# Competing Values Framework and Knowledge Management Processes in Malaysian Universities

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# ABSTRACT

This paper aims to investigate the relationship between knowledge management (KM) processes and organisational culture (OC) between the public and private higher education institutions in Malaysia. Based on the data collected from 594 academics in 3 public and 3 private universities in Malaysia, the empirical results reveal that more than 87% of the respondents have at least some knowledge of KM. The mean scores also suggest that the institutions have somewhat balanced culture which is conducive for KM implementation. All the KM processes exhibit significant positive correlations with all the OC types. The implications are discussed and recommendations are provided in light of the findings.

#### Keywords

Knowledge management; Organisational culture; higher education; Malaysia

## **1.0 INTRODUCTION**

There is wide recognition that higher education institutions are in fact knowledge-based (Sallis & Jones, 2002) and that there is as much need for KM in higher education as in the industries (Laudon & Laudon, 1999; Sallis & Jones, 2002). Similar to the corporate sector, the institutions are increasingly operating in an ever-changing and uncertain environment (Bates, 1997; Levine, 2000; Middlehurst & Woodfield, 2006). Since higher education does not solely provide knowledge to students but is also engaged in managing and collaborating existing knowledge for future reference (Maizatul Akmar & Chua, 2006; Yusof & Suhaimi, 2006), hence, an institutional-wide approach to KM which can lead to considerable improvements in sharing explicit and tacit knowledge and subsequently improving the performance of the institutions is necessary (Sharimllah Devi et al., 2007; 2008; 2009).

There are, however, two primary issues that make KM implementation a challenge across the higher

education institutions. First, there are clear and substantive differences between public and private higher education providers, particularly from the perspective of styles of leadership and administration, quality, and the ability to meet market demands (Balan, 1990; Mintzberg, 1993; Patrinos, 1990; Perry & Rainey, 1988). These dimensions are strongly linked to KM practices (i.e. leadership) and outcomes (i.e. quality of programmes and ability to meet market demands). Unfortunately, very limited empirical research has been attempted to compare the differences in KM practices between the public and private institutions.

Second is the tendency of faculty members to hoard knowledge (Ho et al., 2008; Wiig, 1993) as many regard knowledge as proprietary and thus should not be shared. Managing knowledge in these institutions has therefore become a matter of managing organisational culture (OC) (Alvesson & Karreman, 2001; McDermott (1999). In fact many KM researchers and practitioners have arrived at consensus that one of the most critical factors in KM implementation is the presence of a knowledge friendly culture (Chong, 2006; Davenport & Prusak, 1998; Greengard, 1998; McDermott & O'Dell, 2001; Nonaka & Takeuchi, 1995; Ryan & Prybutok, 2001; Skyrme & Amidon, 1997). However, very few studies have been done to investigate cultural aspects that facilitate KM implementation, especially among the higher education sector. This gives rise to a growing discontentment among the academics regarding the practicalities of implementing KM (Michael, 2004).

This paper thus explores the KM processes and OC between the private and public higher education sector. The implications of this study could be of remarkable value to help the institutions, both public and private, to assess the existing cultural practices as they prepare to implement KM initiatives. Specifically, the findings could help the institutions to evaluate their existing cultural practices which will help steer the direction for KM success.

# 2.0 LITERATURE REVIEW

#### 2.1 Knowledge Management (KM) Processes

KM is widely recognised as a process involving knowledge generation, use and application. The knowledge to be managed includes both explicit; documented knowledge, and tacit; subjective knowledge. The literature suggests that there are as many as six KM processes (creation, capture, organisation, storage, dissemination, and application) (Bhatt, 2000; Earl & Scott, 1999; Horwitch & Armacost, 2002; Parikh, 2001).

#### 2.2 Organisational Culture (OC)

Organisational culture (OC) has been touted as a strong strategic KM enabler given the fact that it motivates and supports while encouraging KM processes at an individual, group, and organisational levels (Coukos-Semmel, 2002). In fact, Kotter and Heskett's (1992) study on OC and performance concluded the following: (a) OC has a major impact on a company's long-term economic performance; (b) OC contributes importantly in determining the success or failure of organisations in the next decade; and, (c) although difficult to change, management can restructure OC to become more performance enhancing.

Among the many constructs measuring cultural practices of organisations, the Competing Values Framework (CVF) developed by Cameron and Quinn (1999) is perhaps one of the most comprehensive models proposed so far due to its strong theoretical foundation. It is extremely useful in helping to organise and diagnose a wide variety of organisational phenomena. The framework arrests the trends in culture by focusing on competing values along the internal/external and control/flexibility divides (Quinn & Spreitzer, 1991). Apart from exploring the competing demands within organisations between their internal and external environments, the CVF also investigates control and flexibility focus (Denison & Spreitzer, 1991) which constitutes the two axes of the competing values model. Organisations with an internal focus accentuate integration. information management and communication, whereas organisations with an external focus stress on growth, resource acquisition and interaction with the external environment. On the second dimension of conflicting demands, organisations with a focus flexibility emphasises adaptability on and spontaneity (Zammuto et al., 1999).

As shown in Figure 1, the CVF has four distinct culture types:

- 1. Clan or Group
- 2. Adhocracy or Development
- 3. Hierarchical
- 4. Market or Rational

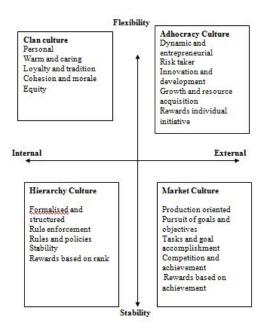


Figure1: Competing Values Framework

Based on the extensive review of literature, this study adopts the six KM processes and the CVF to measure the culture of both the private and public higher education institutions.

## **3.0 METHODOLOGY**

#### 3.1 Sampling

The study was conducted on the entire population of academics attached to three public upgraded university colleges and three private university colleges in Malaysia to ensure maximum return rate of the questionnaires. The academics were chosen because of their responsibility in generating knowledge through research and disseminating knowledge via teaching (Chaudhry & Higgins, 2003; Jones, 2003). The nature of the study was explained in a cover letter accompanying the questionnaire.

Prior to administering the questionnaires, permission was sought from the management of each institution. Out of the 1453 questionnaires administered, 594 were returned, yielding a response rate of 40.8%. Overall, there was a return rate of 33.9% for public institutions and 52.8% for private institutions. Since the response rates for both the public and private institutions in isolation as well as the overall are more than 30%, this

enables the generalisation of the results obtained (Sekaran, 2003).

#### 3.2 Questionnaire

The survey questionnaire used in this study contains two sections. Section 1 contains two questions on demographic information, which consists of the academics' knowledge of KM and if their institutions had a KM programme in place. Section 2 contains Organisational Culture Assessment Instrument (OCAI) developed and validated by Cameron and Quinn (1999) based on the theoretical model of CVF (Figure 1). The questionnaire was piloted prior to dissemination so as to achieve face validity.

## 4.0 FINDINGS

Table 1 shows the profiles of the respondents. A majority of the respondents seemed to have some knowledge of KM. This justifies their inclusion in the current study. However more than half of the respondents state that their institutions do not have or are unsure if a KM programme is in place. Hence, it can be concluded that KM does not have a very strong base in these institutions.

Table 1: Demographic characteristics of	•
respondents	

Items	Descriptions	%
Knowledg	Nothing	12.8
e of KM	Some knowledge	37.9
	Average knowledge	40.7
	More than average	8.2
	knowledge	
	Very knowledgeable	0.3
Institution	Yes	43.8
has KM	No	20.2
Programme	Unsure	36.0

Table 2 illustrates the overall mean score for the public and private institutions as a whole and on its own for the four OC types. All the factors in the OC type scored an average mean factor rating; however, the highest of this is the clan culture and hierarchy culture, and the lowest is the adhocracy culture for the public and private institutions as a whole. The findings imply that the academics show an average tendency to all the culture types in the institution surveyed, with a slightly more emphasis on the clan and hierarchy culture. The standard deviation scores below one imply that the respondents have consistently rated all the elements.

Consistently, Table 2 also illustrates the overall mean score for public institutions for the OC types. All the OC types scored an average mean factor rating as illustrated in the table above; the highest of this being the clan culture, and the lowest is the adhocracy culture.

Culture type	Public and Private IHLs	Std. Deviation	Public IHLs	Std. Deviation	Private IHLs (Rank)	Std. Deviation
Clan	3.44	.4	3.67	.4	3.11	.3
Culture	(1)	79	(1)	22	(3)	46
Adhocracy	3.25	.4	3.33	.4	3.17	.3
Culture	(3)	25	(4)	51	(2)	56
Market	3.32	.4	3.42	.4	3.18	.4
Culture	(2)	79	(3)	49	(1)	89
Hierarchy	3.44	.4	3.63	.4	3.18	.4
Culture	(1)	95	(2)	19	(1)	75

Similarly, the overall mean score for private institutions for the four OC types also shows an average mean and standard deviation rating for all the OC type. The highest of this being the market and hierarchy culture, and the lowest is clan culture. The findings imply that the academics show a neutral tendency to all the culture types in the institution surveyed.

Table 3 demonstrates that all the six KM processes identified from the literature have a moderate significant positive correlation with all the cultures, namely, clan, adhocracy, market and hierarchy for both the public and private institutions. Greater correlation coefficients were recorded for adhocracy and market culture types. The Pearson correlation analysis provides evidence that all the OC types are encouraging for KM implementation. This indicates that a mix of all the four OC types is needed for the KM processes to be effectively carried out.

OC KM Processes	Clan	Adhocr acy	Mark et	Hierarc hy
Public and	.445*	.516**	.554*	.423**
Private	*		*	
IHLs				
Public IHLs	.465*	.462**	.456*	.343**
	*		*	
Private	.555*	.581**	.693*	.472**
IHLs	*		*	

 Table 3: Correlation between KM Processes and
 OC in Public IHLs

\*\* Correlation is significant at the 0.01 level (2-

tailed).

## **5.0 DISCUSSION**

This research is probably one of the first studies that attempted to comprehensively examine the relationship between KM processes and OC in the public and private higher education setting. The findings on the extent of academics' knowledge on KM (Table 1) provide empirical evidence that the higher education sector is in fact knowledge-based organisations (Cronin & Davenport, 2000; Goddard, 1998; Rowley, 2000).

In relation to OC types, this study found that the institutions surveyed have a balanced culture, which is ideal given that Cameron (1986) reports that organisation with a balanced culture is better than in which only one culture dominates. The balance can be explained by the fact that the institutions surveyed are relatively new, established around 2000. Hence, academics employed from varied institutions with different OC types make up the academic pool, thus contributing to the equilibrium.

The market and adhocracy culture recorded a higher correlation in the public and private institutions as a whole because the basic emphasis underlying the market and adhocracy culture is strength in market position, and research and development, respectively which is in line with KM which is known to improve customer service, encourage individual learning and develop rapid commercialisation to renew unique knowledge and expertise (Skyme & Amidon 2000). The clan culture recorded a higher correlation to KM processes in the public institutions because its premise of employee involvement in programmes, which is to some extent a communal effort is consistent with the nature of KM processes (Yeo et al., 2004). The market culture recorded a greater correlation with KM processes compared to the rest of the cultures due to its attributes in private institutions.

The hierarchy culture recorded the lowest mean score in all the institutions. The premise of the hierarchy culture emphasises on rules, stability and formalisation which may not be in line with KM processes, which stresses on efficient exploitation and development of the knowledge assets of an organisation (Davenport et al., 2003).

### 6.0 RECOMMENDATION

The results demonstrate that the market culture has a significant relationship with KM processes, thus the higher education sector should focus more on the market culture. It implies that the institutions must keep track of how their best competitors are performing. Publications, and news clippings must be studied and the best practices in the best institutions throughout the world must be benchmarked.

In line with this, a formal SWOT (Strategies, Weaknesses, Opportunities, and Threats) analysis needs to be conducted to identify the core competencies and strategic advantages of a faculty. In addition, bottlenecks need to be identified as well as the redundancies as issues that slow down work need to be eliminated, redesigned, or changed. Next, the institutions must emphasise only on world-class quality in products and services, and the message that only best ideas, thinking and effort are acceptable needs to be communicated. Additionally, clear priorities need to be established since not everything done adds value to the institutions. Business needs to be done with competitors, be they private or public institutions once in a while in the form of joint workshops, training and conferences. In this way, the techniques of what they do better can be identified.

To achieve this, the top management and even the government leaders play critical roles in shaping the culture of the institutions. In promoting a balanced culture, the leaders must take the role of cultural change agents in enabling KM. Only through proper change management initiated by the leaders through systematic promotion of desired subcultures and planned organisational development projects can create parallel learning structure for KM initiatives to be successful (Schein, 1992).

### 7.0 CONCLUSION

It is necessary than ever before for the higher education sector to recognise the value of their intellectual capital and manage these intangible assets in order to be adaptable to a knowledgebased society (Metaxiotis & Psarras, 2003). Therefore, it is hoped that the findings and recommendations made in this study would help the institutions to properly manage their KM processes through the development of a KM-friendly culture across the institution.

#### REFERENCES

- Alvesson, M., and Kärreman, D. (2001). Odd Couple: Coming to Terms with KM. *Journal* of Management Studies, 38, 995-1018.
- Balan, J. (1990). Private Universities within the Argentine Higher Educational System, Trends and Prospects. Higher Education Policy, 3/2, 13-17.
- Bates, T. (1997). *Restructuring the University for Technological Change*. Paper presented at the Carnegie Foundation for the Advancement of

Teaching: What Kind of University?, June 18-20, London, England.

- Bhatt, G.D. (2000). Organising Knowledge in the Knowledge Development Cycle. *Journal of Knowledge Management*, 4(1), 15-26.
- Cameron, K.S. (1986). Effectiveness as Paradox: Consensus and Conflict in Conceptions of Organisational Effectiveness. Management Science, 32, 539-553.
- Cameron, K.S., & Quinn, R.E. (1999). Diagnosing and Changing Organisational Culture: Based on Competing Values Framework. Reading, MA: Addison Wesley.
- Chaudhry, A.S., & Higgins, S. (2003). On the Need for a Multi Disciplinary Approach to Education for Knowledge Management. Library Review, 52(1/2), 65-69.
- Chong, S.C. (2006). KM critical success factors: A comparison of perceived importance versus implementation in Malaysian ICT companies. The Learning Organisation, 13(3), 230-256.
- Coukos-Semmel, E.D. (2002). Knowledge Management: Processes and Strategies used in United States Research Universities. Unpublished Dissertation, Florida Atlantic University, Florida.
- Davenport, T. and Prusak, L. (1998). Working Knowledge: *How Organisations Manage What They Know*. Boston: Harvard Business School Press.
- Denison, D.R., & Spreitzer, G.M. (1991). Organisational Culture and Organisational Development. Research in Organisational Change and Development, 5, 1-21.
- Dingsoyr, T., Djarraya, H.K., & Royrvik, E. (2005). Practical Knowledge Management Tool Used in A Software Consulting Company. Communications of the ACM, 48(12), 96-100.
- Earl, M.J., & Scott, I.A. (1999). *Opinion: What is a Chief Knowledge Officer?* Sloan Management Review, 40(2), 29-38.
- Goddard, A. (1998). *Facing up to Market Forces*. Times Education Supplement, 13, 6-7
- Greengard, S. (1998). Will Your Culture Support *KM*? Workforce, 77(10), 93-94.
- Ho, J.S.Y., Cheng, M.Y., & Lau, P.M. (2008).
   Knowledge Sharing in Knowledge-based Institutions. In Proceedings of : The 10<sup>th</sup> International Business Information Management Association Conference, Kuala Lumpur, Malaysia.
- Horwitch, M., & Armacost, J. (2002). Helping Knowledge Management Be All It Can Be.

*The Journal of Business Strategy*, 23(3), 26-31.

- Jones, A.C., Jr. (2003). The Development of an Architecture for Knowledge Management in Special Education. UMI Microform 3099656.
- Joseph, M.F. (2001). Key issues in knowledge management'. Knowledge and Innovation: Journal of the Knowledge Management Consortium International, 1(3), 8-38.
- Kotter, J.P., & Heskett, J.L. (1992). *Corporate Culture and Performance*. New York: The Free Press.
- Laudon K., & Laudon J. (2000). Management Information Systems: Organization and Technology in the Networked Enterprise. Upper Saddle River, NJ: Prentice Hall.
- Levine, A.E. (2000). The Future of Colleges: 9 Inevitable Changes. *Chronicles of Higher Education*, October 7. Assessed 16 September 2007, http://www.education. gsu.edu/ctl/Programs/Future Colleges.htm.
- Maizatul Akmar, I., & Chua, L.Y. (2005). Analysis of KM Impact in Higher Learning Institutions. In Proceedings of the International Conference on Knowledge Management in Institutes of Higher Learning. Multimedia University, Malaysia & Suan Dusit Rajabhat University, Bangkok.
- McDermott, R. (1999). Learning across Teams: *The Role of Communities of Practice in Team Organisations.* Knowledge Management Review, 3(2), 5.
- McDermott, R., & O'Dell, C. (2001). Overcoming Cultural Barriers to Sharing Knowledge. Journal of Knowledge Management, 5(1), 76-85.
- Metaxiotis, K., & Psarras, J. (2003). Applying Knowledge Management in Higher Education: The Creation of a Learning Organization. Journal of Information & Knowledge Management, 2(4), 353-359
- Michael, S. O. (2004). In Search of Universal Principles of Higher Education Management and Applicability to Moldavian Higher Education System. *International Journal of Educational Management*, 18(2), 118-137.
- Middlehurst, R., & Woodfield, S. (2004). The Role of Transnational, Private, and For-Profit Provision in Meeting Global Demand for Tertiary Education: *Case Study, Malaysia Summary Report*. Report commissioned by the Commonwealth of Learning and UNESCO.
- Mintzberg, H. (1996). Musings on Ten Ideas Designed to Rile Everyone who Cares About

*Management*. Harvard Business Review, July-August, 61-67.

- Patrinos, H.A. (1990). The Privatization of Higher Education in Columbia: *Effects on Quality and Equity*. Higher Education. 20(2), 161-173.
- Nonaka, I., & Takeuchi, H. (1995). The Knowledge Creating Company: *How Japanese Companies Create the Dynamics of Innovation. New York*: Oxford University Press
- Parikh, M. (2001). Knowledge Management Framework for High-Tech Research and Development, *Engineering Management Journal*, 13(3), 27-33.
- Perry, J.L., & Rainey, H. (1988). The Public-Private Distinction in Organisation Theory: *A Critique and Research Agenda*. Academy of Management Review, 13(2), 182-201.
- Quinn, R.E., & Spreitzer, G.M. (1999). The Psychometrics of the Competing Values Culture Instrument and an Analysis of the Impact of Organizational culture on Quality of Life. Research in Organizational Change and Development, 5, 115-142.
- Rowley, J. (2000). Is Higher Education Ready for Knowledge Management?, International Journal of Educational Management. 14(7), 325-333.
- Ryan, S.D., & Prybutok, V.R. (2001). Factors Affecting Knowledge Management Technologies: A Discriminative Approach. Journal of Computer Information Systems, 41(3), 31-37.
- Sallis, E., & Jones, G. (2002). Knowledge Management in Education Enhancing Learning & Education. London: Kogan Page Limited.
- Schein, E. H. (1992). Organizational Culture and Leadership. San Francisco, CA: Jossey Bass.
- Sekaran, U. (2003). Research Methods for Managers: A Skill Building Approach. NY: John Wiley & Sons, Inc. Publications.

- Sharimllah Devi, R., Chong, S.C., & Hishamuddin, I. (2009). The Practice of KM Processes: A Comparative Study of Public and Private Higher Education Institutions in Malaysia. VINE, 39(3), 203-222.
- Sharimllah Devi, R., Chong, S.C., & Lin, B. (2007). Perceived Importance and Effectiveness of KM Performance Outcomes: Perspectives of Institutions of Higher Learning. International Journal of Innovation and Learning, 5(1), 18-37.
- Sharimllah Devi, R., Chong, S.C., & Lin, B. (2008). Perceived Importance and Effectiveness of KM Performance Outcomes: Perspectives of Institutions of Higher Learning. International Journal of Innovation and Learning, 5(1), 18-37.
- Skyrme, D., & Amidon, D. (1997). The Knowledge Agenda. *Journal of Knowledge Management*, 1(1), 27-37.
- Wiig, K. (1993). Knowledge Management Foundations. Texas: Schema Press.
- Yeo M.W., Seow T. L. and Suliman Al-Hawamdeh. (2004). Formulating a Communication Strategy for Effective Knowledge Sharing. *Journal of Information Science*, 30(1), 12-22.
- Yusof, I., & Suhaimi, M.D. (2006). Managing Knowledge Transfer among Academic Staff of Institutions of Higher Learning (IHL): Lessons from Public Universities in Malaysia. Proceedings of the International Conference on Knowledge Management in Institutes of Higher Learning. Multimedia University, Malaysia & Suan Dusit Rajabhat University, Bangkok.
- Zammuto, R.F., Gifford, G., & Goodman, E.A. (1999). Managerial Ideologies, Organisation Culture and the Outcomes of Innovation: A Competing Value Prospective. In Ashkanasy, N., Wilderom, C., and Peterson, M. (Eds), The Handbook of Organisational Culture and Climate, Thousand Oaks, CA: Sage