IMPLEMENTATION OF KNOWLEDGE MANAGEMENT IN A PUBLIC UNIVERSITY
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Abstract

In the world of change, the public universities which have been established for more than 30 years have been facing crucial problem that some employees will be eligible for retirement within the next 5 to 10 years, furthermore new staffs do not have enough experience to continue quality services of the universities. Therefore, many universities plan to introduce KM (Knowledge Management) project to begin capturing the knowledge presently in the heads of these employees in order to sustain competitive advantage. To implement KM, two major elements, i.e. processes and enablers, are considered. KM processes, including vision setting, knowledge sharing, gathering knowledge asset, knowledge utilization, and creation and development of new knowledge, are clarified. Enablers for success of KM project such as management supports, working team, technology, etc. are also described. This paper attempts to explore the details of knowledge management in a public university in practice.

Keywords

Knowledge management, KM processes, KM enablers, Public University

Introduction

Recently, Knowledge Management (KM) concept has been widely discussed. The idea of knowledge management in organisations 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). Hansen et al (1999) also stated that the concept of KM is nothing new. However, KM has currently been known as a powerful tool for enhancing organizations’ competitiveness. Gangtak (2000) stated that knowledge and information are presently regarded as the most important resources in the organization. The point that has made knowledge management important is that the value of an organisation does not only depend on the material assets of the organisation (e.g. buildings and machinery), but also on the "knowledge inside the heads" of the employees (Maurer,1998). This is so called “corporate knowledge”. Through the implementation of KM an organization will be able to identify essential knowledge needed in the organization. This knowledge is then captured and transformed from tacit knowledge into explicit form, which will 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.

Previously, discussions and documentation of the applications of KM have been mostly limited to large companies in the private sectors. McAdam and Reid, 2000, revealed that most of the management philosophies, e.g. business process re-engineering (BPR), total quality management (TQM) etc. were also initially exercised in the large companies. Once the benefit is gained, then it becomes adopted in the other sectors.

Same as other public sectors, universities are now realising the importance of KM. A good managing of their existing knowledge can efficiently and effectively enhance their services provided for students, staffs, and public. The importance of managing their corporate knowledge is to optimise knowledge utilisation and drive their goal or vision by using the internal knowledge management. Public universities therefore, are beginning to put KM high on their plan. However, it is not easy to implement, as it seems. This is
because most of public universities contain thousands of employees, a number of departments and divisions, different organization cultures, a multilevel organization structure (Fig. 1), etc. This paper attempts to explore the details of knowledge management in a public university in practice.

Fig. 1 Typical university’s organization structure.

Nowadays, universities are increasingly involved in competition to attract the most funding and investments, the best students, and the best academic staffs. Many public universities have been established for more than 30 years. One of problems they are facing now is internal knowledge loss since the current employees will be eligible for retirement within the next 5 to 10 years. The universities that have realized the importance of KM are now introducing KM project in order to begin capturing the knowledge presently in people (tacit knowledge). This KM uses systematic approaches to find, understand, and use knowledge to achieve university’s objectives and also sustain their competitive advantages.

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.

Knowledge Management Process

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.

To ease the understanding of KM process, Tuna model is suggested in this paper. The KM process includes knowledge vision (KV), knowledge sharing (KS), knowledge asset (KA), knowledge utilization (KU), and knowledge development and creation (KD) (see Fig 2.) This model is modified from Tuna model developed by Knowledge
Management Institute of Thailand (KMI) in 2004. The initial model included only 3 parts i.e. KV, KS, and KA. To complete the loop of learning, two more elements which are KU and KD are added.

Fig. 2 Tuna model (modified from KMI, 2004),

Knowledge Vision

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. A KM vision stated must be unambiguous and easy to understand by all employees in all levels of university. KM vision needs to be aligned with university’s vision and policies/practice. The knowledge considered necessary in order to achieve the university’s objectives must be identified, acquired, and finally shared to others.

Knowledge Sharing

In the process of sharing (Tuna’s body), it is important to decide whom to share, what is to be shared and how to share. The sharing can be done in all functions and levels through “Face to Face (F2F)” such as story telling, communities of practice (COPs), seminar on best practices. F2F is considered as one of the most practical methods for sharing. However, successful F2F is essentially required a good combination of components such as proper time, constructive place and environment, experienced 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).

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. When sharing
through computer network, the knowledge is automatically stored in the organization’s server as an asset.

**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. The improvement will therefore reflect the strategic objectives of the organisation. If KM initiatives are aligned to university's strategic objectives, it is able to assess the impact of knowledge management in this stage.

**Knowledge Development or Creation**

When the practical knowledge is utilised (Tuna moves its tail), new knowledge may be developed. The new practical knowledge will then be sharing. This then leverages the corporate knowledge of the organization.

**Implementation of KM**

The adoption of KM has hastened in recent years. Many practitioners (Leonard-Barton 1995, Gupta and Govindarajan 2000) have proposed several frameworks for KM implementation in the literature. However, the success of the new KM initiatives, is not obvious (Khalifa and Liu 2003). This paper proposes a set forward the major institutional enablers of KM implementation in a public university. The steps of implementation are described. The KM enablers including management commitment and support, formulation of team, availability of IT system, etc are also discussed in each step of implementation.

**Step 1: Management commitment and support**

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). CKO in the universities is a set of top management in different levels i.e. university level, faculty level and supporting unit level. CKO in all levels should have clear understanding on KM concept. They should realize on benefits of KM to their works. CKO should provide sufficient resources for supporting KM initiatives in their levels.

**Step 2: Formulation of KM team**

As such a large organization, university needs to establish KM committee to achieve efficient KM activities (Fig. 3). The KM committee includes members from different functions in the university in order to congregate various ideas. This team component represents management representative (i.e. vice president, assistant president, etc.), lecturers, and support staffs. The role of KM committee is to plan, educate, support and evaluate KM activities in the university.
Fig. 3 an embedded structure of KM persons

KM team in university not only includes university’s CKO and committee, other functions such as knowledge facilitator (KF) and knowledge technologist (KT) are also essential. The role of KF is to initiate and facilitate KM activities in the university, while KT, as an IT designer, is responsible for searching an efficient IT technique that suits to KM processes. As a large organization, KF shall be appointed in both university level and faculty level. It is not necessary for KT. KT can only be appointed in university level, as IT system is normally designed as a unique platform for the whole university.

Step 3: Plan and strategy

From the theoretical underpinning and empirical validation of Khalifa and Liu (2003), KM strategy appears as the most important infrastructure capability in implementing KM. KM strategy is “the balancing act between the internal capabilities of the organization (strengths and weaknesses) and the external environment (opportunities and threats)” (Zack, 1999) To enhance KM success, a KM strategy (Fig. 4) should be developed based on the overall university strategy to ensure the KM goals are in correspondence with the strategic goals of the organization (Davenport 1999; Hansen et al. 1999). At this stage, CKO and KM committee are responsible for initially set up KM strategy to achieve university’s KM vision (Fig. 4). Additionally, corporate KM action plan is formed.
Fig. 4 KM strategy in different levels.

**Step 4: Culture change**

As suggested by many previous studies (e.g. Gopal and Gagnon 1995, Stenmark 2002), a supportive culture is essential for the successful implementation of KM initiatives. The culture and environment of the organization has direct impact to KM success. Since CKO and KM committee are also members of the university, they most likely understand their own university’s culture. The method of changing culture in each university differs from university to university. Primarily it depends upon size, location, age and number of staff, maturity of university, etc. However, many KM practitioners considered culture to be one of the most uncontrollable capabilities (Glasser 1999).

**Step 5: Communication**

Even though public universities are government sectors, KM can not be implemented effectively by Top-down approach. Moreover KM is sometimes seen as a tool for changing organization culture. To execute KM in universities an effective communication is very important. The concept and benefit of KM must be clearly understood by persons related. Normally, the benefits of KM appear in two levels i.e. individual and organisational. 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 organisational level, KM results in improving the organisation’s performance through increased efficiency, productivity, quality, and innovation (Gangtak 2000). Apart of understanding KM concept and benefits, KM vision and strategy should be communicated. It is also important to figure out that the implementation of KM initiatives has not just been ad hoc, but it is a coherent framework for performance development.
Step 6: Process and tools

As KM process described above, (i.e. KV, KS, KA, KU and KD), IT is being one of a major determinant of KM success (e.g. Purvis et al., 2001). 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 computer program mainly focuses on knowledge sharing such as online storage and on-line communication. Its function includes center of excellence, FAQ (frequently asked question), storage knowledge captured from communities of practice (COPs) and best practices, etc.

Step 7: Evaluation

Burlton (1998) concluded that knowledge management is clearly part of the fabric of the organizations and is inseparable from business process management. A new tool should become a part of current system. It should not be seen as a totally new system. Since some universities are now implementing different types of business performance measurement models such as the Balanced Scorecard (Kaplan and Norton, 1996) and the Excellence Model (EFQM, 1999). Carrillo, et al (2002) suggested that KM could be integrated into key performance indicators (KPIs), and other performance measurement approaches. Since KM strategies need to be aligned to strategic objectives. These links will enable an assessment of the effectiveness of KM in terms of the degree to which strategic objectives are realised. If the KM planning (in step 3) has been well established, it will exhibit possible relationships between KM initiatives, performance measures and the strategic objectives. It also forms the basis for determining the contribution of each KM initiative to the performance measures.

Step 8: Recognition and reward

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. In the university, employees generally have a sense of “giving”; therefore, the sharing process is not that difficult. However, the motivation through reward and recognition is still required as one of the success tools to provoke KM process. 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 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.

Conclusions

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, 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. Once the employees understand the processes and realize the merits, the KM processes can be easily moved. To execute KM in a university, the practical steps of implementation are described. To sustain KM activities in the organization, management commitment and contribution of KM activities to corporate performance are considered as the most crucial factors.

References


Knowledge Management Institute of Thailand (2004), [online], http://www.kmi.or.th/


