

Towards implementing knowledge management in academic libraries

¹Ali Muhammed Fakandu, ²Junaidu Musa and ³Ibrahim Isah Ibrahim

¹Usmanu Danfodiyo University, Sokoto, PMB 2346, Sokoto State, Nigeria

²State College of Basic and Remedial Studies, Sokoto, Sokoto State, Nigeria

³College of Agriculture and Animal Science, Wurno, Sokoto State, Nigeria

E-mail: ¹aliyufakandu@gmail.com, ²junaidumusagwadabawa@gmail.com,
³iimurja@gmail.com

Abstract

The paper focuses the implementation of knowledge management (KM) in libraries. It dwells on the concept of knowledge management from business, science and library perspectives. as well as the importance of implementing KM in libraries considering the benefits that would be derive by librarians and the parent organisation of the library. This include helping librarians to do their work and save time through better decision making and problem solving and developing professional code of ethics that librarians will adhere to among others. It also addresses the implementation stages of KM in libraries such as advocating and learning, developing strategy, design and launch of KM initiatives, expand and support of KM activities and institutionalize knowledge management. This will assist any library to actualize the knowledge management processes. Barriers for implementing KM in libraries are equally identified and recommendation made based on the review of literature in the article.

Keywords: Knowledge management, academic libraries

Introduction

Knowledge is an intellectual asset that serves as a driving force that gives organisation competitive advantage. There are different types of knowledge ranging from explicit, implicit, tacit, declarative, procedural, general, technical knowledge among others. The two major types of knowledge are tacit and explicit knowledge.

Business organisations adopt and invest so much on knowledge management due to the value and benefits attached to it. Zhang and Kim (2011) asserted that knowledge management (KM) involves the systematic coordination of organizational structure that includes people, technologies and processes that add value to individual and an organization as a whole. The value includes improved staff competence, increase in services delivery, good administration and for effective decision making.

The library world has also adopted knowledge management which aims at improving librarians competence and service delivery. According to the International Federation of Library Association (IFLA) (2003), the rationale for KM in libraries and information communities include providing supports and improving the understanding of all information professionals on the benefits of knowledge management in their respective organizations. The Association has also developed a programme of activities to support professional librarians facilitating the application of knowledge management in their various organisations. The activities include: working collaboratively with other sections on various aspect of knowledge management; sharing the best practices of KM; investigating how professional associations' influence and support knowledge management practices; and to support a knowledge management section website as a repository of knowledge management in libraries.

Librarians are responsible for performing functions of managing knowledge by participating in knowledge acquisition through meetings, conferences, seminars, research collaborations, library routines among others. They also participate in knowledge organisation

using different classification schemes such as Library of Congress classification, Dewey Decimal Classification, Universal Decimal Classification Scheme, Colon Classification scheme among others to classify documented knowledge (explicit knowledge). Librarians participate in knowledge sharing through avenue such as mentoring, personal or group interactions, research collaborations, education training and on the job training among others. Participating in the foregoing functions would improve staff competencies, service delivery and good administration in the libraries (Cyprian, 2016). Adoption of knowledge management in libraries improves librarians' competence and provide users with variety of value added services in order to improve communication, use and creation of knowledge (Kumar, 2010).

Concept of Knowledge Management

Knowledge management (KM) as a concept has no one single definition to date due to its multidisciplinary nature. Knowledge management as a concept was recognized in the business sector because of its importance in the “global economy” of the “knowledge age” (Kommey, 2011). It entails knowledge generation, identification, acquisition, organization, sharing, preservation, and application or effective performance in an organisation (Debowski, 2006). Rigby (2009) defined KM as the processes^s of acquiring and sharing intellectual assets. It is the practice of generating, organizing, sharing and applying knowledge which enables individuals to improve their competence.

KM practices are the systematic management of organisation's knowledge asset which consists of processes, strategies and initiatives to enhance the creation, sharing, and storage of the knowledge for the purpose of meeting tactical and strategic requirements (Odetta, 2015). The author further stressed that knowledge management practice involves the understanding of how knowledge is created, shared, and making it available at the right time. Petrides and Nodine (2003) defined knowledge management in the context of education as the set practices that assist institution to perform perfectly in teaching, administration and research with encouragement in sharing of information for decision making processes. This therefore means that both scholars viewed knowledge management practices as practice of managing an organisation or institutions assets for the purpose of achieving organisation mission and objectives. They equally emphasized on sharing aspect of the knowledge for decision making. Ugwu, Omekwu and Ekere (2016) defined knowledge management to encompass the knowledge conversion processes. The conversion process is used to convert one form of knowledge to another (explicit and tacit). A good example is conversion of explicit to tacit knowledge and tacit to explicit knowledge. KM practices involve creating, capturing, representing, updating, disseminating and validating knowledge (Rufai and Seliaman, 2004). This means people have devised new methods of doing things (develop know how.) because knowledge is not only created but equally shared and preserved.

Galagan (1997) proposed knowledge management practice that consists of gathering new knowledge, accessing, representing, embedding, transferring, using and facilitating knowledge in any society. This therefore means that managing knowledge in an organisation is a practice and it involves processes. This is because the practices are processes ranging from one stage or level to another. This involves knowledge creation, acquisition, organization, sharing or dissemination, preservation and reuse.

History of KM

Various forms of KM have been around for a very long time, the explicit notion of managing knowledge started as an offspring of rapid developments in information technology. At the

same time current knowledge management efforts sometimes resemble older methods such as apprenticeships, which have been around for millennia (Ndagire, 2018).

KM emerged in the early 1990s as a pure ICT approach. Knowledge was perceived to be written or digitized content. Answers to managing knowledge were sought in ICT tools such as databases, (online) libraries etc. Ndagire (2018) stressed that this evolved into what most people nowadays call information management (IM – although KM itself is often perceived as overlapping with or the same as IM). This approach currently translates into popular tools such as wikis, blogs, social media, discussion forums, etc. This approach is also called the ‘stock’ concept because it aims at storing information. The ICT approach is an ideal supplement to the other KM approaches, in that it provides the opportunity for, and stimulates the continuation of knowledge and information sharing and communication. So the approach still exists. However, KM evolved further – and got personal.

In the late 90s, the focus of KM shifted towards the personal side of knowledge. This was partially due to the realization that knowledge would not let itself be contained into ICT systems, but is rather personal and subjective: “knowledge is in people”. The human resource or human talent development approach focuses on the development of personal capacities, as individuals are seen as the main carrier of knowledge. It comprises methods such as technical, management and personal trainings, appraisal talks and formulating personal goals.

The next major step in knowledge management thinking was the focus on people interacting in an environment, such as within a company, a network or a community. This led to the understanding that more attention needed to be given to the organisational setting in which people work, hence the introduction of concepts such as ‘knowledge-intensive environments’ as well as ‘knowledge-workers’ working in such an environment. The overall objective of KM in this approach is to help individuals develop within their surroundings to create an optimal working environment for the knowledge worker. It also focuses on capacity building of stakeholders, thus strengthening organisations and partners in their capacity to effectively apply knowledge and use information(Ndagire, 2018).

KM as Emerging Field of Study

Knowledge management (KM) is an emerging multi-disciplinary and interdisciplinary field. Various fields of study such as library and information science, business administration, economics, psychology, human resource management, computer science, information and communication technology, operations research and management sciences, public health, policy and administration, media and communication among others profess and claim ownership of KM. It is a fact that KM is developing at the interstices of the above mentioned fields.

According e-Knowledge Centre (2007), KM developed as a collaborative science involving researchers, practitioners and researchers from various disciplines, which mainly cut across social sciences, applied sciences, technology, humanities, management and business sciences. Those practitioners realized that they were trying to answer similar questions about the management of knowledge and knowledge processes in organisations, sciences and society.

e-Knowledge Centre (2007) stated that KM as a field of study has three primary branches: KM of science, KM of society and KM of organisations. While each of the branches tackles similar questions about human knowledge, there are also specific issues that are unique to each area of interest and which sometimes may require different tools and techniques.

KM adoption in libraries

The library world has adopted knowledge management in order to improve librarians' competence. According to the International Federation of Library Association (IFLA) (2003), the rationale for knowledge management in libraries and information communities include providing support and improving the understanding of all information professionals on the benefits of knowledge management in their respective organizations. The Association has also developed a programme of activities to support professional librarians in order to facilitate the application of knowledge management in their various organisations. The activities include: working collaboratively with other sections on various aspects of knowledge management; sharing the best practices of KM; investigating how professional associations' influence and support knowledge management practices; and to support a knowledge management section website as a repository of knowledge management in libraries.

The adoption of knowledge management practices by organisations and libraries is increasing and one of the rationale is for organisations to improve job performance, promote staff development in order to stay competitive in the knowledge-based economy (Agbo, Muhammed and Onyekweodiri, 2015). Adoption of knowledge management have penetrated every functions of librarianship as a profession. The primary aim of adopting knowledge management in library is to ensure that knowledge is provided to the right person (user) at the right time, to enable librarians improve in job performance and make the right decision (Odetta, 2015). Okeke (2011) posited that knowledge management remains one of the important areas of management practices that regularize knowledge asset in an organisation. According to Petrides and Nodine, (2003), in all adoption processes, libraries need to systematically collect knowledge from both external and internal sources. Knowledge must then be documented in a consistent manner, evaluate and judge the value of the collected knowledge and select the most useful for the users. Knowledge should be preserved, usually in a form of databases and in a manner that allows the library to store information for its competitive benefits. The success of knowledge management in libraries and other organizations depends on competence of the professional librarians to effectively acquisition, organisation, sharing, transfer, preservation, mapping, application and re-use knowledge.

Librarians are responsible for performing functions of managing knowledge by participating in knowledge acquisition through meetings, conferences, seminars, research collaborations, library routines among others. They also participate in knowledge organisation by using different classification schemes such as Library of Congress Classification, Dewey Decimal Classification, Universal Decimal Classification Scheme, Colon Classification scheme among others to classify documented knowledge (explicit knowledge). Librarians participate in knowledge sharing through avenue such as mentoring, personal or group interactions, research collaborations, education training and on the job training among others. Participating in the foregoing functions would improve the libraries competence (Cyprian, 2016). Another ultimate benefits of adopting knowledge management in libraries is to improve librarians competence and provide users with variety of value added services in order to improve communication, use and creation of knowledge (Kumar, 2010).

The implementation of KM programmes in organisation such as library is expected to accommodate both explicit and tacit knowledge. Explicit knowledge is that which is written down or expressed in some tangible form, such as in a procedure manual, documents or computer database. Tacit knowledge, on the other hand, is personal, in people's heads and is difficult to articulate. It includes insights, experience, judgment and many other aspects of know-how and know-why. Managing explicit knowledge draws heavily on systematic processes for handling information, such as information resources management. Managing tacit knowledge has more to do with managing people and particularly the environment in which they operate.

There are many ways which are expected to flow in the process of implementing KM programmes in organisations like libraries such as (Uriate, 2008):

- a. Advocate and learn: elements of this stage are introducing knowledge management; identifying the KM team and focal points, learning about the experiences of other libraries; identifying advocates of knowledge management; and promoting wide-ranging support to the KM initiative.
- b. Develop Strategy: the components of this stage are: identify and characterize the knowledge assets of the library; develop an overall KM framework with clear goals and objectives; identifying and prepare preliminary design of some strategic KM pilot projects. and prepare an indicative budget and find the resources to support the selected KM pilot projects.
- c. Design and Launch KM Initiative: at this point of the project implementation, the task forces have been formed, pilot projects have been identified and designed, and financial resources have been allocated. The project is now entering the third stage, which involves the successful launching of pilots and gathering of initial results. With the KM pilot projects provided with adequate funding for full implementation, it is necessary, at this stage, to develop methodologies that can be replicated and implement measures to capture and share the lessons.
- d. Expand and Support Initiatives: at the time the fourth stage is reached, which could take a few years, the library would have gained quite a bit of expertise on managing knowledge. At this point, the pilots would have been launched and results gathered, some important lessons would have been learned and captured, and the further continuation of the KM journey would have been decided. This stage will involve expanding and supporting the KM initiatives throughout the library.
- e. Institutionalize Knowledge Management: the final stage involves making knowledge management an integral part of the library processes. At this stage, the library has to redefine its strategies, review its structure, and revisit its performance assessments.

Benefits of knowledge management

The application and widespread of knowledge management practice (KMP) can be viewed from the benefits of KM practices to organizations and individuals. In support of this, Ugwu, Omekwu and Ekere (2016) acknowledged that the practice of knowledge management represent the awareness that knowledge is an important organizational resource that needs to be effectively managed. (Ohioyenoya and Eborreime (2014) conducted a study on knowledge management practices and performance in Nigerian universities. The study revealed that knowledge management practice was very successful in some universities while the practice in other university remains very low. The finding revealed that variation in the knowledge management practice was what lead to the differences in organisation performance. Jose, Saima and Muhammad (2017) in their study on knowledge management practices in higher education institutions (HEIs') discovered that limited research on knowledge management in the HEIs' context was conducted in empirical and theoretical implementation. This, according to the researcher, was a similar situation in North-West Nigerian Federal University libraries. where little research was conducted on KM practices. Based on the above, there is the need to conduct more research on knowledge management practices in organisations and institutions. The benefits attached to knowledge management in institutions like libraries was a good basis for this study.

According to Agarwal (2017), the main justifications for implementing knowledge management in an academic library are to: ensure an all-round improvement of library staff

capacity, promote relationships between libraries and library users, promote knowledge innovation, strengthen knowledge inter-networking and speed-up knowledge flows.

Other justifications given include:

- *Tacit knowledge retention.* Library staff can change employers or careers, or retire. A knowledge management initiative can harness the expertise and experiences of these employees before they leave the library.
- *Mentoring.* Knowledge management initiatives can facilitate the transfer of knowledge and expertise from more experienced library staff to less experienced staff.
- *Enhancing knowledge management awareness.* By promoting and raising awareness of the benefits of KM among library users, faculties, and other stakeholders, librarians are helping to educate others about the benefits of adopting knowledge management practices.
- *Realizing the benefits of information technology.* The combination of computers, databases, and telecommunications, especially the Internet, provide librarians with an incredible number of options for improving the way libraries as organizations function.

Benefits of implementing KM in libraries and to librarians

According to Agarwal (2017), the main justifications for implementing knowledge management in an academic library are to:

- ensure an all-round improvement of library staff capacity
- promote relationships between libraries and library users
- promote knowledge innovation
- strengthen knowledge inter-networking
- speed-up knowledge flows.

According to Velmurugan (2019), the objective of knowledge management in libraries is to promote knowledge innovation. Knowledge innovation is the core of the knowledge economy society. As basis for collection, processing, storage and distribution of knowledge and information. Libraries represent an indispensable link in the scientific system chain, an important link in the knowledge innovation. Secondly, libraries take part in scientific research process directly. The library work is a component of knowledge innovation.

Libraries must pay attention to diffusion and conversion of knowledge. Knowledge Management in libraries is to promote relationship in and between libraries, between library and user, to strengthen knowledge internetworking and quicken knowledge flow. In the knowledge economy era, libraries will carry out research on development and application of information resources, construction of virtual libraries, protection of intellectual property rights in the electronic era etc, thus founding the base for knowledge innovation (Velmurugan, 2019).

Librarians and libraries derives various benefits highlighted in Table 1 from KM.

Table 1: Benefits of KM to librarians and libraries

Individual librarians	Library and its parent organization
<ul style="list-style-type: none"> • KM helps librarians to do their work and save time through better decision making and problem solving • KM help librarians build the sense of community bonds within the library. • KM helps librarians to keep up to 	<ul style="list-style-type: none"> • KM develops professional skills in the library • KM facilitates more effective networking and collaboration in the library • KM develops professional code of ethics that librarians adhere to • KM develops common language of

<p>date</p> <ul style="list-style-type: none"> • KM helps librarians in providing opportunities to contribute • KM helps to improves knowledge embedded of librarians in services • KM promote peer-to-peer mentoring among librarians 	<p>librarianship</p> <ul style="list-style-type: none"> • KM enables library to better stay ahead of the competition • KM helps to build library organizational memory. • KM helps library to drive organizational strategy
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Source: Agarwal (2017)

Barriers to Implementation of KM in Libraries

Developing countries today are facing enamous challenges to implementing knowledge management in libraries and other organisations as observed by various scholars. For instance, Nazim and Muktherjee (2011) conducted a web-based survey on sixty-four librarians in thirty academic libraries and discovered that most librarians are familiar with KM); however, the level of understanding varies in the thirty academic libraries in India. librarians in the academic libraries role were perceived basically as being involved in information management and they concentrate on explicit knowledge. Misunderstanding of the concepts of knowledge management, inadequate IT infrastructure and lack of knowledge sharing among others are challenges identified for successful KM. The study identified some important tools for KM including professional education, information technology, knowledge sharing.

Jain (2012) in her study on knowledge management application identified lack of clearly defined guidelines on KM implementation, insufficient technology, lack of incentives, constant budget decline, inadequate staff training as challenges; that the main reasons for KM adoption are to improve library services and productivity, manage information explosion, leverage existing knowledge and avoid duplication of efforts in the library.

Agarwal and Islam (2014) in their study of KM implementation in a library revealed that there is inadequate technology tools as an enabler for knowledge management in the library. They suggested that the combination of both physical environment and technology tools are essential in KM. Mavodza and Ngulube (2011) conducted a study on the use of knowledge management practices in an academic library in a changing information environment and found that Metropolitan College of New York (MCNY) Library practices are not deliberately informed by KM principles, but are amenable to KM principles. As such, the study recommended that knowledge management should be used in positioning the MCNY Library in a changing information environment in order to change librarians knowledge into organisational knowledge

Every library professional who works in an academic, public, or any special library wants to use the techniques of KM to achieve organizational goals and provide better service to its users, but due to some of the following barriers they are not able to use them: Raja and Sinha (2009) reported the barriers of academic libraries are there is no co-operation between senior and junior staff; genenerally, the junior staff cannot share their knowledge and ideas when they feel there is no benefit to this in terms of salary increases; not every library can participate in terms of modern technology and its management; lack of communication skills; lack of staff training; lack of sufficient budgets/funds; lack of tools and technologies; and lack of centralized library policies.

Conclusion

Implementing knowledge management activity involves the collection, analysis, and synthesis of knowledge, and information, which are the antecedents. Success in managing knowledge in libraries required a commitment of librarians to continually learn and to increase their skills and expertise that will foster innovation. Managing knowledge (tacit and explicit) in libraries is now a necessity; especially in institutional libraries where research activities are carried out. KM in libraries has a number of benefits to both librarians and the parent organisation. This new trend which aimed at improving the librarians competence and service delivery. Implementing knowledge management in libraries required stages ranging from advocate and learning, developing strategy, design and launch of KM initiatives, expand and support of KM activities and institutionalize knowledge management in the library. The research conclude that implementing knowledge management in academic libraries might have possible challenges ranging from inadequate technological tools and infrastructure, lack of staff training, poor mentoring among others.

In the light of what has been presented in this paper, the following are recommended in order to facilitate the implementation of knowledge management:

The librarians should consider themselves as knowledge managers in their respective libraries and should work together with other knowledge officers within their parent organisations.

1. Libraries need to develop their resource access and knowledge sharing strategies (tacit and explicit) in line with their mission, vision and objectives.
2. An integrated online public access catalogue (OPAC) with both internal and external resources as well as printed and other formats of knowledge should be developed and maintained.
3. Library and information centers should be developed/modified based on the perfect environment of new media application.
4. Libraries should apply information technology to its services in order to facilitate knowledge management activities.
5. Libraries should make provision in their annual budgets for continuing professional development (CPD) of librarians in KM to enhance their competence and effective service delivery.
6. Libraries should also encourage mentoring system through the transfer of knowledge and experience from experienced librarians to young and subordinate staff

References

- Agbo, A.D., Muhammed, S.B. & Onyekweodiri, N.E. (2015). *Critical success factors for knowledge management practice in organisations in the knowledge economy: fundamentals of knowledge management for the knowledge economy*. Lagos, Zeh Communications.
- Agarwal, P. (2017). Knowledge management in academic libraries: Librarians in the 21st century. *International E-journal of Library Science*, 5(1). Retrieved on 5th/2/2021. Retrieved from https://www.academia.edu/9163200/Knowledge_Management_In_Academic_Libraries_Librarians_In_The_21st_Century#site.
- Agarwal N. K. , Islam M. A. (2014) Knowledge management implementation in a library: Mapping tools and technologies to phases of the KM cycle VINE 44 (3) 322 - 324 DOI : 10.1108/VINE-01-2014-0002.
- Cyprian, I. U. (2016). implications of the perceived factors for knowledge management implementation in federal university libraries in Nigeria. *Library Philosophy and Practice*, 4(2)14-26. Retrieved on 4th/2/2021. Available at <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=4024&context=libphilprac>

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- Debowski, S. (2006). *Knowledge management*. Melbourne: John Wiley and Sons Australia, Ltd.
- e-Knowledge Center (2007). Knowledge and Innovation Management. Retrieved from <http://www.eknowledgecenter.com/>
- Galagan, P (1997). Smart Companies Knowledge Management, *Training and Development*.51(12), 20 – 5.
- IFLA. (2003). About the knowledge management section. Retrieved on 19th June, 2017. Available at <http://www.ifla.org/about-the-km-section>
- Jain P. (2012) An Empirical Study of Knowledge Management in University libraries in SADC countries. Retrieved from <https://www.intechopen.com/books/new-research-on-knowledge-management-applications-and-lesson-learned/an-empirical-study-of-knowledge-management-in-university-libraries-in-sadc-countries>
- Jose, M. B. N., Saima, K. & Muhammad, A. (2017). Knowledge management practices in higher education institutions: A systematic literature review. *IFLA WLIC 2017 WROCLAW* (pp. 19-27). Wroclaw, Poland: IFLA .
- Mavodz, J. & Ngulube. P. (2011). Exploring the use of knowledge management practices in an academic library in a changing information environment. Retrieved from https://www.researchgate.net/publication/275399032_Exploring_the_use_of_knowledge_management_practices_in_an_academic_library_in_a_changing_information_environment.
- Komme, R. (2011). Utilization of ICTs in knowledge management in Volta River Authority. University of Ghana, Information Studies. Legon: Unpublished MA thesis.
- Kumar, R. (2010) Knowledge management and new generation of libraries information services. A concept. *International Journal of Librray and Information Science*, 1(2), 24-30.
- Nazim M. & Muktherjee, B.(2011).Implementing knowledge management in Indian. *Academic libraries. Journal of Knowledge Management Practice*, 2(3). Retrieved From <http://eprints.rclis.org/16853/>.
- Ndagire, L.R. (2018). Knowledge asset knowledge capitalization communication: Short History of KM. Accessed on 15/3/2021. Retrieved from <https://km4ard.cta.int/2014/11/20/short-history-knowledge-management/index.html>.
- Petrides, L. A. & Nodine, T. R. (2003). *Knowledge management in education: defining the landscape*. London: Blackwell Ltd.
- Odet, K. (2015) Knowledge management course handbook. Academic board of SMK. Malaysia: University of Applied Social Science
- Ohionoya, J. O. & Eboime, O. F. (2014). Knowledge management practices and performance in Nigerian Universities. *European Scientific Journal (ESJ)*, 10(16), 24-33.
- Okeke, P.J. (2011). Knowledge management: A case study of the Nigerian National Petroleum Corporation (NNPC). Retrieved on 6th February, 2021 Retrieved from https://www.researchgate.net/publication/321850095_Knowledge_management_a_case_study_of_Nigerian_National_Petroleum_Corporation_NNPC.
- Raja, W., Ahmad, Z., & Sinha, A.K. (2009). Knowledge management and academic libraries in IT era: Problems and positions. Retrieved on 3/4/2021. Retrieved from http://crl.du.ac.in/ical09/papers/index_files/ical-124_198_418_2_RV.pdf.
- Rigby, D. (2009). *Management Tools 2009: An executive's guide*. Retrieved 4/11/2017 from Management Tools: http://www.bain.com/management_tools/home.asp.
- Rufai, R. & Seliaman, M. E. (2004). *Towards a knowledge management model for universities*. Kano: Triumph Publishing Ltd.

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Ugwu, C. I., Omekwu, C. O. & Ekere, J. N (2016). Implications of the perceived factors for knowledge management implementation in university libraries in Nigeria. *Library Philosophy and Practice (e-journal)*, 9(1) 52-67.

Uriarte, F. A. (2008). *Introduction to knowledge management*. Jakarta, Indonesia: ASEAN Foundatio.

Velmurugan, V.S. (2019) Knowledge Management in Libraries in the 21st Century. ISST Journal of Advances In Librarianship, Vol. 3 No.1, pp.37-41

Zhang, W. & Kim, M. (2011). Harnessing explicit knowledge. *Journal of Economics and Behavioural Studies*, 2(3), 97-107.