

WHAT SYNTHESIZES A KNOWLEDGE MANAGEMENT CULTURE?

Vasso Stylianou, Andreas Savva

Department of Computer Science, School of Sciences and Engineering,
University of Nicosia

46 Makedonitissas Avenue, P.O. Box 24005, 1700 Nicosia, Cyprus

¹stylianou.v@unic.ac.cy, ²savva.a@unic.ac.cy

Abstract— - Knowledge Management (KM) involves collecting valuable knowledge from all existing sources including people, systems, databases, file cabinets, etc., and then storing, categorizing and organizing this knowledge with the aim of making it promptly available to those people and systems that need it. Successful transformation of businesses into knowledge organizations and economies into knowledge economies requires coordinated efforts focusing on a number of KM critical success factors. These consider the organizations' structure, systems, technology, and skill which need to be aligned with its goals and direction; if successful here, then it is very likely that KM success will follow. This paper focuses on one of the KM critical success factors being culture, and attempts to put together a set of characteristics of a KM-enabling culture in Higher Education Institutions (HEI) by drawing knowledge from available literature and a recent study on KM in one such institution.

Index Terms - Knowledge Management, Higher Education, Culture.

I. INTRODUCTION

Higher Education Institutions (HEI) are increasingly exposed to marketplace pressures, in a similar way to other businesses, and the environment in which they are operating today has also changed drastically [1], [2]; they experience intense pressure and are required to respond to the global integration [3]. The strategic management of knowledge of a university may provide the competitive advantage that universities need and has potentially several benefits to offer to higher education in general. Amongst those who believe that KM has a lot more to offer to Higher Education (HE) is Rowley [4] who at the same time acknowledges the distance of HEIs from a scenario in which each member of the university community has access to the combined knowledge and wisdom of others in the organization, and has access to that knowledge in a form that suits their particular needs.

The Higher Education Funding Council for England describes knowledge management as an organized and systematic approach encompassing knowledge processes such as creation, usage, storage, sharing, transferring and retrieving knowledge in order to improve business performances (HEFCE, 2009).

Established within the KM frameworks of implementation are a number of areas which require direct attention and are considered as critical for the success of the KM effort. These

may be referred to as critical success factors, KM enablers, or KM ingredients. Being critical to the success of the KM initiative if not addressed properly and adequately, these same enablers may become barriers in enjoying the benefits of KM. If the organization's structure, systems, technology, and skill are in alignment with goals and direction, then it is very likely that KM success will follow. These KM enablers involve the organizational structure; strategy and leadership; technological infrastructure; culture; organizational processes; and measurement.

II. THE KM CULTURE

The human component made up of the organization's employees is the core of knowledge management. A KM-friendly culture is a trusting knowledge culture that is directed towards rewarding innovation, learning, experimentation, scrutiny and reflection [5].

A study by Balthazard and Cooke [6] investigated constructive and defensive cultures in relation to individual and organizational outcomes that promote KM success. The two researchers support that within an organization there may be a variety of cultures which may in fact explain why some organizational units exhibit behaviours that are counter to the organization's expressed values or mission. Via the culture people create expectations of behaviours, some of which can result in non-constructive interactions that hinder knowledge exchange. Balthazard and Cooke's [6] findings show that constructive norms are positively associated with both individual outcomes (such as role clarity, communication quality, organizational fit, creativity, and job satisfaction) and organizational outcomes (such as quality of products and services, quality of customer service, organizational adaptability, limited turnover, and quality of the workplace) that promote KM success. On the other hand, defensive cultures (both passive and aggressive) are negatively related with the above individual and organizational outcomes that may cause KM success.

Other researchers have also arrived to the conclusion that a competitive culture leads to individuals keeping their knowledge for themselves whereas a supportive culture may demote their self-interest and make them feel even morally obligated to share [7] [8] [9] [10] cited in [11].

Managers and leaders should actively encourage the knowledge creation and use. Additionally, management should

IV. CHARACTERISTICS OF THE KM CULTURE

The conducted research allowed us to extract a set of attributes relating to a KM culture in a HEI. Thus, a KM-enabling culture must exhibit the following characteristics:

- Knowledge sharing at the individual, departmental and organizational level; also between the organization and its external stakeholders;
- Team spirit;
- Desire to assist others;
- Networking abilities through established avenues of communication with colleagues, experts and other benefactors, such as students, and others;
- Ultimate use of available ICT to connect with others;
- Organizational investments in new ICT to enhance collaboration, communication, sharing, etc.;
- Updated knowledge of others' areas of expertise and interests;
- A clear allocation of responsibilities for KM functions to individuals and offices;
- A management team actively and openly supporting KM;
- Practicing KM consciously and systematically;
- Willingness to take the extra step (take the time) to store and share; with time efficiency and respect to time and effort via carefully designed KM activities which must follow the organizational processes' natural work flow and must be embedded in organizational activities so as to require minimum additional effort;
- Respect and interest to keep past records in archives –learn from one's past- while at the same time making sure that all active data is updated to establish currency and accurateness;
- Dissemination of knowledge between those who need it in a variety of ways for easier and enhanced access (supporting the KM function of

promote the organization's workforce to build a positive orientation to knowledge which suggests that they become intellectually curious, they are willing and feel free to explore and they are willing to share without feeling that sharing knowledge will result in them losing power or will cost them their jobs.

A value system which is characterized by non-linear, dynamic and interdependent relationships needs to be adopted for the knowledge infrastructure to be effective.

Users are also sometimes motivated by benefits derived by other users; the "I am glad to help others" spirit. As observed in many settings, for example Wikipedia, people may share knowledge for altruistic pro-social reasons [10].

A study conducted by Cheng and collaborators (Cheng, et al., 2006) to examine knowledge sharing behaviours among academics in a knowledge-based institution, being a university, focused on the factors which may affect the willingness to share knowledge. Organizational, individual and technology factors were examined and the overall findings revealed that incentive systems and personal expectations are the two key factors in urging academics to engage in a knowledge sharing activity. In particular, regarding incentive systems, "forced" participation which was attempted did not work as expected and appeared to be an ineffective policy in cultivating a sharing behaviour among academics. Instead, academics responded to a performance-based incentive system and the general conclusion was that it is important to provide the "right" incentive system and understand individual's expectations towards knowledge-sharing in order to facilitate a knowledge sharing behaviour [12].

In a different study by Alotaibi and co-researchers [13] to investigate the factors that affect academics' behaviour towards knowledge sharing by using Web technology, the authors have been able to identify the factors shown in Figure 1 as the most important in shaping staff's behaviour.

Though not explicitly addressed in the literature as either a barrier or an issue which requires regulation, the Higher Education Funding Council for England (HEFCE) commissioned a study on the issue of intellectual property [14]. The study showed that 19% of the academics in the top 6 high research HEIs felt that intellectual property and other issues relating to the terms of interactions of knowledge exchange nature with external organizations could act as a barrier for their knowledge exchange interactions. In particular, these concerns were primarily raised by academics in the science, technology, engineering and mathematics disciplines.

III. RESEARCH METHODOLOGY

The present study was conducted as part of a broader consultation project aiming at the implementation of knowledge management in a privately owned European HEI of a relatively small size (appr. 10,000 students).

This paper focuses on the aspects of the investigation relating to the KM culture within the HEI and attempts to extract those attributes which would synthesize a KM-enabling

delivering the right knowledge to the right people at the right time);

- Constant identification of knowledge gaps in the organization and filling them by recruiting new organizational members and/or providing such knowledge to the organization members along with the means necessary to attain it;
- Conceptualization and formalization of KM activities by means of adopting a clear KM strategy;
- Acknowledgement and follow up of the evolution of the organization by designing new KM activities and re-designing/re-engineering the existing KM activities as deemed necessary;
- The cultivation of a shared sense of direction, excitement, trust (that information received will be the best), and willingness to continually learn from peers, within the organization;
- Encouragement for a continuous quest for knowledge between the organization's members;
- The promotion of internal cooperation among organization members;
- The promotion of external cooperation with industry consortia and other institutes;
- The maintenance of an organizational structure which will be promoting knowledge sharing;
- The creation of the necessary networks for knowledge transfer and sharing;
- Resolution of any conflicts such as conflicting goals and responsibilities between the organization's departments which may sometimes be influencing people's behaviours in relation to knowledge sharing;
- The practicing KM with transparency; collecting best practices; reflecting on KM practices and sharing KM experiences;
- Ways of dealing with the technology fear and the expected resistance to change;
- Ways to establish, enable and enhance learning practices between the organization's members;
- Appropriate incentives to motivate organization members contributing to knowledge sharing;
- Acknowledging and rewarding members' contribution;
- The regular measurement of KM practices and the close following of any progress made;
- Knowledge of handling copyrights, sensitive, and proprietary knowledge.
- Positive environment promoting professional and social interactions between its members.

Below are some of the contributions made by faculty, staff, and administrators of the HEI who participated in the undertaken study:

“Communication between relating departments may not be developed to the necessary degree.”

“Need to provide in a systematic way all this wealth of experience / knowledge / expertise so that someone will be able to use it if they take over a position in our units... We want to establish a system for the transfer of knowledge.”

“If we do not have a platform and no infrastructure for knowledge sharing we cannot talk about motivation. I do not think a lot of the people are aware of this term, KM; maybe we do it without knowing it is that.”

“There is good communication between relating departments.”

“No problem with motivation and trust.”

What you describe is “... Part of the nature of academia and a university environment.”

“If you provide them the means and the time people are willing to learn.”

“In general there is motivation... Every time we approach people with information there is response, there is readiness, ...”

“Has to do with the motivation of the person. Generally speaking our society is not characterized by a strong work ethic. Most people do not want to work.”

“...This is not a problem of individuals it is rather a bad characteristic of our culture. In other cultures things are different. Students sometimes are looking to receive inspiration from their lecturers. Our discussions revolve around our everyday tasks; they lack spirituality.”

“Social interactions are very important for all organizations. It is not just the dissemination of knowledge that should interest us, but the key is how people interact and collaborate to share the knowledge, along to the existence of a positive environment.”

“People can be trained, if there is a willingness, how to speak to each other. A culture can be cultivated.”

“Why should people take an initiative if their efforts are not rewarded? Quite often it is just a question of being recognized and appreciated.”

“We need somebody to motivate the people and cultivate the culture.”

“.. It requires an individual and an organization value system to learn from past mistakes in order to go forward.”

“... should work on the emotional level on keeping people happy.”

“If you do not want to learn you will fail. When the organization learns it does not mean that everybody learns. Not only learning about what you are doing; it is also learning new things.”

“Maybe one of our weaknesses is sometimes a competition that may exist between departments. This may be caused by the size of the organization or the un-clear delegation of duties, overlapping of responsibilities, stress caused by increased work load...”

“Sometimes there is confusion in regards to responsibilities and jurisdiction of departments or individuals by the management or colleagues or students.”

“A re-engineering of positions with clear job descriptions may be necessary.”

V. CONCLUSIONS AND PLANS FOR FUTURE RESEARCH

A KM-enabling culture is overall a trusting, supportive, non-individualistic culture which promotes sharing for the common goal of organizational prosperity. Except from those organizations in which this is the natural way in which people behave in all other cases the road to its development and maintenance of such a culture may be challenging. The outcome will most definitely be rewarding for the organization which will enjoy by the benefits of effective knowledge management.

In this paper we attempted to decompose the KM culture in order to come up with all those issues, elements, and characteristics which synthesize it. By means of conducting a qualitative study on KM in a HEI we constructed a list of characteristics which must exist in KM-enabling culture.

The present study requires further investigation focused on KM culture which will also involve more HEIs in order to reach more conclusive results which may be generalizable in the sector of higher education.

REFERENCES

[1] A. Kara and O. DeShields, "Business Student Satisfaction, Intentions and Retention in Higher Education: An Empirical Investigation," *Marketing Educator Quarterly*, vol. 14, no. 3, pp. 333-, 2004.

[2] D. Cranfield and J. Taylor, "Knowledge Management and Higher Education: a UK Case Study," *The Electronic Journal of Knowledge Management*, vol. 6, no. 2, pp. 85-100, 2008.

[3] J. E. Blose, W. Tankersley and L. Flynn, "Managing Service Quality Using Data Envelopment Analysis," *Quality Management Journal*, vol. 12, no. 2, pp. 7-24, 2005.

[4] J. Rowley, "Is Higher Education Ready for Knowledge Management?," *The International Journal of Educational Management*, vol. 14, no. 7, pp. 325-333, 2000.

[5] V. Allee, "Twelve Principles of Knowledge Management," *Training and Development*, vol. 51, no. 11, pp. 71-74, 1997.

[6] P. Balthazard and R. Cooke, "Organizational Culture and Knowledge Management Success: Assessing the Behavior-Performance Continuum," in

Proceedings of the 37th Hawaii International Conference on System Sciences, , 2004.

[7] U. Kulkarni, S. Ravindran and R. Freeze, "A Knowledge Management Success Model: Theoretical Development and Empirical Validation," *Journal of Management Information Systems*, vol. 23, no. 3, pp. 309-347, 2006.

[8] M. van Alstyne, "Create Colleagues, Not Competitors," *Harvard Business Review*, vol. 83, no. 9, pp. 24-28, 2005.

[9] S. Voelpel, M. Dous and T. Davenport, "Five Steps to Creating a Global Knowledge-Sharing System: Siemens' ShareNet," *Academy of Management Executive*, vol. 19, no. 2, pp. 9-23, 2005.

[10] M. Wasko and S. Faraj, "It is What One Does: Why People Participate and Help Others in Electronic Communities of Practice," *The Journal of Strategic Information Systems*, vol. 9, no. 2-3, pp. 155-173, 2000.

[11] C. Loebbecke and K. Crowston, "Knowledge Portals: Components, Functionalities, and Deployment Challenges," in *Conference Proceedings ICIS 2012*, , 2012.

[12] M. Cheng, J. S. Y. Ho and P. Lau, "Knowledge Sharing in Academic Institutions: a Study of Multimedia University Malaysia," *Electronic Journal of Knowledge Management*, vol. 7, no. 3, pp. 313-324, 2006.

[13] H. Alotaibi, R. Crowder and G. Wills, "Investigating Factors for E-Knowledge Sharing amongst Academic Staff," in *eKNOW 2014 : The Sixth International Conference on Information, Process, and Knowledge Management*, , 2014.

[14] PACEC and the Centre for Business Research at the University of Cambridge, "The Intellectual Property Regime and its Implications for Knowledge Exchange," 2010. [Online]. Available: http://www.pacec.co.uk/publications/The_Intellectual_Property_Regime_and_its_Implications_for_Knowledge_Exchange.pdf. [Accessed 10 December 2014].

[15] M. Miles and A. Huberman, *Qualitative Data Analysis: A Sourcebook of New Methods*, ed., Thousand Oaks: Sage, 1994.

[16] HEFCE, "Strategic Plan 2006-11," June 2009. [Online]. Available: www.hefce.ac.uk. [Accessed 20 December 2013].

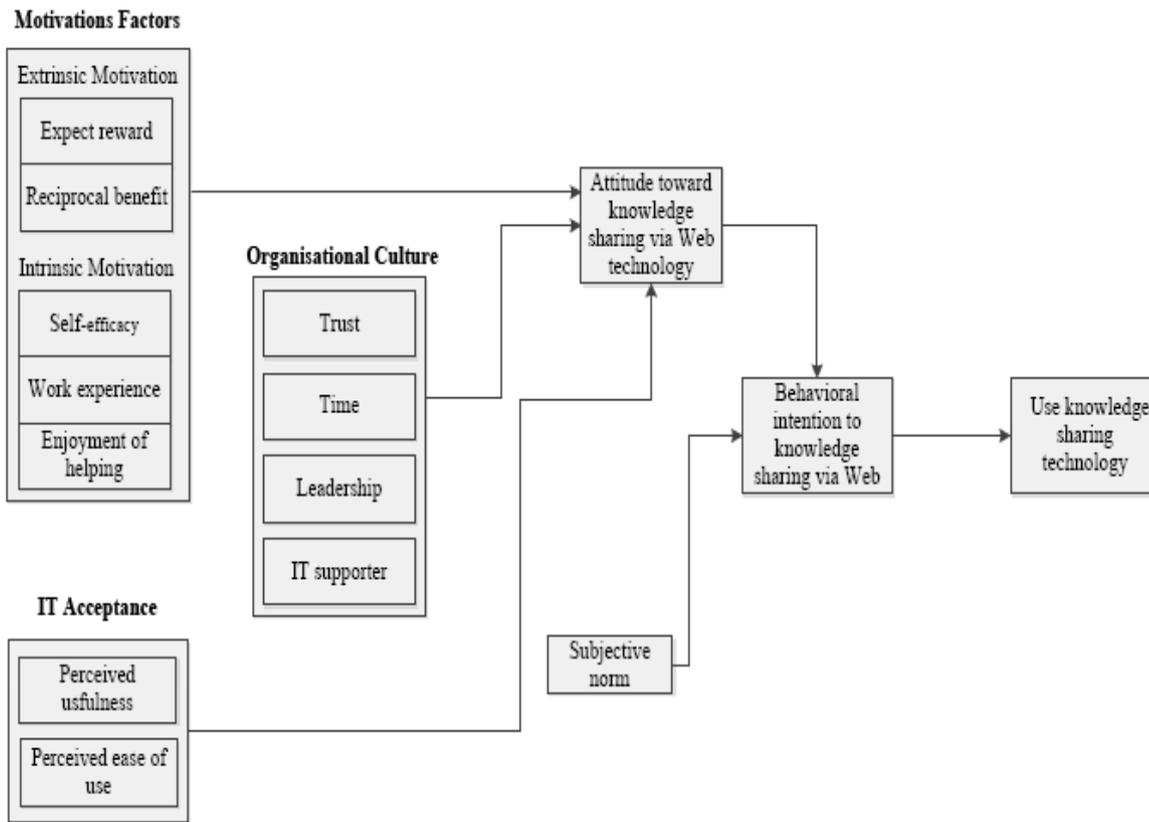


Fig. 1. Factors that lead to successful adoption of knowledge sharing technology; Source: [13]