EMERGING KNOWLEDGE MANAGEMENT COMPETENCIES OF LIS PROFESSIONALS

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Abstract

In the age of the globalization and increased worldwide competition, many organizations and professions are looking for new ways to gain competitive advantage. Knowledge Management (KM) is a relatively major topic for this concept and Librarianship is one of the professions not only vying for a position of prominence in KM, but also whose track record in the field is widely acknowledged. This study aimed to identify, collect and critically review the research literature on the concepts of KM competencies among Library & Information Science (LIS) professionals. KM differs significantly from the theory and practice of librarianship, information management, and information resource management. It requires a new set of skills among LIS professionals if they wished to have any effective role in this domain. This will require not only enhanced self-knowledge, but also an understanding of how LIS skills can be applied in a new and often commercial context.

Key Words: Knowledge Management (KM), Library & Information Science (LIS), Skills, Leadership, Competencies

INTRODUCTION

Knowledge has become a driving force for societal and economic development and key concern for many organizations. KM as an emerging discipline focuses on the various management processes that facilitate finding, identifying, capturing, creating, storing, sustaining, applying, sharing and renewing knowledge to improve an organization's performance. Library is also a social organization and the demand for information and knowledge by its clientele is increasing day by day. Not only that libraries embrace vast amounts of knowledge in various areas and its management is considered important for providing quality information services, making effective decisions, improving their overall performance and becoming more relevant to their parent organizations. Successful library leaders demonstrate certain skills that are instrumental in the delivery of desired outcomes. KM is a major one of that and KM offers potential benefits for the development of libraries.

International Federation of Library Associations (IFLA) clarifies that the term knowledge is not limited to published information. It also covers explicit knowledge, tacit knowledge, implicit knowledge and procedural knowledge. In libraries and information centers, 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. Tacit knowledge is the subjective and experience based knowledge difficult to articulate or write down and embedded in minds of

workers with a comprehensive knowledge of rules and regulations, work procedures, etc. Tacit and explicit knowledge, both is deliberate as the most important sources of knowledge of a library and the management of which should be done with utmost care and should be the prime motto of any library.

According to working definition of IFLA, KM is "a process of creating (generating, capturing), storing (preserving, organizing, integrating), sharing (communicating), applying (implementing), and reusing (transforming) organizational knowledge to enable an organization to achieve its goals and objectives" (IFLA KM Section Brochure, 2012). In addition in response to the growing interest of KM among the LIS community, KM section was created by IFLA as a separate unit in December 2003.

LIS professional's skills of information handling can apply and incorporate KM practice in several areas of an academic library including administrative and support services, technical services (cataloguing, classification, indexing, etc.), reference and information services, knowledge resource management, resource sharing and networking, information technology development and application (Jain,P. 2007 ; Lee, H.W. 2005 ; Markgren, S., Ascher, M.T., Crow, S.J. & Lougee, H.H. 2004 ; Stover, M. 2004 ; Yi, Z. 2006). Successful application of KM in libraries are lack of sufficient skills and competencies, reluctance of library professionals to accept the change, misunderstanding of KM concepts, lack of knowledge sharing culture, lack of incentives or rewards for innovation and sharing of knowledge, lack of top management commitment, lack of collaboration and lack of resources. (Financial, technological and human) (Al-Hawamdeh, S. 2005; Maponya, P. 2004; Roknuzzaman, M., Kanai, H. & Umemoto, K. 2009; Ugwu, C. I. & Ezema, I.J. 2010)

[Objectives

This study aims to identify, collect and critically review the research literature on the concepts of KM competencies among LIS professionals and how they see to it and its implementation in the development and progress of libraries. The following are the other major objectives of the study.

- To examine the concepts of knowledge and KM
- To determine the scope of KM in LIS profession
- To identify the requirement of competencies among LIS professionals for their involvement in KM practice.

Literature Review

KM has been promoted as a valuable business concept for almost two decades. Although originally emerging in the world of business, the practice of KM has now spread to the domain of non-profit and public-sector organizations, including that of libraries Perceptions of KM concepts. However, practices of KM seem uncommon among LIS professionals as reflected within LIS literature.

Concepts of knowledge and Knowledge Management:

Knowledge management (KM) has rapidly moved beyond the stage of a trend and has established itself as a key part of many libraries' knowledge strategy. The concept of knowledge-

based economy has generated tremendous interest now-a-days. A library's status is no longer defined by the collection it housed; it is extended to include online and seamless access to information resources. The right amount of information at the right time has long since been an important factor for all kinds of libraries. The concept and name "Knowledge Management" was started and popularized in the business world during of the 20th century. It was the business world that first recognizes the importance of knowledge in the "global economy" of the "knowledge age". The applications of KM have now spread to other organizations including government agencies, research and development departments, universities and others.

In order to understand KM, it is important first to ask "what is knowledge". Some authors try to define knowledge by distinguishing between knowledge, information and data. The assumption seems to be that if knowledge is not something different from data or information, then there is nothing new about KM. The nature of and the relationships between data, information and knowledge, have been described as the cornerstone for understanding KM theory in organizations. Attempts to define these three concepts are numerous. It has been common practice to take a hierarchical view of the relationship between data, information and knowledge.

Data, Information and Knowledge:

A commonly held view is that data are raw facts that have no context or meaning on their own (Abram 1999). Typical examples of data include statistics, list of items and names and addresses (Gandhi 2004). Reviewing definitions of data would lead one to the conclusion that the same meaning in Abram's definition has been represented through different expressions. Hence, data refer to a 'string of elementary symbols, such as digits or letters' (Meadow etal.2000) and again data is a set of discrete, subjective facts about events (Davenport & Prusak 1998, p.4).

There is no universally accepted understanding of the meaning of information (Bouthillier Shearer, 2002). Information is a bit more complex, for it organizes data for a meaningful purpose. Marc Porat states that "Information is data that has been organized and communicated".Stehen Abram sees the process for knowledge creation and use as a continuum where data transforms into information, information transforms into knowledge and knowledge drives and undergoing behavior and decision making. However, among numerous definitions of information at least two common characteristics occur. The first one addresses its application. The second one addresses its structure and content. Some authors define information in terms of its construction, arguing that information is processed data (Alavi & Leidner, 2001). In other words, when data is organized in a logical, cohesive format for a specific purpose, it becomes information (Gandhi, 2004). Similarly information has been defined as data made meaningful by being put into a context (Bouthillier & Shearer, 2002). Hierarchical view, information is data transformed by the value-adding processes of contextualization, categorization, calculation, correction and condensation (Davenport & Prusak, 1998).

Knowledge is an intellectual capital when people out of creation, add value to information. It is generated. Knowledge is classified and modified. It may be indexing. It is shared. Knowledge is defined as justified personal belief that increases an individual's capability to take effective action. Philosophers from ancient to modern times have grappled with the question of 'what is knowledge?' (Blair 2002, p.2) Perhaps not surprisingly such eminent thinkers as Plato, Descartes, Kant and Marx have failed to agree on the definition of such a complex concept (Rossion, 1998). Knowledge may be viewed from several perspectives including as a state of

mind, an object, a process, a condition of having access to information, or a capability (Alavi & Leidner, 2001). In the hierarchical view, knowledge is the product of information. When information is analyzed, processed, and placed in context, it becomes knowledge. This has been reflected in the definition of knowledge as information possessed in the mind of individuals (Alavi & Leidner, 2001).

Karl Wiig (1999), one of the most influential and most often-cited writers on KM in the business sector, defines knowledge as a set of truths and beliefs, perspectives and concepts, judgments and expectations, methodologies and know-how. However, Davenport and Prusak's definition of knowledge is the most-cited in KM literature.

"Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knower's. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms" (Davenport & Prusak, 1998, p.5)

These different views of knowledge can lead to different perceptions of KM (Alavi & Leidner 2001). In an LIS context, the primary objective is that of managing information and in broader context knowledge.

Explicit and tacit knowledge:

Two forms of knowledge popularized by the Japanese scholars Nonaka and Takeuchi. 'Explicit knowledge' is defined as knowledge that can be codified and therefore, more easily communicated and shared, notably through IT (Information Technology) systems. The phrase 'tacit knowledge' was coined by Polanyi. He examined human tacit knowledge by starting from the fact that 'we can know more than we can tell' (Polanyi 1958; Polanyi 1966). Tacit knowledge, its nature and exploitation has been a major focus within the KM literature. According to Nonaka and Takeuchi, tacit knowledge is highly personal and hard to formalize. Although the tacit-explicit dichotomy is popular and can be useful in a practical context, it is nonetheless a simplification. Attempts at converting tacit knowledge into explicit form will continue to be a challenge for KM. Tacit knowledge is both complex and subjective. It is often embedded in an individual's intuitive personal experience, and thus is hard to formalize or communicate (Nonaka & Takeuchi 1995; Davenport & Prusak 1998; Choo 2000).

In libraries, explicit knowledge is either generated 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 acknowledge contained in the librarians themselves. Both types of knowledge (explicit and tacit knowledge) is considered as the key knowledge sources of a library which should be managed properly (Husain, S. & Nazim, M., 2013).

Role of LIS professionals in KM:

Mainstream KM literature indicates that the application of KM contributes to the improvement in organizational performance, economic success in the market place, organizational creativity, and operational effectiveness, quality of products and services and economic sustainability. The multidisciplinary nature of KM has resulted in input from people from different fields including human resources managers, economists, IT specialists and LIS professionals. Economists argue that KM is all about operating in a knowledge economy and that therefore KM is the domain of the economist. But human resources professionals argue that the aim of KM is to ensure that people in the organization have the right level of knowledge and skills. They claim responsibility for knowledge management. IT-professionals and librarians also claim KM for themselves. They argue that knowledge can be managed by means of storage and retrieval systems, distribution networks, etc. (Owen 1999, p.8).

Davenport (2004) believes that library activities with respect to KM are located within the externalization and combination quadrants of the SECI model of knowledge conversion proposed by Nonaka and Takeuchi (1995).

Socialization	Externalization
Individual tacit knowledge is conveyed to others by showing and doing	The resulting 'social' knowledge is captured and codified and made explicit
Internalization	Combination
New codified knowledge is digested by the individual whose tacit knowledge is transformed	Codified explicit knowledge is synthesized to create new combinations

Figure 1: The simplified version of a cyclical "knowledge creation" model of Nonaka and Takeuchi (1995) by Davenport (2004, p.82).

Essentially, the Externalization (tacit to explicit) and Combination (explicit to explicit) quadrants focus on explicit knowledge. LIS professionals have the core information management skills required to manage knowledge once it becomes explicit, that is, to identify, catalogue and maximize the visibility and availability of the products in which knowledge is stored (Webster 2007).

Externalization mode has been provided by Choo (2002) who explains the role of LIS professionals in KM as one of " Identifying, acquiring, or extracting valuable knowledge from documents, discussions, or interviews, usually accomplished with the help of subject matter experts Refining, writing up, and editing 'raw knowledge' (such as project files, presentations, email messages), turning it into 'processed knowledge' (such as lessons learned, best practices, case studies) (Choo 2002, pp.270-271). Creating new knowledge by adding value to information through services such as filtering, summarizing and packaging information can be examples of

the activities of LIS professionals in the Combination mode. Also, librarians add value to existing knowledge through portal development, which can include recommending and listing useful, reliable websites with annotations and grouping these in appropriate categories. It seems clear that librarians do play a role in KM through involvement in externalization and combination activities.

In a search for evidence of the involvement of LIS professionals in KM, Ajiferuke (2003) conducted an empirical study in Canadian organizations. The results revealed that information professionals involved in KM programs were playing key roles, such as the design of the information architecture, the development of taxonomies, or content management for the organization's intranet. Others were playing more familiar roles, such as providing information for the intranet, gathering information for competitive intelligence or providing research services as requested by the KM team (Ajiferuke 2003).

However, It seems that the LIS professions have made slow progress in identifying what KM means to them and, more precisely, its implications for their expertise, education, training and cultural traits. It is certainly not clear from the literature that library and information professionals might be better knowledge managers than people from other fields (Ferguson 2004).

Knowledge Management Competencies Required Among LIS Professionals:

As a learning organization, libraries should provide a strong leadership in knowledge management. Libraries should improve their knowledge management in all of the key areas of library services. To cope with the exponential growth in human knowledge, libraries need to develop their resources, access and sharing strategies from printed to electronic and digital resources. Limited by funding, technology, staff and space, libraries must carefully analyze the needs of their users and seek to develop cooperative acquisition plans to meet the needs of users.

In1990, Prusak and Matarazzo, conducted a study to determine the value of LIS professionals in a corporate sector in the growth and development of company. They found the role of library manager as: the online search performed by librarians was the most valuable service offered. They also found that most companies surveyed had no methods or processes in place to evaluate the effectiveness, efficiency or productivity of what librarians do. While everyone appeared to 'like' libraries and librarians, few firms thought of them as 'mission critical' (Singh, K.P, 2005).

Some authors have identified the requirement of competencies among LIS professionals for their involvement in KM practice. Investigating the requirement of KM skills for effective integration and use of internal knowledge, LIS sector needs to develop a range of interpersonal and business skills in its staff to add value to a knowledge-based environment. The importance of both LIS traditional skills in the information environment with skills in indexing, cataloguing, authority control and database management for the organization and structuring of information and knowledge as well as additional skills in the business environment with the managerial, leadership and interpersonal skills for leveraging intellectual assets throughout an organization, fostering innovation and change and developing organizational culture of sharing knowledge.

Researchers have investigated the requirement of competencies for LIS professionals to involve in KM practice. They proposed several types of competencies for the successful application of KM practice in libraries, which may People-centered skills (communication, facilitation, coaching, mentoring, networking, negotiating, consensus building and team working skills), Skills associated with the management of organization as a whole (cultural, leadership, strategic and restructuring skills), Information processing and management skills (developing knowledge taxonomies, organizing knowledge resources on Websites and portals and understanding of information and knowledge need of users) and skills related the use and application of IT (Husain, S. & Nazim, M. 2013).

Methodology

The present study is based on the review of published work in the field of KM and librarianship. Since the basic purpose of the present study is to examine the concepts of KM among LIS professionals, literature survey method was found suitable. Therefore many articles, abstracts, databases including Emerald, J-Store and Elsevier, Open access journals, and Google Scholar used for this study.

Findings

- The concept of KM was emerged in business sector, now it is being used in public sector organizations including academic institutions and their libraries
- Libraries are having explicit as well as tacit knowledge embedded in working processes and experienced employees
- Management of knowledge helps an organization to improve the quality of services
- The perceptions of KM among LIS professionals are varied and they mostly view KM as the management of recorded knowledge, rather sharing and using tacit knowledge embedded in employees
- LIS professionals have positive attitudes towards the application of KM in libraries and see it as a best method of improving library functions and services
- The skills of LIS professionals in indexing, cataloguing, authority control and database management are considered relevant for KM, but they need some additional skills in the business environment with the managerial, leadership and interpersonal skills.

Conclusion

Though the concept of KM emerged in business sector, but its practices have now been used in the domain of non-profit and public sector organizations, including academic institutions and libraries. Recently, LIS professionals have started to acknowledge the importance of KM. The commonly-held the view is that a library is a knowledge based organization where the organization and maintenance of recorded knowledge is a practice as old as civilization itself. In spite of having narrow perceptions towards KM, there is a developing interest in KM among LIS community. The basis of three major sets of perceptions emerged from the review of literature. They can and should enter into KM roles through the application of their traditional skills related to IM. There are potential benefits for LIS professionals from the involvement in KM including personal career development and enhancement of the position. Status of LIS professionals within

their parent organizations and that KM offers potential benefits for the development of libraries. However, the success of KM initiatives requires additional skills and competencies among LIS professionals which they are lacking.

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