KNOWLEDGE MANAGEMENT ORIENTATION AT PUBLIC AND PRIVATE UNIVERSITIES IN MALAYSIA: AN EMPIRICAL OVERVIEW OF ORGANIZATIONAL KNOWLEDGE PRACTICES

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Abstract. Knowledge Management (KM) acquires more grounds of acceptance by knowledge intensive organizations especially among multimedia development firms and universities in search for competitive advantage. KM can be viewed as a systematic application of fragmented knowledge through integration environment in workplaces and communities. As an emerging discipline, KM has been positively associated with innovation and competitiveness. The paper discusses this new discipline of KM through reviewing existing literature and deriving essential perspectives in understanding such a new approach. This research advocates on four established domains of organizational knowledge practices, namely knowledge culture, knowledge content, knowledge infrastructure, and knowledge process, based on previous work done by Korot and Tovstiga. It also presents interesting empirical findings based on surveys at four Malaysian universities, namely Universiti Tun Hussein Onn Malaysia (UTHM), Universiti Utara Malaysia (UUM), Multimedia University (MMU) and Monash University at Sunway campus, Malaysia. This study discovers that private universities fare better KM practices in comparison to public universities. Knowledge content is deemed as the most important determinants in overall KM practices.

Keywords: Knowledge management, Knowledge content, Public University, Private University, Malaysia, Multimedia Super Corridor (MSC), Overview, Knowledge Practices Survey (KPSO)

1. Introduction

Malaysia has moved forward to make full use of knowledge and innovation through its Multimedia Super Corridor flagship (Chua 2002). Evers (2001) stated that “Malaysia is scheduled to develop into a knowledge society” (pg.1). In the knowledge-based society and economy, a nation’s wealth is generated through internal articulation of human creativity, knowledge-based resources, innovative environment, as well as external association with global partners (Abdullah 2005). It is widely acknowledged that nations create wealth through full utilization of knowledge, maximizing human capital, effective national policies and efficient innovation systems.

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The Multimedia Super Corridor (MSC) is a planned region with the latest infrastructure, policies, and laws that enable firms to discover potential and benefit from the information age (Chuan and Abdulai 2002). The MSC is the vehicle for the nation to leap into the IT era and transform Malaysia into knowledge-based economy (Chua 2002). The corridor stretches from the Petronas Twin Towers to the new Kuala Lumpur International Airport (KLIA), covering a 15-by-50 km width area. Putrajaya, the new administrative capital of Malaysian government, is located at the heart of this newly developed region. Putrajaya is equipped with new electronic government mechanisms, state-of-the-art communications, and transportation systems (Chuan and Abdulai 2002). The neighbouring multimedia city, Cyberjaya, offers high intelligent buildings, multimedia enterprise offices, the latest technology facilities, and excellent landscape for recreation (Chuan and Abdulai 2002). The nucleus of Cyberjaya is the Multimedia University (MMU), one of the universities included in the study. The MSC region, the administrative capital city of Putrajaya, and the multimedia city of Cyberjaya have been fundamental in shifting Malaysia economy from technology-based era to knowledge-based era (Chuan and Abdulai 2002).

The MSC initiative is managed by Multimedia Development Corporation (MDec Corp.) which is entrusted by the Malaysian Government to oversee development of the MSC. The Multimedia Super Corridor aims to attract companies with attractive tax breaks and facilities such as high speed internet and proximity to the local international airport, Kuala Lumpur International Airport (KLIA). Companies which engage in knowledge-intensive operation and meet some MSC’s requirements could set up their base in the MSC region. Such firms are awarded with the MSC-certified status which means very significant incentives from the Malaysian government. Such incentives are designed to attract, train and retain knowledge workers in this special region. This move is expected to push forward Malaysia into k-based economy at a faster rate.

Figure 1. MSC-certified logo
Scenic view of MSC region
2. Knowledge Management (KM)

KM has developed for about 30 years since the time of Chaparral Steel in the 70's, to the time of the inaugural KM conference organised by Purdue University in 1987, to the publication of the first KM dedicated book in 1993 (Wigg, 1997) until the current times of social knowledge management. Knowledge is the major commodity to spin-off economic and business activities in the K-based economy. The approach of how key knowledge is managed in organisation becomes issue of utmost importance, known as knowledge management (KM). The primary objective of KM is to facilitate opportunistic application of fragmented knowledge through integration via knowledge management cycle. KM cycle consists of knowledge identification and capturing, knowledge sharing, knowledge application and knowledge creation (Nonaka 1998; Darroch 2005; Dana et al. 2005). Some internal KM factors that are considered as antecedents of any KM approach are leadership, trust, structures, policies, recognition, need and experiences with change, morale, job satisfaction, learning and development, and communications (Dulany and Pelletiere 2008). In addition, some KM approaches can be classified broadly as the people approach, the technology approach, and the socio-technical approach (Grant and Shamsavarani 2010).

Knowledge management initiative in Malaysia set its root which is traceable to this early new millennium. Dr. Mahathir (then the Prime Minister) laid Malaysia’s foundation in the knowledge-based economy by launching the National K-economy Masterplan in 2000 (Chuan and Abdulai 2002). In pursuance to this Masterplan, a number of government agencies (such as Bank Negara — National Bank, MAMPU and INTAN), companies (such as Petronas, Telekom and Motorola Malaysia) and universities (Multimedia University, University of Malaya, Universiti Teknologi MARA and Universiti Putra Malaysia) began initiating KM programmes and KM centers. KM academic programmes are designed to recruit more potential students pursuing degree in KM. KM centers were aimed to engage more studies on KM research at post-graduate levels in several universities in Malaysia.

3. Malaysian Universities

This research is a comparative analysis in nature studying among public and private universities. The comparison study is important due to a general perception that claims private university practices better knowledge management orientation than public university. However, such perception is not supported empirically through research. As such, the research finding is expected to provide evidence to support or against such a general perception.
Malaysia has 20 public universities (under purview of the government) and 42 private universities and university colleges (under purview of private or foreign institutions, with quality monitoring by Malaysian Qualification Agency – MQA).

Sampling populations for the study are limited 4 universities, namely (1) Universiti Tun Hussein Onn Malaysia (UTHM), (2) Universiti Utara Malaysia (UUM), (3) Multimedia University (MMU) and (4) Monash University-Sunway (Monash). This represents 6.5% of the whole number of universities in Malaysia. A total of 80 respondents involved in the study which was done via online mode and conventional paper-based survey.

3.1 Universiti Tun Hussein Onn Malaysia (UTHM)

Universiti Tun Hussein Onn Malaysia (UTHM) is a public university in Batu Pahat, Johor, Malaysia. It was formerly known as Institut Teknologi Tun Hussein Onn (ITTHO) and Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO). Along with other public university colleges, KUiTTHO and The Polytechnic Staff Training Centre (PLSP) was established in September 1993 through a memorandum of understanding between the Ministry of Education (Malaysia) and the Universiti Teknologi Malaysia (UTM). PLSP was upgraded to Institut Teknologi Tun Hussein Onn (ITTHO) by Ministry of Education in April 1996. The institute achieved another milestone when the Malaysian government has agreed to award a university-college status to the institute in September 2000. With the new status, the institution was known as Kolej Universiti Teknologi Tun Hussein Onn (KUiTTO). Ultimately, the Malaysian government honored the college university as a full fledged university and changed its name to Universiti Tun Hussein Onn Malaysia (UTHM) in September 2006.

3.2 Northern University of Malaysia (UUM)

Northern University of Malaysia (UUM) is a public university located in Penang, Malaysia. It was established in 1962. UUM is one of the oldest universities in Malaysia and offers a wide range of undergraduate, postgraduate, and research programs.

Figure 2. UTHM logo
Figure 3. UUM logo
Scenic view of UTHM
Scenic view of UUM
Universiti Utara Malaysia is a public university located in the town of Sintok, Kedah. It was formally incorporated in February 1984. The University was established with the specific mission of providing a leadership role for management education in the country. Thus, the university is also known as a management university. The academic establishments in UUM include College of Business (COB), College of Law, Government and International Studies (COLGIS) and College of Arts and Sciences (CAS). The university was also accorded the MSC status, the first public university and the first university located outside the Multimedia Super Corridor, to be bestowed this high prestige status.

3.3 Multimedia University (MMU)

Multimedia University is among Malaysia's first private university which was established in 1994. It has two campuses with one in Cyberjaya and another in Melaka. The Melaka campus was set up in 1997 and is located in the Ayer Keroh district, the initial setting up of the campus involved converting an old building belonging to the Telekom Malaysia Berhad's southern region office.

Its Cyberjaya campus opened in Malaysia's first intelligent city, Cyberjaya, in July 1999. This campus was the brainchild of the country's fourth Prime Minister, Tun Dr Mahathir and was as a centre of learning and research for the Multimedia Super Corridor (MSC), a 750 km² area designated as the country's high-tech research and industrial area. The relationship between the campus and the MSC is intended to be similar to the relationships U.C. Berkeley and Stanford University share with the Silicon Valley. Later, he requested the management to change the name of Universiti Telekom to Multimedia University. Within the first five years of its founding, the university's total student population grew beyond 10,000 in both campuses.

3.4 Monash University, Sunway campus (Monash Sunway)

Figure 6. Monash University logo  

Figure 6. Monash University logo  

Scenic view of Monash Sunway
The Sunway Campus of Monash University opened in 1998 and is located within the Bandar Sunway township, District of Petaling Jaya, Malaysia. This campus is one of two Monash campuses outside the state of Victoria in Australia. Monash University also operates a centre in Prato, Italy. It is currently home to approximately 4,000 undergraduate and postgraduate students. The current head of the campus is Pro-Vice Chancellor & President (Malaysia) Professor Robin Pollard. While other Australian universities have struggled to compete in Asia, Monash Malaysia has returned a surplus since 2003, which is re-invested in the campus.

On September 2007, the University opened its new RM200 million campus, including a new medical school. The new campus was officially opened by the Deputy Prime Minister of Malaysia, Dato' Sri Najib Tun Razak. Currently, Malaysia is the third largest campus of Monash University after the Clayton Campus and the Caulfield Campus. The new campus means that Monash Malaysia can now accommodate up to 5,000 students. The campus capacity will be further increased when phase 2 of its development is carried out.

As one of the eight Monash campuses, the Sunway campus is subject to Monash University for all matters related to academic development, teaching and support. The Monash University Act, rules and regulations are observed to ensure that the academic quality expected of Monash University is met. Monash University aspires for its campus in Malaysia to be a medium-size university by 2015, distinctive for its quality of teaching and research.

4. Knowledge Practices Survey (KPS©) in Organisations

Organisational Knowledge Practices Survey (KPS©) is copyrighted by Korot & Tovstiga (2002) and authors had been given permission to apply the knowledge practices survey in this KM study. The objective of this survey is to facilitate and build a better understanding of the knowledge culture, content, infrastructure and processes in organizations. The survey was applied by Dana, Korot and Tovstiga (2005) in assessing organizational knowledge practices in four continents, namely Northern America, Middle-East, South East Asia and Australia.

KPS© focuses on measuring knowledge management practices in organization which are based on four major domains as follows:


b) Knowledge Content, measured by elements of (1) Knowledge Resides, (2) Knowledge Sources, (3) Knowledge Dissemination and (4) Knowledge Flows.
c) Knowledge Infrastructure, measured by elements of (1) Knowledge Accessibility, (2) Knowledge Sharing, (3) Network Integration, (4) Business Dependence and (5) Knowledge Metrics.


KPS© engages 2 scales of measurements, indicating (1) level of knowledge practices and (2) the importance of such knowledge practices in the organizations (in this case, the four chosen universities).

4.1 Organisational Knowledge Practices at UTHM

Figure 7 depicts the knowledge practices at UTHM which shifts at higher scores on elements of value creation, learning focus, experimentation, and trying and failing (continuous line). Mean score value for these 4 elements is 4.033 which is considered high at 5-points Likert scale. This signifies that UTHM values efforts towards experimentation, trial-and-error, and learning new things. These values are among key features to attain innovation (Amidon 2001). In addition, level of importance of KM practices is deemed more potential to be developed in future by UTHMians. However, element of gap management under domain of knowledge process requires dire attention, as it attains the lowest score. Gap Management implies well-defined processes are implemented for systematically identifying and closing knowledge gaps. Perhaps, this may mean that there is lacking of established system to improve knowledge barriers among the knowledge experts and standard knowledge users in the university.

![Radar chart of KM practices in UTHM](image-url)
4.2 Organisational Knowledge Practices at UUM

Figure 8 shows levels of actual KM practices (continuous line) which are high on elements of value creation, learning focus, experimentation and trying and failing (domain of knowledge culture) with mean score value of 4.0. Fluid responsibility and openness and trust are also high at UUM on actual KM practices. Knowledge resides, knowledge sources, knowledge dissemination, and knowledge flow under domain of knowledge content remain as significantly high. This signifies that development of knowledge contents and retention are essential priority among UUMians. Based on observation and data, it is noticeable that UUMians fares better KM practices in comparison to UTHMians among public universities. However, it is ironic that such high KM practices institution does not show trend of future importance shown by the organization itself. This is depicted by the broken line which is almost matching (equivalent) with the continuous line. This poses important interpretation which may mean staffs at UUM think that KM practices are important. However, they may resort to think that the organization (management) itself does not think it as an important priority.

![Radar chart of KM practices in UUM](image)

4.3 Organisational Knowledge Practices at MMU

Figure 9 shows the best (highest) KM actual practices (among the 4 surveyed universities) which is the Multimedia University, Cyberjaya. MMU fares high scores ranging from scores of 4.0 (to a great extent) and 5.0 (to a very great extent) in most of actual KM practices (continuous line) elements, notably organizational structure, knowledge resides, knowledge sources, knowledge accessibility, business dependence, and strategy process. Perhaps, this observation is not surprising because MMU itself is established in
the very heart of MSC region, Cyberjaya. As such, knowledge practices in such a special region remain high. There is a mixed trend to believe that there has been not much importance placed by MMU management on KM practices in future. This is attributed to the fact that actual KM practices are high in practice already (minor gap between continuous and broken lines).

Figure 9. Radar chart of KM practices in MMU Cyberjaya.

4.4 Organisational Knowledge Practices at Monash University, Sunway

Figure 10 depicts one of the most awakening observations among the four universities. It is easily noticeable that Monash University Sunway attained the lowest scores in most of the actual KM practices elements (continuous line), such as rewards and incentive, openness and trust, disequilibrium and change, and knowledge metrics. The average mean score for all 23 KM actual practices is at 2.617 (in the range between “not important” and “moderately important”). It is interesting to observe that elements of rewards and incentives, openness and trust, and knowledge metrics ditch the lowest scores (mean score of 1.576). This could be interpreted as Monash Sunway staff felt that knowledge culture and process were not well-practiced in the institution, specifically in the Malaysian campus. It is generally acknowledged that Monash is an international university with branches worldwide (such as in South Africa and Italy) and headquartered in Melbourne Australia. Based on qualitative self-observation in Monash Sunway, academic staffs are internationally represented plus local Malaysians are at large. This multinational environment could possibly contribute to less KM actual practices among them. It is noticeable that KM importance by the university management is equally at a meager level. This implies that
KM actual practices are not deemed important and worst yet the organization perceives so.

![Radar chart of KM practices in Monash University, Sunway.](image)

4.5 Comparison of OKP between UTHM & UUM vs MMU & Monash

Figure 11 shows a comparative perspective of KM practices between 2 public universities and 2 private universities. Private universities fare better in KM actual practices with a collapsed mean score of 3.444 in comparison to public universities which attain score of 3.393. Private universities' management also fares much higher in KM importance scale with a collapsed mean score of 3.824, in comparison to public universities' importance which attains score of 3.404, as derived from Table 1.

<table>
<thead>
<tr>
<th>University</th>
<th>Practices</th>
<th>Importance</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMU</td>
<td>4.34</td>
<td>3.12</td>
<td>1.22</td>
</tr>
<tr>
<td>MONASH</td>
<td>2.57</td>
<td>4.52</td>
<td>-1.95</td>
</tr>
<tr>
<td>UTHM</td>
<td>3.16</td>
<td>3.60</td>
<td>-0.43</td>
</tr>
<tr>
<td>UUM</td>
<td>3.61</td>
<td>3.20</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Table 1. Mean scores for each university in KM practices and their importance

It is generally acknowledged that private (business) organizations (universities) pay a critical attention on financial performance. Higher organizational performance could derive from good knowledge management practices, such as value creation, openness

![Knowledge Management Diagram](image)

Figure 11. Comparison between public and private universities

5. Discussion and Summary

KM has been braced as an important management tool in realizing actual value of knowledge by various organizations, such as multinationals, government agencies and universities. It can also be applied to facilitate in integrating fragmented knowledge exists in organizations. Through such integration, KM can deliver benefits to organizations, individuals, and society. Knowledge-intensive organisations, such as universities are deemed among the most suitable entities to study and explore more on knowledge management practices. Korot/Tovstiga's KPS© has been applied to examine KM domains as culture, content, infrastructure and process in the four universities in Malaysia. They consist of 2 public and 2 private universities out of 62 universities in Malaysia. As such, this study is rather limited in generalization.

It is evident from the study that KM actual practices are highest at MMU and lowest at Monash University, Sunway (both are from private universities). This study discovers that private universities engage higher level of actual KM practices in comparison to public universities. In addition, it can also be deduced that the domain of knowledge content is determined as the key player in knowledge management practices in most of the universities. Many more need to be done, considering KM is at its developing stage.

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References


