Professional Competency for working LIS Professionals in Engineering College Libraries: A Study

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ABSTRACT

Information and Communication Technology (ICT) has changed society as an Information & Knowledge Society and our way of life. It has integrated tremendously into almost all fields. The library and information science profession is no exception. ICT has merged all library's operations and services; without ICT reaching and communicating with the clients is very difficult in the current scenario. The Library staff must involve and upgrade their skill set to fulfil the changing needs and expectations of the clients. They must be flexible in adopting new skills and levels of Information literacy awareness to meet the user expectations in the current pandemic situation. This paper has analysed ICT skills and the necessity and professional competencies of the library staff based on the librarian's opinion that they strongly agreed the library staff needs to update their skillset by attending ICT training (100 %) and participating in professional seminars, conferences, and workshops.

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KEYWORDS: Library professional competency, ICT skills, Information literacy, VTU, Engineering College Libraries.

1. INTRODUCTION

The current pandemic situation has made the educational system dependent on ICT tools for teaching-learning; the library is no exception. In this challenging situation, library professionals must serve the user community by converting and compiling necessary resources and making them accessible to the users through new mechanisms and tools. The Internet is increasingly used, especially the students who have embraced the new forms of electronic interaction and adopted the Internet as their media of information sharing. Hence, ICT provided an opportunity to serve the user's community with the latest and updated information when needed.

Adopting ICT in the library operations is necessary to provide efficient and accurate services to the clients and control the rapid growth of information provide new services to enable cooperation and achieve the increased workload in the current scenario. There is a need for ICT skills and professional competency to overcome the information literacy gap of the library professionals in an academic environment, especially among engineering college library professionals. According to the FLICC (Federal Library and Information Centre Committee) defined *"competencies are observable, measurable patterns of skills, knowledge, abilities, behaviours and other characteristics that an individual needs to perform work roles or occupational functions successfully."*

Hence, the LIS profession stresses the necessity to remain flexible and adaptable to change in the current dynamic information environment. They have to ensure that their knowledge, professional competencies and skills are set to meet the client's expectations. They must update their skills, knowledge, and competencies from time to time. Technological advancements and integration are taking place in the education sector in teaching, learning and research. There is a need for additional professional expertise for the LIS community to communicate and evaluate the existing system and resource utilisation measurement studies and ICT skills. Some professional associations have identified and categorized the competency of the library professionals to the smooth and effective functioning of the library and its services to reach the user community to enhance the teaching, learning, and research of the organizations and institutions.

American Library Association (ALA, 2008) has identified core competencies of librarianship for effective management presented into eight clusters, i.e., basic professional foundation, knowledge of information resources, organization of recorded knowledge & information, information and knowledge of latest technology, knowledge of technology and skills, reference and user services, research, continuing education, and lifelong learning and library administration and management.

Medical Library Association (MLA, 2017) has also noted six areas for Lifelong Learning and Professional Success, i.e., Information Services, Management of information, Library Instruction & Instructional Design, Leadership & Management skills, Evidence-Based Practice & Research, and Health Information Professionalism to the professional expertise.

Special Library Association (2016) has identified, i.e., **"***Information and Knowledge Services, Information and Knowledge Systems and Technology, Information and Knowledge Resources, Information and Data Retrieval and Analysis, Organization of Data, Information, and Knowledge Assets and Information Ethics competencies for library professionals***."** These are competencies that the SLA identifies for library professionals to serve the special libraries for effective services.

The study has assessed opinions from engineering college librarians through a survey to determine the professional competency and ICT skills and training needs to serve the user community in the new and upcoming information environment.

2. LITERATURE REVIEW

The relevant studies have reviewed in ICT skills and competencies of library professionals. Thanuskodi studied "ICT Literacy among library professionals in the Engineering College Libraries of Tamil Nadu". The results show

that most library professionals know computer basics and Internet-related skills and 42.68 percent of the professionals know about multimedia (Thanuskodi, 2011). Another study by Seena and Sudhier Pillai investigated ICT awareness, the skill of ICT, and attitude toward Information ICT among library professionals in Kerala University Library. The study revealed that the library staff have a moderately average level of skills in various ICT integrated tasks in libraries and they have insufficient training in ICT-related library applications (Seena & Sudhier Pillai, 2014). All the library professionals stated a positive approach towards the ICT applications in libraries.

The effective services are based on the library professional's adaptability to the ICT tools in their library service. Hence, most of the professionals possess knowledge of e-resources, and search engines and 78 % of the respondents specified that the primary method of getting ICT skills is through formal education/training (Satapthy and Maharana, 2012). In one more study, Knowledge of ICT skills among LIS professionals of engineering institutions of Andhra Pradesh was studied by Kumar (2013). The results show that librarians have lac ICT skills than other staff and suggested focusing the syllabus on ICTs with practical exposure to get expertise in ICT skills.

Ramesh Babu, Vinayagamoorthy, and Gopalakrishnan (2007) have studied ICT skills among librarians in engineering institutions in Tamil Nadu. The study identified that the librarians had acquired basic skills in ICT, but they need knowledge about the digital library and network-based services. Another study assessed Developing Technology Skills for Academic Librarians conducted by Mathew, Susan and Baby (2012) identified that more than 90 % of the library professionals agreed that ICT application helps to improve library service quality, helps to enhance the skill set of the library professionals, and enhance the prominence of the library.

Ansari (2013) has studied the ICT skills proficiency of library professionals: A case study of universities in Karachi, Pakistan. The result shows that the library professionals are not equally proficient in all ICT skills and the majority are moderately skilled. The work experience does influence ICT skills, according to web junction (2014)**.** The "core technology skills and strong interpersonal skills are fundamental for everyone who works in a library in any position. Librarians and library staff who possess all of these qualities will build a dynamic and relevant library." The ICT skills and professional competency must enhance library usage and serve the user community effectively and in every situation and environment.

3. OBJECTIVES OF THE STUDY

- To assess different types of ICT skills essential by the library professionals.
- To know the level of ICT skills & competency required for library professionals.
- To identify the Professional competencies of library professionals.
- To assess the need for a training program/seminar/workshops to improve professional competency.

4. RESEARCH METHODOLOGY AND SCOPE

The methodology for the research study used Survey Method. The data was collected through the Questionnaire method from the librarians of the Engineering College Libraries, Affiliated with Visvesvaraya Technological University, Belagavi, Karnataka. The questionnaire was sent personally, by register post, and through e-mail to the engineering college Libraries. The structured online Questionnaires has sent to the 60 library professionals of engineering college librarians in the Bangalore region. The filled 48 (80 %) responses have been received back. The collect data has been analysed in MS Excel as per the objectives of the research study.

5. DATA ANALYSIS AND INTERPRETATION

Table-1 Age-wise classification of respondent

Sl.No	Age Group	No. of Respondent	Percentage
1	25 - 35 Years	11	22.91 %
2	36 - 45 years	25	52.08%
3	46 - 55 years	10	20.83 %
4	56 and above	2	4.16 %

Table one identified that 52.08 % of the librarians in engineering colleges under the study have an age group between 36-45 years, and 20.83 % of librarians are in the 46-55 age group. The 22.91 % of librarians in the age group between 25-35 years, and a few (4.16 %) are above 56. It shows that the senior library professionals are working in the engineering college libraries under the study.

Table - 2 Basic educational qualification of respondents

Sl. No	Basic Qualification	No. of Respondent	Percentage
1	B. A	20	41.66 %
2	B. Com	10	20.83 %
3	B. Sc	12	25.00 %
4	BBA/BCA and Others	6	12.50 %

Table two described the primary qualification of library professionals under the study. It revealed that 41.66 percent are from an arts background, 25 percent from a science background, 20.83 percent from a commerce background and only 12.50 percent of the librarians are from other BBA/BCA and other degree.

Table - 3 Professional educational qualification of respondents

Sl.No	Professional highest Qualification	No. of Respondent	Percentage
1	BLISc	10	20.83 %
2	MLISc	48	100 %
3	M. Phil	18	37.50 %
4	Ph. D	7	14.58 %
5	PG Diploma/master's degree of another subject	15	31.25 %

It was evident from table three that all Librarians have MLISc qualifications under the study. There is 27.08 percent of librarians who have an M.Phil. Degree and 14.58 percent of the librarians have a doctorate in library and information science, and 20.83 percent of librarians have completed the BLISc as a professional degree. A good number of librarians have additional degrees of PG diplomas and master's degrees in another subject. It shows the strength and expertise of librarians in effective involvement in information literacy activities.

Table - 4 Professional experience of respondents

Sl.No	Experience	No. of Respondent	Percentage
1	5 years and below	9	18.75 %
2	6-15 years	12	25.00 %
3	16-25 years	21	43.75 %
4	26 years and above	6	12.50 %

Table four presents the experience range of the library professionals. Out of 48 respondents, 9 of them have experience ranging from five years & to below, 12 respondents have 6 -15 years of professional experience and 21 professionals have 16-25 years of experience, and 12.50 percent have above 26 years of professional experience.

5.1 Skills and competency for library staff

The ICT skills and competencies of library professionals are essential to serving the end-user of the library. Hence, the following succeeding sections are highlighting the skills and competencies of the professionals.

Table - 5 Librarians' opinion on ICT skills and competency required for Library Staff

Skills /Competency	Strongly agree	Agree	Uncertain	Disagree	Strongly Disagree
Computer and Networking Literacy	35 (72.91%)	12 (25.0%)	1 (2.08%)	00	00
Online information searching tools and Techniques	42 (87.5%)	6 (12.5%)	0	00	00
Internet-related skills and competencies	43 (89.58%)	5 (10.42%)	0	00	00
Knowledge of e-Learning Technologies	32 (66.67%)	14 (29.16%)	2 (4.17%)	00	00
Knowledge of digital and virtual libraries	43 (89.58%)	3 (6.25%)	2 (4.17%)	00	00
Knowledge of Electronic document delivery	40 (83.33%)	8 (16.66%)	0	00	00
Knowledge of remote /cloud computing competency	46 (95.83%)	2 (4.17%)	0	00	00
Knowledge of Library automation software modules	42 (87.5%)	6 (12.5%)	0	00	00
Knowledge of various electronic information resources	44 (91.67%)	4 (8.33%)	0	00	00

The study decided to collect the skills and abilities of the library staff; there are some questions requested from the librarians; the collected data is shown in table five. It specifies that the majority of the librarian's opinion is that library staff should possess knowledge of remote access and cloud computing skills, 46(95.83 %) librarians strongly agreed, and 2(12.5 %) agree. Regarding the knowledge of various electronic information resources, 44(91.67 %) librarians strongly agree, and 4 (8.33 %) librarians agree. The library staff should have internet-related skills and competencies 43 (89.58 %) librarians strongly agreed, and 5 (10.42 %) librarians agree. Further, there are 42(87.5 %) strongly agree, and 6 (12.5 %) agree that the library staff shall know Library automation software modules and online information searching tools and techniques.

Regarding the knowledge of digital and virtual libraries, the opinion of the librarians is 46(89.58 %) strongly agree, and 3(6.25 %) agree. Whereas 40 (83.33 %) librarians strongly agree and 8 (16.66 %) Librarians agree that library professionals should possess knowledge of electronic document delivery. About 35(72.91 %) librarians strongly agree, and 12(25.00 %) librarians agree that the library staff should possess Computer and Networking Literacy,

followed by the online information Knowledge of eLearning Technologies, 32(66.67 %) librarians strongly agree and agree by 14 (29.16 %) librarians.

5.2 Functional competency skills

Table - 6 Librarian's opinions of Professional competencies for Library professionals

Skills /Competency	Strongly agree	Agree	Uncertain	Disagree	Strongly Disagree
Course design for Information Literacy	30 62.5 %	16 33.33 %	2 4.16 %	00	00
System analysis, Evaluation and support	28 58.33 %	19 39.58 %	1 2.08 %	00	00
Interpersonal and human relations competency	21 43.75 %	25 52.08 %	2 4.16 %	00	00
Problem-solving competency	22 45.83 %	25 52.08 %	1 2.08 %	00	00
Librarianship and information Competencies	26 54.16 %	22 45.83 %	0	00	00

Regarding the librarians "opinion on skills and competencies in course design for information literacy, about 30 (62.50 %) librarians strongly agree, and 16 (33.33 %) librarians only agree. Whereas 28 (58.33 %) librarians strongly agree and 19(39.58 %) librarians agree that library staff should possess system analysis, Evaluation, and support. About 26 (54.16 %) Librarians strongly agree, 22 (45.83 %) Librarians agree that library staff should have Librarianship and Information Competencies and 22 (45.83 %) librarians strongly agree, and 25 (52.08 %) agree for the problem-solving competency for library staff and. The opinion of the librarians for interpersonal and human relations competency 21 (43.75 %) strongly agree, and 25 (52.08 %) agree, respectively.

5.3 Conference, Seminars, Workshops, and Training Programs participations

The librarian's duty is challenging due to information forms and formats to fulfil the users' various demands. They need to develop modern advancements in the field and learn new tools and techniques to reach users. To get updated their professional competency and knowledge to increase the efficiency of library professionals by attending conferences, seminars, training, workshops, etc. The collected data is depicted in Table seven

Table-7 Attending conference, Seminars, Workshops, and training programme

Statement	Training programme /conference /seminar /workshop will support the improving the service efficiency of Library staff				
Opinion	Strongly	Agree	Uncertain	Disagree	Strongly Disagree
Responses	34	13	1	00	00
Percentage	70.83 %	27.08 %	2.08 %	00	00

Table seven shows that the librarians, i.e., 34 (70.83 %) strongly agree and followed by 13 (27.08 %) librarians accepting that training programs/conferences / Seminars / Workshops will help to improve the professional service efficiency of the library staff. Only one (2.08 %) of librarians are uncertain about the improvement.

5.4 Participation in the training program to improve the professional standards

The librarians' opinions have been presented in table eight on the library staff participation in the training programs about professional development and educational technology.

Table-8 Participation in the training programme

Sl. No	Training programme/Seminar/workshops	Response	Percentage
1	ICT tools and related techniques	48	100 %
2	Presentation and resources Promotion skills	42	87.5 %
3	Teaching Techniques and tools	42	87.5 %
4	Communication skills	27	56.25 %
5	Use of audio-visual aids in teaching	32	66.66 %
6	Information literacy Curriculum design and development	40	83.33 %
7	Seminars/conference/symposium	38	79.16 %
8	Worships/FDP other	38	79.16 %

Table eight depicted that all professionals are willing to participate in the training of ICT tools and related techniques. About 42 (87.5 %) librarians are interested in participating in Presentation and resources Promotion skills and are willing to be involved in teaching techniques and tools. Most of the librarians (40, 83.33 %) are eager to participate in the training programs such as information literacy curriculum design and development, and, i.e., 38(79.16 %) are shown an interest to participate in seminars /conferences/symposiums and workshops/FDP for their professional development. However, some librarians, i.e., 27 (56.25 %) Librarians are interested in participating in the training of Communication skills programs. About 26 (54.16 %) librarians are excited to join in using audio-visual aids in teaching.

6. FINDINGS AND SUGGESTIONS

- It is found from the study that all the librarians strongly agree to possess the knowledge of remote access and cloud computing skills (95.83 %), knowledge of various electronic information resources (91.67 %), and strongly agree the internet-related abilities and competencies (89.58 %). Hence, in this pandemic situation of covid-19, the demands these skills; all library professionals must support by providing access to their library and online resources to help by utilizing the internet for teaching, learning, and research process of every organization.

- The study found that all librarians suggested and strongly agreed with the knowledge of digital and virtual libraries, online information searching tools (87.5 %), and knowledge of Library automation software modules (87.5%). So, there is a need for awareness of online virtual and digital libraries like NDL, INFLIBNET's Shodhganga, etc., and techniques to retrieve the latest open source ILMS (KOHA) information service based web OPAC from the user community.

- From the study, it is found that the necessity of computer and networking literacy (72.91 and %), knowledge of electronic document delivery (83.33%), and Knowledge of eLearning Technologies (66.67 %) to support the users by sharing the information when they by utilizing networking through the many e-learning technologies platforms.

- The study identified that all the librarians trusted and strongly agree with the necessity of course design of information literacy (62.50 %), system evaluation and support (58.33 %), Librarianship and Information Competencies (54.16 %), problem-solving competency (45.83 %), and interpersonal and human relations competency (43.75 %) to enhance the library usage and adequate utilization resources and proper administration of the library. Hence, the university must implement an information literacy course for working librarians under university to enhance their skills of the librarians to support the teaching-learning process and effective utilization of the resources provided by the university.

- The study found that librarians strongly trusted that a Training program/seminar /workshop would help improve the library staff's information literacy efficiency. It is found that 79.16 % of the library staff are participating in professional seminars and workshops. Hence there is a need for the organization's financial support for library professionals to participate in the workshops and conferences organized by the universities, corporate, and other professional associations to improve the information literacy of library professionals to train the user community.

- The study found that all librarians are willing to participate in the training of the latest ICT tools & techniques, 87.5 % of librarians are eager to participate in the presentation and promotion skills and teaching techniques, and the same interest shown in the curriculum design and development of the information literacy program (83.33%). Hence, to fulfil this literacy gap, all library professionals must utilize the online platform of Swayam/NPTEL by enrolling to enhance communication skills, presentation skills, and training in ICT tools to integrate effective service to the user community.

CONCLUSION

The effective services to the user community depend on the library staff's information literacy competency and other functional skills. ICT has made the opportunity for all libraries to provide improved information services in the digital platform and communicate effectively to their clients. In the current digital age, technology is changing continuously, and different communication channels evolved. The information formats have been changed; to manage and serve the user community, the regular training of library professionals is unavoidable. Therefore, there is a need for training in resources organization, retrieval, and remote access solutions for staff to provide adequate service to their clients. The present study shows the need for functional literacy skills like problem-solving, course design for information literacy, interpersonal competencies, and leadership and information competency for their staff. To encourage library staff to attend continuous education programs by attending seminars, workshops, and other training programs to enhance the skills of the library professionals. The Universities must organize more ICT-related training programs for library professionals to improve their information literacy skills, compete with the current changing information age, and adopt ICT tools, presentation & communication, and teaching techniques to give adequate information literacy training for their clients. The library and information science course curriculum must include more latest tools and technology components to meet information professionals' intellectual and practical needs.

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