	-More encouragement and support to share tacit knowledge is required to counteract the identified issues.	-Tacit knowledge should be valued. -Develop transformational leaders. -Nurture a trustworthy work environment. -Managers to play an active role in practicing and promoting open communication.

distribution and reuse of tacit knowledge seems to be difficult (especially those involving university managers). Moreover, this appears to be a general perception valid outside Australia too.

Although the respondents were generally very positive about the universities encouraging and facilitating the sharing of professional experiences, skills and knowledge with others however there are evident areas which require improvement. Some of the areas identified are: building a tacit knowledge sharing culture, promoting open communication and sharing of ideas, developing inspirational transformational leadership, establishing a team-working culture, and encouraging ways of promoting peer-trust. It can be argued from a systemic perspective that changes need to be made to encourage the transfer of tacit knowledge in universities.

Hence, the general notion was that most universities provide a mixture of facilitating conditions however there are areas of improvement. To conclude this section, the words of an interviewee are quoted who very aptly said *'The whole purpose of an educational institution is to spread knowledge -*

that is the fundamental purpose of educational institutions. So the ethos should be exactly the same, otherwise subconsciously the people you are teaching will learn as if information is to be hidden.'

5 CONCLUSIONS

The epistemological discourse in the study has found that it is not all doom and gloom for tacit knowledge transfer in Australian universities. The findings were generally upbeat as universities encourage the transfer of tacit knowledge although some areas for further improvement have been identified. The findings will assist universities in further creating a systematically driven collaborative environment that encourages the transfer of tacit knowledge and makes it available for reuse. Given the increased interest in knowledge management by organisations, such a study is timely and relevant.

The study has identified a few limitations that hindered it from obtaining more conclusive results. As this study was conducted in only four Australian universities (eight interviews), it is plausible that larger sample sizes may demonstrate dissimilar results. Owing to the current small sample size, it would be deemed inappropriate to generalise the findings to a larger population. However, like any exploratory study, this study also provides a picture of the reality. Despite the limitations, this study is significant as it further contributes to advancing the knowledge in a research area by providing researched evidence and hypothesis, which can be validated later using other methods. Future studies could validate the findings and/or carry out quantitative studies that could be of help to draw more concrete, possibly less obvious, conclusions. It is also suggested that future studies look at specific elements such as provision of adequate time and mentoring programs, which are seen as enablers of tacit knowledge transfer.

Finally, this paper has made a significant contribution to tacit knowledge management by addressing an important question that has largely been ignored till date. The key contributions of this study fall into three main areas. Firstly, it has added to existing research on tacit knowledge transfer. Secondly, it has used qualitative methods like interviews to assess whether academics' workplaces (universities) encourage the transfer of tacit knowledge. Thirdly, the findings can be used to make improvements, develop a culture that promotes openness and enhance the sharing of tacit knowledge.

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