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Description	



Exploring LIS academics' responses to knowledge management

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Abstract

Purpose – The main purpose of this study is to investigate how and why library and information science (LIS) academics have responded to the advent of knowledge management (KM).

Design/methodology/approach – The study employs an “experience survey” as a research strategy. Besides a review of scientific literature, this study conducts an e-mail survey of 106 LIS academics of the world who have adopted KM education in their schools. A structured questionnaire comprising of both closed and open questions is used as data collection instrument. The study analyses 57 filled-in valid questionnaires following a mixed-method approach of research.

Findings – The ways of knowing and degrees of understanding of KM concepts among the LIS academics are varied. Although KM is distinct from LIS, there exists a strong link between the two knowledge domains. LIS academics have positively responded to KM, and considering its long root in LIS, they have argued for a serious consideration of the adoption of KM in LIS. The significant reasons for why the academics have responded to KM are the role of global knowledge economy, the natural evolution of the information field, interdisciplinarity, domain expansion, survival issues, and trends in technological innovations, etc.

Research limitations/implications – Many LIS schools do not come under investigation due to lack of their web accessibility.

Practical implications – LIS academics are suggested to apply a holistic approach of KM, and to expand the knowledge domain of LIS, by providing a sound understanding of the underlying concepts, theories, principles, techniques, and technologies of KM.

Originality/value – The empirical findings of the study are the original views and responses of LIS academics who are experienced in KM.

Keywords: Knowledge management, Knowledge economy, Library and information science, LIS academics, LIS schools.

Introduction

Knowledge management (KM) is considered to be an important innovation of the global knowledge economy. Although KM has been with us for a long time, often referring to classic Greek Philosophy (Gamboa, 1999), the field emerged as a business concept during the

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1990s. At the beginning of the nineties, KM acquired more management attention because of the structural changes in the economy and society (Scholl and Heisig, 2003). During this time, authors like Senge (1990), Nonaka (1991), Wiig (1993), and Nonaka and Takeuchi (1995) among others initiated to conceptualize KM from business perspectives and to design some projects related to KM.

Since the mid-nineties KM has gained much popularity among a number of disciplines including library and information science (LIS). Among the LIS community, the perceptions of KM are varied, and the literature suggests that there is no universal agreement on how and to what extent KM is related to LIS. A minority of authors harbor suspicion about the future of KM considering its faddish nature (Broadbent, 1998; Wilson, 2002). Wilson (2002) claims that KM is, “in large part, a management fad, promulgated mainly by certain consultancy companies, and the probability is that it will fade away like previous fads.” On the other hand, a number of authorities find a close link between LIS and KM, and they describe KM as a practice of librarianship or information management (Davenport and Prusak, 1998; Koenig, 1999; Gorman, 2004).

The study background suggests that a number of studies have explored the perceptions and views of LIS professionals towards the emerging concept of KM and its potential applicability in LIS education and practice (Southon and Todd, 2001; Ajiferuke, 2003; Rehman and Chaudhry, 2005; Van der Merwe, 2006; Sarrafzadeh, Martin and Hazeri, 2006; 2009; Hazeri, Sarrafzadeh and Martin, 2009; Roknuzzaman and Umamoto, 2009). The present study is a part of a dissertation project which aims at investigating the responses of only LIS academics of the world (excluding the library practitioners) who are experienced in adopting KM education in their schools.

LIS’s involvement in KM

Librarians usually claim that KM is their own business and they have been practising it for a long time. In fact, the field has grown intellectually by the input from many disciplines. It is evident that a number of authorities having backgrounds in LIS have contributed to the development of KM, along with other promoters such as business, management, ICT, and so on. Laurence Prusak, who received his M.S. and Honorary Ph.D. in Information Science, and also worked as a librarian at Baker Library at the Harvard Graduate School of Business Administration, co-authored one of the most cited monographs in KM, in the late 1990s. Table 1 includes some of the selected works on KM by LIS people which have made a significant impact on the growth of the field of KM.

Insert Table 1: Some of the selected works on KM by LIS people

Perceptions of KM concept

Grossman (2007) observes that not only is there lack of consensus regarding the definition of KM but also there is no consensus in regard to its underlying precepts. For some, KM is a process, and it is mostly related to information management. While Ponelis and Fair-Wessels (1998) assert that KM is a new dimension of strategic information management, Wilson (2002) considers it as information management by another name, and Al-Hawamdeh (2003) mentions that information management is a part of KM.

According to Broadbent (1998), “KM is about enhancing the use of organizational knowledge through sound practices of information management and organizational learning”.

Bouthillier and Shearer (2002) describes KM as a six-step process consisting of discovery of existing knowledge, acquisition of knowledge, creation of new knowledge, storage and organization of knowledge, sharing of knowledge, use and application of knowledge. Abell and Oxbrow (2001) considered KM not only as a philosophy, but as a practice, and a crucial element of the global business process. These authors defined KM as “the creation and subsequent management of an environment which encourages knowledge to be created, shared, learnt, enhanced, organized for the benefit of the organizations and its customers”. In view of Corral (1998), “KM involves taking a more holistic view of information, not only combining internal and external information– previously practiced in some corporate libraries, relatively rare in other sectors-but also coordinating planning and control (monitoring) information, and consolidating informal (soft) and formal (hard) information”.

As mentioned by Al-Hawamdeh (2003), KM refers to the 'process of identifying, organizing and managing knowledge resources', in which case the resources include explicit knowledge (information), 'know-how' (learning capacity), 'know-who' (customer capacity) and tacit knowledge in the form of skills and competencies. The process view of KM is also supported by Roknuzzaman et al (2009) who defined KM as a dynamic and continuous social process that involves acquisition, organization, storage and retrieval, and dissemination of knowledge resources to user group with relevant feedback to achieve institutional goals.

Review of some empirical studies

In analyzing the range of viewpoints of how library and information professionals perceive KM, Southon and Todd (2001) identified two important aspects. Firstly, the views tend to be fragmented, focusing on explicit items - such as technology, the knowledge or information objects, or specific information management processes - rather than portraying a more holistic, encompassing notion of KM as commonly portrayed in the substantive literature to date. Secondly, the views of KM were often seen in isolation to other functions, processes, divisions and personnel in the organization. The empirical evidence from Canada shows that many information professionals involved in KM programs and the major roles played by them include the design of the information architecture, development of the taxonomy, and content management of the organization's intranet while the minor roles include the provision of information for the intranet, gathering competitive intelligence, or providing research services as requested by the KM team (Ajiferuke, 2003). The findings of the study conducted by Rehman and Chaudhry (2005) have been supported by Hazeri and Martin (2009) who observed an appreciation within the LIS professionals of the importance of collaborative approaches for KM education, and the need for LIS schools to enter liaisons with other interested parties, particularly with business schools and with industry. Rehman and Chaudhry's (2005) study, however, did not consider LIS heads' perception of KM concept. The result of a South African study by Van der Merwe (2006) suggests that LIS professionals, skilled in the acquisition and distribution of information - skills that can subsequently be well utilized in the new economy - has a vital role to play in the process of managing knowledge. The study, however, remarks that it seems as if the roads they have to travel on, have yet to be built by themselves.

Sarrafzadeh, Martin and Hazeri (2006) identified attitudes of LIS professionals towards KM from an international survey. Participants of this study agreed on eight (8) of the 16 items provided, disagreed on four (4) items, and showed neutrality on four (4) items. For example, respondents agree that KM has increased job opportunities for LIS professionals; it can provide new career options for them, can contribute to an improvement in the future prospects of libraries, and can help LIS professionals move from being service-oriented to

being value-oriented. This study encourages LIS professionals to make the promotion of KM a priority. Thus, three sets of perceptions have been identified by these authors: first, an enhanced involvement of LIS professionals in KM roles through their IM skills; second, there are potential benefits for LIS professionals from such involvement including personal career development and enhancement of the position and status of LIS professionals; and finally, KM offers potential benefits for the development of libraries and the LIS profession itself.

As observed by Onyancha and Ocholla (2009), LIS scholars view KM as comprising largely the management of information resources, services, systems and technologies using various technologies and tools through activities such as information acquisition/creation, information retrieval and storage, data mining, classification and cataloguing, and information use in different information handling institutions or centers. Participants of Hazeri, Martin and Sarrafzadeh's study (2009) acknowledged the cultivation of additional competencies among KM learners, as a contribution to the improved professionalism of corporate librarians, and the provision of new career options for LIS graduates. In a study of how library practitioners view KM in libraries, Roknuzzaman and Umemoto (2009) explored that the ways of knowing and degrees of understanding of KM concepts among the library practitioners are varied. But the most library practitioners have focused on a shallow perception of KM – managing only explicit knowledge. Knowledge economy, role of information technologies, and opportunities for improved library practices, etc. are identified by them as important reasons for why library practitioners have responded to KM. The review suggests that most studies have explored LIS professionals' perceptions towards KM, while there is an obvious gap in the literature regarding LIS academics' attitudes and responses to KM.

Objectives and research questions

The main objective of this study is to explore global responses of LIS academics towards the advent of KM. Other objectives are: (a) to investigate LIS academics' ways of knowing about KM; (b) to know their viewpoints of understanding KM; (c) to explore specific responses of LIS academics to KM; and (d) to identify their reasons for responding to KM. In view of these objectives, the study has developed one major research question (MRQ) and four subsidiary research questions (SRQs).

- MRQ: How and why have LIS academics responded to the advent of KM?
- SRQ1: How have LIS academics become aware of KM concepts?
- SRQ2: What are the viewpoints of LIS academics towards understanding of KM?
- SRQ3: What are the responses of LIS academics to KM?
- SRQ4: What are their reasons for responding to KM?

Research methods and materials

An 'experience survey' as a research strategy

An exploratory survey method or an 'experience survey' to be more specific was used as a research strategy. An 'experience survey', as Powell (1997) mentions, gathers and synthesizes the experiences of specialists and/or practitioners in a particular field. This is a type of e-research, and the study employed an e-mail questionnaire survey of selected LIS academics of the world. The Directors/Heads/Program Coordinators of LIS schools who adopted KM education at their schools are considered to be experienced in KM.

Sampling

For an ‘experience survey’, a purposive or a convenient sampling technique was designed to select the study respondents. Following the result of a thorough search of IFLA World Guide to Library, Archive and Information Science Education (Schniederjürgen, 2007), and a survey of schools’ homepages, 106 LIS schools were selected as KM adopters, and hence the sample for this study was 106 LIS academics from those schools. The geographic distribution of the sample LIS academics as shown in Table 2 indicates that the highest number of LIS academics from Asia (38; 35.8%) followed by America (28; 26.4%), Europe (24; 22.6%), Oceania (9; 8.5%), and Africa (7; 6.6%).

Insert Table 2: Geographic distribution of the sample LIS academics

Data collection and analysis

A structured questionnaire comprising of both closed and open questions was used as data collection instrument. Sarrafzadeh, Martin and Hazeri’s (2006) study helped us to develop some of the constructs or statements of the open questions. The questionnaire was sent out to 106 LIS academics via e-mail. Fifty eight (58) questionnaires were received for a response rate of 54.7%. Fifty-seven (57) questionnaires were considered as valid for data analysis. The study used a combination of qualitative and quantitative approaches to research. The analysis of qualitative data involves creating codes and themes from the text, categorization and interpretation of important themes focusing the study objectives. The unnecessary data was cleaned up and the data sets were reduced to a reasonable frame for the convenience of analysis of qualitative data. For the quantitative data, the study used descriptive statistics (mean score and standard deviation) following SPSS 14.0. The common trends of a given statement were identified and the answers of relevant open questions and/or comments provided by the respondents under each statement were thematically analyzed.

Study results and discussion

Administrative positions of the respondents

All the 57 survey respondents were classified into seven categories according to the administrative positions they hold (Table 3). The highest percentage of respondents (21.1%) came from “KM Instructor” group followed by the “Head of Department” (17.5%), “KM Course Coordinator” (15.8%), “Dean/Director of School” (14.0%), LIS/IM Program Director” (12.3%), and “KM Program Director” (10.5%). The other five (8.8%) respondents did not have any administrative position, but they responded as instructed by their superiors to whom the questionnaires were sent, considering either their previous administrative positions or their rich experience and knowledge in KM.

Insert Table 3: Administrative positions of the respondents

Geographic distribution of the respondents

As shown in Table 4, the highest number of responses (17 with 29.8%) came from North America, including 13 from the USA and 4 from Canada. According to the sample size, the highest number of questionnaire were sent to Asian region, however, Asia was in the 2nd position with 15 (26.3%) respondents, counting 10 from China (China 5, Taiwan 4, and Hong

Kong 1), and 1 each from Korea, Kuwait, Malaysia, Singapore, and Thailand. The 3rd highest number of responses came from Europe (14 with 24.6%), including 6 from the UK, 3 from Germany, and 1 each from Austria, Croatia, Estonia, Finland, Italy, and Spain. Also, 6 academics (10.5%) from Oceania (Australia 5, and New Zealand 1), and 5 (8.8%) from Africa, more particularly from South Africa, responded to the questionnaire.

Insert Table 4: Geographic distribution of the study respondents

LIS academics' awareness of KM: Ways of knowing

Initiation is the action or process of starting a new approach to something, while knowing is the process of gaining knowledge or experience in a new field. The study identified four ways of knowing through which LIS academics became aware of KM concepts: explicit knowing, intuitive knowing, experiential knowing, and reflective knowing.

- *Explicit knowing*

Explicit knowing is the process of gathering knowledge through articulated or documented sources. Significant publications and research on KM, and growing number of national and international seminars and conferences during the nineties have brought opportunities for many LIS academics to approach to KM concepts. A respondent pointed out that she read considerable literature in the special librarianship field, and was a member of the International Federation for Information and Documentation (FID) until its demise. Publications from these two areas drew her attention to the concept, and her impressions regarding KM at that time are the same as her impressions now: 'lots of talk, and hard to quantify, much less manage.' Besides self-study and research, the location of schools, and their environment, faculties or colleagues, lectures of prominent KM scholars, etc. enabled some respondents to get insights on KM.

- *Intuitive knowing*

The intuition of LIS people came through direct action and experience, observation, and conversation, when dealing with LIS education and research in the areas of organizational information management', 'management and information-related competencies', 'resources and services of specialized information', or digitization and archives,' etc. Based on subject backgrounds and tacit feelings, many LIS academics became familiar with KM concepts. One such response came as: "I had long been interested in the role of human networks in organizational information management and wrote an article on this topic in the 1991 volume of ARIST. The topics I covered there subsequently became important themes within KM, although KM itself did not emerge as a distinct discipline for several years after that."

- *Experiential knowing*

Another way of knowing about KM was LIS academics' involvement in practical works/projects in groups related to KM. The interaction between a person's thoughts and a direct face-to-face encounter with persons in groups helped LIS people to know about KM. Some respondents noted that they had some opportunities to work in information literacy, human resource management, or ICT related projects from which they gained some concepts closely relevant to KM, and later they adopted KM content, such as organizational learning, human capital management, online communication, etc. into their KM courses. Some had long experience with introducing or developing new courses, e.g. online learning, strategic IM, and in-house training course in KM which contributed them to become familiar with many

concepts of KM including communities of practice, knowledge sharing, collaborative learning, business information processing, etc.

- *Reflective knowing*

Reflection involves drawing an image based on descriptions, reviews, analyses, and evaluation of thoughts, assumptions, beliefs, theories and actions, as reflected in practical settings. As KM began to be used in practice in many academic and professional disciplines, some LIS people became aware of KM from different areas, particularly from business, ICT, human resources management, organizational learning, etc. For many, curriculum is an expression of social activities; LIS gathered the type of knowledge that reflected a wider set of social interests and purposes including those of LIS. Some academics also recognized KM from the opportunities reflected in the job market for KM.

LIS academics' understanding of KM

This section provides qualitative findings from the analysis of open ended questions regarding LIS academics' understanding of KM, provided by 40 respondents. The thematic analysis suggests that LIS academics have recognized KM from different viewpoints as shown in Table 5.

Insert Table 5: LIS academics' perceptions of KM concept

A process or an information management point of view

For many, the process or information management view of KM originates from the field of LIS, and hence the highest percent (25%) of respondents (10 out of 40 valid responses) recognized KM as a process of managing explicit knowledge. For this group, KM is similar to information management, as it encompasses information flows, creation, organization, dissemination, use, and preservation. The process view of KM has been described by a respondent as "KM is the explicit and systematic process of knowledge generation and innovation through an efficient organization and sufficient exploitation of information/knowledge resources. The associated processes also include: identifying and acquiring, classifying and arranging, recording and storing, distributing and exchanging, exploiting and utilizing, and transferring information- in pursuit of business objectives."

A very broad and a comprehensive viewpoint

Being amalgamated of many concepts from a wide range of fields, KM itself has become an ambiguous, problematic, and vague construct, and a very difficult area to put a fence around. From a wider perspective, eight LIS academics (20%) considered KM as an umbrella term which is a rich mix of people, process, strategy and technology. Considering a fairly advanced level of understanding of KM, one respondent reported: "We don't see KM from any particular angle...for us KM is the management of human capital, as knowledge is personal and it resides in the minds of human beings... it is the management of digital contents, as explicit information are available in documents, books, or commercial databases in digital format... it is the management of technology to carry out information processing tasks...and finally, it is the management of organizational business policy to achieve targeted goals- we applied this meta concept of KM in our school."

An inter- and/or a multi-disciplinary point of view

The broader perspective of KM includes a wide range of disciplinary approaches to managing organizational and individual knowledge, requiring many people of diverse educational and experiential backgrounds including computer science, information science, business science, management science, cognitive science, human resource management, etc. To derive maximum value from KM, six LIS schools (15%) incorporated KM from inter- and/or multi-disciplinary points of view. In line with this point, a respondent remarked: “Is there anybody who thinks about KM without thinking multidisciplinary? We should respond to the multiple perspectives and diversity of KM”

A technological or a systemic point of view

The analysis reveals that six LIS academics (15%) responded to KM from a technological or a systemic point of view, considering ITs as “enabling factors” for KM. The technology track provides KM associated with various systems as one respondent mentioned: “KM is IT-oriented and it should focus on IM systems, data mining, artificial intelligence, knowledge mapping, computing, and other tools including database management systems, data warehouses, expert systems, web tools, collaboration tools, groupware, intranet, internet, extranet, etc.”

A strategic or a business point of view

Knowledge is considered as a strategic asset and a source of competitive advantage (Nonaka and Takeuchi, 1995). The strategic view of KM refers to the natural extension of business process reengineering. As many libraries are moving towards the corporate world, their knowledge activities are reflected in strategy, policy, and practice at all levels of the library. This study also reveals that five (12.5%) LIS academics considered KM from strategic or business point of view. For this group of respondents, KM is about a business activity with two primary aspects: treating the knowledge component of business activities as an explicit concern of business reflected in strategy, policy, and practice at all levels of the organization; and making a direct connection between an organization’s intellectual assets, both explicit and tacit [personal know-how], and positive business results.

A managerial or an organizational point of view

A managerial or an organizational view of KM has been defined as the management and exploitation of organizational and human capital to enhance competitive intelligence and organizational learning. KM can be seen as ‘management of work practices’ which are to improve the sharing and using of knowledge to enhance learning and performance in organisations.” Five (12.5%) academics responded to KM from managerial or organizational point of view. In fact, KM is a managerial concept, not a skill, as one academic noted that: “KM is distinguished from KM systems, I mean IM, but unfortunately almost everyone believes KM is a kind of system. KM is a managerial philosophy that implicit knowledge can be an asset of an organization, only if it can be extracted from human’s brain (explicit knowledge).

LIS academics’ responses to KM

Of the 40 valid responses to a question of the initial impression of LIS academics towards KM, 27 (67.5%) were found to be positive about KM, while 8 (20%) were not so curious

about KM, and 5 (12.5%) showed ‘wait and see’ attitude. Table 5 lists some statements concerning to the responses of LIS academics to KM, and analyses their level of agreement with a comparison of the responses among different geographical regions.

Insert Table 6: Specific responses of LIS academics to KM

KM brings opportunities for LIS graduates

LIS academics considered the emerging KM job market as “a window of opportunity” for their graduates, and they agreed (with highest mean score of 4.32) that “KM appears to bring opportunities for LIS graduates to acquire new business skills and to compete in the KM job market.” It is to be noted that the academics from Asia, Europe, Oceania and Africa agreed with the above statement while the academics from North America showed neutrality on this point. Many respondents reported that KM deals with multiple professional knowledge and skills, and the job market for KM is very wide and open. Thus, it seems that KM has extended the LIS job market beyond traditional job opportunities.

The core skills of KM are relevant and essential to LIS

The respondents from all of the five regions agreed (2nd highest overall mean score = 4.14) that “the core skills of KM are relevant and essential to LIS, and hence, LIS should respond to KM immediately”. KM is an area of expertise for LIS students, considering the skills they develop in terms of organization and dissemination of information, and moreover, KM includes some extra skills from business, management, and human cognition which are really essential for LIS. Thus, both LIS and KM have opportunities to contribute to each other.

KM is a domain that is distinct from LIS and IM

The respondents, on an average (mean 4.04), agreed that “KM is a domain that is distinct from both LIS and IM, and therefore, LIS professionals need to expand their roles, knowledge and skills in order to work in a KM environment.” The mean score for individual geographical regions ranges from 3.79 to 4.34. The literature explicitly supports that KM is wider, and more challenging than LIS/IM (e.g. Davenport, 2004). According to a respondent, “KM is similar to some activities in LIS and IM but has distinct differences in approach. KM focuses more on human aspects, and requires a proactive approach involving working with knowledge workers... LIS/IM deals mainly with explicit knowledge whereas KM also includes tacit knowledge.”

Overlapping concepts

KM includes some concepts relevant to LIS, especially in the area of “organization of information/knowledge.” The respondents also agreed (mean 3.89) that there is a significant overlap between KM and LIS, and some elements of KM can be found in LIS curricula – also reported by Reardon (1998). The Academics from North America, however, responded “neither” to this statement. The degree of overlap between LIS and KM depends on the treatment of KM by LIS schools. In this regard, one of the respondents stated: “I agree if the LIS curriculum is IM or business management oriented. It depends on the orientation of LIS curriculum and on which faculty/school the program is situated within.”

KM can bridge the cultural gap between business and LIS

LIS academics agreed (mean 3.86) that “KM can bridge or at least minimize the cultural gap between business world and LIS.” Interestingly, this statement is strongly agreed by the African academics (mean 4.90) while disagreed by the North Americans (mean 2.48). Historically, libraries are considered as non-profit organizations, and hence, that there exists a cultural difference between the library world and the business world. As KM brings together many disciplines, there is a strong support for collaboration and partnership between and among the disciplines. This creates an opportunity for LIS to approach the industry and other allied sectors.

The root of KM lies in LIS

For some, KM has strong roots in LIS, in the sense of a family tree as described by Koenig and Srikantiah (2002), “... documentation was librarianship with a few more components; information resources management was documentation with a few more components; and knowledge management is information resources management with a few more components.” Since “knowledge organization” is a strong meeting point of LIS and KM, it is thought that the root of KM lies in the domain of LIS. The respondents, on an average (mean score 3.77), agreed on “KM has long roots in LIS, and certainly, it is a job for LIS people”. The Asian academics strongly agreed (mean 4.54) on this statement, while the respondents from North America were neutral (mean 3.32), arguing that no particular discipline should claim ownership of the emerging essence of KM.

A new term with old context

Among the LIS community, KM refers to the professional practice of librarianship such as acquiring, organizing, and distributing information and/or knowledge. In this sense, respondents agreed (mean 3.61) that “KM is a new term for what LIS professionals have always been doing in the form of managing recorded or explicit knowledge.” The respondents from North America were neutral on this point (mean 3.42). Some disagreements were also found on this point, indicating that the duties that librarians have been performing in “caretaking” information for the past 100 years are not the same duties that knowledge managers perform. KM encompasses new ways of managing information that “old style” librarianship did not include.

LIS should leave KM to the business sector

To cope with present business trends of KM, LIS must consider KM seriously both in education and practice. Therefore, respondents, on average, disagreed (mean 1.70) with the statement that “KM is a business concept, and LIS should leave it to the business sector.” The Asian academics rejected this statement with mean score 1.42 (strongly disagree) although many of the respondents reported to be agreed with the first part of the statement. The business world may not be aware of the skills of librarianship, which are central to KM, but LIS people should explore themselves by utilizing their existing skills, and by acquiring new skills of KM.

KM has no future in LIS

Although a number of respondents have shown their neutrality regarding the future of KM in LIS, arguing “it’s difficult to make any comment on this right now, but may be, who knows, another terminology is waiting for us!” However, the respondents disagreed (mean 1.51) that

“KM has no future in LIS, and it will disappear soon.” It should be mentioned here that the Asian and the North American academics were “strongly disagreed” with this statement. One of the respondents mentioned: “people from not only LIS but from other disciplines have been enjoying the flavor of KM since its inception, and still we don’t see any sign of its faddish nature.”

KM is a threat to library practice

LIS academics strongly disagreed with the statement that “KM has become a threat to the future of library practice” (mean 1.35). KM is not simply a project that begins and ends, but an ongoing and evolving process, and this will help to increase a library’s operational and management efficiency, and cater to the changing needs of library customers in the digital age. As learning organizations, libraries should provide a strong leadership in KM, because the role of KM in libraries will become more and more important.

Reasons for responding to KM

LIS academics indicated the level of significance of some specific factors that forced them to respond to incorporate KM into LIS as shown in Table 6. This section analyses data using descriptive statistics which is supported by qualitative analysis drawn from the comments made by the respondents under each factor.

Insert Table 7: Significance of the reasons for responding to KM

Emergence of knowledge economy

The new economy and market are driven largely by information/knowledge, and success depends on inventing new business processes and approaches rather than re-arranging old concepts. Moreover, organizations have become more competitive, and they act as knowledge producers, integrators, and providers, considering the tailored needs of customers. Historically, libraries have been knowledge-based organizations, and they have always provided knowledge services to people according to the changing needs of the society. Recognizing the facts of the new economy, as well as the role of LIS, the respondents identified “the emergence of new knowledge-based economy and market” as one of the significant factors (the highest mean 4.44 on 1-5 scale) that forced them to respond to KM. The LIS academics from Asia, Europe and Africa considered this factor as “highly significant” for incorporating KM into LIS.

Natural evolution of the information/knowledge field

The next significant factor for responding to KM was the “natural evolution of the information/knowledge field” (mean 4.31). The respondents from Oceania region reported this factor as “highly significant” with mean score 4.75. LIS is the most evolving discipline that responds to emerging fields. As the nature of information and technology evolves and LIS becomes more complex with each passing year, the education for information managers becomes increasingly vital. LIS academics considered KM as the natural extension of LIS, and they responded to it considering their own field and own needs.

Emergence of competitive KM job market for LIS graduates

It is well researched that a good number of new and attractive but very competitive position titles have been emerged from KM, and LIS graduates can enter into an 'emerging job market' beyond the 'traditional LIS job market'. Our respondents also believed: "KM has opened-up new horizons for LIS graduates to enter into competitive KM job market", and they rated this issue as a "significant" reason with mean score 4.25 for why they adopted KM. Specifically, the Asian and the African respondents reported this issue as "highly significant" with the same mean score as 4.60.

Changing perceptions of employers

LIS academics remarked significantly (mean 4.24) that employers' perceptions were changing, and the recruiting agencies demanded new business skills from LIS graduates, and therefore, LIS academics responded to KM. The European and the African LIS academics considered this factor as "highly significant" with mean score 4.65 and 4.60 respectively for adopting KM in LIS. One of the respondents stated that "... the fact is that many large organizations, particularly in Europe, have adopted KM strategies in recent years, and employers are asking for a rich mix of skills and competencies, most of which our graduates are supposed to have (e.g. IT literacy, social and communication skills, management skills, content management skills, etc.), but we need a bit of exposure to KM, otherwise, such positions will be captured by others, and I think this is time to open up the window of opportunity for our graduates!"

Interdisciplinary nature of LIS and KM

Both LIS and KM are interdisciplinary fields, and they are flexible to adapt many emerging areas of information/knowledge. As mentioned earlier, LIS academics recognized KM from very broader, inter-and/or multi-disciplinary points of view, and they explored some overlapping concepts between these two fields. The respondents of this study similarly indicated that the "interdisciplinary nature of both LIS and KM" is another significant factor (mean 4.22) that encouraged them to respond to KM. The Oceanian academics, in particular, reported this issue to be "highly significant" with mean score 4.60.

Expansion of the knowledge domain of LIS

On an average, respondents indicated that "KM expanded the knowledge domain of LIS with more comprehensive KM theory and intellectually meaningful research agenda" as one of the significant reasons (mean 4.22) for responding to KM. Specifically, the respondents from Africa considered this reason as "highly significant" (mean 4.80). A minority of the respondents, however, argued that KM did not expand the knowledge domain of LIS, and they mentioned that many so called KM features and skills have already been existed in their LIS programs.

Survival of LIS schools

Respondents identified the political issue of "survival as well as holding a leadership position in the competitive KM market" (mean 3.93) as one of the significant reasons for their responses to KM. It is worth mentioning that while the Oceanian and the African academics considered this reason as "highly significant" with mean score 4.62 and 4.75 respectively, the Asian respondents reported as "neither" and the North Americans as "insignificant". Many of the respondents reported that after introducing KM in their schools, they got more students,

graduates entered into many new jobs, and researchers and professors got opportunities to conduct more research in collaboration with industry. One of the respondents noted that "... for the department and the university, it has also increased the number of Post-Graduate students, especially overseas students, which has an impact on revenue."

Trends in technological innovations

Since technology is an enabler of KM, and LIS is very concerned with the application of new technologies, the respondents considered significantly (mean 3.87) that "the continuous and ever-increasing trends of technological innovations and their applications in LIS have forced them to adopt KM programs". Specifically, the Asian academics considered this issue as "highly significant" while the North American and the European academics were "neutral" on this point. IT facilitates faster, less expensive and broader sources of data and communication, which promote the generation and sharing of knowledge in libraries.

Lack of market demand for the present LIS curricula

A number of LIS schools have significantly (mean 3.56) considered that "the present LIS curricula do not meet the market demand", and therefore, they have responded to KM to be competitive in the job market with enriched programs. One such response was: "Library science lacks business acumen, and our graduates never get any opportunities in industry. We included KM as a fundamental course in our MLIS program, and we found some of our graduates working in corporate sectors." On the other hand, some respondents did not see any deficiencies in their LIS curriculum arguing, "we have developed our LIS curriculum continuously, and always tried to meet the market demand." In line with this view, the North American respondents considered this reason as "insignificant" (mean 2.48).

Increasing demand for KM from students and faculties

"Increasing demand for KM from students and faculty members" was considered by the respondents as one of the significant reasons (mean 3.54) that encouraged them to incorporate KM courses in their LIS program. The North American and the European academics, however, were neutral on this issue. In most cases, the demand for KM did not come from the students. Specialization of faculty members, as well as their teaching interests in KM, encouraged many schools to start a KM courses.

Enhancing academic and professional image of LIS

There would seem to be a two-fold problem facing LIS graduates entering the new employment fields of KM/IM – "image" and "personality" (Breen et al., 2002). In fact, some of the LIS schools have adopted KM education based on an assumption that KM would enhance the professional image of LIS. Many of such schools prefer to use "Information and Knowledge" rather than "Library and Information". Respondents, on average, showed neutrality (mean 3.25) regarding the significance of the statement, "KM enhances academic and professional image and social dignity of LIS people", while the North Americans, in particular, considered this issue as "insignificant".

Summary of findings

To summarize the major findings of the study through addressing the research objectives and answering the research questions, the study reveals that:

- LIS academics have become aware of KM concepts through different ways of knowing such as explicit knowing, intuitive knowing, experiential knowing and reflective knowing—the findings almost similar to those of library practitioners' ways of knowing about KM as observed by Roknuzzaman and Umemoto (2009).
- The context and ways of knowing about KM have significantly influenced the LIS academics' understanding of KM. The LIS academics, therefore, have perceived KM from diverse viewpoints, including a process or information management point of view, a very broad and a comprehensive viewpoint, inter- and/or multi-disciplinary, technological or systemic, strategic or business, and managerial or organizational points of view.
- LIS academics have positively responded to KM. The core skills of KM are relevant and essential to LIS, and it appears to bring opportunities for LIS graduates to acquire new business skills and to compete in the job market. In fact, KM is distinct from LIS and IM, however, there exists strong links and overlapping areas among these knowledge domains. Considering KM's long root and future in LIS, the academics have argued for a serious consideration of the adoption of KM in LIS.
- The study identifies some of the significant reasons for why LIS academics have responded to KM. These include: the role of global knowledge economy, the natural evolution of the information field, emergence of competitive KM job market, changing perceptions of employers, interdisciplinarity, domain expansion, survival issues, and trends in technological innovations, etc.

Conclusion and future work

The findings of the study reveal that disputes and differences of opinions about the concept of KM and its incorporation into LIS exist among LIS academics of different geographical regions. It is, however, obvious that LIS academics have positively responded to the advent of KM. The majority of the academics are highly positive about KM; some are positive but not so curious, while a few have shown a 'wait and see policy'. The academics have responded to KM through a series of actions: knowing KM from different ways and sources, understanding KM concepts from varied dimensions, and finally adopting KM in LIS schools. In fact, the emergence of the knowledge economy, as well as trends pertinent to the business environment such as the diffusion of knowledge companies and niche markets, have forced LIS to respond to KM.

Although LIS academics have positively viewed KM, the education for KM in LIS schools is not so pervasive. In line with previous research, this study strongly believes that KM has a future in LIS and it will not fade away like other management fads. Kebede (2010) calls on the members of the information science (IS) profession to take a more proactive and visible role in advancing KM by showing that KM is a natural and long-awaited development in IS. We also suggest that LIS people should expand the knowledge domain of LIS by providing a sound understanding of the underlying concepts, theories, principles, techniques, and technologies of KM with an understanding of KM practices, such as learning organization, community of practice, knowledge sharing, etc.

Since the percentage of KM education offerings is small, the investigation of only schools and academics that have adopted KM will not provide the global responses of LIS to KM. Although there are some differences of opinions among the academics of LIS schools having adopted KM, the future research will make a comparison of the understandings, perceptions

and insights between KM adopters and non-adopters. The future research is also expected to examine the views and responses of KM adopters between LIS schools and business schools.

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Table 1: Some of the selected works on KM by LIS people

Year	Author(s)/Editor(s)	Title of the work
1998	Davenport, T.H. and Prusak, L.	Working knowledge: How organizations manage what they know
1999	Srikantaiah, T.K. and Koenig, M.E.D. (Eds.)	Knowledge management: For the information professionals
2001	Abell, A. and Oxbrow, N.	Competing with knowledge: The information professional in the knowledge management age
2003	Al-Hawamdeh, S.	Knowledge management: Cultivating knowledge professionals
2003	Koenig, M.E.D. and Srikantaiah, T.K. (Eds.)	Knowledge management: Lessons learned: What works and what doesn't
2004	Hobohm, H. (Ed.)	Knowledge management: Libraries and librarians taking up the challenge
2007	Wallace, D. P.	Knowledge management: Historical and cross-disciplinary themes.

Table 2: Geographic distribution of the sample LIS academics

Region	Frequency	Percent
Asia	38	35.8
North America	28	26.4
Europe	24	23.6
Oceania	9	8.5
Africa	7	6.6
Total	106	100

Table 3: Administrative positions of the respondents

Administrative position		Frequency	Percent	Cumulative percent
Valid N= 57	Dean/Director of School	8	14.0	14.0
	Head of Department	10	17.5	31.5
	LIS/IM Program Director	7	12.3	43.8
	KM Program Director	6	10.5	54.3
	KM Course Coordinator	9	15.8	70.1
	KM Course Instructor	12	21.1	91.2
	Presently none	5	8.8	100
	Valid N=	57	100	

Table 4: Geographic distribution of the study respondents

Region	Frequency	Percent
Asia	15	26.3
North America	17	29.8
Europe	14	24.6
Oceania	6	10.5
Africa	5	8.8
Valid N=	57	100

Table 5: LIS academics' perceptions of KM concept

Perceptions of KM concept	Frequency	Percent
A process or an information management point of view	10	25.0
A very broad and a comprehensive viewpoint	8	20.0
An inter- and/or a multi-disciplinary point of view	6	15.0
A technology or a systemic point of view	6	15.0
A strategic or a business point of view	5	12.5
A managerial or an organizational point of view	5	12.5
Valid N=	40	100

Table 6: Specific responses of LIS academics to KM

Sl.	Responses	Asia		N. America		Europe		Oceania		Africa		Overall mean	Remarks
		<i>mean</i>	<i>std.</i>	<i>mean</i>	<i>std.</i>	<i>mean</i>	<i>std.</i>	<i>mean</i>	<i>std.</i>	<i>mean</i>	<i>std.</i>		
1	KM brings opportunities for LIS graduates	4.45	0.45	3.42	1.04	4.48	0.67	4.65	0.54	4.60	0.60	4.32	Agree
2	Core skills of KM are relevant and essential to LIS	4.02	0.70	3.80	0.98	4.20	0.78	4.40	0.44	4.28	0.55	4.14	Agree
3	KM is a domain that is distinct from LIS and IM	3.79	1.02	3.94	0.65	4.23	0.85	3.90	0.76	4.34	0.52	4.04	Agree
4	Overlapping concepts	3.93	0.89	3.30	1.30	3.72	1.18	4.30	0.96	4.20	0.97	3.89	Agree
5	KM can bridge the cultural gap between business and LIS	4.42	0.64	2.48	1.66	3.68	0.78	3.82	0.43	4.90	0.74	3.86	Agree
6	The root of KM lies in LIS	4.54	0.72	3.32	1.08	3.55	1.35	3.78	1.32	3.66	1.43	3.77	Agree
7	A new term with old context	4.03	1.09	3.42	0.87	3.50	0.98	3.60	1.08	3.50	1.03	3.61	Agree
8	LIS should leave KM to the business sector	1.42	0.69	1.88	0.76	1.70	0.82	1.90	0.98	1.60	0.95	1.70	Disagree
9	KM has no future in LIS	1.33	0.53	1.40	0.46	1.62	0.79	1.70	0.63	1.50	0.59	1.51	Disagree
10	KM is a threat to library practice	1.26	0.44	1.34	0.65	1.42	0.47	1.43	0.61	1.40	0.43	1.37	Strongly Disagree

Scoring: Strongly Disagree = 1.00 -1.49; Disagree = 1.50 – 2.49; Neither = 2.50 – 3.49; Agree = 3.50 – 4.49; Strongly Agree = 4.50- 5.00

Table 7: Significance of the reasons for responding to KM

Sl.	Reasons for responding to KM	Asia		N. America		Europe		Oceania		Africa		Overall mean	Remarks
		<i>mean</i>	<i>std.</i>	<i>mean</i>	<i>std.</i>	<i>mean</i>	<i>std.</i>	<i>mean</i>	<i>std.</i>	<i>mean</i>	<i>std.</i>		
1	Emergence of new knowledge-based economy	4.50	1.00	4.20	0.80	4.50	0.56	4.40	0.82	4.60	0.70	4.44	Significant
2	Natural evolution of information/knowledge	4.45	0.56	4.70	1.05	3.75	0.42	4.75	0.68	3.90	0.44	4.31	Significant
3	Emergence of competitive KM job market	4.60	0.75	3.75	0.66	4.46	0.78	3.84	1.10	4.60	0.56	4.25	Significant
4	Changing perceptions of employers	3.85	0.54	3.90	0.95	4.65	0.58	4.20	0.45	4.60	0.78	4.24	Significant
5	Interdisciplinary nature of LIS and KM	4.14	0.45	3.88	0.58	3.98	1.08	4.60	0.40	4.50	0.44	4.22	Significant
6	Expansion of the knowledge domain of LIS	3.64	0.92	4.42	0.88	4.34	0.60	3.90	0.76	4.80	0.64	4.22	Significant
7	Survival of LIS schools	3.42	1.14	2.48	0.65	4.38	0.74	4.62	0.52	4.75	0.50	3.93	Significant
8	Trends in technological innovations	4.50	0.69	3.44	1.14	3.46	0.76	3.75	1.04	4.20	0.72	3.87	Significant
9	Lack of market demand of the present LIS curricula	3.68	1.06	2.48	0.67	3.46	1.02	3.98	1.00	4.20	0.70	3.56	Significant
10	Increasing demand for KM from students & faculties	3.78	0.76	3.10	1.04	3.42	0.65	3.60	0.54	3.80	0.86	3.54	Significant
11	Enhancing academic & professional image of LIS	3.64	0.89	2.45	0.66	2.78	1.10	3.48	0.75	3.90	0.70	3.25	Neither

Scoring: Highly Insignificant = 1.00 -1.49; Insignificant = 1.50 – 2.49; Neither = 2.50 – 3.49; Significant = 3.50 – 4.49; Highly Significant = 4.50- 5.00

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