

# Knowledge Management in Library Practice: Its Implications

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## **Abstract**

### **Purpose**

*This paper examines the implications of knowledge management for library and information services.*

### **Design/Methodology/Approach:**

*The exploratory research design is adopted and secondary data are used. The method is first to examine the concept of knowledge management, impetus for knowledge management in libraries, opportunities for library practitioners, and knowledge management and library practice. The next approach is to examine the implications of knowledge management for library information services.*

### **Findings:**

*The paper concludes that librarians and other information professionals are now challenged to be at the centre stage of KM initiatives in their libraries and information centres.*

### **Practical implications**

*The success of today's libraries is measured by their abilities to provide user-centred services. Knowledge management is a strategy that libraries can adopt for improved service delivery. Librarians and other information professional should be fully aware of knowledge management in terms of its concepts, opportunities, applications as well as new roles.*

### **Originality/Value:**

*This paper tries to identify new roles for librarians in knowledge management and, most importantly, the measures that can be taken to ensure that KM takes its root in improving library and information services.*

**Key words:** *Knowledge, Libraries, Management, Implication, Practices, Practitioners*

**Paper Type:** *Viewpoint*

## **Introduction**

Academic libraries are defined as information centres established in support of the mission of their parent institutions which is to generate knowledge, equip people with knowledge in order to serve the society and advance the wellbeing of mankind (Aswath and Gupta 2009). One of the primary objectives of higher educational institutions especially universities is advancement of learning and acquisition of knowledge. Academic libraries are part of the university and this means that whatever affects universities also has a serious impact on their libraries. Presently, the roles of universities the world over are changing in order to respond to the needs of the society. As a result, the role of

university libraries is also changing to provide the competitive advantage for the university.

Knowledge management (KM) has therefore been widely accepted as a viable means that will help university libraries to provide this competitive advantage.

### **Concept of Knowledge Management**

Knowledge management has been defined from different perspectives. It has been defined as a process or set of processes, as a method of management, or as a new dimension of strategic information management and as the use of organizational knowledge. Knowledge management in view of process has been defined by White (2004) as the process of creating, storing, sharing and re-using organizational knowledge (or know-how) to enable an

organisation achieve its goals and objectives. From management perspective, knowledge management, according to Shanhong (2000), is a method of management that works for converting intellectual assets of workers and staff members in the organisation into higher productive forces. As a strategic information management, Corral (1998) states that knowledge management involves taking a more holistic view of information, not only combining internal and external information but also coordinating, planning and controlling (monitoring) information and consolidating informal (soft) and formal (hard) information. From the perspective of use of organizational knowledge, Broadbent (1998) defined KM as the use of organizational knowledge through sound practices of information management and organizational learning.

From business perspective, Shanhong (1999) defined knowledge management as the systematic, explicit and deliberate building, renewal and application of knowledge to maximize an enterprise's knowledge related effectiveness and returns from its knowledge assets. From management perspective, Shanhong (2000) defined KM as a method of management that works for converting intellectual assets of workers and staff members in the organisation into higher productive forces – competition power and new value.

For the purpose of this paper, KM is defined as the collection of activities that are intended to facilitate knowledge creation and transfer aimed at achieving the goals and objectives of the library. One of these goals is to enhance the use of the resources of the library. KM application in library will help in increasing the capability of the library to provide a global access to the avalanche of information and knowledge resources in different formats.

As an important innovation of the global knowledge economy, KM has gained much popularity among a number of professional groups notably human resources, IT specialists, and librarians, who are taking their claims, seeing KM as an opportunity to be at the centre stage (Corral, 1998). Also, through informatics methods, Onyancha and Ochalla (2009) found that one of the terms that most frequently co-occurred with KM is libraries. It is therefore appropriate to examine the impetus for KM in Libraries.

## **Impetus for Knowledge Management in Libraries**

Analysis of literature in this area revealed that a number of factors have pushed libraries to embrace knowledge management as a means to an end, not an end in itself. These factors include knowledge-based economy, technology, budget shortfalls, and user expectations.

1. **Knowledge-based economy:** This era places much importance on knowledge as a single most important resource for the survival of organizations. Organizations wishing to succeed in this era must see knowledge as an asset and provide system for its management. Knowledge and knowledge management have therefore become secrets for organizational survival in the knowledge-based economy. Libraries as part of the larger society must see knowledge as a critical resource for their survival and relevance information.
2. **Information Technology:** One of the aftermaths of the IT revolution is information and knowledge explosion. The unprecedented growth of knowledge due to advances in information technology has impacted all organizations including libraries. The success of libraries now depends upon their ability to utilize these information and knowledge including the tacit knowledge of staff to serve the user community. Knowledge management is therefore, the viable means that can help libraries to provide relevant and value added services to the user community.
3. **Budget shortfalls:** Recently, library budgets have been declining, and this is responsible for inadequate library and research materials in university libraries world wide. The effects of this are seen in libraries in developing economies where the currency level of library-based information resources is extremely low. Many libraries are lagging behind in furthering the objectives of their parent institution because of limitations posed on them by budget shortfalls. It has been suggested that in the face of decreasing budgetary allocations to libraries, knowledge management is a tool that can help the library to provide the right information to the right people at the right time (Maponya, 2004).

4. User expectation: Information materials or resources now appear in different formats and their growth is exponential. As a result, library users do not only have information overload but also very high expectations of the library in terms of meeting their varying information/knowledge needs. Besides, the success of libraries today, especially academic libraries, depends on provision of user-centred services for prompt response to the needs of users. Knowledge management has therefore become a very crucial strategy for understanding and meeting the needs of library users.

The above factors provide explanations to the argument in the literature that the library is one of the organizations where knowledge management can be applied to improve services. Besides, KM has also been found to have the potentials of providing opportunities for librarians.

#### **Opportunities for Library Practitioners**

Knowledge management represents an opportunity in that it creates new roles and responsibilities for libraries, and library and information science professionals. A body of literature argues that KM expands the horizon of LIS and offers a number of opportunities for them (Rooi and Snyman, 2006); Southon and Todd, 2001; (Towaley, 2001). A number of job opportunities with new job titles and positions has emerged from KM. Some of these job descriptions in a KM environment as compiled by (Bishop (2001) include competitive intelligence leader, knowledge and information manager, intranets content manager, knowledge management officer, and knowledge coordinator. Also, Skyme and Amidon (1995) proposed new roles and function for LIS professionals in a KM environment. Some of these new roles and functions include knowledge engineer, knowledge editor, knowledge analysis, knowledge navigators, knowledge gatekeeper, knowledge brokers and knowledge asset mangery. However, some authors have argued that these new roles are more or less the same as the current job titles and activities of librarians and professionals (Malhan and Rao, 2005).

It is important to point out here that librarians have skills that will enable them to key into the above opportunities offered by KM. These skills include networking, subject knowledge, cataloguing and classification, indexing,

abstracting, researching, and collection development. Cataloguing skills are useful in metadata creation. Knowledge of classification can be very useful for building taxonomies and anthologies, or for organizing knowledge resources on internets, web sites and portals. Collection development skills provide a good foundation for librarians' active involvement in content creation and management. Researching skills provide an excellent foundation for librarians to make contributions in the area of customer management. Indexing and abstracting can be very useful for adopting knowledge management techniques like business intelligence. Experiences acquired through searching of online databases can aid librarians in building knowledge bases and repositories.

We can see from the above that knowledge management provides limitless opportunities for Librarians. It is therefore important, that librarians seize these opportunities and expand their horizon and make significant inputs into marketing of library and information services. It is important to stress here that the ability of librarians to utilize the opportunities offered by KM depends on their understanding of the relationship between knowledge management and library practice. This relationship does not draw the line between the two disciplines but touches on the areas of application of KM to improve library and information services.

Another way of looking at the opportunities for Librarians in a knowledge management environment is by identifying the specific roles for Librarians in KM. Rooi and Snyman (2006) employed a content analysis approach to identify five broad roles for Librarians; facilitating an environment conducive to knowledge-sharing, managing the corporate memory, transfer of information management and related skills to a next content that is linked to business processes and core operations, development of corporate information literacy, and finally, management of information in a digital/electronic environment.

The opportunities can also be examined in term of KM projects that can be implemented by Librarians in their Libraries. Davenport et al (1998) were able to categorize KM projects into four broad types of perspectives.

1. To create knowledge repositories: These store both knowledge and information, often in documentary form. They can fall into three categories.

- a. Those which include external knowledge, such as competitive intelligence.
  - b. Those that include structured internal knowledge, such as research reports and product oriented marketing materials, such as techniques and methods.
  - c. Those that embrace informal, internal or tacit knowledge, such as discussion databases that store “know-how”.
2. To improve knowledge access and transfer: the emphasis here is on connectivity, access and transfer. Also, technologies, such as video conferencing systems, document scanning and sharing tools and telecommunication networks are used.
  3. To enhance the knowledge environment: This is to facilitate effective knowledge creation, transfer and use. It involves tackling organisational norms and values as they relate to knowledge, such as:
    - a. Increasing awareness on sharing knowledge embedded in client relationship and engagements.
    - b. Providing rewards for contributions to the organisation’s structured knowledge base
    - c. Implementing decision/audit programmes in order to assess whether and how employees were applying knowledge in key decisions.
    - d. Recognizing that successful knowledge management is dependent upon structures and cultures.
  4. To create knowledge as an asset and to recognize the value of knowledge to an organisation.

In conclusion, the opportunities emerging from KM can also be seen as a challenge for LIS professionals to survive in the competitive environment of information delivery.

### **Knowledge Management in Library Practice**

Although the library sector claims ownership of knowledge management, in practice, KM application in libraries is not as pervasive as in the business sector. However, literature in this area has shown evidence of KM adoption

judging, in parts, from the approaches in case studies that have been documented.

The approaches to KM as have been described by different authors include those of:

1. Team-based approach: Literature revealed (Jantz, 2001) that the New Brunswick libraries at Rutgers University employed this approach to develop and introduce new tool for capturing, managing and using informal and tacit knowledge of reference librarians.
2. Enterprise wide, broad and evolutionary approach: The Ohio State University library used this approach to develop a KM system involving a knowledge bank, or a dynamic institutional repository for capturing of all the digital intellectual assets of the university in a range of formats (Branin, 2003).
3. Organizational know-how/Library know-how approach: White (2004) reported that the Oxford University Library used this approach to explore the perceptions of library staff on KM and their willingness on knowledge sharing. This approach utilizes the practical knowledge of the library, its resources and users.
4. Database approach: This approach was used at the San Diego State University to formalize the informal knowledge of reference librarians (Stover, 2004)
5. Pragmatic approach: This approach utilizes the existing staff, technology and management structure to implement KM in academic libraries (Wen, 2005).
6. Human resources approach: Shantong’s paper (2000) is one of the few papers which discuss applying KM principles to a library environment. Shanhong considers human resources management as the core of knowledge management in libraries, and focuses on the training and lifelong education of library staff to raise their scientific knowledge level and ability of acquiring and innovating knowledge.
7. Technological approach: Technological influences on library environment helped to fast forward libraries to implement KM Sarrafzadeh (2005) commented that digitizing the resources of the library and moving toward digital and hybrid libraries, providing remote access to internet –

based knowledge resources, and providing digital reference services (24/7) through the web are the steps toward implementing KM in libraries.

Literature in this area also reveals that KM can be applied to many areas of library and information services. One of the leading papers in this area was that of Lee (2005) who identified areas of library services where KM can be applied to, namely; knowledge resources management, resources sharing and networking, information technology development, user services, and human resources management.

1. Knowledge resources management: The critical issues here which knowledge management can help to resolve are many. These issues reflect the current situations in academic libraries and indeed other library types. Firstly, because of the exponential growth in human knowledge in a variety of formats, libraries need to develop their resources access and sharing strategies from printed to electronic resources in concert with their mission. Secondly, going beyond explicit knowledge, libraries should also develop means to capture all tacit knowledge that is of importance to their users, their organizations, and to their internal operations of libraries. Thirdly, Universities are themselves knowledge reservoirs which implies that their highly valued intellectual assets, regardless of whether explicit or tacit should be inventoried, archived, indexed, frequently updated, and made accessible in digital form. Fourthly, the traditional methods of cataloguing and classification are barely adequate to handle the finite number of books, journals and documents, but are inadequate to deal with the almost infinite amount of digital information in large electronic databases and on the internet (Lee, 2005). This situation calls for new methods of organizing knowledge. It is believed that knowledge management systems can produce the desired results. Such systems include data mining, text mining, content management, search engines, spidering programmes, natural language searching, linguistic analysis, semantic networks, knowledge extraction, concept yellow pages and information valuation.
2. Resources sharing and networking: Libraries have had a long tradition of resources sharing and networking. These have been greatly expanded by the rapid development of computer; telecommunication, networking, and digital technologies since 1960s. With this development, libraries need to become members of several consortia for various types of cooperative works and resource sharing to cooperatively capture digital resources of all types, describe them in a standard format, and make them easily searchable by users (Wee, 2005).
3. Information technology development: The existing computer and information technology infrastructures have to be upgraded to facilitate the capture, analysis, organisation, storage, and sharing of internal and external information resources for effective exchange among users. The near absence of these technologies in our libraries makes it imperative for libraries to begin to explore other ways of facilitating information/knowledge exchange effectively. Knowledge management systems have been found useful in this regard and they include data warehousing, data mining, text mining, content management, knowledge extraction and so on.
4. User services: The success of today's libraries depends on their provision of user-centred services or prompt response to the needs of users. Analysis of user needs is a very important step towards providing users with a variety of quality services. The utmost goal of knowledge management is to provide users with a variety of quality of services in order to improve the communication, use and creation of knowledge (Lee, 2005).
5. Human resources management: A great amount of expert knowledge is possessed by library staff, both in and outside the libraries. In university and research communities such expertise is abundant and should be inventoried, indexed, and updated regularly and be made searchable and accessible through electronic databases created and maintained by libraries (Lee, 2005). A system to achieve this should therefore be put in place. The system should also encourage both

learning among staff and transfer of knowledge from experienced staff members to new staff members. Knowledge management has both features and can also facilitate exchange of “lessons learned” and transfer of “best practices”.

In conclusion, information technology is a necessary condition for KM success, or can provide effective support in implementing KM. Librarians should, therefore work closely with IT professionals and others to develop the appropriate knowledge management systems.

### **Implications for Libraries**

Knowledge management has been found to be a useful strategy for the survival of libraries in an era characterized by budget shortfalls, increasing competitive information environment and serious information overload due to advances in technology. In other words, KM can be used to gain competitive advantage, to break economic and technological constraints, and to satisfy the information needs of library users. These benefits imply that professional librarians and the entire library and information staff should work closely together to put measures in place to ensure that KM takes its root in improving library and information services. These measures include:

1. **Creating a learning environment:** Learning organization environment is one of the conditions for the success of knowledge management. A conducive learning environment should be created. This is an environment that encourages staff to be at their best, to help one another and to become what they want to be. Team working and mentoring are characteristics of a good learning environment. Library managers are expected to ensure that a good learning environment is created to help staff refurbish themselves for KM applications.
2. **Developing knowledge enabling technologies:** Information technology (IT) is one of the drivers of KM in organisations. IT can support KM by facilitating the process of organisation, storage, retrieval, dissemination and sharing of explicit knowledge and information rapidly in the organisation. It also helps to connect people with people. It must be noted that technology is not an

end in itself but the means to an end. Libraries should therefore formulate IT policies to ensure that IT infrastructures are fully developed to include collaborative tools for the capturing and sharing of tacit knowledge of staff.

3. **Developing of central knowledge repository:** A central knowledge repository is an essential feature of knowledge management. This is because km sees knowledge broadly or holistically. What this means is that KM is applied for organisational improvement and productivity. It considers the entire organizational knowledge. That is, it does not consider the library in isolation, rather it considers the knowledge generated in the university in which the library is an essential part of. Therefore, it is very crucial to have a central knowledge repository for the university and not for the library. This will help to adopt KM successfully in the library.
4. **Development of a strategic plan:** Knowledge management is visionary and is based on a strategic plan. This means that KM cannot be practised without having a strategic plan. Library managers should create work-related knowledge required by the staff as one of the preparatory steps for km adoption. They are also to identify knowledge required in the library within a specified period of time. This is because knowledge identification is the starting point of KM in any organisation. This will help to attract, recruit and retain staff for KM applications.

Other elements of the strategic plan will include identification of expertise and knowledge gap exercise. In any organisation, a large portion of knowledge is tacit and needs to be managed. Part of this management is to identify people with expert knowledge since expertise exists in people. Identifying knowledge gaps in organisations is an important factor for knowledge management practice. This exercise is conducted to establish the knowledge needs of the library, the gaps in the knowledge, knowledge flows, sources of knowledge and access to knowledge resources by library users. The essence of the knowledge gap exercise to understand library resources with a view to

identifying the types of knowledge to be managed. (Jain, 2007).

The library managers should therefore develop a strategic plan for KM adoption. This plan will help to identify the library's knowledge needs, knowledge gaps and knowledge expertise.

5. **Updating Library procedures and policies:** Procedures and policies, according to Jain (2007), are considered the explicit knowledge of an organisation and they are the guidelines for staff members to perform their tasks effectively and efficiently. In the absence of such a system in place it would not be possible for the library staff to work procedurally and effectively. KM refers to management of both tacit and explicit knowledge of the employees, organisation and its customers. Without the explicit KM no organisation can claim to be practising KM. To practice KM, procedures and policies need to be in place and managed properly by regular update.
6. **Library consortium building:** Strong partnerships are needed among libraries to facilitate the exchange of knowledge required to build a strong knowledge resources – base. One of these partnerships is library consortium. It is an external form of exchanging of knowledge. It has the advantage of expanding the resource-base of the participating libraries. It is one of the essential conditions for the adoption of KM in libraries. Library managers should therefore ensure that their libraries are members of several library consortia both regionally and internationally.
7. **Creating knowledge sharing culture:** Knowledge sharing is one of the important tenets of knowledge management. A culture that facilitates knowledge sharing needs to be created to ensure the success of KM in the library. This requires that library managers should develop incentive, reward programmes, and possibly re-align them with the human resources policy in the library. Also, professional discussions and other similar meetings should be established in the library to encourage staff to share their knowledge and experiences. This is because librarians, according to Jain (2007) need to share their intellectual and operational knowledge within and outside the library.

8. **Development of mechanisms for capturing the knowledge of staff:** It is stating the obvious that a large portion of knowledge in any organisation is tacit. It is also a well known fact that high staff turnover causes organisations to loose organisational knowledge especially to those leaving the organisation or retiring. One of the major challenges facing libraries today is aging workforce. When people retire, they go with both intellectual and operational knowledge; moreso when there is no system for capturing the knowledge possessed by the affected staff. Wen (2005) suggested that human resources and staff development should work closely with managers at all levels to identify staff with valuable tacit knowledge and take every measure to retain them. In addition, there should be system that allows those leaving office either due to retirement or for better jobs to be interviewed. The results of the interview should be documented for use in the library especially in grooming the new staff members.

### **Conclusion**

Eventhough KM is too well established in the private sector, there is a very positive feedback towards it among the information professionals. KM has been recognised in the library world as having much to offer to the management of libraries and to changing the status of Librarians. This can be seen from the many opportunities and areas of practice of KM in libraries. Information professionals are therefore challenged to be at the centre stage of KM initiatives in their libraries and information centers. The measures identified in this paper will serve as a sign post to successful implementation of KM in libraries. These measures include but not limited to creating a learning environment, developing knowledge enabling technologies, developing central knowledge repository, developing a strategic plan for KM, updating library procedures and polices, building consortium, creating a knowledge sharing culture, and developing a mechanism for capturing the tacit knowledge of staff.

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