An Issues Framework for the Role of Organisational Culture and Climate in Knowledge Management

Craig Standing and Steve Benson
School of Management Information Systems, Edith Cowan University, Western Australia
Tel: 61 08 9400 5545, Fax: 61 08 9400 5633, {c.standing, s.benson}@cowan.edu.au

ABSTRACT

A major facilitator of Knowledge Management according to the literature is an appropriate organisational culture or climate, especially one that fosters the sharing of knowledge on a widespread scale. It may be perceived by organisations that a radical reshaping of their organisational culture is required to effectively manage knowledge.

The issue of appropriate organisational cultures for effective knowledge management is the main theme of this paper. We use a study of a large university to examine the influences of the organisational culture on proposed knowledge management initiatives. The university in the study is operating in a climate of rationalisation, corporatisation and marketisation; these characteristics having a profound influence on the organisational culture. The staff felt that the competitive environment, the lack of trust and the formality of many business practices would work against knowledge sharing. We argue that it is unlikely in the short term that most corporate cultures will transform to better accommodate knowledge management practices and as a result most KM practices, especially if they are IT driven will only have a superficial impact. To make a significant impact organisations must try to develop a conducive knowledge sharing culture.

INTRODUCTION

The main aim of this paper is to examine the perceived influence of organisational culture and climate and management strategies on the potential of knowledge management (KM) initiatives. In doing this, the facilitators and barriers to knowledge management are examined in a large University embarking on KM initiatives. It is anticipated that the study will provide information and suggestions for organisations intending implementing knowledge management initiatives and explain the significance of organisational culture and climate on such initiatives.

The first section of the paper examines knowledge management practices and the nature of organisational culture and climate. A case study of a large university is used to explore the impact of organisational culture and climate on KM. The findings are analysed and a framework of issues relevant to KM is presented and discussed.

KNOWLEDGE MANAGEMENT

Knowledge management has been proposed for a number of years as a method for organisations to improve productivity and sustain a competitive advantage in increasingly knowledge based economies (Drucker, 1993, Nonaka, 1994, Tapscott, 1996; Harris, Fleming, Hunter, Rosser, & Cushman, 1999). Despite the interest in knowledge management there is still some ambiguity in relation to the term, particularly in commercial circles where it is sometimes used interchangeably with information management. However, knowledge management can be viewed as the process of creating, storing, managing, accessing and sharing tacit knowledge (in a person's head) and explicit knowledge (documented in books, intranets, etc.). It relates to the corporate memory of an organisation and its intellectual capital (Petty & Guthrie, 1999).

There have been many attempts to devise a classification of knowledge which has practical implications (Collins, 1993). Lundvall and Johnson (1994) (discussed in Johnston, 1998) identify the following simple categories of economically relevant knowledge:
- Know-why - explanatory knowledge, scientific knowledge of principles (laws of nature)
- Know-how - skills, the ability to organise resources to achieve desired outcomes
- Know-who - social knowledge, refers to specific social relations - e.g. who controls the resources needed in a particular situation.

- Know-when/Know-where - economically useful knowledge about markets
- Know-what - catalogue knowledge

Knowledge management has gained significant attention in the information technology and information systems fields. Indeed, some software companies advertise that their products play a major role in supporting knowledge management programmes in many organisations (Zack, 1998). These systems are applied to cost reduction, process improvement, improving productivity, time to market, and innovation. The types of applications cited include: FAQs, reuse, best practices, problem solving, decision support, resource management, and asset management (Harris *et al*, 1999). Most knowledge management projects according to Davenport and Prusak (1998) have one of three aims: to make knowledge visible and identify the role of knowledge in the organisation; develop a knowledge intensive culture; and to build a knowledge infrastructure which includes systems and networks.

It has been pointed out by researchers that knowledge management is multi-disciplinary field where IT systems play only a minor role in the management of knowledge (Scarborough, Swan & Preston, 1999). Swan and Newell (2000) believe that a cognitive or information processing model underlies much of the work in knowledge management where IT plays a central role. This view has limitations since it treats knowledge as an entity and ignores the dynamic and collective nature of knowledge whereby it is socially constructed. To address the narrow view of KM by the IT/IS community Swan and Newell propose three models of knowledge management: network, community and cognitive models. The network model primarily concerns knowledge acquisition and involves developing external contacts outside of the organisation. The community model relates to communities of practice and shared understanding and meaning within groups. In this model, IT may play a limited role. Finally, the cognitive model is primarily one for transferring codified knowledge. This classification of KM models highlights the complexity and difficulties associated with attempts to improve knowledge management and in particular knowledge sharing in organisations.

ORGANISATIONAL CULTURE AND CLIMATE

Most models of knowledge management recognise the influence of organisational culture and climate on the success of KM initiatives.

Previous studies have stressed the importance for KM of a conducive organisational culture; one that recognises the importance of KM and facilitates the sharing of knowledge (Moody & Shanks, 1999). Indeed, cultural changes have been seen as a critical success factor in KM programmes, accounting for up to seventy percent of implementation effort and failure to change accounting for half of project failures (Harris, et al, 1999).

Organisational culture can be defined as the shared values and norms that exist in an organisation which involve common beliefs and feelings, regularities of behaviour, and a historical process for transmitting values and norms (Vecchio et al, 1997). Values and norms are influenced by national and even professional (as in professional society) cultures (Hoecklin, 1995). Hofstede (1994) identified several significant aspects of national culture which impact to some extent on organisational culture and knowledge sharing and these are briefly outlined below.

Power Distance is the extent to which the members of a society accept that power in institutions and organizations is distributed unequally. *Uncertainty Avoidance* is the degree to which the people in a group or society feel uncomfortable with uncertainty and ambiguity. This can lead to beliefs which support the promise of certainty and is characterised by conformity. The *Masculinity/Femininity* metaphor is used to convey the tendency in a society to value achievement, heroism, assertiveness, and material success (masculine); as opposed to a preference for relationships, modesty, caring for the weak, and the quality of life (feminine). The last characteristic of culture is *Individualism/Collectivism*. Western culture is often described as individualistic or independent whereas Eastern culture is seen as being collectivistic or interdependent. Individualistic (independent) cultures focus on the self and what makes the individual different to others. In collectivistic cultures a person's feelings and thinking is as much influenced by the social relationship with others and the role in the group. Individual goals dominate and ties between individuals are weak in independent cultures. In interdependent cultures strong groups with lasting ties dominate (Hofstede, 1991). Although this explanation has limitations it is a useful way of characterising national cultures. Indeed, it has some relevance to organisational culture since organisations are framed by their geographical setting and some organisations may try to put emphasis on team-work (interdependent) as opposed to individualistic (independent) approaches.

Organisational culture can have a positive influence on organisational effectiveness when it supports organisational goals, is widely shared, and is internalised by organisational members (Bartol, et al. 1998). It can be influenced through time by such things as policies, procedures and management strategies, in addition to the recruitment of people from different backgrounds and age-groups. Organisational culture is generally seen as unitary entity although it could be argued that it is possible for radically different cultures within the same organisation to exist (McKenna, 1999; Brown, 1995). Because of the difficulties in conveying various corporate cultures Alvesson (1993) used metaphors as a tool to describe particular cultures but also recognised limitations with this approach as there are often "metaphors behind the metaphor" (McKenna, 1999). In a similar vein Deal and Kennedy (1982) identified four generic cultures related to degree of risk and rate of feedback: workhard/play hard, tough guy/ macho, process, and bet your company.

Organisational climate can be considered as a sub-set of organisational culture (Vecchio et al, 1997). However, it stems more from the discipline of social psychology rather than anthropology. A key difference between climate and culture is that latter often relates to assumptions, values and norms which may never be articulated, whereas climate deals with articulated perceptions related to such things as events, policies and practices. Clearly, organisational climate has some impact on organisational culture, which is usually seen as something that takes more time to influence. Over time the events, policies and practices brought about by management initiatives are likely to change the underlying culture of the organisation. Beyond this recognition it is difficult to determine the exact interplay between organisational culture and climate and to attribute the failure of specific knowledge management initiatives to certain features of the climate or the organisational culture. Nevertheless, the remainder of this paper examines the potential for knowledge management initiatives and provides an issues framework highlighting where culture and climate are likely to impact on the success of initiatives.

CASE STUDY

In order to investigate the influence of organisational culture and climate related issues on KM a study of a large Australian University (ECU) has been undertaken. In particular, the study investigated the perceived facilitators and barriers to KM and the changes required in the organisational to further improve KM.

The University in the study provides a useful case for analysing the interplay between corporate culture and climate and the potential of KM programmes. The University in question is facing increasing pressure to generate a greater part of its income from commercial activities (the target set is sixty-five percent of funding to be derived from non-government sources). Research and consultancy services are the primary means of achieving this and since Australian law clearly defines the nature of allowable business competition from government bodies the University competes on equal terms with corporate entities.

Methodology

The study involved gathering information form a variety of sources which included:

1) Documents - strategic plans, job descriptions, e-mail communications.
2) Interviews -People from every aspect of the organisation were identified to take part in the study, including senior managers, academics, administrative staff and IT support staff. Forty interviews were conducted over a six week period. The average age of those interviewed was 46, the average length of service in the organisation was seven years and sixty percent of those interviewed were male. The interviews lasted on average forty-five minutes and were carried out on the organisations' premises during work hours. Notes were taken during the interviews and word processed immediately after the interview had been completed. A series of open-ended questions were asked based upon the knowledge management framework or model identified by Swan and Newell (2000). Using their three forms of knowledge management the topics addressed:

- KM Strategy
  - Knowledge management strategy and practices;
  - The major obstacles/barriers to knowledge management strategy and practices;
  - Perception of satisfaction with knowledge management approaches.
- Community Model
  - Organisational structure;
  - Human resource issues;
- Network Model
  - Processes related to external links and knowledge management
- Cognitive Model
  - The tools used to manage knowledge;
  - The process and procedures used in the development process;

3) Informal communications.
4) Observation.

The interpretation of the findings uses a dialectical hermeneutics approach. Hermeneutics is primarily concerned with the meaning of a text or text analogue (Myers, 1995). The data, which are interview transcripts, are analysed in terms of themes, motifs, and key words in the same way, as a literary text is (Bronsema, & Keen, 1983). One of the main differences between pure and dialectical hermeneutics is that, in the latter, the researcher does not just accept the opinions of the participants, but tries to evaluate the totality of understandings in a given situation. The role and understanding of the participants are

interpreted historically, and in terms of social and political structures and includes the contribution of the researcher in the analysis process.

CASE STUDY DESCRIPTION

Knowledge management is being promoted at various levels within the organisation. The strategic plan for the University mentions the importance of managing corporate knowledge and the relevance of appropriate tools for this task. The administrative functions within the University have made some attempts at knowledge management and sharing. The actual practices adopted did not arise from any published conceptual framework. As with many organisations, knowledge management has been regarded as an extension of information management. An executive position of Knowledge Management Officer has been created to oversee KM related activities.

Organisational Climate

Since the early eighties Australian universities have been going through a process of restructuring and reculturing. The transformation has been achieved through three forms of governmentality (Kenway & Langmead, 1998). These are:

1) Rationalisation. As a result of reductions in government funding universities have had to look for ways of cutting costs, such as increasing casual staff numbers, outsourcing and increasing workloads. Universities are also being encouraged to look for alternative sources of funding.
2) Corporatisation. This involves the application of business management principles to university management. Responsibility is pushed down the line whilst accountability is to senior management and clients (in this case students). Individual academic performance is assessed.
3) Marketisation. Marketisation includes privatisation, commercialisation and commodification. Knowledge is seen as a product and universities work to develop commercially viable programmes both on and off-shore.

Values of Staff

Sixty percent of staff said that the prime motivation for working at the University was job satisfaction with the remainder saying money was the prime motivator. When asked to identify a metaphor (a list of suggestions were given with an option to add their own) the most commonly chosen was "journey". These results suggest that personal development and satisfaction derived from the job itself are very important. However, a significant percent are rewards (financially) motivated and perceive their work as being conducted in a competitive environment with a small number describing it as a battle.

Perceived Importance of KM

Nearly all staff rated KM to be an important issue for universities in general and at ECU. However, staff felt that Knowledge was not being effectively managed in universities including ECU. In fact the majority perceived that KM as an activity was only performed informally within the organisation.

"*We are in the knowledge business so we should be managing it effectively. However, we do not practice what we preach as there is a real division between the academic and administration sides of the University.*"

KM Barriers and Facilitators

When asked for the main barriers to improving KM in the University a constant theme that came through was the level of competition amongst individuals which worked against the sharing of knowledge. As one academic stated:

"*It is a very competitive situation as we are evaluated individually and recognised and promoted individually. I have even seen a league table of researchers in our School and I have had comments about my position! Sharing knowledge is seen as giving away power and status.*"

Some felt the incentives and rewards did not exist to encourage knowledge management programmes. As performance was appraised on an individual basis some academics felt this was not conducive to knowledge sharing as others may gain a competitive edge since knowledge was seen as a political basis of power and identity.

"*Look, why would I share Knowledge that has some value to me? It is my competitive edge, it puts distance between me and the others. If I share my latest knowledge others may take advantage of that. Will they do the same for me?*"

Several people saw the increasing demands of the work-loads as a barrier to KM since time was not available to actively share and document their knowledge.

"*With the increased work-loads over the years there just isn't the time and space to network informally and develop the trust to share knowledge and ideas.*"

Another academic said:

"*Rivalry and time are the main barriers.*"

Others, particularly in the university's administration, were too much in fear of someone else taking their position to share their knowledge.

"*People are afraid to share their knowledge and experiences as they feel their positions might be taken away from them by their opponents*".

Those interviewed on a junior secretarial support level (2) thought that there were "no problems" in relation to managing knowledge. Only one person saw the main barrier to KM as the inadequacy of the technology infrastructure.

Trust and Culture

Staff members were asked about the role of trust in KM. All except two people considered trust to be an important issue for KM initiatives. Most thought that was a lack of trust in the organisation, both between management and employees and between employees themselves and that this worked against KM.

"*Trust is vital. People can't share their knowledge with others if there is no trust. People are scared to share because they do not trust others.*"

Interestingly, two people considered that there was no place for trust in the new corporate world.

"*It is just too competitive, where is the trust? Perhaps there is no place for it!*"

A number of suggestions were put forward to improve knowledge management within the university. These are listed below.

Informal meetings and get togethers;
Network organisational structure;
Time to exchange ideas;
Rewards and incentives;
Team based approaches;
Improved communication;
Improved technology;
Leading by example;
Team grants and roles;
Recognition for sharing knowledge.

ANALYSIS OF THE CASE

The organisation in the study, a large University, had a particular organisational climate characterised by the three forms of governmentality of rationalisation, corporatisation and marketisation. The main themes that emerged from examining the influence of governmentality on the potential of KM programmes are now analysed using the three forms of governmentality as a framework. Hermeneutic analysis takes into account the organisational culture and climate as well as setting the findings in a social and historical context within the wider society.

Corporatisation

The application of business management principles to university management has led to the introduction of performance appraisal for

each academic. This has had a significant influence on academic relationships since the appraisals have mainly be aimed at the individual by measuring research output and teaching performance through student evaluations. As a result many staff see themselves as autonomous workers and their colleagues as competitors which is perceived as working against knowledge management programmes.

Academic staff felt that greater trust and less competition would improve KM practices which appear to suggest they desire a return to a pre-corporate university with an emphasis on collegiality and trust. Increased work-loads according to some did not allow the time and space to informally share knowledge with colleagues.

Rationalisation

Aspects of rationalisation such as reducing numbers of administrative staff has led to the fear of being made redundant if specialised knowledge is shared. Due to the increased competition for jobs and the increase in the number of casual and short term contract positions administrative staff are clearly concerned about having their contracts renewed. Specialist knowledge in this environment provides some security for employees and sharing it is often perceived as against their best interests.

Marketisation

The commercialisation and commodification of knowledge has been a driving force in Australian universities in the nineties. Staff see their knowledge as a commodity for bargaining purposes. Hence, at least half of those interviewed saw rewards and incentives as an important aspect of the transition to corporate knowledge management programmes. Indeed, KM as promoted by accountancy firms and consultancy firms was seen as a very important stage in organisational development perhaps substantiating the view of knowledge as a commodity.

DISCUSSION

The issue that this paper is analysing is the relevance of organisational culture on the potential and effectiveness of knowledge management initiatives. The literature assumes a conducive organisational culture is necessary for effective knowledge management (Davenport, De Long, & Beers, 1998; Harris *et al*, 1999). However, expectations from KM programmes and the levels of knowledge creation, sharing, and management will probably vary considerably from organisation to organisation.

As discussed earlier, the organisational climate is interrelated with the organisational culture. Organisational culture usually takes years to evolve and changes slowly in most cases. Organisational climate however can change or be changed more quickly but nonetheless has some impact on the organisational culture. In the case of the University in the study it is operating within a particular climate within the sector of corporatisation, rationalisation and marketisation. These are powerful forces which have prevailed for several years. They have had a profound influence on the organisation with rationalisation of jobs, increased work loads and commercialisation of courses and knowledge. This type of environment is not restricted to the Australian University sector but is one that is widespread across Western organisations and does not appear to be abating (Limerick, Cunnington, Crowther, 1998). The interviews with staff suggested that many of the features that stem from this climate such as competition, increased individual assessment, less job security, less loyalty and trust work against knowledge management. This view was held by both the academic and administrative staff.

The situations on an organisational and individual level described above appear to suggest a clash between the organisational culture and the conditions required for extensive knowledge management. The perceived clash is as a result of a situation where the culture and climate creates increased competition between individuals, where there is less job security and the individual is increasingly assessed. Knowledge sharing and extensive knowledge management is assumed by the

staff to require team based evaluation and less emphasis on the individual, a more caring organisation, and less job insecurity for example. For organisations operating in such an environment of corporatisation and rationalisation then a radical cultural transformation may well be required to accommodate extensive knowledge sharing practices. This could be along the lines of the network, post-corporate organisation that engenders collaborative individualism (Limerick, Cunnington, Crowther, 1998).

Many organisations may try to develop knowledge management programmes in a prevailing organisational climate as outlined in the case study. It is unlikely that these initiatives will be successful especially if they are IT driven (cognitive model). Rather the initiatives are likely to have only a superficial impact. For significant knowledge sharing and management to take place the organisational climate and organisational culture will need to be conducive.

Some organisations may see KM as a set of techniques such as that work within the prevailing climate. These techniques may include rewards and incentives, a greater emphasis on the role of teams, a partial shift to evaluating teams and alternative work place layouts to increase interaction and informality. Although some of these may be beneficial to the organisation some may be counter productive as they may set up competitive arenas where rewards are competed for (Huber, 2001). However they are unlikely to be effective unless a knowledge management friendly culture and climate prevails.

REFERENCES

Alvesson, M. (1993). Cultural Perspectives on Organisations. Cambridge University Press, Cambridge.

Bartol, K. M., Martin, D. C., Tein, M. H. & Matthews, G. W. (1998). Management: A Pacific Rim Approach., 2nd edition, McGraw-Hill, Roseville, NSW.

Blackler, F. (1995). Knowledge, Knowledge Work and Organisations: An Overview And Interpretation. *Organisation Studies, Vol. b*, pp.1021-1046.

Bronsema, G.S. & Keen, P.W.G. (1983). Education intervention and implementation in MIS. *Sloan Management Review, 24*(4), 35-44.

Brown, A. (1995). Organisational Culture. Pitman, London.

Collins, H. (1993). The Structure Of Knowledge. *Social Research, Vol. 60*, pp.95-116.

Davenport, T., De Long, D., & Beers, M. (1998). Successful Knowledge Management Projects, *Sloan Management Review, 39:*2, 43-52.

Davenport, T. & Prusak, L. (1998). Working Knowledge. How Organisations Manage What They Know. Boston, Harvard Business School Press.

Deal, T. E. & Kennedy, A. A. (1982). Corporate Cultures, Addison Wesley, Reading Mass.

Drucker, P. (1993). Post Capitalist Society. Butterworth.

Harris, K., Fleming, M., Hunter, R., Rosser, B., Cushman, A. (1999). Knowledge management Scenario: Trends and Directions. Gartner Group.

Hoecklin, L. (1995). *Managing Cultural Differences : Strategies for Competitive Advantage,* Wokingham, England, Addison-Wesley publishing company.

Hofstede, G. (1994). *Cultures and Organisations : Intercultural Cooperation and Its importance for survival* : *Software of the mind*, HarperCollins Publishers, UK.

Hofstede, G. (1991). Cultures and Organisations: Software of the Mind, McGraw Hill, Maidenhead.

Huber, G. P. (2001). Transfer of Knowledge in Knowledge Management Systems: Unexplored Issues and Suggested Studies, *Forthcoming in the European Journal of Information Systems.*

Israelsohn, C. (1999). Making the Connections. *Charter, Vol. 70*, (5), pp. 48-50.

Johnston, R. (1998). The Changing Nature of Knowledge: A Review, Department of Employment, Training And Youth Affairs, 98/16 pp. 1-22.

Kenway, J. & Langmead, D. (1998). Governmentality, the now university and the future of knowledge work. Australian Universities Review, Vol. 41, 2, pp. 28-32.

Knights, D. (1995). Refocussing the Case Study: The Politics of Research and Researching Politics in IT Management. *Technology Studies, 2*(2), 230-284.

Limerick, D., Cunnington, B., & Crowther, F. (1998). *Managing the New Organisation.* Business and professional Publishing.

Lundvall, B. & Johnson, B. (1994). The Learning Economy, Journal of Industry Studies, Vol.1, pp. 23-42. Discussed in. Johnston, R. 1998 The Changing Nature Of Knowledge: A Review, Department Of Employment, Training And Youth Affairs, 98/16 pp. 1-22

McKenna, R. (1999). New Management. Irwin, McGraw Hill. Sydney.

Moody, D. L., & Shanks, G. (1999). Using knowledge management and the Internet to Support Evidence based Practice: A Medical case Study. Proceedings of the Australian Conference on Information Systems, pp. 660-676.

Myers, M. D. (1995). Dialectical hermeneutics: a theoretical framework for the interpretation for the implementation of information systems. *Information Systems Journal, 5*, 51-70.

Nonaka, I & Takeuchi, H. (1995). The Knowledge Creating Company, New york, Oxford University Press.

Petty, R. & Guthrie, J. (1999). Managing intellectual capital: From theory to practice. *Journal of the Australian Society of certified Practicing Accountants, Vol. 69*, 2, pp. 18-23.

Scarborough, H., Swan, J. & Preston, J. (1999). Knowledge Management - The Next Fad to Forget people? Proceedings of the European Conference on Information Systems, Copenhagen, p.668-678.

Swan, J. and Newell, S. (2000). Linking Knowledge Management and Innovation. Proceedings of the European Conference on Information Systems, Vienna. P. 591-598.

Tapscott, D. (1995). *Digital Economy.* McGraw Hill.

Vecchio, R., Hearn, G. & Southey, G. (1997). *Organisational Behaviour.* Harcourt Brace.

Zach, M. (1998). An architecture for managing explicit knowledge. *Proceedings of the Sixth European Conference on Information Systems*, Aix-en-Provence, France, pp. 86-99.

Related Content

Using Logical Architecture Models for Inter-Team Management of Distributed Agile Teams
Nuno António Santos, Jaime Pereira, Nuno Ferreiraand Ricardo J. Machado (2022). *International Journal of Information Technologies and Systems Approach (pp. 1-17).*
www.irma-international.org/article/using-logical-architecture-models-for-inter-team-management-of-distributed-agile-teams/289996

Extending the Balanced Scorecard for Outsourcing: The Goals Alignment Perspective
Preeti Goyaland Bhimaraya A. Metri (2010). *Breakthrough Discoveries in Information Technology Research: Advancing Trends (pp. 68-79).*
www.irma-international.org/chapter/extending-balanced-scorecard-outsourcing/39571

Schema Versioning
Zouhaier Brahmia, Fabio Grandi, Barbara Oliboniand Rafik Bouaziz (2015). *Encyclopedia of Information Science and Technology, Third Edition (pp. 7651-7661).*
www.irma-international.org/chapter/schema-versioning/112468

Models for Interpretive Information Systems Research, Part 1: IS Research, Action Research, Grounded Theory - A Meta-Study and Examples
M. R. (Ruth) De Villiers (2012). *Research Methodologies, Innovations and Philosophies in Software Systems Engineering and Information Systems (pp. 222-237).*
www.irma-international.org/chapter/models-interpretive-information-systems-research/63265

Analysis of Click Stream Patterns using Soft Biclustering Approaches
P. K. Nizar Banuand H. Inbarani (2011). *International Journal of Information Technologies and Systems Approach (pp. 53-66).*
www.irma-international.org/article/analysis-click-stream-patterns-using/51368