

**THE IMPORTANCE OF KNOWLEDGE MANAGEMENT IN
SUPPORTING RESEARCH AND DEVELOPMENT IN AN
ACADEMIC LIBRARY**

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ABSTRACT

Research and development (R&D) is very common nowadays in which an organization can experience future growth by developing new products or processes to improve and expand their operations. Knowledge management environment, can either lead to the development of new products or procedures, or to the improvement of existing products or procedures. The aim of this paper is to describe the importance of knowledge management in an academic library in supporting the library's mission which is to provide excellent resources, services and facilities to support the customer's requirement in enhancing learning, teaching, research and consultancy activities. Academic libraries especially those belonging to research universities should implement knowledge management in enhancing and expanding research based services to the university's community.

Keywords: Knowledge management environment; Knowledge management practice; Organizational learning; Academic libraries; Academic library research

INTRODUCTION

Knowledge management (KM) is no stranger to the library and information science (LIS) practitioners. Changes in KM have been widely applied in many organizations outside the country. However, the scenario and the changes are still new in some places, including the Universiti Putra Malaysia (UPM) Library which has been named as Perpustakaan Sultan Abdul Samad (PSAS). Admittedly, even the term KM is not used, but processes, procedures, technologies, people and strategies are in place and are practiced on a regular basis.

In order to accomplish its mission to provide excellent resources, services and facilities to support learning, teaching, research and consultancy activities of UPM, the Library has over the years build up its collection in various subjects fields as well as in print, non-print and electronic formats. The Library now

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holds a collection of 670,000 volumes of books and bound journals as well as a collection of maps, sound recordings, microforms, video tapes and slides. The Library also subscribes to about 3,000 print journals and 80 online databases which provide access to about 80,000 full text online journals. PSAS strives to provide the best information services and facilities to their customers in line with the development in information and technology. The objective of PSAS is to fulfill the University's information needs in facilitating learning, teaching, research and consultancy; to optimize usage of various information resources and facilities; and to reinforce customers learning program towards lifelong learning.

LITERATURE REVIEW

Definitions and roles of knowledge management

There are several of definitions of KM but this paper uses the definition from McInerney (2002) which describes KM as habits and culture of people and organization; making the most effective use of the intellectual capital of a business and involves wiring together the brains of appropriate people so that sharing, reasoning and collaboration become almost instinctive and part of daily work. She also mentioned that KM is an effort to increase useful knowledge within the organization. Ways to do this include encouraging communication, offering opportunities to learn, and promoting the sharing of appropriate knowledge artifacts.

Much of the KM's literature is aimed at the business sector but KM is equally applicable to the non-profit sector, including higher education in which UPM is one of it. As Norris et al. (2003) argued, "knowledge sharing – if it sparks innovation, changes in organizational dynamics, and new sources of value – can also make the difference in academia and e-learning". The objectives of KM are to promote the creation of new knowledge and innovation, reduce costs of being effective and increase innovation, preserve existing knowledge, reduce the K-loss from employees who leave, increase collaboration and K-sharing to enhance the skills, increase productivity by making knowledge accessible and enable a pro-active learning and decision culture.

The concept and term knowledge management was started and popularized in the business world during the last decade of the 20th century. It was the business world that first recognizes the importance of knowledge in the "global economy" of the "knowledge age". In the new knowledge economy, the possession of relevant and strategic knowledge and its unceasing renewal method enable businesses to gain competitive advantage. The applications of KM have now spread to other organizations including government agencies, research and development departments, universities, and others.

KM is an expensive and effective management of knowledge that requires hybrid solutions of people and technology. It is highly political and requires knowledge managers. It benefits more from maps than models, more from markets than from hierarchies. Sharing and using knowledge are often unnatural acts. This means that improving knowledge work processes and knowledge access is only the beginning and its never ends and requires a knowledge contract (Davenport and Prusak, 1993). Underlying KM principles is the earlier theory of the “learning organization”, which “encourages people to grow and develop, to share their knowledge and learning with others, and to learn from errors” (Debowski, 2006) ensuring that it is adaptive and dynamic.

Defining Knowledge Management in an Academic Library

Academic libraries are information centers established in support of the mission of their parent institution to generate knowledge, and people equipped with knowledge in order to serve the society and advance the well-being of mankind. In the digital age, academic libraries face challenges from both within (academia) and without (the business sector). Academic departments, or even faculty and students, may purchase or build their own portals to meet their academic and/or research needs.

In order to prove their relevance and value, academic libraries must strive to provide the right amount of information to the right clientele at the right time with a right expense of financial and human resources. With a stagnant or dwindling library budget, academic libraries have to increase their operational efficiency in order to meet the challenge. One management tool that can help in this regard is KM.

A general and rough review of library literature on KM usually reveals these two trends: a) of all types of libraries, special libraries, especially business and corporate libraries, are taking the lead on KM research; and b) of academic libraries, public services and digital libraries are in the limelight. Additionally, it reveals that within academic libraries, public services are taking the lead in the research and implementation of KM.

Jantz (2001) examined important issues of KM within academic libraries and how reference librarians can become more effective as information intermediaries. This statement is also confirmed by Stover (2004) who points out that no matter how erudite a reference librarian may be, it is impossible for him or her to be an expert in all disciplines. Ideally, the reference desk should be staffed with all subject librarians 24x7. In reality, not all libraries are able to provide sufficient staff. Therefore, the reference librarian must be fluent in all subject areas so as to answer every question posed. Therefore, he stresses the

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need “for reference librarians to make explicit and codify their tacit knowledge base if reference services are to be provided efficiently and effectively.”

Branin (2003) surveyed the field of collection management over the last 50 years and discerned an evolutionary path from “collection development” to “collection management” and now to “knowledge management”. Indirectly, he echoes Corral’s (1998) claim that KM, when applied to libraries, often becomes how to manage recorded knowledge which refers to library materials. In fact it is not merely concerned with managing recorded knowledge. Digital library is another area in which KM has been actively applied. Rydberg-Cox, et al. (2000) equates KM to “the new document delivery and knowledge management tools” in a digital library. A few articles on KM deals with the operation of the technical services. Turvey and Letarte (2002) argued that “the library world is characterized by fast-paced change, and perhaps no other area as much as the field of cataloging”. They also tried to define cataloging as a very important aspect of KM in an increasingly digital world.

Cultivation in Knowledge Management Implementation

Motivating staff to contribute and share their knowledge is not an easy task. Some staff may not want to share their knowledge for fear that once their knowledge is shared, they might no longer be valued or deemed indispensable. Some staff may not share their knowledge for free, as there are free riders (Susarla, Liu, and Whinston, 2003) who only take for granted others’ knowledge but never share their own. In order to encourage staff to contribute their knowledge, we need to have an incentive or reward system in place.

Unlike the private or business sector, academic libraries typically do not have extra financial resources to reward staffs who have contributed their knowledge. The alternative is for the management to write in the job description that each staff is required to share knowledge pertaining to their tasks and that each manager is required to gather and manage operational knowledge. Knowledge sharing/management should also be configured into the staff’s annual performance review or the librarian’s portfolio for tenure or promotion. Libraries, with limited budget and human resources, should utilize the current management structure and technology to implement KM, either bottom-up or top-down. With a concerted effort, KM will help to increase libraries’ operational efficiency and cater to the ever-increasing needs of our clientele.

The academic library is one of the significant partners in the development of a knowledge sharing culture and the creation of KM strategies and practices. Its contribution includes transfer of information organization skills to the management of internal information such as intranet design and portal development, and the application of information literacy skills (Dewe, 2005). A

body of literature has emerged that explicitly addresses the opportunities for librarians within the context of KM (Rooi & Snyman, 2006). Content analysis of the literature has led to the identification of five broad roles for librarians in KM namely facilitating an environment conducive to knowledge sharing; managing the corporate memory; transfer of information management and related skills to a new context that is linked to business processes and core operations; development of corporate information literacy; and finally, management of information in a digital/electronic environment.

For the professional associations, there may be some work ahead. Breen and her colleagues (2002) suggest that LIS graduates need to market themselves more effectively. This is a role that they share with their professional associations. If some of the external perceptions about the profession are unfounded, such as the view that LIS professionals are insufficiently engaged in and knowledgeable about business goals and it is assumed here that these are misconceptions, then our professional bodies need to help persuade employers and employers' associations that the profession has changed, that it continues to change and that its contribution to organizational knowledge sharing and generation can contribute to organizational performance (Wen, 2005).

Academic librarians have made significant attempts in recent years to move beyond their library walls and engage more with their parent institutions. The most obvious example is the development of institutional repositories, typically projects that have been led by academic librarians. Such developments see academic libraries transform themselves from collecting agencies, responsible for the development and management of collections of published information resources to publishers, with a focus on providing access to their universities' research output.

The other role is which is an interesting development, is the increased emphasis in recent years on embedding information literacy instruction in the curriculum, but there is a challenge. Librarians need to move beyond the notion that information literacy is concerned primarily with teaching library users about the library's information tools but to see it in broader terms of furthering their universities' mission to foster lifelong learning in its students and of engaging with organizational learning to develop an information literate workforce. They need to convince themselves, not just senior management, that they have a contribution to make.

With the growing interest in KM, many questions have been raised in the minds of librarians regarding the difference between information and knowledge; between information management and KM; who should be in-charge of information and KM; would librarians and information professionals with

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appropriate education and training in library and information science be most suitable for the position of Chief Knowledge Officer (CKO) in their organizations; and what libraries can do in implementing KM.

In the business world, KM has been regarded as strategically important for organizations to gain a competitive advantage over their competitors, to add value to their products, and to win greater satisfaction from their customers. In the library world, there is a lesson to be learned from the business world. KM is as important to the libraries as to the businesses minus the competitive, proprietary, and moneymaking concerns. In fact, libraries have had a long and rich experience in the management of information. Much of the knowledge and skills of librarianship can be applied to KM. For any library to succeed in implementing KM, this will require a strong leadership and vision from the top administration, which can influence the organization's knowledge sharing efforts in a positive way.

Information technology and systems can provide effective support in implementing KM. Librarians should work together with IT professionals and others to develop the appropriate KM systems. Furthermore, KM should never be viewed as a way to control the process of knowledge creation. In the process of knowledge creation, every library should strive to be an enabler and facilitator by mobilizing all its efforts and resources. The best knowledge creators are academics. Knowledge creation is best performed by universities. As a learning and knowledge organization, universities should empower their libraries to develop campus-wide KM systems. It is now time for libraries to reposition themselves in the central stage of and as a leading player in KM.

**OVERVIEW OF THE IMPORTANCE OF KNOWLEDGE
MANAGEMENT IN AN ACADEMIC LIBRARY**

As a Knowledge Management Centre (KMC), physical and work environment influenced its formation to ensure that all goals and objectives are achieved. The characteristics of a KMC itself show some key elements that should be created and refined in practice and daily work processes. Every academic library should have at least an operating unit or department of KM. because KM itself is a large and spacious thing to master. Libraries also act as KMCs and need to support and guide not only the users in learning, teaching and research but also to the internal working of the top level down to the lower levels.

By applying KM in organizations and work places, there will be a lot of interests and advantages to be gained. Not only is the productivity and quality of work improved, but users will also experience the advantages and benefits. A good level of customer satisfaction reflects the services and facilities provided to the user are at its best.

Among the benefits to be derived by applying KM in academic libraries the promotion of exchange and the proliferation of new ideas among the workers in the production of creative and innovative ideas. This should be consistent with the existence of competitiveness among employees within an organization. As it is, the production of creative and innovative ideas leads to change in many procedures and productivity. In terms of procedures, considerable savings in terms of processes and work flow chart of the work done will be more effective and efficient. Some of the steps can be combined and saved in the form of productivity of equal or higher quality. In terms of time, saving the production time of a given product or service will enhance the trust of the organization. Indirectly, there are also cost savings on organizations which can spend their allocation of government funds wisely and properly.

The Role of Management and Academic Librarian

Librarians and information professionals are trained to be experts in information searching, selecting, acquiring, organizing, preserving, repackaging, disseminating, and serving. However, professionals in information technology and systems have also regarded information management as their domain because of the recent advances in information technology and systems which drive and underpin information management.

With in-depth study and research, resulting KM initiatives will bring high interest to the organization and raise the name of the organization. It also promises improvements to the user. Therefore, the workers will feel more appreciated and will constantly upgrade themselves with new knowledge and skills. An attempt to promote KM in PSAS is the organisation of a library seminar at least once a month. The seminar is open to all levels of employees who are willing to share their knowledge and experience as individuals or groups to other colleagues. With the sharing of knowledge, it can opportunities for workers to increase their knowledge. Through this seminar, the latest information and updates can be communicated to colleagues.

Each individual or small group who has attended courses, seminars, workshops or visits to other libraries should present their report at the library seminar. The PSAS Training and Support Services Division is responsible for arranging the presentation sessions. The Division will evaluate each participant that has been sent to courses, seminars, workshops or visits for the purpose of human development and self improvements. In addition, employees can also improve the quality of their work from time to time. The report from each presenter will be stored and managed by the management for purposes of record keeping and information sharing and to facilitate its future usage. This effort is commendable and should continue to improve the quality of academic library work. With this initiative, new research or new discoveries can be produced as the results of

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reports and studies unravel. This is also an information cycle that has often been able to meet a KM.

Through research and development, academic libraries will become an organization that is respected by the other departments and users will respond well to each resulting productivity and service. The image of academic libraries will be positive whereby the management will constantly be thinking of providing quality services and facilities to meet the desired customer satisfaction. The best management of any library is one that tries to provide new products and/or services to its users continuously. Revenue from research and development will help maintain the tempo and sustainability of an organization. With that, the quality of librarianship in the production of studies and research can be improved. A librarian's role and responsibility is not only to facilitate and help users in their research activities, but also to identify the criteria and quality of external research. Starting from writing techniques, information organization and methods of citation and to identifying which journal articles to publish in. As librarians, we need to master the article publication and paper presentation at conferences or seminars so that we can fully understand and thus will be able to provide the best service to our customers. In order to master these fields, we need to be in it. We need to be involved in research and study to enhance our knowledge. The knowledge environment is a continuous learning environment. As a librarian, one still needs to acquire knowledge from time to time for self-development and improvement. This is where the importance of talent management and time management counts. One can make oneself knowledgeable not only by furthering one's study to pursue MLIS or PhD, but by attending courses and workshops.

CONCLUSIONS

The implementation of KM is very practical. The process is not only following the ISO standard, but also the development of human capital sought. Characterizing the quality of human capital and knowledge economy are highly valued within business today. The greatest challenge is in building a culture of knowledge sharing. But with a management that demonstrates strong support, staff contribution to KM is acknowledged and rewarded. In this process all levels of staff are expected to contribute. Drucker (1993) noted that "the knowledge management process involves people not only from the top-level management but people from all levels. In order for a knowledge management program to succeed, the participation and cooperation of workers from low level, middle level and top-level management must be encouraged extensively". Surely the idea is that KM should reflect the culture of the organization. Some advantages of a KM system such as sharing of valuable organizational information can avoid re-inventing the wheel and reducing redundant work; may reduce training time for new employees; retention of intellectual property after the employee

leaves if such knowledge can be codified. With a concerted effort, KM will help to increase libraries' operational efficiency and cater to the ever-increasing needs of the clientele.

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