

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

Winter October 2021

UNDERSTANDING THE COMPETENCIES OF LIBRARY AND INFORMATION SCIENCE PROFESSIONALS: AN ANALYTICAL REVIEW

Tumpa Saha

University of North Bengal, rs_tumpa@nbu.ac.in

Tapan Barui Dr.

University of North Bengal, tapanbarui@nbu.ac.in

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Collection Development and Management Commons](#), and the [Scholarly Publishing Commons](#)

Saha, Tumpa and Barui, Tapan Dr., "UNDERSTANDING THE COMPETENCIES OF LIBRARY AND INFORMATION SCIENCE PROFESSIONALS: AN ANALYTICAL REVIEW" (2021). *Library Philosophy and Practice (e-journal)*. 6334.

<https://digitalcommons.unl.edu/libphilprac/6334>

UNDERSTANDING THE COMPETENCIES OF LIBRARY AND INFORMATION SCIENCE PROFESSIONALS: AN ANALYTICAL REVIEW

By

Tumpa Saha¹

PH.D. Research Scholar (Junior Research Fellow),
Department of Library and Information Science, University of North Bengal, West Bengal,
India, Orchid id- <https://orcid.org/0000-0002-4117-2015>, Email id: rs_tumpa@nbu.ac.in

and

Dr. Tapan Barui²

Assistant Professor, Department of Library and Information Science,
University of North Bengal, West Bengal, India,
Orchid id- <https://orcid.org/0000-0002-8023-4987> ,Email id: tapanbarui@nbu.ac.in

Abstract:

Knowledge plays a strategically important role to success and continuous growth of our life. In information exposition coupled with the electronic or virtual era has brought a great change to libraries and its working environment. In today's working environment the role of libraries and librarians changed from storehouse of information caretaker to information manager and at the same time the forms and distribution of information also took a new shape in a new way. This is due to the advancement of ICT as well as contemporary societal need. Due to this change, library and information science professionals also need a number of special skills and competencies along with the basic skills and competencies. The present study is an attempt to explore the variety of discussions and ideas about the various aspects of skills and competencies, competencies of LIS professionals for various types of libraries and also focuses on the existing and required competencies of LIS professionals in the contemporary information system. The study is an analytical review of existing literature found in different scholarly journals, conference proceedings, books etc.

Keywords: Skill, Competencies, Librarianship, 21st century, LIS professionals, Information and Communication Technology.

1.Introduction:

In the age of ICT our everyday life is changing due to the technological innovations in all fields. Due to the advancement the social need of the users also changed. In this new era LIS professionals are required to play different roles that demand the various skills and competencies and needed to gain extensive knowledge about developing technologies and improve their competencies to manage the contemporary working environment. The term Competency origins from the Latin word ‘competentia’ which means ‘is authorized to judge’ as well as ‘has the right to speak’ (Caupin et al.,2006). Kramer, S. (2004) defines competencies are skills, knowledge and behaviours that individuals need to possess to be successful today and the future. The present study is an attempt to verify the theoretical as well as practical aspects of competencies and also recognize the required competencies for the development of LIS professionals. So, the study tries to focus on a concise review of possibly available literatures on the present context of development. The literature of this study is covered the resources written in English language only. The review of the literature is done to identify the previous discussions made by many authorities regarding the above-mentioned topic. So many scholarly communications are consulted for this purpose.

2. Objectives:

The objectives of this article is to present an in depth review of existing literature related to the problem under study. To be precise, the aim of this review is:

- To narrow and to more clearly outline the research problem.
- To locate the skill gaps of LIS professionals.
- To identify the various aspects of existing competencies of LIS professionals and also identify the areas needed to develop in the contemporary information system.
- To explore a new idea or approach in planning of this investigation.
- To develop a firmer understanding to the practical implications of this area.

3. Methodology:

In order to reach the objectives stated above, a comprehensive literature search has been carried out to identify and locate available information, relevant and pertinent to the problem of this research work, scattered in various online available information sources like journal articles, conference papers, Thesis and Dissertation, Books, Blogs etc.

4. Observations:

4.1 Overview of skills and competencies:

Webster’s third new international Dictionary, unabridged edition has defined competence as “the quality or state of being functionally adequate or having sufficient knowledge, judgement, skill or strength (as for a particular duty or in a particular respect)”. Jervis explains the concept in terms of its components this is knowledge, skills and attitudes. He has elaborated on these

components as understanding of the academic discipline, skills, and the moral values and professionalism. Skill involves the ability to perform the various psycho- motor task and interact with others. The Oxford English Dictionary online version (2021) defined 'skill as the ability to do something well, whereas competency is the ability to do something successfully or efficiently'. Generally, Competency is the combination of skill, knowledge, and ability of a person which is important for organizational success, personal performance and career development. Competence does not refer only to cognitive elements such as-theoretical aspect to knowledge, but also to the functional aspects that require technical abilities, interpersonal particularities - social or organizational skills, and ethical values. Competencies is structured ensemble, articulated by knowledge, skills, abilities and aptitudes that allow a person to solve a problem in a professional field, in a short time with best result (Tanase O., 2003). Competencies can also be demarcated as the system of knowledge, abilities, skills and aptitudes, well-structured and thoroughly mastered, that enable the student to identify and effectively solve problems in a specific field of human activity (Stephen, 2003). Competence is the way that human being acquires certain skills, abilities, or aptitudes to deal with certain situations. It is an individual characteristic that is inextricably linked to performance efficiency. Competence is the result of a dynamic process specific to a situation and can be adapted to other situations (Afanas, 2003).

Due to library patrons' ever-changing information needs and the widespread adoption of ICT in higher education, academic libraries need to evolve by employing 'hybrid librarians. Allen, L. (2005) stated about the hybrid librarian in the 21st century library. Today's ever-changing environment academic libraries need to evolve by employing "hybrid librarian" on terms that provide instructional and information services in the department they serve, while staffing and maintaining the physical library space as it also involved. Author tries to build a collaborative service -staffing model and pronounced that this model while lacking an empirical study as to its effectiveness is grounded in the literature. Roxanne, M. (2006) point out that LIS professionals need a range of skills that should be fostered by educators and in the workplace. For this enquiry author suggests a new approach to four key skills which provides a new analysis of selected generic and LIS skills. It can be innovatively communicated to potential LIS staff and to employers and educators. Majumder, M. (2007) describes skill as an ability or proficiency in execution or performance, which is required for a person to plan and execute an action designed to achieve some goals or accomplish a particular task. For the development of library services author identified a new concept for today's library that is "Borderless library". Author pronounced that the "Borderless library" is fully a web-based digital library and the library professionals should be more acquainted with technological skill and this skill should be enhanced among the working professionals. Madhushudhan, M. (2012) pointed out that physical boundary exists in the digital world; it is quite challenging for information professionals to satisfy the user needs. The professional should be competent with skills and abilities and well versed with various tools. Author suggested that Competency can be developed through formal training, participation of seminars/symposia and conferences, attending training programmes and workshops, from informal groups and peers, online learning tools, refresher courses, short term courses and by self-learning. Ramchander (2013) focused on to identify the status of professional development of the librarians of self-financed

management institutions situated in India different aspects of professional development like institutional support, individual initiatives etc were considered. The findings revealed that there was a lack of institutional support for librarians; they were active in taking initiative for their professional development at the individual level.

Kolle, R.S. & Parmeshwar S. (2014) discusses about the professional skills and soft skills required by the library professionals to be more effective in rendering service to the user's community. Further it deliberates, the competencies required by the professionals such as user's needs assessment, application of new technology and the development of print and non-print collection. Ahmed, et al. (2017) discusses the university informational professionals preferred modes of soft skills learning and differences in their opinions based on gender, designations, and experience.

Melissa, F.A. (2017) tries to provide some insights into the shared competencies and knowledge of library and information science (LIS) disciplines. An analysis was conducted on the competency profiles of librarians, Records managers, Information managers, Archivists and knowledge managers to provides a competency profile for information specialists that incorporate the knowledge and competencies from all of these areas. The analysis resulted in the development of a competencies list which includes five competencies' groups. These competency groups are: (i) collaboration, client service, and communication; (ii) organizational understanding and strategic alignment; (iii) programme and service delivery and management; (iv) Records, information, and knowledge management; (v) technical competencies and personal qualities.

4.2 Different types of competencies:

There are different types of competencies sets by different associations for the development of LIS professionals. Special Libraries Association, American Library Association, and ASERL have offered sets of competencies during the last decade. The revised version of the SLA competencies was approved in 13 April 2016 by the SLA Board of Directors. These competencies are defined in professional competencies and Core competencies. Basically, **Professional competencies** are related to the practitioner's knowledge of information resources, access, technology and management, and the ability to use this knowledge as a basis for providing the highest quality information services whereas **Core competencies** represent a set of attitudes, skills and values that enable practitioners to work effectively and contribute positively to their organizations. Each professional competency has been translated into specific skills or capabilities each professional needs to acquire. The ALA had initiated definition of core competencies in 1999. The draft was presented to a number of committees and conferences for review. In 2005, the exercise resulted in a document that outlined core competencies.

4.2.1 Professional Competencies:

Winston, M. (2005) focused on the development and enhancement of leadership in the professions and the fostering of organizational success. Here author addresses the ethical

leadership challenges facing by the individuals and organizations in the public and private sectors, higher education and libraries and identifies the legislative, regulatory, and organizational approaches that have been undertaken to encourage ethical decision making. This paper provides a framework for considering ethical leadership and decision making in library and information services and in library and information science education. Baker, A. & Bekari, A. (2005) identifies the information technology competencies needed for information professionals in Malaysia. Kavulya, J.M. (2007) assess the status of the job market for library and information science (LIS) professionals in Kenya and the adequacy of current curricula and training resources in LIS training institutions in the country and tried to focused on priority areas of training and critical IT skills required by the LIS professionals in relation to current job market and performance requirements. Author suggested some required leadership qualities of LIS professionals but suggestions needed more elaboration. Yvonne, D.G. (2013) investigated to what extent managerial skills are taught in Schools of Information globally, and whether these courses are sufficient preparation for management positions in information professions. Author conducted an interview and results found that 80 per cent of the directors learned their management skills on the job and 66 per cent in management development through their institutions. Author given Some recommendations on which competencies were needed in curricula for information professionals. De Grandbois, Y. (2013) find out whether and to what extent managerial skills are taught in Schools of Information globally, and whether these courses are sufficient preparation for management positions in information professions. Oyedokun, et al. (2018) assesses the knowledge management of library and information science professionals in Nigeria. It reveals that traditional library skills are a part of knowledge management spectrum and processes, indicating that knowledge management is highly relevant to librarianship. The study recommended staff training and development for all staff as this will improve staff's quality and position them for knowledge management initiative. Ashiq. M. et al. (2019) clearly indicate the conceptions of academic library leaders about library leadership, library management and the best attributes for academic library leaders by this way to develop leadership skills.

4.2.2 Core Competencies:

The core competencies have been used within many academic professional groups to help them to manage their careers. It acts as a guide for practicing LIS professionals to define their vision, mission, goals and objectives in working place. Stephen, A. (2009) et al discusses Developing Core Leadership Competencies for the Library Profession. The development of competencies, competency lists, or competency models has become a popular way to assess the strengths, needs, and potential contributions of individuals in an organization. Geraei, E. & Heidari, G. (2015) identify and measure generic core competencies essential for Iranian library and information science (LIS) students. Manu, T.R. et al. (2018) includes in his articles core competencies developed by the national and international LIS professional associations and networks around the world. It helps young LIS professionals to develop their career by improving required competencies. The current scenario of core competencies in Indian the LIS professional associations and professionals also briefly discussed. Jeysankar, R. (2018) analyse the multiple intelligence skills of LIS professionals in working government

and private universities in Tamil Nadu. The study reveals that Government Universities are better skilled than their counterparts from private universities in all the 17 linguistic intelligence skills.

4.3 Competencies-academic libraries

4.3.1. Competencies for School library professionals

Kumber, R. & Pattanshetti, D. (2013) conducted a survey on School librarians to identify the essential digital competencies needed by school librarians in the Indian context. Author summarized the success of such efforts with the proposed independent training module of imparting digital competencies for Indian schools. Dike, V.W. (2015) explores competencies possessed and required by primary school teacher librarians in Enugu State of Nigeria. Study revealed that the personnel factor was crucial in effective library services; that's while none of the teacher librarians had qualifications in both education and librarianship, they did possess some competencies, especially in the areas of literacy promotion and teaching, while lacking others such as library skills.

4.3.2. Competencies for College library professionals

Kattimani, S.F & Naik R.R. (2013) conducted a survey on library professionals working in the engineering colleges in Karnataka state. Study exposed that library professionals have chosen this profession by accident. A significant difference is observed between different designations towards competence on operation of computers, creation of files and folders, radio frequency identification, library automation software modules, various operating systems, internet-related skills, web design/web editors, search engines and digitization of information Retrieval. Baro, E.E. (2015) investigated the level of information communication technology related (ICT) information literacy (IL) skills of librarians in Nigerian Colleges of Education (COE) in order to discover the challenges, they face in acquiring these skills. Neethu, M. (2020) discusses the status, developments and opportunities of library and information science education, curriculum, training and employment opportunities in DLIS at Rajagiri College of Social Sciences, Kerala, India. Author also discusses the importance of Competency-Based LIS Curriculum and its involvement in the development of professional growth and how interdisciplinary subject approach will help in this process within the campus.

4.3.3 Competencies for University library professionals

Alan,B.(1998) examines the higher education sector consisting of 36 public university and two private universities on information literacy and library competencies in Australia. Author includes in his paper the characteristics of Australian higher education institution, the changing role of education in present information explosion, lifelong learning. Here author well expressed about information fatigue syndrome, this is, ill health as a result of information overload and noted that one in four managers surveyed admitted to suffering ill health as a

result of the information they handled, despite agreeing that they need high levels of information to perform effectively. The Symptoms included par analysis of analytical ability, mounting anxiety and self-doubt and an increasing tendency to blame others. Ashcoft, L . (2004) pointed out the Findings of a research project which carried out at Liverpool John Moores University into the marketing and management of e-journals demonstrate the need for LIS professionals to develop marketing and evaluation skills and strategies for new technologies. Okhoye ,O. M. (2012) traced the origin of the library and information science education in Nigeria to the advent of new technologies which have brought about tremendous impact in the delivery of services in academic libraries. The population comprised 17 library educators in library schools in South East Nigeria Federal Universities. study showed that elements of knowledge such as copyright and intellectual property law, evaluation of information communication tools' interfaces, virtual librarianship and digital technologies were not acquired by 45%, 38.75%, 45% and 6.25% of library educators respectively. Skills-based competencies such as website development and web page development were not acquired by 22.50% and 28.75% of library educators respectively. Challenges confronting library educators with respect to acquisition of competencies as well as strategies to enhance their competencies are addressed. Brandan, E.A. (2014) conducted a survey to measure the competencies of libraries in Nigerian universities, and identify constraints to their performance and recommend infrastructures and competencies required. Results indicate that academic libraries and librarians in Nigeria are competent in three key areas - educational roles, professional development and research. However, they are not very effective in the provision and use of library resources in cyberspace, adequate funding, and collection development and information technology skills. The main constraints are: poor Internet penetration, low bandwidth, unreliable power supply and weak Internet proficiency. Seena,S. et al.(2014) investigates the awareness, skill and attitude towards Information and Communication Technologies (ICT) among library professionals in Kerala University Library, Thiruvananthapuram. The analyses revealed that the library professionals in the Kerala University library system have relatively average level skills in various ICT related tasks in libraries. All the professionals expressed a positive attitude towards the application of ICT in libraries. Khan, A., Masrek, M. N., & Nadzar, F. M. (2015) assess the training needs on emotional intelligence (EI) of librarians serving in the university libraries of Pakistan. Farooq, Muhammad Umar, et al. (2016) find out the perception of university librarians about the current and required competencies and also identified the current rank. Author also point out the benchmark for competencies of library professionals at public universities in Pakistan. This study reveals that there is a significant gap between the perceptions of university librarians about their present skills and required skills. Toyese, O.T. (2018) conducted a survey to assesses of ICT competencies of library staff in selected universities in kwara state, Nigeria. Findings of this study show that library staff in those universities can effectively deploy ICT tools for operations in the library. Library staffs are facing various challenges due to working so they suggest some recommendations also to improve the competencies.

4.4 Competencies -Public Library

The UNESCO Public Library Manifesto indicates that “the public library, the local gateway to knowledge, provides a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups.” Martin, R. (1990) observed that defining competencies for public libraries is a difficult task because of their complex nature, they serve the society as a whole representing people of diverse backgrounds, interests and needs, in her words, “to examine public libraries is to view of our total society in all of its diverse aspects.” Certain common characteristics of these libraries help to understand and formulate the competencies expected of the professionals working in them. Ur Rahan, S. et al. (1999) discussion on Competencies of the entry-level professionals for the Malaysian public libraries were defined and validated for the next five years. It also discussed that the primary thrust for the future public library professionals is on the contextual, managerial, technological, and service capabilities. Chan, D.C(2013) discusses the use of core competencies in six public libraries in Canada. The list of competencies is discussed, together with its implications for library managers and library educators for identifying the knowledge and skills needed by library staff in a networked environment compared to the traditional print-based environment which provides a challenge for library administrators. Gonzalez, M. E. (2010) describes the Urban library leaders convened in 2008 to explore gaps between essential organizational competencies and the individual competencies of professionals entering the field. Wilkins, J. M. (2015) identifies the competencies in common across public library managers.

4.5 Competencies- Special Libraries

Tchobanoff, J.A. & Price, J.A. (1993) discuss the core competencies required for working in a special library, categorised these into three broad groups, as: (i) Basic technical knowledge and skills related to reference sources and services, (ii) Interpersonal knowledge and skills which involve the skills required to work and communicate with others; and (iii) management Knowledge and skills related to human resources, finance etc. Ojala, M. (1993) termed the librarians who will manage the latest virtual libraries (libraries without wall) cyberspace, as cybrarians where the users will be served at his work place the competencies expected for special library managers in future is well defined in his paper. Radha, L. (2012) describes an overview of the role of special librarian’s and the competency need for special librarians in the information age. Competencies can also be thought as flexible knowledge and skills that allow the special librarian to function in a variety of environments and to produce a continuum of value-added, customized information services that cannot be easily duplicated by others. So special librarians should have some special competency.

4.6 Required competencies for library and information science professionals:

Some scholarly authors made some Discussions on required competencies along with existing competencies for library and information science professionals. Thapsia, A. (1999) discusses the need to re-examine the education and training systems for adaptability to issues of institutional change and economic advancement and development. Parameswari, B .

(2002) explores the challenges for library professionals in India in the new millennium. Author focused on how librarians meet the challenges and role of modern technology which enables libraries to cooperate and create networks with speed and ease. Author identified a range of skills which will demand by the LIS professionals in this 21st century. Itsekor, et al. (2014) investigates different challenges posed by ICT competencies/literacy to librarians in the 21st century. It established that librarians possess digital skills and competencies; that ICT facilities are in libraries; librarians access the internet and provide digital information resources services; it also revealed that different libraries are on the path to digitization; librarians agreed that there are challenges and that they are working to mitigate them. Ngozi A, S., & Ali, H. (2014) examine and discuss academic librarians' perceptions of the benefits and challenges of adopting e-learning for continuing professional development. Ibegbulam, I., & Eze, J. U. (2016) investigate the training needs of paraprofessional library staff in university libraries in South-East Nigeria with the objective to find out their training needs, the training programmes available to them, their utilization of training opportunities, hindrances to their training and strategies for enhancing training for them. Sachin, W. (2018) point out that a person can face the challenges occurs in a particular profession because of the social, economic, education and technological changes. Thus, to cope up with the ever-changing library and information science profession, the library professional must be a skilled professional.

Abbas et al. (2020) assess the status of ICT competencies of LIS professionals, methods of acquiring ICT skills and suggestions to survive in this digital era of university library professionals. The findings reveal that most of the LIS Professionals had advance level competencies in library management systems, simple searching techniques, proficiency in social media and search engine usage.

4.7 Discussions:

The whole study provides a concise review of available literatures. The changing environment in the field of LIS and its impact on LIS education and existing and required competencies of present working environment of various kinds of libraries has been widely discussed in the literature. Majority of the studies in the area of Competencies in LIS professionals were reported from outside India. Most of the literatures are survey based. In this study the foremost points are divided into eight points. The observation part is the significant part of the study which subdivided into another six subpoints. The whole observations founds that most of the authors focused on practical aspects of competencies. Majority of the survey was conducted on academic library professionals from school library to university libraries. Literatures shown mostly of surveys are conducted on university library professionals to identify their existing competencies. Some literatures are found to identify the competencies of public libraries and special libraries but not enough literatures are available for a satisfactory result. so, there is needed to focus on the area to find out the inventive results to know the present condition of the competencies of public library and special library professionals. According to literature discussed above, it also found that majority of the library information professionals wants to improve their competency based on demand of the present societal need and the development of ICT. The present study also identified the challenges facing by the LIS professionals in their working environment so, these areas identified the required competencies needed to developed

for take away the challenges. Thus, above all discussions it thought that a person can face the challenges occurs in a particular profession because of the social, economic, education and technological changes. Thus, to cope up with the ever-changing library and information science profession, the library professional must be a competent professional.

4.8 Conclusions:

After the comprehensive study of understanding the various aspects of competencies for Library and Information Professionals, it is clearly shown that the different aspects are highlighted by the eminent experts across the globe; these are published in different journals. Many areas are covered in a scattered and partial manner in relation to competencies. But no complete work is done by anybody expressing the development different competencies of very new changing library services with new societal demand on behind of present working environment. The present study is an attempt to find out literature about that but it reveals that no such comprehensive study has far been conducted here.

REFERENCES:

- Abbas et al. (2020). A Study of ICT Competencies among University Library Professionals of Punjab, Pakistan. *Library Philosophy and Practice; Lincoln*, <https://digitalcommons.unl.edu/libphilprac/4000>
- Ahmed, S., Amin, K., & Ullah, M. (2017). Modes of soft skills learning: a case of university information professionals in Pakistan. *Library Review*.
- Alan, B. (1998). Information Literacy: the competency for the 21st century. *ERIC*.
- Allen, L. (2005). Hybrid librarians in the 21st century library: a collaborative service- staffing Model. *ACRL Twelfth National Conference*, Minneapolis: Minnesota.
- Ashcroft, L. (2004). Developing competencies, critical analysis and personal transferable skills in future information professionals. *Library Review*, 53(2), 82-88. <https://doi.org/10.1108/00242530410522569>
- Ashiq, M. et al. (2019). Academic library leaders' conceptions of library leadership in Pakistan. *Journal of Library & Information Science*, 24(2), 55-71.
- Baker, A. & Bakeri, A. (2005). IT competencies in academic libraries: the Malaysian experience. *Library Review*, 54(4), 267-277.
- Baro, E.E. (2015). Colleges of education librarians in Nigeria. *Communications in Information Literacy*, 9(2), 198-209.

- Bhatti, R., & Nadeem, M. (2014). Assessing training needs of LIS professionals: a prerequisite for developing training programs in university libraries of Pakistan. *Chinese Librarianship: An International Electronic Journal*, 37(2014), 47-62.
- Buarki, H., Hepworth, M., & Murray, I. (2011). ICT skills and employability needs at the LIS programme Kuwait: a literature review. *New Library World*, 112(11/12), 499–512. doi:10.1108/03074801111190392
- Brendan, E. A. (2014). Libraries in the information age: A measure of performance, competencies and constraints in academic libraries in Nigerian universities. *The Electronic Library*, 32(5), 603-621.
- Chan, D. C. (2013). Core Competencies for Public Libraries in a Networked World. *Proceedings of the Annual Conference of CAIS / Actes Du Congrès Annuel de l'ACSI*. doi:10.29173/cais275
- Caupin, et al. (2006). ICB – IPMA Competence Baseline, version 3.0. International Project Management Association.
- De Grandbois, Y. (2013). Managerial competencies for information professionals: an international perspective. *Library Review*, 62(4/5), 335–343. doi:10.1108/lr-06-2012-0023.
- Farooq , Muhammad Umar, et al. (2016). Current and required competencies of university librarians in Pakistan", *Library Management*, 37(8/9), 410-425. <https://doi.org/10.1108/LM-03-2016-0017>
- Geraei, E., & Heidari, G. (2015). Measurement of generic core competencies among students of library and information science in Iran. *The Electronic Library*, 33(6), 1016–1030. doi:10.1108/el-08-2013-0153
- Gonzale, M.E. (2010) Urban Public Libraries: Workforce Competencies. *Library Trends*, 59 (1/2), 269-287.
- Ibegbulam, I., & Eze, J. U. (2016). Training needs of paraprofessional library staff in university libraries in South-East Nigeria. *Library Management*, 37(8/9), 482–495. doi:10.1108/lm-03-2016-0019
- Itsekor, V. Ugwunna, & Ikechukwu, S. (2014). *ICT competencies in the 21st century library profession: a departure from the past*. *International Journal of Academic Library and Information Science*, 2 (5), 51-57.
- Kavulya, J.M. (2007) Training of library and information science (LIS) professionals in Kenya: A needs assessment. *Library Review*, 56 (3). 208-223. <https://doi.org/10.1108/00242530710735993>

- Jestin, J., & Parameswari, B. (2005). Challenges for Library Professionals in India in the New Millennium. *Library philosophy and practice*, 4(2).
- Jeysankar, R. (2018). Multiple Intelligence Skills among Library and Information Science Professionals of Government and Private Universities in Tamil Nadu, India: An Exploratory Study. *Library Philosophy and Practice*.
- Judith, B. P. (2009). Structuration and social identity theories: Qualitative methodologies for determining skills and competencies for the information profession in the 21st century. *Performance Measurement and Metrics; Bradford*, 10(3), 172-179. DOI:10.1108/14678040911014176
- Kattimani, S.F & Naik, R. R.(2013). Evaluation of librarianship and ICT skills of library and information professionals working in the engineering college libraries in Karnataka, India: a survey, *Program: electronic library and information systems*, 47(4), 345-369.
- Khan, A., Masrek, M. N., & Nadzar, F. M. (2015). An investigation of the training needs on emotional intelligence of academic librarians. *Library Review*, 64(8/9), 597–613. doi:10.1108/lr-04-2015-0040
- Kolle, R.S. & Parmeshwar S. (2014). Competencies and soft skills for library professionals in information era. *International Journal of Library and Information Studies*, 4(4).
- Kumber, R. & pattanshetti, D. (2013). Essential Competencies of Indian School Librarians in the Digital Age: A Study, *IFLA WLIC*; Singapore.
- Madhushudhan, M. (2012). Competencies for LIS professionals in working environment: analysis and dimensions. *International Journal of Library and Information Studies*, 2(4), 18-25.
- Majumder, M. (2007). *Skills for library and information professionals working inborderless library*. In *5th convention PLANNER -2007* (pp. 421-429). INFLIBNET.
- Manu, T.R. at al. (2018). Core Competencies for 21st Century Library and Information Science Professionals. *International conference International Conference on Marching Beyond the Libraries: Managerial Skills and Technological Competencies*: Kalinga Institute of Industrial Technology (KIIT), Deemed to be University, Bhubaneswar.
- Martin , R.(1990). Public librarians as employers: Expectations. Haworth Press: New York .
- Melissa, F. A. (2017). Competencies for information specialists in emerging roles. *Library Management; Bradford*, 38(1), 65-76. DOI:10.1108/LM-09-2016-0074

- Mercy, A. X. (2019). Skills of using internet and computer communication network among library professionals working in selected arts and science colleges: affiliated to Bharathidasan university. *Library Philosophy and Practice; Lincoln*, 1-16.
- Radha, L. (2012). Role of special librarian's and the competency need for special librarian's in the information age: an overview. *International Journal of Professional Development*, 1(2).
- Neethu, M. & Pijush V.P. (2020). Design and Implementation of Competency Based LIS Pedagogy: An Experiential Approach with DLIS Centre at Rajagiri College of Social Sciences (Autonomous) Kerala, India-A Case Study. *Library Philosophy and Practice* (e journal). 4369.
- Ngozi Anasi, S., & Ali, H. (2014). Academic librarians' perceptions of the benefits and challenges of adopting e-learning for continuing professional development in Lagos state, Nigeria. *New Library World*, 115(7/8), 340–354. doi:10.1108/nlw-01-2014-0016
- Ojala, M. (1993). Core competencies for Special Library managers of the Future. *Spec Libr*, 230-234
- Okoye, O. M. (2012). Assessment of competencies of library and information science educators in Nigeria. *Library Philosophy and Practice; Lincoln*, 1-22.
- Oyedokun, et al. (2018). Assessment of knowledge management competencies of library and information science professionals in Nigeria. *Library Philosophy and Practice* (e-journal). 1919. <http://digitalcommons.unl.edu/libphilprac/1919>
- Sanghi, S. (2016). *The Handbook of Competency Mapping* (3rd ed.). SAGE.
- Seenaa, S.T. & K G, Sudhier. (2014). Impact of Web 2.0 Technology Applications in Kerala University Library: Library Professionals' Perspective. *DESIDOC Journal of Library & Information Technology*, 34, 419-425. Doi:10.14429/djlit.34.6784.
- Sheila.C., (2010). Educating the academic librarian as a blended professional: a review and case study. *Library Management*, 31 (8/9), 567-593. DOI:10.1108/01435121011093360
- Simoncic, G. S., & Vuckovic, Z. (2014). Searching for a Lost Identity: Serbian Librarianship at the Beginning of the Twenty-first Century. *Library Trends*, 63(2), 284–298. doi:10.1353/lib.2014.0028
- Stephens, A. (2009) Developing Core Leadership Competencies for the Library Profession. *Library Leadership & Management*, Chicago; 23 (2), 63-74.

- Tchobanoff, J.A. & Proce, J.A.(1993). Industrial information Service managers: Expectations and support of the educational process. *Library Trends*, 42(2),249-56.
- Thapisa, A. (1999). Developing lasting competencies for a twenty-first century information economy workforce in Africa. *Library Management*, 20(2), 90–99. doi:10.1108/01435129910251557
- Toyese, O. T. (2018). Assessment of ICT competencies of library staff in selected universities in kwara state, Nigeria. *Library Philosophy and Practice; Lincoln*.
- Ur Rehman, S., et al. (1999). Competencies for Public Library Professionals in Malaysia. *Public Library Quarterly*, 17(2), 63–80. doi:10.1300/j118v17n02_08
- Umar, F. M. (2016). Current and required competencies of university librarians in Pakistan. *Library Management; Bradford*, 37(8/9), 410-425. DOI:10.1108/LM-03-2016-0017
- Wilkins, J.M. (2015). Competencies for public library managers: diversity in practice. *Library Management*, 36(6/7), 462–475. doi:10.1108/lm-12-2014-0139
- Winston, M. (2005). Ethical leadership: professional challenges and the role of LIS education. *New Library World*, 106(5/6), 234-243. <http://dx.doi.org/10.1108/03074800510595841>
- Yvonne, D. G. (2013). Managerial competencies for information professionals: an international perspective. *Library Review; Glasgow*, 62(4/5), 335-343.