

Knowledge Management Initiative: A Case Study in Malaysia National Library

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Abstract

The Malaysia National Library (PNM) was established in 1966 as a unit of the National Archives of Malaysia. Today PNM is a Division under the Ministry of Education. PNM plays a significant role in collecting, processing, disseminating, storing and utilizing knowledge. This role is parallel with the aspiration of Malaysia government to inculcate a knowledge culture in the development of Malaysia and to promote a reading culture among Malaysians. So far, PNM does not really have a system in managing their knowledge. This paper tries to propose a Knowledge Management (KM) model that suits with PNM situation, which later could be used in fully applying and implementing KM in PNM.

I. INTRODUCTION

Knowledge is an essential matter in almost every organization. Knowledge in this present era has become a key resource in every organization and has more superior importance compared to any tangible asset, which has provided organizations with a competitive edge in the past. This has enforced them to make major change to their organizations in order to be in line and competitive with new transformation by managing their knowledge effectively and efficiently.

If the organization managed the knowledge properly, it can assist organization in developing and improving their services. This can be done by constructing an organizational culture in inculcating knowledge sharing and expertise within organization, which apply to all kinds of organizations including

profit making or non-profit organization like Malaysia National Library (PNM).

By right, PNM, as a knowledge based organization should uphold and support knowledge culture within its organization. The responsibility of PNM is not just to collect, process, disseminate, store and make use of knowledge, but also to update and obtain new knowledge from time to time.

PNM should recognize the knowledge and experiences of their staffs as valuable asset and should be shared among them [1]. Hence, Knowledge Management (KM) has been seen as a tool that can aid PNM in transforming tacit knowledge of their staffs into a form, which can be reused by other staffs.

This research is undergone to study about the KM initiative and PNM was chosen as the research domain. It is hoped that through proposed KM model by this study, it is sooner can be used as a reference or direction in developing and implementing KM in PNM.

A. Problem statement

According to Shanhong [2], KM in library should be focused on knowledge effective and valuable research and its development, knowledge base construction, knowledge sharing among library staffs, library staffs training and accelerating explicit processing of the implicit knowledge and recognizing of its sharing. Nevertheless, PNM as a knowledge based organization do not really implement KM in their organization. They yet do not really focus on their effective research. They do have knowledge warehouse for storing all of their priceless knowledge, but then it needs for some enhancement. According to Sirajuddin et al. [3], an important practice of KM in organizational setting is the transfer of knowledge to

the place where it is needed and can be used. An important aspect of transferring process is knowledge sharing. Even so, PNM as supposed to have a strong leadership in managing knowledge do not have knowledge exchanging and sharing among their staffs.

B. Scope of research

This study is about KM initiative in PNM. It is going to propose a KM model that later on can be used by PNM in developing and implementing KM within PNM. The model proposed is involving knowledge and user within PNM.

C. Significance of research

PNM is in the knowledge business [4] and progressively they are exposed to marketplace forces in a similar mode to other businesses [5]. Its core activities are to collect, process, disseminate, store and utilize knowledge. As knowledge based organization, PNM should provide a strong leadership in KM. They supposed to be a model or icon for other organizations with regards to their KM. Nonetheless, PNM even do not really good in KM since they do not have a specific tool for managing knowledge.

This study suggests the KM model that can be used in developing and implementing KM within PNM. Furthermore, through KM, PNM will be able to manage their bulk of knowledge efficiently and effectively. Thus, it will ensure that their valuable asset will always be available and accessible to their staffs.

II. LITERATURE REVIEW

A. Knowledge

To define KM, it is needed to define knowledge first. It is vital to define knowledge first as understanding knowledge is the first step for effective KM [6]. However, it is not easy to define knowledge and KM [7]. Alavi and Leidner [8] have defined knowledge as “a justified belief that increases an individual’s capability to take effective action”, while Syeily [9] defined knowledge as “a capacity-to-act”. Muslims have classified knowledge according to Islamic beliefs. A number of scholars have different classifications for knowledge according to what method they used for classification. However, all of them agree upon the main classification which is Revealed knowledge and observed or learned knowledge. The two most famous scholars’ classifications are al-Ghazali and al-Ansari. There are also different sorts of knowledge (taxonomies of knowledge) [8]. However, two types of knowledge that is related to KM context are tacit and explicit knowledge.

Alavi and Leidner [8] defined tacit knowledge as obtained through experiences, involvement and actions, while explicit knowledge is articulated and generalized knowledge. Tacit knowledge is implicit knowledge (as opposed to explicit knowledge) that is difficult to transfer to another person simply by writing it down or saying it. For example, stating to someone that ‘Kuala Lumpur is in Malaysia’ is a piece of explicit knowledge that can be written down, transmitted and understood by a recipient. However the ability to speak a language, use algebra or design and use complex equipment requires all sorts of knowledge that is not always known explicitly, even by expert practitioners and which is difficult to explicitly transfer to users and other parties. The real challenges in KM occur in the two patterns of knowledge creation, which are going from tacit to explicit and explicit to tacit.

B. Knowledge Management

Knowledge Associates International Ltd defined KM as “the discipline to enable individuals, teams, organizations and communities, more collectively and systematically capture, store, share and apply their knowledge, to achieve their objectives”. Alavi and Leidner, and Davenport et al. in Sankaran [11] have defined KM as “systematic and organizational specific framework to capture, acquire, organize and communicate both tacit and explicit knowledge of employees so that other employees may utilize them to be more effective and productive in their work and maximize the organization’s knowledge”. In other words, KM is concerned about how an organization can teach itself in the form that knowledge is circulated and shared smoothly, systematically and efficiently across the organization’s people, technology and processes.

C. KM and PNM

PNM was established in 1966 as a unit of the National Archives of Malaysia. In 1971, PNM was formally established and the National Archives was renamed as National Archives and Library. Today PNM is a Division under the Ministry of Education. It is responsible for the building and maintenance of the national collection from various library resources providing facilities for their use as well as providing leadership in library matters. PNM also plays a significant role in collecting, processing, disseminating, storing and utilizing knowledge. PNM as a knowledge based organization do not really uphold and support KM. By right, they are supposed to be a model for other organizations in emulating their KM.

The objective of KM in PNM is to encourage knowledge advancement. As bases for collection,

processing, storage and distribution of knowledge and information, PNM represent a necessary link in the scientific system chain, an important link in the knowledge advancement. Furthermore, PNM also take part in scientific research process directly. The PNM work is a component of knowledge advancement. Moreover, PNM should pay attention to diffusion and conversion of knowledge. They act as bridges for turning the results of knowledge advancement into realistic productive forces.

The role of KM in PNM is to promote relationship between PNM and users, to strengthen knowledge internetworking and to quicken knowledge flow. In the knowledge economy era, PNM will carry out researches on development and application of information resources, construction of virtual libraries, protection of intellectual property rights in the electronic era, etc., thus founding the base for knowledge innovation [13]. PNM actually have realized a lot of these targets, despite the difficulties that encountered it. In 2004, PNM also have started to comprehend the importance of applying KM by having knowledge bank as a starting point. However, until now there is no improvement in enhancing the implementation of KM within PNM. This study is undergone in order to support PNM in implementing KM that in line with their representation as a knowledge based organization by proposing a KM model for them to be used later on.

III. PROPOSED SOLUTION

A. Characteristics of KM

As knowledge based organization, PNM should present a strong leadership in KM. The role of KM in PNM will become more significant in line with the development of knowledge economy. The most important mission of PNM is of course to enlarge the knowledge retrieval for their users. PNM should aim their KM goal high.

According to Lee [1] and Shanhong [2], some examples of what PNM can do in order to improve their KM in their services are by having Information Technology (IT) as a tool for KM in PNM. Knowledge acquirement is known as the starting point of KM in any libraries. The knowledge acquired must be gathered and congregated into knowledge warehouses, for instance like knowledge bank like what PNM were already have. However, there are some enhancements that PNM should do, especially in terms of retrieval, sorting and security of the knowledge. IT is also necessary in the application and exchange of knowledge. The role of it is as a basis and tool for knowledge innovation.

According to Lee [1], to support the implementation of KM, a well-designed and operational Knowledge Management System (KMS)

should be put in place. This KMS should use the latest IT technology. In this case, the executive director of PNM that represents as the Chief Knowledge Officer (CKO) of PNM should work together with the Chief Information Officer (CIO), Head of Planning and Corporate Communications Department, IT Division, Management Services and Human Resources Department, etc. in order to design, develop and implement KMS. KMS should be built on existing computer and IT infrastructures of PNM in capturing, analyzing, organizing, storing and sharing internal as well as external information resources for successful knowledge exchange and sharing among users, publishers, government agencies and other organizations. Currently, a lot of newly developed database and information/document management IT can be used in KM like data warehousing, data mining, content management, knowledge extraction, knowledge mapping, information visualization, etc.

The next example is regarding their user services. The supreme aim of KM is to offer users with several high quality services in improving the communication, use and knowledge creation. These services should be parallel with the interest and needs of users. Information of users can simply be accessed by PNM by analyzing the user registration records, surveys and the use of e-journal and digital resources, etc. Periodic users' surveys should be conducted in order to know their satisfaction and needs. The findings of the surveys can be used for the planning and redesign of PNM services. User's confidentiality and privacy also should always be protected.

Other example that PNM can do in improving their KM in their services is by looking up their Human Resource Management. The valuable knowledge and experiences of PNM staffs should be valued and shared. A culture of knowledge and expertise sharing should always be encouraged and promoted. Staffs who share their tacit knowledge and experiences should be recognized by PNM by giving appropriate rewards and incentives to them. PNM as a learning organization should emphasize on knowledge sharing and innovation within their staffs. Furthermore, PNM also need to allocate some budget in providing their staffs with continuing education, training and seminar for them. Knowledge must be updated and renewed and should be expanded to avoid it from being stagnant. Moreover, PNM also should encourage the transferring and sharing knowledge and experiences from their experienced staffs to the fresh staffs. This can be done, for instance by having mentoring system, informal seminars or sessions and special interest groups or chat rooms, so that those staffs can interact and exchange their lessons learned or best practices among them.

B. Contents of KM

According to Shanhong [2] and Hong [15], some contents that can be included in KM of PNM are regarding knowledge innovation management. This refers to production management, knowledge dissemination and transferring and network systems. To accomplish this, it firstly requires the CKO to undertake in formulating the management plans and organize all KM activities. After that, it requires establishment of special leading groups of knowledge flow for completing all tasks and KM activities.

The next content is about knowledge dissemination management. Knowledge dissemination has equivalent importance to knowledge innovation. It is quite difficult for knowledge users to acquire knowledge since the knowledge creators do not have much time and energy to look for them. Therefore, PNM can play a role in disseminating variety of new knowledge, by making a comprehensive utilization of all diverse media and channels to ensure security of operations of network and avoid online criminal activities and online distribution of inappropriate information. Besides, PNM also can strengthen their document resources creation and deepen their document information resources development.

The next content is about to have knowledge application management. This can be carried out, for instance by setting up virtual library or information center for any enterprises, government agencies, public organizations and specific research institutions. PNM can create this separately according to respective information desired by using abundant information resources on the high speed information networks. Since PNM already had their electronic or digital library that can be accessed through online via their Web site, thus this task is supposed to be not a big deal to them.

C. KM model

PNM should follow the widely accepted PPT paradigm, i.e. people, process and technology, as their guiding pillars as shown at figure 1.

People are the core elements of the organizational processes and the most important users of information systems. The good combination of technical, managerial, behavioral, cognitive and interpersonal skills of the people can assist them in playing an important role in designing, operating and maintaining KMS. In this case, the end users also need to be trained and skilled.

The second pillar is process. KM encompasses a couple of sub-processes such as knowledge creation, knowledge collection, knowledge retrieval, knowledge storage, content management, knowledge update, knowledge dissemination etc.

The last pillar is technology. PNM should aim to use technology wisely in order to deliver measurable benefits. By fully utilizing technology, it will deliver maximum performance gains.

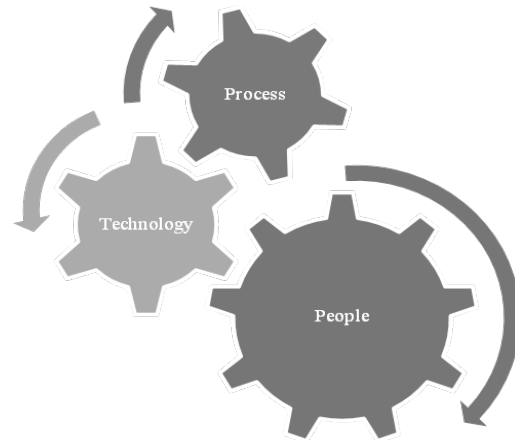


Figure 1. PPT Paradigm

The KM model that is proposed in this study has been adopted from KM model for digital library by Md. Roknuzzaman et al. [17].

According to Md. Roknuzzaman et al. [17], KM is continuing or ongoing process in organization that starts with obtaining relevant knowledge resources and continuing for its good and proper utilization. KM is not just indicates the knowledge management itself, but also to the consequent management of its environment.

Md. Roknuzzaman et al. [17] has suggested that *"KM is a dynamic and continuous social process that involves acquisition, organization, storage and retrieval and dissemination of knowledge resources to user group with relevant feedback to achieve goals."*

Acquisition is about locating and capturing existing knowledge as well as creating the new knowledge. In capturing the knowledge, it involves the process of converting tacit knowledge into explicit knowledge in PNM. Tacit knowledge is obtained through experiences, involvement and actions, for instance like experience on how to conduct the machine, while explicit knowledge is articulated and generalized knowledge, for instance like has been written or documented in a report or book [8]. *Furthermore, capturing knowledge can be done either inside or outside organization.* However, in order to be remaining competitive, PNM should captured knowledge that is inside and outside them. This captured knowledge is becoming as resource to PNM.

Organization is involves taxonomies, codification, modification, etc. During this step, the captured knowledge that has become a resource to PNM needs to be classified and modified. The classification of knowledge can be done through the addition of

indexing keywords, while modification of knowledge can be done by adding context, background or anything that can make it simpler and easier to use later. The purpose of this step is to see how easy the users in searching and using their desired knowledge when they need it.

Then, the knowledge obtained will be stored in permanent storage, while a retrieval means will be used for its easy access. After that, knowledge will be distributed to the interested people for sharing, applying, using and utilizing effectively and efficiently. Lastly, the KM process will get feedback from the knowledge users regarding to what extent the knowledge has satisfied their needs. This feedback will ensure proper use and utilization of the knowledge as well as to be used later on for necessary modification and enhancement.

The purposes of having KM as stated by Hong [15] as to incorporate internal and external knowledge for all the time in order to survive with environmental changes inside and outside the organization, to resolve existing problem as well as to innovate for business growth. Organization is said to have competitive advantage when it operates more competently and still offers a higher quality of service to the customers. Furthermore, this organization also capable in competing with other competitors and recognize whatever situation requirement, as well as know how to put themselves in the market. Organization also can be considers as competitive advantage organization if they know how to utilize their KM effectively and efficiently. Nowadays, since KM deals with different kinds of resources in assisting decision makers in making decisions, thus KM can be considered as a key factor in organization's performance [16].

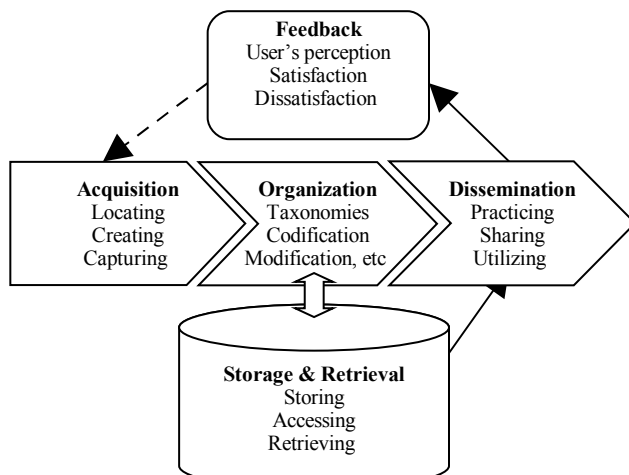


Figure 2. KM Process Model

IV. CONCLUSION

This study has proposed a new KM model that adopted from Md. Roknuzzaman et al. [17], which may apply for PNM in fully applying and implementing their KM. This model is based on the literature review in matching solution that suit with PNM situation, which has been derived from interview conducted with PNM management staffs. As knowledge based organization, PNM should provide a strong leadership in KM. They supposed to be a model or icon for other organizations with regards to their KM. By having KM, it will assist PNM in playing a vital role in collecting, processing, disseminating, storing and utilizing knowledge. Hopefully one day, the aspiration of Malaysia government in making a knowledge society and a reading culture among Malaysians will become a reality.

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