

Introducing Knowledge Management in a University

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ABSTRACT

This paper proposes major elements for development of a practical KM for public university. KM processes include vision, sharing, asset, utilization, and creation. The university's top management is responsible for establish vision to direct the KM activities. The knowledge needed in order to achieve the vision must be identified, acquired, and shared. The shared knowledge is captured and made available for the knowledge users as an asset of the organization. The practical knowledge is then utilized and new knowledge is discovered. Elements for implementing KM are chief knowledge officer, knowledge team, technology, organizational culture and environment, motivation and incentive. This paper explores details of knowledge management in practice

Keywords

Knowledge management, knowledge vision, knowledge sharing, knowledge asset, knowledge utilization, knowledge development

1.0 INTRODUCTION

Knowledge management (KM) is widely recognized as a potent tool for enhancing firms' competitiveness. Now knowledge and information are regarded as the most important resources (Gangtak 2000). The main strength of KM lies in enabling the utilization of otherwise hidden and untapped intangible assets. It is through the implementation of KM that a firm will be able to transform tacit knowledge into explicit form to be shared with others. This process of knowledge generation and generalization will in turn enhance the knowledge stock throughout the organization and make innovation and value creation possible.

To date, discussions and documentation of the applications of KM have been mostly limited to large companies in the private sector. This might have stemmed from the misunderstanding that large corporations are more exposed, and hence more susceptible and vulnerable to intense global competition. McAdam and Reid, 2000, notify that most of the management philosophies, e.g. business process reengineering (BPR), total quality management (TM) etc were also initially exercised in the large companies.

Once the benefit is gained, then it becomes adopted in the other sectors. As well as KM, now many public sectors such as hospitals, universities, or other government agencies realize the importance of managing their existing knowledge in order to optimize knowledge utilization and drive their goal or vision by using the internal knowledge management.

At present, universities are increasingly in competition to attract the most funding and investments, the best students, and the best academic staff. The public universities in Thailand which have been established for more than 30 years have been facing the problem that some employees will be eligible for retirement within the next 5 to 10 years. Therefore, these universities plan to introduce KM project to begin capturing the knowledge presently in the heads of these employees in order to sustain competitive advantage.

Public universities are now realising the importance of KM to service delivery to the students, staff, and public, therefore, they are beginning to put KM high on their plan. However, it is not easy to implement, as it seems. This paper attempts to explore the details of knowledge management in a public university in practice.

2.0 KM IN UNIVERSITY

At present, universities are increasingly in competition to attract the most funding and investments, the best students, and the best academic staff. They are realizing that knowledge is an essential determinant of competitiveness. The public universities in Thailand which have been established for more than 30 years have been facing the problem that the current employees will be eligible for retirement within the next 5 to 10 years. One of the problems they are facing now is internal knowledge loss. Therefore, the universities need to introduce KM project now to begin capturing the knowledge presently in people (tacit knowledge) in order to sustain competitive advantage.

Prince of Songkla University (PSU), a leading university in the Southern region of Thailand, has also realized the important of KM. PSU is one of the initial universities in Thailand that has started KM project. The project includes innovative program to meet the need for the improved knowledge usage in the

university. This KM involves systematic approaches to find, understand, and use knowledge to achieve university's objectives. In December 2004, a steering team of ten staff, including chief executive officers (CEO), lecturers, and supporting staff, has been formed. This team is responsible for planning and implementing KM activities in all functions of the university. Since January 2005, nine KM training courses, with totally more than 800 participants, have been conducted in the university. As KM can not be implemented efficiently by Top-down approach, the introduction of KM concept to staff is very important step. KM has been introduced as a new tool for improvement and/or management (see Fig. 1). In Fig 1, it shows that various management tools can be used to achieve organizational target or vision. As a large organization, PSU reasonably requires a number of management tools to, accomplish its goals. To implement management tools effectively, all new tools must be integrated to existing management systems. Burlton (1998) concluded that clearly knowledge management is part of the fabric of the organizations and is inseparable from business process management. The new tool should become a part of current system. It should not be seen as a totally new tool or system. Apart from that the benefit of KM should be notably pointed. The benefits can occur in two levels i.e. individual and organizational benefits. At the individual level, KM provides employees opportunities to enhance skills and experience thereby improving personal performance. This may lead to better career development. At the organizational level, KM results in improving the organization's performance through increased efficiency, productivity, quality, and innovation (Gangtak 2000).

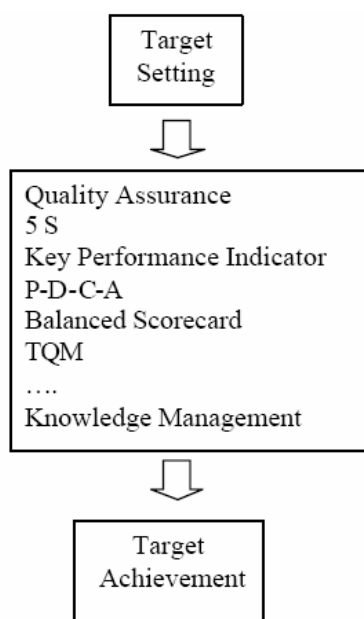


Figure. 1 KM as a tool for improvement and management

There are several approaches to develop KM in university. Mohamad (2001) shows the development of KM in University Education in Malaysia, by using Universiti Teknologi MARA (UiTM) as a model. UiTM divided the development of the change movement in UiTM into 2 essential phases which are transferring and dissemination of knowledge, and monitoring and measurement of the change movement towards the development of knowledge management, learning organization and intellectual capital.

This paper proposes another practical way to adopt and advance KM in public university. The major fundamentals are to clarify knowledge management processes and provide essential supporting elements.

3.0 KNOWLEDGE MANAGEMENT PROCESS

KM concept has been widely discussed. The idea of knowledge management in organizations was brought to the fore ten years ago in books like *The Knowledge-Creating Company* (Nonaka and Takeuchi 1995) and *Wellsprings of Knowledge* (Leonard-Barton 1995). However, Hansen et al (1999) stated that the concept of KM is nothing new. Effective KM processes should be conducted frequently, consistently and flexibly (Grant 1996). Various attempts have been made to provide a categorization for KM processes. For example, DeLong (1997) classified the processes into capturing, transfer and use of knowledge. Leonard-Barton (1995), on the other hand, distinguished between acquisition, collaboration, integration and experiment.

The KM process that has been introduced in the PSU includes knowledge vision (KV), knowledge sharing (KS), knowledge asset (KA), knowledge utilization (KU), and knowledge development and creation (KD). A Tuna is used as a model to get better understanding of staff in KM process. This model has been developed by Knowledge Management Institute of Thailand (KMI) in 2004. It initially included 3 parts i.e. KV, KS, and KA. The head of the Tuna indicates knowledge vision. The university's top management is responsible for establish vision to direct the KM activities in the organization. The knowledge needed in order to achieve the vision must be identified, acquired, and shared (Tuna's body). The shared knowledge is captured and made available for the knowledge users as an asset of the organization (Tuna's tail). The Tuna model has been modified with adding 2 parts which are knowledge utilization (KU) and knowledge development and creation (KD). The transferred knowledge (the Tuna moves its tail) is used. With experience from the utilization, the new knowledge may be developed (KD). The new practical knowledge will be shared again. This loop will drive the organization toward the goals.

3.1 Knowledge Vision

The university's top management is responsible for establish KM vision to direct the KM activities in the organization. A KM vision stated must be unambiguous and easy to understand by all employees in all levels of university. KM vision must be aligned with university's vision and policies/practice.

3.2 Knowledge Sharing

The knowledge needed in order to achieve the vision must be identified, acquired, and shared. In the process of sharing, it is important to decide whom to share, what is to be shared and how to share. The sharing can be done in all levels and all functions through "face to face" such as communities of practice, seminar on best practice of organization. "Face to face" is one of the most practical methods for sharing, however, "face to face" sharing required many components such as time, place, organizer, etc. The sharing through computer network is now playing an important role. The intranet is used to establish a virtual meeting place where communities (COPs) can engage in dialogue and collaboration (Stenmark 2002).

3.3 Knowledge Asset

When "face to face" sharing takes place, the shared knowledge is captured and made available for the knowledge users as an asset of the organization. The knowledge asset includes the knowledge captured from best practice, communities of practice. The asset also contains list of experts (centre of excellent) in the organization. When sharing through computer network, the knowledge is automatically stored in the organization's server as an asset.

3.4 Knowledge Utilization

One of the values of managing knowledge appears when shared knowledge is used and reused. The knowledge utilization basically requires ease of use and reduced complexity. The person who uses knowledge usually concerns on the benefit of using that knowledge for improving their works.

3.5 Knowledge Development or Creation

When the practical knowledge is utilised, new knowledge may be developed. The new knowledge will then be sharing. This then leverages the corporate knowledge of the organization.

4.0 ENABLERS

Apart from KM processes, KM enablers are also crucial elements for implementing KM. There are chief knowledge officer (CKO), knowledge team,

technology, organizational culture and environment, and motivation and incentive.

4.1 Chief Knowledge Officer

One important KM infrastructure capability is leadership (Khalifa and Liu 2003). To achieve success in KM activities, gaining commitment from top executives is very essential (Davenport and Prusak 1998; Earl and Scott 1999; Manasco 1998). The role of leadership is usually embodied in the position of chief knowledge officer (CKO). The responsibilities of CKOs are to develop and accomplish KM vision through introducing various metastructuring actions (Orlikowski 1992). CKOs in the universities is a set of top management in different levels i.e. university level, faculty level and supporting unit level. CKOs in all levels should have clear understanding on KM concept. They should realize on benefits of KM to their works. CKOs should provide sufficient resources for supporting KM initiatives in their levels.

4.2 Knowledge Management Team

In large organization, establishing of KM team is required to achieve efficient KM activities. The KM team includes members from different functions in the organization. This should have a combination of top management and working team. In PSU, this team consists of vice presidents, assistant president, lecturers, and supporting staff on training and technology. The role of KM team is to plan, educate, facilitate, support and evaluate KM activities.

4.3 Technology

Since, the quality and speed of knowledge transfer is noticeably improved with the support of technologies (Ruggles 1998), the effective information technology (IT) should be properly designed. A number of studies reveal that IT is being one of a major determinant of KM success (e.g. Purvis et al., 2001). However, Mahesh and Suresh (2004) indicated that IT does not affect KM success directly. From their survey, it is evidently concluded that without assimilation within the KM processes, IT alone is not sufficient to improve organization performance. Therefore, to develop IT system, the system engineer who design the KM-IT platform should have enough understanding in KM concept. The IT designer should become one of the KM team members. He is responsible for searching an efficient IT technique that suits to KM processes. Most of universities have realized that IT is one of the key success factors in organizational management in this new competitive world. The universities currently develop IT hardware and software to support several academic activities, such as virtual classroom, internal and external communication, electronic libraries, student and lecturer evaluation, personnel information, electronic

documentation etc. However, to capture tacit knowledge from experienced employees and best practices, new set of programs has been developed. The new software mainly focuses on knowledge sharing such as on-line storage and on-line communication. The element of knowledge sharing in the computer network includes information on center of excellence, question & answer through web board, knowledge captured from communities of practice (COPs) and excellent lectures and researchers, etc.

4.4 Organizational culture and environment

The culture and environment of the organization has direct impact to KM success. Stenmark (2002) revealed that knowledge is based on personal experience and cultural inheritance. However, many KM practitioners considered culture to be one of the most uncontrollable capabilities (Glasser 1999). As recommended by many previous studies (e.g. Gopal and Gagnon 1995), a supportive culture is necessary for the successful implementation of KM initiatives. The supportive culture enhances the sharing activities. KM value takes place when an atmosphere of trust and motivation for people to share and use knowledge is established.

4.5 Motivation and Incentive

Khalifa and Liu (2003) revealed that appropriate norms and values motivate knowledge sharing and collaboration. The tacit knowledge in people is not likely to be transferred through predefined formal means (O'Dell and Grayson 1998). The sharing should be firstly originated from voluntary basis. If the employees have a sense of "giving" in mind, the sharing process may not be difficult. The motivation through award and recognition is one of the success motivate tools. should be established. The morale of knowledge workers has a great influence upon the results of KM activities. One general idea to motivate is to make employees feel important. The motivation for KM also involves easy access to information, participation in problem solving, participation in goal setting, utilization of one's knowledge, extended responsibility, challenging assignment, job promotion etc.

5.0 CONCLUSION

The universities is now realizing that tacit knowledge is an essential determinant of competition to attract the most funding and investments, the best students, and the best academic staff. Knowledge management (KM) is one of management tools which nowadays becomes more and more recognized among public universities. As a large organization, universities reasonably require a number of management tools to accomplish its goals or visions. Therefore, KM should be part of the management structure of the organization. To

implement KM in universities, it is found that top-down approach is probably resulted in ineffective KM. Therefore, the introduction of KM concept to employees is very important step. High understanding may lead to high participations of the employees. The processes of KM have been expressed as an easy model (Tuna model), this makes employees get better understanding in KM processes. In addition, the benefits of implementing KM in both individual level and organization level must be clarified. Once the employees understand the processes and realize the merits, the KM processes can be easily moved. However, to drive KM processes efficiently, the supporting factors, such as chief knowledge officers, KM team, technology, organizational culture and environment, and motivation and incentive, are also essential for driving KM processes towards success and sustaining the KM activities in the organization.

REFERENCES

- Burlton, R.T. (1998) *Process and knowledge management : A question of balance*, Process Renewal Group.
- Davenport, T. H. & Prusak, L. (1998) *Working Knowledge: How Organizations Manage What They Know*, Harvard Business School Press, Boston.
- DeLong, D. (1997) *Building the knowledge-based organization: How culture drives knowledge behaviors*. Working Paper, Ernst & Young's Center for Business Innovation, Boston.
- Earl, M. J. & Scott, L. A. (1999) Opinion: What is a Chief Knowledge Officer. *Sloan Management Review*, Winter.
- Gangtak O. (2000) *Knowledge Management Vision in Korea*. The presentation material of Korea-US Joint Workshop on Digital Libraries.
- Glasser, P. (1999) *The Knowledge Factor*. Retrieved from http://www.cio.com/archive/010199-know_content.html.
- Gopal, C. & Gagnon, J. (1995) Knowledge, Information, Learning and the IS Manager *Computerworld*. 1(5).
- Grant, R. (1996) Toward A Knowledge-based Theory of The Firm. *Strategic Management*.17.
- Hansen, M. T., Nohria, N. & Tierney, T. (1999) What's your strategy for managing knowledge?, *Harvard Business Review*, March-April.
- Khalifa M. & Liu V. (2003) Determinants of Successful Knowledge Management Program *Electronic Journal on Knowledge Management*, 1(2). Retrieved from <http://www.ejkm.com>
- Knowledge Management Institute of Thailand (2004), Retrieved from <http://www.kmi.or.th/>
- Leonard-Barton, D. (1995) *Wellsprings of Knowledge: Building and Sustaining the Sources of Innovation*. Boston :Harvard Business School Press,.

- Manasco, B. (1998) *Leading Firms Develop Knowledge Strategies*. Retrieved from <http://webcom.com/quantera/Apqc.html>.
- McAdam, R & Reid, R. (2000), A Comparison of Public and Private Sector Perceptions and Use of Knowledge Management. *Journal of European Industrial Training* .24/6.
- Mohamad R. (2001) *Developing Knowledge Management in University Education in Malaysia: Universiti Teknologi MARA (UiTM)* Retrieve from <http://www.ifcomputer.co.jp/sol2001>.
- Nonaka, I. & Takeuchi, H. (1995) *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press,.
- O'Dell, C. & Grayson, C. (1998) If Only We Knew What We Know: Identification And Transfer Of Internal Best Practices. *California Management Review* 40(3).
- Orlikowski, W. J. (1992) The Duality Of Technology: Rethinking The Concept Of Technology In Organizations. *Organization Science*. 3(3).
- Ruggles, R. (1998) The State Of The Notion: Knowledge Management In Practice. *California Management Review*. 40(3).
- Stenmark. D. (2002) Information vs. Knowledge: The Role of intranets in Knowledge Management. *Proceedings of the 35th Hawaii International Conference on System Sciences*.