IMPROVING HIGHER INSTITUTION PERFORMANCE THROUGH KNOWLEDGE MANAGEMENT

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Introduction

Over last decade, the educational landscape has evolved from a traditional teaching environment to a highly open and a dynamic knowledge-based environment. The changes are particularly subject to the use of computers, internet, extranet and other instructional software applications on campus. Recently, there are some arguments of how the higher institution can handle the changes that forced them to introduce an innovative way of teaching and the way learning processes is performed. Some learning aspects that need to be overcome are such as providing lecture time and place or to improve the communication between the faculty, stuff and students. All these activities can be achieved successfully through the use of Information Technology and communication technology. This effort definitely can be achieved using the best practice which is called knowledge management.

1. Knowledge Management in Academic Perspectives

1.1 Knowledge and Knowledge Management

Knowledge is recognized not only as the most important resource in organizations (Liao et al. 2004) but as one of the primary sources of competitive advantage. It is critical to the long term sustainability and success of any organization. Davenport and Prusak (2000) defined knowledge as mixture of experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experience and information.

Knowledge management also can be defined as an organized and systematic approach that involved processes such the creation, usage, storing, sharing, transferring and retrieving knowledge in order to improve business performance (Arntzen, Worasinchai, Ribiere (2009). Knowledge management is concerned with the exploitation and development of knowledge assets of an organization with purpose of achieving the organization objectives. The knowledge to be managed includes both explicit knowledge (documented knowledge) and tacit knowledge (subjective knowledge) at individual, group, and organizational level. (Loudon and Loudon, 2009).

1.2 Applying the Knowledge Management Concept in Academic Perspectives

The concept of knowledge management, when applied to the academic context, will be more concerned on knowledge sharing mechanism. From the current observations made in campuses environment have led to conclusions that knowledge sharing processes are not yet being integrated in the daily routines and are far from being organizational reality.
(Zhao, 2001). In fact, educational environment are often engaged in huge duplication efforts. For example, lecturers and faculty are often involved in constantly re-creating existing teaching materials, the documentations of lecturers credentials, the documentation for quality assurance purposes, the documentation for administrative purposes and so forth. Therefore, the implementation of knowledge management concepts in universities will provide a holistic approach that contribute to the socio-technical framework for the purpose of fostering the E-knowledge campus.

**Figure 1** - Highlights the inter-relationships between people, technology, and the educational and administrative process. The internal knowledge is created within each node is flowing between each stakeholder such as students, staff and faculty members. Knowledge is also shared and acquired from the university’s environment such as its partners, government, industries and etc. All these interactions and knowledge flows constitute what we call as knowledge-based learning environment.

![Knowledge-Based Learning Environment](image)

**Figure 1 : Knowledge-Based Learning Environment**

2.0 Context Study of Knowledge Management in Bangkok University.

2.1 Strategies used by the Bangkok University in KM implementation.

In order to cope with the dynamics life that dominates the Bangkok University and also to meet the new governmental requirements of implementing the quality assurance as a priority for all universities in Thailand, the university has decided to initiate some knowledge management initiatives.

In the beginning, various brainstorming sessions took place to better clarify and understand how KM could benefit the organization and improve the learning/teaching environment. A KM strategic plan was defined through various means such as university’s mission, keys to success, obligations, objectives, policies, tactics as well as planning guidelines. Then, the KM team was created along with the KM Center. This center was put under the direction of Academic Affairs office. Each department has different duties and responsibilities, and was asked to develop their own action plan that follows the KM master plan. The critical mission of the KM center is to support all departments involved to plan KM in their own environment. KM seminars are held for the purpose of presenting new approaches, tools, techniques, technologies and so forth. They were offered both at department and organization level as to keep the standardized approach to KM.

3. Initiatives and Outcomes of Knowledge Management Experienced by Bangkok University.

3.1 Initiatives relates to KM

One of the urgent needs was to have the right technology to enable knowledge sharing and capture. To fulfill the requirements, a KM ICT architecture and infrastructure were created. Using the technology will allow to keep track of educational resources development and consumption, to foster information and knowledge flow within the organization, to provide a collaborative environment, to enhance cooperation and communication between faculty, students and administration and finally to facilitate the knowledge use and reuse.

The propose initiatives lead to the building of knowledge depositories, such as online courses, setting up collaborative tools such as e-mail, forum, chat, video, knowledge mapping, coaching/mentoring, and best practices. These initiatives were done at both formal and informal levels and the focus is not only on technical aspects but also concerned with organizational perspectives such as competency building, changes in organization culture and developing appropriate structure for reward and incentives.

Among the initiatives, the most critical is to facilitate in knowledge sharing between the faculty members such as to organize, on a regular basis the meetings and seminar. Another role is networking between the management and lecturers. Networking is considered as a very efficient means to share knowledge at intra/ extra university levels such as students/
lecturers exchange agreement, industrial collaboration and joint venture with other universities.

3.2 The Outcomes Gained by Bangkok University Through KM

There are several outcomes gained by Bangkok University, for instance in the form of social and psychological aspects in which the initiatives definitely enabled to boost the employees motivation through the sharing of knowledge, teamwork and new incentive structure. Another useful activity created by the KM initiatives is how it facilitates knowledge sharing through the formation of the knowledge repositories. Yet it may create some additional workload in creating lectures and exercises in digital form. The observation has identified that not everyone involved in this program like to participate due to lack of time, lack of incentives, fear of sharing, complicated ICT tools, lack of motivation and etc. (Arntzen, Worasinchai, Ribiere, 2009).

Bangkok Universities also has put a strong emphasis on building appropriate infrastructure as a means to foster knowledge flow amongst faculty members, students and staff. KM itself should be able to offer extra functions and capabilities to support a collaborative and cooperative environment. Connectivity and communication anywhere and anytime are important in an e-learning environment. For instance, at BU communication between administration and students is improved by the use of mobile services. This can be use in the case of last minute the lecturer won’t be able to turn up for the class, student can be informed using messages on their cell phone as well as the student’s grades. The communication between lecturers and the administration also can be improved such as if there are new policies, instructions, seminars or training offered by the university, it can be done immediately and also more cost effective such as the reduction of paperwork.


Technical requirement is considered as one of crucial factors in which it improves communication among the educational stakeholders such as lecturers, staff, administration and the management. Using the ICT has proven to be very efficient for instance discussion forum or video conferencing. Some of the technical requirements are as the following:

Technical Requirements:
- Multi-media platform providing a large range of functionality for pedagogical resources such as storage, search, index, organization and dissemination of documents and knowledge.
- Tools for building the content of pedagogical modules that can be gathered to form a course. Example of modules are such as lecture-picture-text-glossary-exercises-simulation tools-video and etc.
- Tool-suite for allowing integration of video, sounds, shared application, distributed whiteboard, and recording.
- Enable the synchronization of streaming audio, video, graphics, text, presentation, slides and dynamic links.
• Communication and collaboration tools such as chat, forum, e-mail, video conference, and shared calendars.
• Other requirements - Connectivity – high speed networks, Mobile feature integration, Friendly user interface, Authoring tools, Security measures, Personal features and etc.

5. Knowledge Management Educational Systems formed by Bangkok University.

5.1 Knowledge Sharing And E-Learning Systems

The educational systems were developed in-house by skillful IT team and the systems relying mainly on open source software. The strategic decision to build in-house and the use of open systems have given several advantages such as enable to reduce cost of license fees, reduce dependency on commercial vendors, better control in systems maintenance, easier to implement any additional requirements and building ICT competency within the university itself.

5.2 MyBU Systems – A Collaborative Platform For Academic And Teaching Staff.

The system is used as a knowledge collaborative platform to assist in communication among teachers and academic staff, which allows them to work efficiently. Through this collaborative portal interface, the leaning community can access shared applications such as shared calendars. Users are always be able to access to the platform from any computer with a Web browser and internet access anywhere, anytime. Services offered by MyBU Systems are as the following :

Web-mail service, Personal information including pictures, Shared calendars, Discussion forum, Task to do for personal use, Online schedule, Direct access to other educational systems, and automatic e-mail to students registered to the course, Access to the online assessment systems, Rooms reservation, students performance analysis, Parent access management – is a special service allowing the parents to follow the learning progress of the attendance of their children, and etc.

5.3 The URSA System

The computer center of BU also has build two URSA systems for undergraduate and graduate students. The purpose is to cater to specific requirement of both programs and they are integrated into a single platform as to facilitate and reduce the cost of maintenance. Some outstanding services provided by this system are:

Online registration of the lectures - class and exam schedule, E-mail services, Grade report and calculator, On-line payments, online request to be enrolled in graduate program. Online library access, and student ability to access different services through mobile phone such as paying registration fees using mobile phone and etc.
5.4 Learning Management Systems (LMS)

The system enable faculty and student to communicate, interact and exchange documents related to a particular class. Some main features offered by this system are:

Course information, Student List, Announcements, Forum, Documents, Exercises, Links and so forth. This system can be used as knowledge repository where the knowledge related to the course is stored and can be accessed easily.

5.5 Bangkok University Knowledge Center (BUKC)

This knowledge center is an integrated system of the various ICT systems and the system is available from the BU web site. (www.bu.ac.th). Its function is parallel to the BU mission and the KM strategies to become learning organization and to provide environment of knowledge sharing with its stakeholders/community. The knowledge system has offered different modules such as:

- E-learning modules - provide access to online courses and to some interesting topics for students to access.
- Online Assessment module – used for online course evaluation.
- Video online module – able to view some selected movies and documentaries.
- Link modules - To link to faculty and its resources.
- E-Paper module – provides access to the collection of academic papers published by BU Academic Journals.

6. Conclusion

This article is to present the use of best practices that is the Knowledge Management that is proven of its capability in improving the organization performance, particularly in Bangkok University. The BU experience through the KM initiatives can be used by other higher institutions to manage its critical assets that is the knowledge and also as a guidelines for better performance of the universities’ internal and external stakeholders.

A generic framework was presented in Figure 2 with specific indicators universities could focus on if they want to take the path of setting an innovative and adaptive learning environment.
Figure 2: Generic Knowledge Management Framework

Bibliography


