Library Waves
Volume 1, No. 2 (2015)
ISSN 2455-2291

Knowledge Management in Academic Libraries: A Conceptual Approach

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Abstract

The concept of Knowledge Management emerged in the mid 1980s and was initially applied in the corporate sector. Recently academic institutions and libraries have also started developing and using Knowledge Management Systems to meet the ever-expanding operations of academic libraries and the new types of service demands. This article tries to describe the concept of knowledge management and discusses the prospects and barriers to KM applications in academic libraries. Application of KM contributes to the improvement in organizational performance, economic success in the market place, organizational creativity, operational effectiveness, quality of products and services and economic sustainability. KM offers many opportunities for academic libraries to improve knowledge-based services for internal and external users through creating an organizational culture of sharing knowledge and expertise within the library. But, LIS professionals, a by and large, lack the necessary expertise to engage in exploring and practicing KM. The article also presents a step-by-step approach for guiding LIS professionals to implement KM in their libraries.

Keywords: Knowledge Management; Academic Libraries; Conceptual Model of Knowledge Management.

1. Introduction

Although the concept of knowledge management (KM) was initially originated in the field of management science, today it has emerged as one of the emerging topics of academic and professional discourse in several disciplines, including Library & Information Science (LIS). KM has already been practiced in different types of organizations, including public and private sector organizations (Blair, 2002; Chua, 2009). Recently, academic institutions have also developed an interest in KM. Academic community believes that by leveraging knowledge, an academic institution can sustain its long-term competitive advantages. Academic institutions, particularly universities, have significant opportunities to apply KM practices to support every part of their mission. Kidwell, Linde & Johnson (2000) identified five key areas of KM applications in universities, which include research, curriculum development, administrative services, alumni services and strategic planning. Further, they argue that if applied effectively, it can lead to better decision-making capabilities, reduced product development cycle time (for example, curriculum development and research), improved academic and administrative services and reduced costs.

In recent years, a body of literature has emerged that explicitly addresses KM from the perspective of librarianship. Librarianship is often described as the organization of recorded knowledge (Corrall, 1998). In this sense, KM has a long root in library practice because librarians have been managing codified or recorded knowledge for a long time. According to Lastres (2011), librarians have served as knowledge managers since the earliest days of libraries by maintaining the scrolls at the library of Alexandria and creating the catalogue for the House of Wisdom (a Ninth Century Islamic Library). Librarians have also

developed and applied several KM principles in reference, cataloguing and other library services to encourage the use of knowledge (Ralph & Ellis, 2009). The logic behind the application of KM practice in libraries is that it can help librarians utilize their expertise for discovering, through reference interview skills, the information needs of users and then add value to information through such services as evaluation, prioritization and summarization, which is more relevant for those seeking to create new knowledge (Schwarzwalder, 1999; Sinotte, 2004). Keeping in view the ever-expanding operations of academic libraries and the new types of service demands, with limited financial resources, an attempt has been made in the present article to examine the prospects and barriers to KM applications in academic libraries. The article also presents a step-by-step approach to the successful implementation of KM in academic libraries.

2. Concept of Knowledge and Knowledge Management

'Knowledge' means acquaintance with fact or truth. According to the new Webster's Comprehensive Dictionary of English Language (2004), knowledge is "the aggregate facts, truths, or principles acquired or retained by the mind, including alike the *intuitions* native to the mind and all that has been learned respecting phenomena, causes, laws, principles, literature, etc." (p. 706).

Nonaka (1994) defined knowledge as justified personal belief that increases an individual's capability to take effective action. Knowledge in an organization may be distinguished either as explicit or tacit knowledge. Explicit knowledge is defined as formal and systematic knowledge, which can be expressed in words or numbers and can be documented or stored in databases as electronic records. Examples might include a telephone directory, an instruction manual or a report of research findings. While tacit knowledge is the subjective and experience based knowledge difficult to articulate or write down1. It can be shared between people through discussion, stories and personal interactions. It includes skills, experiences, insight, intuition and judgment. In libraries, explicit knowledge is either generative within the organization, such as reports, memos guidelines, theses, minutes of meetings, etc. or acquired from external sources, including books, journal articles databases, external reports, government information, etc. Tacit knowledge, on the other hand, resides in senior and experienced employees with a sound knowledge of work procedures, rules and regulations, etc and the unarticulated knowledge contained in the librarians themselves (Wijetunge, 2002). Both types of knowledge (explicit and tacit knowledge) are considered as the key knowledge sources of a library which should be managed properly (Ajiferuke, 2003).

KM is defined as the process through which organizations generate value from their intellectual, knowledge-based assets (Santosus & Surmacz, 2001). According to the working definition of IFLA (2009), KM is 'a process of creating (generating, capturing), storing (preserving, organizing, integrating), sharing (communicating), applying (implementing), and reusing (transforming) organisational knowledge to enable an organisation to achieve its goals and objectives5. Du Plessis (2006) defined KM as a "planned and structured approach to manage the creation, sharing, harvesting and leveraging of knowledge as an organizational asset, to enhance an organization's ability, speed and effectiveness in delivering products or services for the benefit of clients, in line with its business strategy" (p.1).

3. Importance of KM Applications in Academic Libraries

Academic libraries are established to support teaching, learning, research activities and development of a culture of sharing and imparting knowledge to fulfil the mission and objectives of their parent institutions. The environment in which Indian academic libraries operate today and the way people search and access information has changed due to the rapid developments in Information and Communication Technologies (ICT). Development of the Internet, the World-Wide-Web, user friendly databases and search engines have not only made a profound impact on the structure and functioning of academic libraries, but also have challenged the status of academic libraries as the only provider of information. This is because of the alternatives, such as Google Scholar, that are available for people to locate and access scholarly literature from commercial publishers. Technological changes, along with external pressure of market forces, push academic libraries to transform their structures and implement new managerial processes. KM is one of

these processes. KM is recognized worldwide as the most useful solution for the survival and success of academic libraries (Porumbeanu, 2010). Some researchers from the library profession have also identified the potential benefits of KM applications for academic libraries and librarians. According to Townley (2001), KM offers many opportunities for academic libraries to manage knowledge for improving organizational effectiveness, for both themselves and their parent institutions.

3.1 KM helps to improve library operations and services

One of the reasons for the consideration of KM applications in academic libraries is to promote existing library practices and better services for library users. Some scholars believe that by implementing KM in libraries, better services can be rendered to library users. Due to the advancements in ICT and the changing needs of users, there is an increased need for approaches that incorporate the use of tools and services that align with user's practices and expectations. KM enables librarians to capture, store, organize, share and disseminate the right information to the right user at the right time. By using web applications such as Web 2.0 and social media, librarians can empower their users with the right content at the right time, in the right format. Use of social media can help librarians understand the requirements of their users, which ultimately leads to the delivery of more appropriate and timely services (Daneshgar & Bosanquet, 2010). According to Jantz (2001), "if libraries use and share knowledge, it will improve their services (p.34). Roknuzzaman points out that "if library workers are aware of the knowledge of their colleagues and/or if they have better possibilities for sharing knowledge and/or work more efficiently, then all this is beneficial for the services they provide for their clients" (Roknuzzaman & Umemoto, 2009, p.52).

3.2 KM helps to improve library's overall performance and future prospects

There is a strong view in the LIS literature that libraries are in danger of being left behind in competition with other information suppliers. Other major challenges observed for librarians are: the downward trends in library support, erosion of acquisitions and operating budgets, an increasing in user services demands, outdated management and organizational structure and the new technological developments (Wen, 2005). To deals with these issues, librarians are required to adopt new managerial processes that could be adequate for overcoming these challenges and help academic libraries to survive through increasing efficiency, improving the quality of information products and user services. KM has been seen as a survival factor for libraries, helping them to respond to challenges the LIS professionals face in a discontinuously changing environment (Shanhong, 2000; Teng and Hawamdeh, 2002).

3.3 KM Helps to Reduce the Chances of Redundancy

Use of KM as a tool is not new for academic librarians. Catalougers, for example, have been using KM tools consistently and effectively for years. One of the most obvious examples of practicing KM in libraries is the use of shared catalouging records through international and national databases such as OCLC' world cat and online catalouges such as the Library of Congress (LC). Knowledge sharing seems to be a fundamental part of the culture of catalougers. As a result, they have managed to maintain a high level of accuracy and a low level of duplication in the creation of bibliographic records. Cataloguers make knowledge electronically accessible through the codification of bibliographic information. With the development of electronic protocol such as Z39.50, the bibliographic records become available for thousands of libraries to use and the work of cataloguers is become easier, duplication is reduced and accuracy is enhanced.

3.4 KM helps to make academic libraries more relevant to their parent organizations

Some authors from the library profession believe that implementation of KM in academic libraries can enhance their overall visibility within the organization. Townley (2003) points out that academic librarian can benefit their institutions, their libraries, and themselves by undertaking a campus wide role in

managing organizational knowledge. Sarrafzadeh, Hazeri, & Martin (2010) emphasized that academic libraries must participate in ensuring that the contribution of KM to the realization of the organizational mission is supported. Further, they argue that adoption of KM could assist LIS professionals in meeting user needs in the light of ultimate organizational goals. Thus, KM provides academic libraries an opportunity to collaborate with other units in their organizations and hence, to become more integrated into corporate operations and enhance their overall visibility within the organization.

3.5 KM helps to transform academic libraries into learning organizations

KM harnesses the knowledge resources and knowledge capabilities of the organization in order to enable the organization to learn and adapt to its changing environments. According to Malhotra (2000), KM facilitates continuous and ongoing processes of learning and unlearning, thus ensuring that the need for imposing top down radical change is minimized. Some researchers from the library profession also consider academic libraries as learning organizations. Mphidi and Snyman (2004) stated that if KM occurs within academic libraries, this can be of great value for creating and maintaining a learning culture. KM also promotes internal communication: while employees share their expertise with each other, they simultaneously learn from each other to fulfill the needs of their users. According to Parirokh and Fattahi (2005) librarians can improve organizational learning in academic libraries through sharing of their knowledge among other workers.

4. Barriers to KM Applications in Academic Libraries

The KM literature reveals the following major barriers to incorporating KM into academic library practice:

- Lack of understanding of KM concepts
- lack of sufficient skills and competencies
- Lack of knowledge sharing attitude due to insecurity and fear losing their importance by passing their tacit knowledge to colleagues.
- Library professionals' reluctance to set their minds to cooperate or share resources
- Lack of technical skills in ICT
- Lack of appropriate tools and technologies
- Lack of sufficient funds
- Lack of collaboration and team spirit
- Lack of a centralized policy for KM
- Lack of top management interest in KM activities

5. Steps of KM Implementation in Academic Libraries

Academic libraries may adopt the following strategies for the success of KM practices. This step-by step process of KM implementation in academic libraries is also presented schematically in Figure 1.

5.1 Internal analysis of the organization:

- *analysis of the main activities within the library;*
- *analysis of the results of these activities;*
- *analysis at the level of human resource management;*
- *analysis of internal relationships; and*
- *analysis of the technological infrastructure.*

5.2 Identification of the important operations and most requested services of the library.

5.3 Identification of the internal knowledge resources which are the basis of these operations and services.

5.4 Identification of the unique skills that are within the library and are necessary for achieving the services offered to users.

5.5 Developing and improving these skills and knowledge through the process of organizational learning.

5.6 Developing an organizational culture open to:

- *change;*
- *learning;*
- *knowledge sharing;*
- *co-operation; and*
- *team work.*

5.7 Developing a better communication strategy at organizational level

5.8 Identification and implementation of those technologies that can facilitate:

- *information flow;*
- *organizational learning;*
- *knowledge sharing;*
- *strengthening of an open organizational culture;*
- *interconnection with other organizations;*
- *identification, collection, encoding, distribution and integration of knowledge; and*
- *creation of knowledge maps and records.*

5.9 Analysis of the external environment:

5.10 Identification of the organizations with which collaboration established for co-operation to:

- *productively use the knowledge;*
- *generate new knowledge;*
- *develop advanced tools for communication and learning;*
- *develop the best practices of co-operation.*

5.11 Creation of a knowledge manager position for:

- *co-ordination of a knowledge strategy; and*
- *co-ordination of partnerships with other organizations.*

These steps, if followed, would help academic libraries in implementing KM through the:

- *identification of the most important processes, products and services of academic libraries and their evaluation;*
- *identification of knowledge resources and skills in the organization in order to exploit these resources; and*
- *identification of the potential external partners for collaboration.*

The proposed steps place the knowledge assets of the organization (which are in the minds of people, in the organization processes, practices and activities) at organizational level to support the expansion and improvement of those main activities deployed by academic libraries:

- *the acquisition, organization, processing and preservation of documents;*
- *information search and retrieval;*
- *information dissemination;*
- *development of information processes and services; and provision of information services for users, etc.*

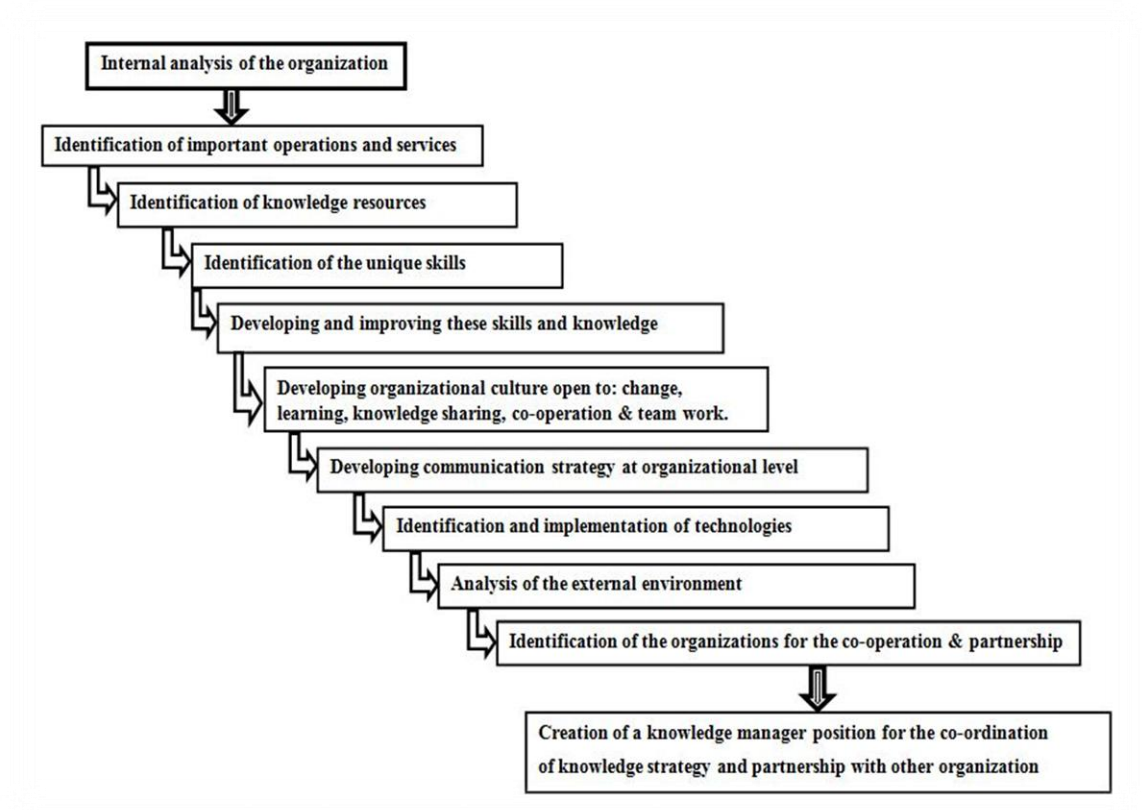

Figure 1: Phases of the Implementation of KM in Academic Libraries

6. Conclusion

KM has been described as the effective management of knowledge, and the sharing and retention of information in any organization. KM, once put in practice, can lead to the improvement of performance and a secure position for the organization to survive in the highly competitive age. At present, academic libraries are no longer just a place to get information, but also people to exchange information and experiences. Academic libraries as constituents of the parent university should rethink and explore ways to improve their services and become learning organizations in which to discover how to capture and share knowledge within and outside the library. The changing role of librarians as knowledge managers emphasizes the need to constantly update or acquire new skills and knowledge to remain relevant in today's library environment. Academic libraries are needed to restructure their functions, expand their roles and responsibilities to effectively contribute and meet the needs of a large and diverse academic community.

References

1. Ajiferuke, I. (2003). Role of information professionals in knowledge management programs: empirical evidence from Canada. *Informing Science Journal*, 6, 247-57.
2. Blair, D. C. (2002). Knowledge management: hype, hope, or help? *Journal of the American Society for Information Science and Technology*, 50(12), 1019-1028.
3. Chua, A. Y. K. (2009). The dark side of knowledge management initiatives. *Journal of Knowledge Management*, 13(4), 32–40.
4. Daneshgar, F., & Bosanquet, L. (2010). Organizing customer knowledge in academic libraries. *Electronic Journal of Knowledge Management*, 8(1), 21–32.
5. Du Plessis, M. (2006). *The impact of organizational culture on knowledge management*. Oxford: Chandos Publishing.

6. IFLA (2009). Knowledge management section. *Knowledge Management Newsletter, 4.* (Accessed on August 5, 2014), http://archive.ifla.org/VII/s47/pub/KM-Newsletter4.pdf.
7. Jantz, R. (2001). Knowledge management in academic libraries: special tools and processes to support information professionals. *Reference Services Review*, 29(1), 33-39.
8. Kidwell, J. J., Linde, K. M. V., & Johnson, S. L. (2000). Applying corporate knowledge management practices in higher education. *Educause Quarterly*, (4), 28-33.
9. Lastres, S. A. (2011). Knowledge management in changing world. Retrieved May 20, 2014 from http://www.futureready365.sla.org/02/28/knowledge-management-in-a-changing-world/.
10. Malhotra, Y. (2000). Knowledge management for e-business performance: advancing information strategy to 'internet time'. Information *Strategy: The Executive's Journal*, 16(4), 5-16.
11. Mphidi, H., & Snyman, R. (2004). The utilization of an intranet as a knowledge management tool in academic libraries. *The Electronic Library*, 22(5), 393-400.
12. Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14-37.
13. Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovations.* New York: Oxford University Press.
14. Parirokh, M., Daneshgar F., & Fattahi R. (2008). Identifying knowledge-sharing requirements in academic libraries. *Library Review*, 57(2), 107-122.
15. Porumbeanu, Octavia-Luciana (2010). Implementing knowledge management in Romanian academic libraries: Identifying the elements that characterize their organizational culture. *The Journal of Academic Librarianship*, 36(6), 549-552.
16. Ralph, L. L., & Ellis, T. J. (2009). An investigation of a knowledge management solution for the improvement of reference services. *Journal of Information, Information Technology, and Organizations*, 4, 17-38.
17. Roknuzzaman, M., & Umemoto, K. (2009). How library professionals view knowledge management in libraries: a qualitative study. *Library Management*, 30(8/9), 643-656.
18. Santosus, M., & Surmacz, J. (2001). The ABCs of knowledge management. *CIO Magazine*. Retrieved May 20, 2014 from *http://www.cio.com/research/knowledge/edit/kmabcs.html.*
19. Sarrafzadeh, M., Hazeri, A. & Martin, B. (2006). knowledge management education for the LIS professionals: Some recent perspectives. *Journal of Education for Library and Information Science*, 47(3), 225-244.
20. Schwarzwalder, R. (1999). Librarians as knowledge management agents. *EContent*, 22(4), 63-65.
21. Shanhong, T. (2000). Knowledge management in libraries in the twenty-first century. *World Library and Information Congress*: 66th IFLA Council and General Conference, August 13-18, 2000, Jerusalem.
22. Sinotte, M. (2004). Exploration of the field of knowledge management for the library and information professional. *Libri*, 54(3).
23. Teng, S., & Hawamdeh, S. (2002), Knowledge management in public libraries. *Aslib Proceedings*, 54(3), 188-97.
24. *The New International Webster's Comprehensive Dictionary of English Language* (2004). Naples Florida, USA: Trident Press International.
25. Townley, C. T. (2001). Knowledge management and academic libraries. *College and Research Libraries*, 62(1), 44-55.
26. Wen, S. (2005). Implementing knowledge management in academic libraries: a pragmatic approach. *3rd China-US Library Conference*, Shanghai, March 22-25.
27. Wijetunge, P. (2002). Adoption of knowledge management by the Sri Lankan University librarians in the light of the National Policy on University Education. *International Journal of Educational Development*, 22, 85-94.

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