

REPOSITIONING LIBRARY AND INFORMATION SCIENCE EDUCATION AND TRAINING FOR KNOWLEDGE MANAGEMENT: THE IMPERATIVES FOR ACTUALIZATION OF SUSTAINABLE DEVELOPMENT GOALS IN NIGERIA

By

U.O. UGWUOGU & K.N. IGWE

Department of Library and Information Science,
Akanu Ibiam Federal Polytechnic Unwana, Ebonyi State, Nigeria
Email addresses: uougwougu@gmail.com & knigwe@yahoo.com

Abstract

A sound doctrine and excellent practice anchored on effective education and training is the main stay of any professional body or association. Similarly, sound education and training in library schools augur well for doctrinal values and development of library and information science (LIS) practice in Nigeria. It is for this reason that the repositioning of LIS education and training through the institutionalization of Knowledge Management (KM) as a stand-alone discipline in line with societal needs and the IFLA push for adoption of Sustainable Development Goals (SDGs) by institutions is advocated. Benchmark academic standards for LIS institutions have been briefly x-rayed and shortcomings pointed out. The imperativeness and impact of KM in line with SDGs in the knowledge economy are treated. It is recommended that KM should be a stand-alone programme in library schools for quick integration into the global best practices formula. Again, LIS educators and practitioners among other recommendations are advised to frequently scan the environment or embark on new user studies for solutions to changing societal needs. Digital competence by professionals is also suggested as a necessity.

Keywords

Knowledge Management, Education and Training, Sustainable Development Goals

Introduction

The world and indeed the Library and Information Science (LIS) profession is moving at a fast pace. Global initiatives in science, politics, economics, social science, geography, technology, ecology and others are released almost yearly for a better world order. A nation or a profession that does not catch up is left behind.

The position of this paper is therefore to examine the imperativeness in repositioning Library and Information Science (LIS) education and training towards Knowledge Management (KM) for the actualization of sustainable development goals in Nigerian society before its deadline of 2013. To achieve this, a brief review of LIS education and training in Nigeria from the Lancour Report to the present time has been made. Benchmark minimum academic standards for tertiary institutions are also examined. The various Development Goals (MDGs and SDGs) and the need to reposition LIS education and training for Knowledge Management is highlighted. Institutionalizing contemporary programmes like Knowledge Management in line with changing societal requirements for global best practices is advocated and will contribute in the realization of the SDGs. Recommendations for sustainable development goals are made.

Brief Review of Library and Information Science Education and Training in Nigeria

It is a fact that the function of higher education is to provide trained manpower to tackle the problems of society. Other functions of higher education are mere variations of this basic theme. The 1953 UNESCO Seminar on the "Development of Public Libraries in Africa" held at Ibadan, marked the watershed for library development and indeed the education and training of library and information science professionals in Nigeria. Under the dynamic and astute

leadership of John Harris, implementation of the proposals in respect of professional education agreed upon at the UNESCO Seminar was gradually accomplished. The Harold Lancour Report of 1957 to the Carnegie Corporation offered \$88,000 for the foundation of a library school at the then University College of Ibadan. John Dean, Director of the Institute of Librarianship, in 1966 reported that the University College Council accepted the Lancour proposals and the Institute of Librarianship was established. The first course leading to the Registration Examination of the British Library Association was started in 1960. The institute by 1965 produced fifty-two qualified librarians who were distributed to various libraries in Nigeria (Dean, 1966).

Prior to this period, Carnegie Corporation had earlier sponsored two surveys - the first by Margaret Wrong in 1939 and the second by Ethel Fagan in 1940. The reports had to do with surveying the library needs of West Africa with the view to formalizing its training programmes. Margaret Wrong recommended that a library training institute should be established in Nigeria, while Fagan recommended the establishment of a Regional Library Institute to cater for the whole of British West Africa. Consequently, the British Council, Carnegie Corporation and the Governments of Gold Coast (Ghana), Nigeria and Sierra Leone jointly agreed to finance the Achimota Library School in Ghana, which was opened in 1944. The main objective of the school was to “improve the technical competence of library assistants and to prepare them for the first part of the British Library Association Registration Examination” (Aguolu & Mohammed, 1987).

Based on the Lancour (1957) and Sharr (1963) reports on library needs of West Africa and Northern Nigeria respectively, two library schools were established in Nigeria. They are the Institute of Librarianship in University College, Ibadan (1960) and Ahmadu Bello University, Zaria (1968). These two schools were built on different philosophical and professional orientations. Ibadan began with

the award of Post Graduate Diploma after a one-year basic programme while Zaria awarded a Bachelor of Library Science (BLS) degree. All these were in tandem with the different objectives of the schools. When the need for more manpower arose to fill the gaps in libraries, more library schools were established thus – Bayero University, Kano 1977; University of Maiduguri, 1978, etc. (Saleh, 2011).

Presently, there are more than fifty institutions running library and information science programmes in Universities, Polytechnics and Colleges of Education in Nigeria. These institutions include federal, state and privately owned library schools. Certificates, National Diplomas, Higher National Diplomas, Degrees and Higher degrees are all awarded (Nwosu, Eyisi & Ekene, 2013). This development is good for professional advancement but the challenges of unharmonized curriculum, capital and faculty are still matters of concern.

However, the emergence of a knowledge-based society in the 21st century coupled with the sustainable development goals agenda for year 2030, have created an urgent need for over-all curriculum review in LIS education and training. Attention on Knowledge Management strategies and development should be of strategic curriculum concern in the present dispensation.

Appraisal of Benchmark Minimum Academic Standard (BMAS) for LIS Undergraduate Programmes in Nigerian Tertiary Schools

There is no doubt that the developers of the BMAS for LIS undergraduate programmes made significant contributions for the advancement of our information profession. However, as stated in the BMAS document for universities, it appears the aim and objectives of LIS programmes in Nigerian universities is to produce librarians and information professionals for jobs in the library sector, as found in all types of libraries, academic and research institutions, and government establishments (NUC, 2014). This implies that traditional library-related jobs are

the major focus of the curriculum. It therefore failed to address the new labour market needs and expanding job opportunities in the knowledge economy.

Moreover, apart from few courses like information science, information literacy, indigenous knowledge, information technologies, digital libraries, knowledge management, government information, publishing, information products and services, infopreneurship, and other general studies courses, the curriculum content largely centers on library studies, without much attention to the realities of the knowledge economy. The area that should project the status of the profession and exert its influence the more in the present society is just left as a course i.e. knowledge management.

In the BMAS document, a look at the variations in the degree nomenclature such as BLIS, BA (LIS), BSc (LIS), B.Tech, (Library and Information Technology/Science), and B.Sc. Information Management, appears not healthy for the profession. It requires harmonization. On the faculty of domicile, the submission that it could have its own faculty is a welcome development. This needs to be pursued to a logical conclusion, considering the fact that our information profession is very broad. It will also assist in expunging some of the unnecessary courses added in the programmes of some LIS schools due to the faculty housing them. The Faculty of Communication and Information Sciences at the University of Ilorin, accommodating LIS, mass communication, computer science, information and communication science, and telecommunication science, needs to be emulated by other universities, and even improve on it.

In the Polytechnic sector, the National Board for Technical Education (NBTE) has spelt out curricula and module specifications for both National Diploma (ND) and Higher National Diploma (HND) programmes in LIS. The first ND and HND curricula in Library Science came out in 1989. In 2002, a reviewed curriculum for only the ND-Library and Information Science was published. The HND version of

the reviewed curriculum is still being awaited. This situation has left some Polytechnics with no other option than to enrich the existing curriculum as deemed appropriate. Efforts are also being made to publicize such enrichments with a view to harmonizing them through the appropriate organs of professional leadership in collaboration with the supervisory agency. Obiora, Eyisi and Ekene (2013) observed that there is an uncoordinated and unilateral addition of courses by different library schools. The addition of such courses, they argue is probably due to idiosyncrasy and/or areas of interests of the operators of the different library schools. Even where the course titles are the same in other library schools, the course contents are different. Colleges of Education that are affiliates to some of the Universities running LIS programmes adopt the curriculum of such universities for their products. Harmonization of curriculum at all levels of library education and training with adequate knowledge of emerging societal needs is essential.

Sustainable Development Goals (SDG) and LIS Education and Training

The march towards the Sustainable Development Goals (SDGs) started in the year 2000, when 189 countries came together to consider the future of the people of the world. Reports from all these countries pertaining to famines, wars, droughts, plagues, poverty and others were daunting and embarrassing. The reports were not just in some faraway places but in their own cities, towns and villages. Leaders from these countries resolved to halt the evil tide. Consequently, a plan was created called the Millennium Development Goals (MDGs). The goals were as follows:

- ❖ Eradicate extreme hunger and poverty
- ❖ Achieve universal primary education
- ❖ Promote gender equality and empower women

- ❖ Reduce child mortality
- ❖ Improve maternal health
- ❖ Combat HIV/AIDS, malaria and other diseases
- ❖ Ensure environmental sustainability
- ❖ Develop a global partnership for development

The internationally agreed framework of 8 goals had 18 targets and was complimented by 48 technical indicators to measure progress towards the MDGs. This set of 8 goals imagined a future just 15 years away (2015) that would eradicate poverty and hunger. The plan was an ambitious one.

(<http://www.unmilleniumproject.org/goals/gti.htm>)

The United Nations Development Programme (UNDP) as a leading organization strived to achieve the MDGs. With their presence in more than 170 countries and territories, they funded projects that helped to fulfill the goals. By the year 2015 tremendous achievements were recorded globally. To consolidate on the successes of the MDGs, a new set of goals, the Sustainable Development Goals (SDGs) was devised. This initiative was aimed at ending poverty and hunger by the year 2030. World leaders recognizing the connection between people and planet, set 17 point goals for the land, the oceans and the waterways as follows:

- ❖ End poverty in all its forms everywhere
- ❖ End hunger, achieve food security and improve nutrition and promote sustainable Agriculture
- ❖ Ensure healthy lives and promote wellbeing for all at all ages
- ❖ Ensure inclusive and quality education and promote lifelong learning opportunities for all
- ❖ Achieve gender equality and empower all women and girls

- ❖ Ensure availability and sustainable management of water and sanitation for all
- ❖ Ensure access to affordable, reliable, sustainable and modern energy for all
- ❖ Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- ❖ Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- ❖ Reduce inequality within and among countries
- ❖ Make cities and human settlements inclusive, safe, resilient and sustainable
- ❖ Ensure sustainable consumption and production patterns
- ❖ Take urgent action to combat climate change and its impact
- ❖ Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- ❖ Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss
- ❖ Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- ❖ Strengthen the means of implementation and revitalize the global partnership for sustainable development.

(<http://www.un.org/sustainable-development>)

The intention is to have a future where there will be enough food and better living conditions for mankind. This dream is still being vigorously pursued today

by countries, professional associations, stakeholders and different interest groups all over the world.

The International Federation of Library Associations and Institutions (IFLA) have since rolled out its own plan to ensure their readiness to support implementation of the SDGs in different countries through improved library services and programmes including public access to Information and Communication Technologies. Arrangements for capacity-building and technology transfer through the building of toolkits are also being put in place to support the SDGs. Bridges and partnerships are being built under the aegis of IFLA for countries particularly in Africa to sign a declaration in support of providing the resources and enabling environment necessary to support the contributions of libraries in meeting the SDGs.

(<http://www.IFLA.org/files/assets/wlic/2015/documents/cape-town-declaration-of-ministers.pdf>).

To fall in line with IFLA initiatives, LIS education and training also has to conform to the universal goals by ensuring that radical transformation takes place in library school curricula and programmes. Doing this will entail aggressive capacity building for staff, emphasis on digital competence, review of out-dated curricula (or enrichment of same) and programmes, development of entrepreneurial minds in both academics and students and above all environmental scanning of what the society and the new generation of library users expect from library and information science practitioners and institutions. In doing these, the LIS sector will be inching closer to the 2030 performance time-scale.

The Knowledge Management Imperative

Knowledge Management (KM) involves a complex network of individual activities that have direct bearing on the collection, processing, preservation of various knowledge assets and dissemination of information. This is practised in varying degrees in different private establishments and public organizations. These activities when effectively discharged results in the attainment of individual and organizational objectives (Nnadozie *et al.*, 2015). The status and amorphous nature of emerging fields of study have made the concept KM multidimensional and multidisciplinary. However, it is the desire to identify and organize knowledge that inevitably led to the KM imperative.

LIS educators and practitioners should therefore perceive KM as an intrinsic part of their discipline which merits better focus and attention in the sustainable development years. It is so because individuals and knowledge workers could possess core knowledge management assets but its application to current work situations and environment would be a problem. Of tremendous importance are the two types of knowledge – tacit and explicit. **Tacit** knowledge refers to intuitive hard-to-define knowledge that is mainly experiential. It is also sometimes referred to as “know-how” knowledge which is context-dependent and personal in nature. It is hard to communicate and deeply rooted in action, commitment and involvement (Nnadozie *et al.*, 2015). **Explicit** knowledge is formalized and codified. It is also sometimes referred to as “know-what” knowledge. It is easy to identify, store and retrieve. It is very effective at facilitating the storage, retrieval and modification of documents or texts. Books, journals, memos, notes, documents, reference sources and electronic databases contain explicit knowledge. Other types of knowledge like embedded, encultured or embodied knowledge as cited by Igwe, Nnadozie and Unagha (2015) upholds the view that knowledge is multifaceted and complex, being situated and abstract, implicit and explicit,

distributed and individual, physical and mental, developing and static, verbal and encoded. Knowledge sharing and knowledge sharing behavior are other critical aspects of knowledge management which require deep study and research. The need to subject these facts to further investigation and research makes the study of Knowledge Management as a discipline in Universities and Polytechnics imperative. This will to a large extent project the status of the profession and exert its influence more on societal changes and needs.

Meanwhile, the Wee Kim Wee School of Communication and Information at Nanyang Technological University (2012) Singapore submits that the emergence of the knowledge-based economy has highlighted the need for effective exploitation of knowledge, making Knowledge Management an essential area of activity in organizations. Knowledge management (KM) is a systematic process of taking advantage of intellectual capital and knowledge assets for organizational success. This is mainly through knowledge creation, acquisition, organization, sharing and application. It helps build the capacity of the organization by developing, organizing, retaining and utilizing human and knowledge resources which contribute directly to its survivability and profitability.

With the increased realization of the value of knowledge and the need to exploit it in day-to-day operations, both public and private sector organizations have embarked on KM initiatives. Many have created formal positions and formed new divisions or departments to look into ways and means to apply KM in their operations. This has created a need for the training of KM professionals capable of taking the lead in the development and implementation of KM initiatives in organizations. Furthermore, it will be addressing the realities of the present day knowledge economy. The various types of knowledge as highlighted above are already featuring and are being managed in various Library and Information

Centres in Nigeria, hence the imperativeness in introducing Knowledge Management as a stand-alone academic discipline.

Repositioning Library and Information Science Education and Training for Knowledge Management

It will be to the advantage and advancement of our information profession, if we consider changing library and information science to information and knowledge management. Information and knowledge management is broadly categorized into two: information management and knowledge management. Information management takes care of the core and contemporary LIS courses, which we are familiar with. Knowledge management, on the other hand covers KM issues, practices and applications, which are relevant in all business establishments and industries. A more robust position is established when Information and KM are brought together. Therefore, with the adoption of Department of Information and Knowledge Management (IKM), it will require the institutionalization of the following programmes:

- B.Sc. Information and Knowledge Management (B.Sc-IKM or BIKM)
- PGD Information and Knowledge Management (PGD-IKM)
- PGD Library Automation and Networking (PGD-LAN)
- MLIS Library and Information Science (MLIS)
- M.Sc. Knowledge Management (M.Sc-KM)
- Masters in Archives and Records Management (MARM)
- Masters in Publishing and Multimedia Technology (MPMT)
- PhD.

The requirements for admission into the programmes should be as follows:

- For PGD-IKM, it is open to degree graduates of other disciplines and HND holders from the Polytechnic.

- PGD-LAN is open to BIKM graduates, degrees and HND holders in ICT-related courses that are interested in working in libraries and information centres as system analysts, e-resources librarians, web content developers or digitization management practitioners. This PGD-LAN is a unique programme in India for ICT applications in libraries, information centres and other records management organizations.
- MLIS, MPMT and MARM are open to BIKM, PGD-IKM and PGD-LAN. In addition, MPMT should also consider graduates of mass communication.
- M.Sc-KM is for BIKM and PGD-IKM graduates
- Doctorate degree is for all in line with the specialization at the Masters Degree level.

Some of the core courses that are expected to feature in a 4-year B.Sc-IKM programme are not quite different from what some of our LIS Schools are teaching presently. What is mostly required is to modify and compress traditional-based LIS courses, and then develop more courses on knowledge management. Some of the core courses that require modifications and additions, apart from general studies courses, are suggested hereunder:

100 Level	200 level
<ul style="list-style-type: none"> ▪ Foundation of Information and Knowledge Management ▪ Society, Information and Knowledge ▪ Information Resources, Intellectual Capital and Knowledge Assets ▪ Information Sources and Services I ▪ Information Resources Development and Management ▪ Organisation of Knowledge I ▪ Knowledge Management Processes ▪ Information Retrieval Systems ▪ Principles of Management ▪ Database Development & 	<ul style="list-style-type: none"> ▪ Fundamentals of Human Resources Management ▪ Practice of Management ▪ Organization of Knowledge II ▪ Information and Communication Technologies I ▪ Information Literacy ▪ Knowledge Management Practices and Implementation in Organisations ▪ Records, Archives and Information Management ▪ Open Systems and Technologies ▪ Multimedia Technologies

<p>Management I</p> <ul style="list-style-type: none"> ▪ Theories & Principles of Organisation ▪ Principles and Practice of Public Relations 	<ul style="list-style-type: none"> ▪ Information Sources and Services II ▪ Information Systems ▪ Business Intelligence and Competitive Advantage
<p>300 Level</p> <ul style="list-style-type: none"> ▪ Research Methods in Information and Knowledge Management ▪ Basic Statistics for Information and Knowledge Management ▪ Information and Communication Technologies II ▪ Knowledge Management Tools, Technologies and Systems ▪ Web Design and Management ▪ Web Content Development and Management ▪ Entrepreneurship in Information and Knowledge Management I ▪ Knowledge Transfer and Knowledge Sharing in Organizations ▪ Business Intelligence and Competitive Advantage ▪ Scholarly Communication and Publishing ▪ Management of Serials and Government Publications ▪ Seminar Presentation ▪ Field Experience (SIWES) 	<p>400 Level</p> <ul style="list-style-type: none"> ▪ Media and Communication ▪ ICT Applications in IKM ▪ E-Business and E-Commerce ▪ Digital Content & Virtual Organisations ▪ Knowledge Management Strategies, Policies, and Measurement ▪ Publishing ▪ Design and Marketing of Information Products and Services ▪ Indigenous Knowledge ▪ Database Development & Management II ▪ Entrepreneurship in Information and Knowledge Management II ▪ E-Government and Knowledge Economy ▪ Research and Development Management ▪ Legal & Ethical Issues in Information and Knowledge Management ▪ Research Project

(Igwe, Nnadozie, Nwosu, & Bello, 2015; Uzuegbu, Igwe, & Nnadozie, 2015).

Meanwhile, the implementation of the above suggested curriculum content on information and knowledge management is by no means exhaustive. It will require the availability of ICT infrastructure and additional human resources, especially in the areas of ICT applications for practical implementations in

institutions and organizations. There is also need for continuous professional development programmes for the present educators and instructors in our LIS Schools. This is anchored on the fact that it is not always easy for digital immigrants to actually deliver instructions in line with the needs of the digital natives.

Impact of Knowledge Management Education on the Actualization of SDGs

In actualizing the SDGs through KM it should, first and foremost, be realized that KM is a major aspect of LIS profession that also enhances the preparation of products for the numerous opportunities in business establishments and industries. The content of KM is too broad, versed and very qualified as a discipline on its own. When it is treated as a stand-alone course, it is split into various minor courses and the contents expanded. Such include intellectual capital, knowledge assets, KM processes, KM principles and practices, KM tools and technologies, KM systems and components, KM strategies and policies, KM measurement, business and competitive intelligence, organizational learning, KM application in organizations, and many others, as well as associated contents in information technology and management studies. KM education, therefore, impacts on SDGs when her products take advantage of the numerous opportunities in businesses, industries and governments. Thus the SDGs' aspiration is fulfilled when KM workers occupy needful positions in modern society. For example, knowledge managers, knowledge management specialists, chief knowledge officers, knowledge navigators, knowledge synthesizers, knowledge analysts, knowledge coordinators, and knowledge assets managers, among others, are some of the positions that are found in forward-looking organizations that implement KM practices. Such organizations include multinational corporations, engineering services outfits, oil and gas sector, industrial organizations, manufacturing

companies, human resource management and consulting firms, among others. The SDGs vision would have been met when knowledge experts are produced and absorbed in areas of critical need to play vital roles in societal growth and development.

Conclusion and Recommendations

The SDGs have come to stay and LIS trainers, educators and practitioners have to adapt to the global initiative. Conscious efforts should be made to modify and enrich our curriculum and develop appropriate benchmarks for same. It is proper to see LIS schools giving more attention to information and knowledge management and also to see educators develop, run and nurture to maturity a programme on information and knowledge management in Nigerian tertiary institutions.

In other to catch up with IFLA and its mandate to libraries and educational institutions on the need to adapt to the Sustainable Development Goals of UNDP for 2030, it is recommended that:

- i. Library schools in Nigeria should reconsider without further delay, the inclusion of Knowledge Management as a core discipline for specialization in its studies and research. In other words, Universities, Polytechnics and Colleges of Education should develop, run and award certificates of HND/B.Sc. in Knowledge Management.
- ii. A curriculum review exercise to harmonize course codes and titles with their contents at different tertiary levels is now imperative.
- ii. Traditional-based issues in the profession, although essential for background knowledge, should cease bothering us so much. The reason is that such issues are already subsumed in recent

nomenclature changes already adopted for studies. The examples below illustrate the argument:

- Resource development (acquisition of materials, and other processing issues).
 - Knowledge organization (cataloguing, classification, indexing, abstracting, bibliographic compilation and related studies etc).
 - Provision of information services (reference services, readers’ advisory, circulation – charging and discharging issues, etc).
 - Preservation and conservation (issues of handling, storage, digitalization, etc are involved).
 - Information Literacy (use of library, know your library, library instruction, orientation courses, etc.)
- iii. A more robust and aggressive training policy for Library and Information Science educators and practitioners should be arranged. A special case could be made by Nigerian Library Association (NLA) and Librarians’ Registration Council of Nigeria (LRCN) through effective representation at Tertiary Education Trust Fund (TETFUND) for special consideration and grants/sponsorship on Knowledge Management training (local or international) since it cuts across the academic and business strata. Special cases that are properly packaged usually attract the interest of TETFUND.
- iv. Policy makers and LIS educators are further urged to move out of their comfort zones and explore new grounds in Knowledge Management initiatives for global best practices. Countries like South Africa, Ghana and other African nations including those in the Pacific and Caribbean Islands that Nigeria assisted at one time or the other in stabilizing

their political, economic or educational systems have since joined the search for new intellectual frontiers.

- v. Partnership with the private sector for Chairs and Endowments in Knowledge Management should also be explored.

References

Aguolu, C.C. & Mohammed, A. (1987). *Library education in Nigeria*. Zaria, Nigeria: Department of Library and Information Science (Unpublished).

Dean, J. (1966). Training and management for library personnel: professional education in Nigeria. *Nigerian Libraries*, 2 (1), 67–74.

Igwe, K.N., Nnadozie, C.O & Unagha, A.O. (2015). Nature of knowledge and the knowledge economy. In: K.N. Igwe, C.O. Nnadozie, A.O. Unagha, C.P. Uzuegbu and M.M. Naga (Eds.) *Fundamentals of knowledge management for the knowledge economy* (pp. 1 – 18) Lagos: Zeh Communications.

Igwe, K.N., Nnadozie, C.O., Unagha, A.O.; Uzuegbu, C.P. and Naga, M. M. (Eds.) *Fundamentals of knowledge management for the knowledge economy*. Lagos, Nigeria: Zeh Communications Ltd.

Igwe, K.N., Nnadozie, C.O., Nwosu, M.C. & Bello, L.A. (2015). Evolutionary change from Library and Information Science to Information and Knowledge Management: Implications for interdisciplinary research and emerging opportunities in the 21st century Nigeria. *Paper Presented at the 1st International Conference of College of Agricultural and Science Education, Michael Okpara University of Agriculture, Umudike (MOUAU), Abia State, with the theme, "Beyond Academic Tribes and Territories: Towards Multidisciplinary Teaching and Research in 21st Century Universities", held at Senator Pius Anyim Hall, MOUAU, Abia State, Nigeria, 13th – 15th July, 2015*

Nnadozie, C.O., Nwosu, C.C., Ononogbo, R.U. and Nnadozie, C.D. (2015). Typology of knowledge and conceptualisation of knowledge management. In: K.N. Igwe, C.O. Nnadozie, A.O. Unagha, C.P. Uzuegbu and M.M. Naga (Eds.) *Fundamentals of knowledge management for the knowledge economy* (pp. 65 – 75) Lagos: Zeh Communications.

- Nwosu, O., Eyisi, G.U. and Ekene, A.E. (2013). Comparative study of library and information science curricula in tertiary institutions in South East Nigeria. *IOSR Journal of Mechanical and Civil Engineering*, 5 (5), 33 – 41.
- Nanyang Technological University (2012) Wee Kim Wee School of Communication and Information: MSc Knowledge Management. Retrieved June 1, 2015 from <http://www.wkwsci.ntu.edu.sg/programmes/ProspectiveStudents/Graduate/Programmes%20by%20Coursework/MSc%20in%20Knowledge%20Management/Pages/Home.aspx>
- National Universities Commission (NUC)(2014). *Benchmark minimum academic standard for undergraduate programmes in Nigerian universities: Library and Information Science*. Abuja, Nigeria: NUC
- Saleh, A.G. (2011). Educator's perspective on library education in Nigeria. *Library Philosophy and Practice*. <http://unllib.unl.edu/LPP/>
- Uzuegbu, C.P., Igwe, K.N., & Nnadozie, C.O. (2015). Education and training of information and knowledge management practitioners in the knowledge economy: Arguments, inferences and sample curriculum for tertiary institutions in Nigeria. In: K.N. Igwe et al (Eds.). *Fundamentals of knowledge management for the knowledge economy* (pp 290 – 303). Lagos, Nigeria: Zeh Communications