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J. P. Naik Path, Kothrud, Pune- 38

Contents

An Evaluation of ICT Competencies of LIS Professionals in Providing Digital Library Services of D.Y. Patil Pratishthan's Colleges

Rohan Raju Pawar
Librarian
D Y Patil College of Engineering and Technology
Kolhapur
Sagar Shivaji Kumbhar
Librarian
Gokhale Education Society's Arts, Commerce and
Science College, Shreewardhan
Ravindra Pandurang Adav
Librarian
The New College Kolhapur

Abstract:

In the LIS profession, ICT skills have tremendous importance in this era. The majority of library services are now online for users. The present study attempted to investigate the ICT skills and competencies of LIS professionals working in the D.Y. Patil institute libraries. A total of 25 LIS professionals were chosen for the present study, and their skills and competencies were assessed through the data collected from the questionnaire. The study examined the skills and competencies of LIS professionals based on information searching skills, the purpose of using the internet, the frequency of using the internet, the use of various ICT devices, library software, ICT applications, challenges in acquiring ICT skills, and the required area of training. The researcher found that LIS professionals working in the D.Y. Patil Institute libraries are skilled in searching and handling ICT applications and devices. Also, 80 percent of LIS professionals are proficient in using library software and its modules, and more than 80 percent of LIS professionals are aware of Web 2.0 tools. Cloud computing and web design are the areas where LIS professionals need to improve their skills through training and continuing education programs. In this study, we will examine how much the library staff knows ICTS, how much they know about digital facilities, and what they are doing to update their knowledge.

Keywords: ICT Competency, ICT Skill, Digital Library Services, LIS Professionals, Online services.

Introduction:

The days of books being kept under lock and key and accessible only to privileged individuals are long gone. At the beginning of the 20th century, traditional methods were the norm. Mechanization and automation only began in all fields after computers were introduced. The development of science and technology has significantly improved and altered nearly every aspect of human life. With the help

of ICT, services can be provided faster and more effectively. Additionally, it has instilled trust in a company's products and services among its customers. E-resources are considered to be very important for the library and it is a blessing in disguise as the demand for e-resources has increased it is clear that the demand from users is increasing and to supply it, the library staff needs to be fully aware of it. And can fit properly. They also need to know ICT to provide digital facilities. In this computerized climate, libraries changed their administrations, assortment, wellsprings of data, and applications for dispersal of data, as well as library staff's abilities and strategies towards data dealing, have been changed because of innovative change.

Digital Services have turned into a need of great importance in all fields. Libraries are not an exemption from that. During this pandemic period, it has become a need for the library staff to have the ICT abilities to give computerized library Services. It has been seen that this office is being involved more amid an emergency. The consciousness of ICT information is likewise significant for the advancement of your library. To address the issues of the library clients in an advanced climate, the library staff is relied upon to know about the most recent ICT drifts so the necessities of the clients and the goals of the library can be met. If the library staff doesn't roll out the right improvements from time to time, they will fall behind the latest thing and the libraries cannot advance true to form. To do this, for example, to give advanced library benefits actually, they need to have information on ICT abilities.

The global economy has been severely impacted by the recent pandemic, which has further impacted everyday activities, including libraries. The professionals in LIS had no choice but to embrace digital technology. As a result, it is essential to investigate the LIS professionals' use of ICT competencies in providing digital library services to the user community. As a result, the current study is carried out.

Reviews:

Khot, Namita (2020) The author gathers information on LIS professionals in library science who are about to face challenges brought on by the shifting ICT environment. She discovered that library professionals self-train in numerous competencies and skills. Libraries are now referred to as Knowledge Resource Centers because they perform electronic tasks like serial control, acquisition, circulation, and cataloguing. This article demonstrates the transition from the traditional to the technological aspects of librarianship. Additionally, it outlines the competencies and abilities that library professionals need to manage the changes.[1]

Bajpai and Margam (2019), the target of this research is to find out the ICT knowledge and abilities of LIS professionals working in the college libraries affiliated with the University of Delhi. He circulates a total of 60 questionnaires for collecting data. Finally, He concluded that the majority of LIS professionals are computer-literate and have learned how to manage libraries. Operating systems, IR tools, bibliographic standards, electronic security and surveillance, cloud computing,

artificial intelligence, Web 2.0 tools, mobile-based library services, and other ICT skills and competencies are still lacking among LIS professionals.[2]

Pawar (2019) the author found that the majority of library users have smartphones that can do a variety of things. As a result, the library can design an application or QR code with information about the library and upload it to their website for free download by mobile users by taking advantage of this technology. Users may gain from this by being able to quickly and easily access the necessary information at any time and from any location.[3]

Narayanaswamy (2017), the author investigates ICT literacy of LIS professionals in Karnataka. The author collected data through a questionnaire and analyzed the design skills, system analysis, and knowledge about library software. The author found that Koha is a widely used library management software and library professionals failed to adopt new ICT applications because of inadequate training.[4]

Mansour (2017), evaluated the digital information knowledge of SVU library and information professionals and also focused on the knowledge of library professionals about computer hardware, ICT tools, web-based tasks, and library software. The author also verified the several forms of digital information literacy controlled by the SVU library professionals and also found the constraints in acquiring Digital Information Literacy.[6]

Iqbal & Khan (2017), discussed the awareness level of University librarians about ICT applications and also assessed the constraints they are facing while acquiring ICT skills. The author found that almost all participants have computer literacy and good knowledge about library automation and digitization.[7]

Mahanta (2016), said that the quality of digital library services depends upon the ICT skills of LIS professionals. The study is based on the LIS professionals in Assam. This work identifies the latest scenario of the ICT skills among the LIS professionals of Assam. The pilot study has been conducted among 36 LIS professionals in Assam. Finally, the author concluded that the professionals of LIS of Assam are not fully-fledged skilled in ICT-based resources and services. They need time-to-time awareness programs and pieces of the training program to update their knowledge about ICT.[9]

Scope and Limitations of the Study:

The present study includes all the 10 colleges in Kolhapur district including agriculture, non-agriculture, Medical, Nursing, and Junior Colleges. The researcher evaluates the ICT skills and competencies embraced by the LIS professionals to provide digital library services to the user's colleges. Around 25 LIS professionals are working in these 10 colleges under different capacities/designations. The LIS professionals are working with designations like Librarian, Assistant Librarian, Information Assistant, Senior Library Assistant, Junior Library Assistant, Library Assistant, Assistant, and Library Clerk.

Objectives of the Study:

The prime objective of the present study is to evaluate the Information and Communication Technology (ICT) competencies among the LIS professionals in

providing digital library services in Knowledge Resource Centers in the Universities of Maharashtra. The specific objectives of the study are to:

1. To know the level of awareness about the Internet by the LIS professionals working in D Y Patil Colleges,
2. To determine the purposes of using the Internet by the LIS professionals;
3. To identify the level of awareness about search skills and strategies while searching for information over the Internet;
4. To evaluate the level of ICT skills/competencies possessed by library professionals.
5. To study the problems faced while acquiring ICT skills by the LIS professionals;
6. To study the nature of training required for LIS Professionals to update or improve their knowledge of ICT Skills; and
7. To find out the challenges faced by LIS professionals while providing digital library services to readers.

Methodology:

The survey used the questionnaire tool for an Evaluation of the ICT Competencies of LIS Professionals in Providing Digital Library Services at D. Y. Patil Pratishthan's Colleges, in Kolhapur District. At present 25 library professionals in this college. Out of that 25 questionnaires all copies of questionnaires were received. The collected data were tabulated, critically analysed, and expected in percentage.

Data Analysis and Interpretation:

Table No. 1 Details of LIS Professionals

		Gender		Designation			
Name of Institute	No. of LIS Professionals	Male	Female	Librarian	Assistant Librarian	Library Assistant	Library Clerk
D.Y. Patil College of Agricultural, Talsande	4	3	1	1	1	2	
D.Y. Patil College of Engineering & Technology, Kasaba Bawada, Kolhapur	10	6	4	1	2	6	2
D.Y. Patil College of Nursing, Kadamwadi, Kolhapur	1		1	1			
Dr. D.Y. Patil Polytechnic, Kasaba Bawada, Kolhapur	1		1	1			
D.Y. Patil College of Physiotherapy, Kadamwadi, Kolhapur	1	1			1		
D.Y. Patil Agricultural Polytechnic, Talsande	1		1	1			
D.Y. Patil Technical Campus Polytechnic Faculty of Engg. & Management, Talsande, Kolhapur	1		1		1		
D.Y. Patil Medical College, Kasaba Bawada, Kolhapur	4	2	2	1	1	2	
D.Y. Patil Junior College, Kadamwadi, Kolhapur	1		1	1			
Dr. D.Y. Patil Pratishthan's College of Engineering, Salokhenagar Kolhapur	1		1			1	
Total	25	12	13	7	5	11	2

Table No. 1 shows the number of LIS professionals working in the various D.Y. Patil institutes. It also reveals the number of LIS professionals by designation, gender, and institute. A total of 25 LIS professionals are working in 10 institutes.

Among the 25, 12 are male and 13 are female. Also, 7 professionals are working as librarians, 5 as assistant librarians, and 13 are working as library clerks.

Table No. 2 Use of the Internet by LIS Professionals

Use		Frequency		Device	
Yes	**No**	**Every day**	**Occasionally**	**Personal Computer**	**Mobile Phone**
24 (96%)	1 (4%)	24 (96%)	1 (4%)	24 (96%)	1 (4%)

Table No.2 depicts the frequency with which LIS professionals at D Y Patil institutes use the internet. It has been observed that 96% of LIS professionals use the Internet on their personal computers every day, while only 4% use the Internet on their mobile devices on occasion. The below table also shows that 96% of LIS professionals use the internet, with only 4% not using it.

Table No. 3 Purpose of using the Internet

Purpose	Percentage
Entertainment	2 (8%)
Online Booking	3 (12%)
Provide Information to the users online	20 (80%)
Use of Social Media Platforms	20 (80%)
Use of Search Engines like Google, Yahoo, etc.	20 (80%)
Provide digital library service to the users	18 (72%)
Online Shopping	2 (8%)
General Surfing of the Internet	23 (92%)
Conducting Classes	1 (4%)
Booking tickets online	2 (8%)
Access e-resources	21 (84%)
Awareness Session	19 (76%)
Delivering Webinar	15 (60%)
Attending Webinar/ Meetings	22 (88%)
Work from Home	0

Table No. 3 shows the purpose for which LIS professionals use the internet. The above table reveals that 88 percent of LIS professionals in D.Y. Patil Institute libraries are using the Internet to attend online seminars, webinars, and meetings. It has also been discovered that LIS professionals use the internet to provide online information for 80% of their work, access e-resources for 84%, search for information using search engines for 80%, provide digital library services for 72%, and general suffering for 92% of their work. It shows that the majority of LIS professionals are using internet facilities for academic purposes, with only 8% using it for entertainment, 12% for online shopping, and 8% for online booking.

Table No. 4 Search skills and strategies while searching for information over the Internet

Skills	Very Good	Good	Uncertain	Poor	Very Poor
Boolean Search (AND, OR, and NOT)	20 (80%)	3 (12%)	-	1 (4%)	1 (4%)
Field Searching	19 (76%)	5 (20%)	-	-	1 (4%)
Phrase Searching	20 (80%)	3 (12%)	-	-	-
Advanced Search	21 (84%)	2 (8%)	-	-	1 (4%)
Proximity Search	16 (64%)	8 (32%)	-	-	1 (4%)
Stop word Search	14 (56%)	5 (20%)	-	-	-
Sorting Search	18 (72%)	4 (16%)	-	-	-
Keyword Search	22 (88%)	2 (8%)	-	-	-
Subject Search	22 (88%)	2 (8%)	-	1 (4%)	-
Minus Operator (-)	16 (64%)	3 (12%)	-	-	3 (12%)
The Double Dot (..)	17 (68%)	-	-	-	-
Truncations	19 (76%)	6 (24%)	-	-	-

Table No.4 reveals the search skills and strategies used by LIS professionals working in D.Y. Patil Institute libraries. It is noticed that 80% of LIS professionals used Boolean Search AND, OR, and NOT) to search the information on the internet. While Field search, Phrase Searching, and Advanced Search used 76%,80% and 80%. The above table also shows that most LIS professionals used keyword search and subject search because 88% of LIS professionals are very good at using these search strategies. On the other hand, only 4% of LIS professionals are very poor at adopting Boolean search (AND, OR, and NOT), field search, phrase search, and advanced search skills. The use of Proximity search 64%, Stop word search 56%, sort search 72% Minus operator (64%), double dot (68%), and truncation (76%), which are less than field search, phrase search, Boolean search (AND, OR, and NOT), and advanced search strategies.

Table No.5 ICT Skills/Competencies

ICT Skills/Competencies					
Skills/Competencies	**Very Good**	**Good**	**Satisfied**	**Poor**	**Very Poor**
Use of Personal Computers	20 (80%)	2 (8%)	2 (8%)	-	1 (4%)
Use of Laptop	21 (84%)	3 (12%)	-	1 (4%)	-
Use of Photocopy Machine	20 (80%)	3 (12%)	-	1 (4%)	1 (4%)
Use of Multimedia	16 (64%)	5 (20%)	3 (12%)	-	1 (4%)
Use of Fax Machine	14 (56%)	8 (32%)	-	1 (4%)	-
Use of Mobile	22 (88%)	2 (8%)	-	-	1 (4%)
Use of Scanners	18 (72%)	4 (16%)	1 (4%)	-	2 (8%)
Use of Multipurpose Computers	22 (88%)	2 (8%)	-	-	1 (4%)
Use of Overall IT Gadgets	15 (60%)	8 (32%)	1 (4%)	-	1 (4%)
Use of Automation Software					
Cataloguing Module	22 (88%)	2 (8%)	1 (4%)	-	-
Circulation Module	23 (92%)	1 (4%)	1 (4%)	-	-
User management module	19 (76%)	4 (16%)	1 (4%)	1 (4%)	-
Acquisitions Module	22 (88%)	2 (8%)	1 (4%)	-	-
Serials management Module	22 (80%)	3 (12%)	-	-	-
OPAC Module	23 (92%)	2 (8%)	-	-	-
Use of Web 2.0 Tools					
Blogs	22 (88%)	1 (4%)	1 (4%)	-	-
Facebook	23 (92%)	1 (4%)	-	-	1 (4%)
You Tube	23 (92%)	1 (4%)	-	1 (4%)	-
Twitter	20 (80%)	2 (8%)	-	-	3 (12%)
WhatsApp	23 (92%)	1 (4%)	1 (4%)	-	-
Skype	14 (56%)	5 (20%)	1 (4%)	3 (12%)	2 (8%)
Mail Servers	22 (88%)	2 (8%)	-	-	1 (4%)
Education Tubes	14 (56%)	3 (12%)	1 (4%)	4 (16%)	3 (12%)
Wikipedia	22 (88%)	1 (4%)	1 (4%)	-	-

Table No. 5 shows ICT skills and competencies among LIS professionals in the D.Y. Patil Institute Libraries. The first component in this table is competency in using ICT devices. It has been investigated that LIS professionals in D.Y. Patil Institute libraries have very good skills and competencies in handling ICT devices.

According to the above table, 80% of LIS professionals are very good at handling their personal computers, while 84% of laptops, 80% of photocopiers, 88% of mobile devices, 72% of scanners, and 88% of multipurpose computers are. Only 4% of LIS professionals are very proficient in handling ICT devices.

LIS professionals in the D.Y. Patil Institute Libraries are very good at using library automation software. According to the above table, the skills of LIS professionals have been measured as per the modules available in library automation software. It is followed by the Cataloguing Module at 88%, the Circulation Module at 88%, the User Management Module at 92%, the Acquisitions Module at 76%, the Serials Management Module at 80%, and OPAC Module at 92%. Only 4% of LIS professionals do not efficiently handle library automation modules.

The skills and competencies of LIS professionals in using web applications are also listed in Table No. 5. The data depicts that LIS professionals effectively handle web applications. The competencies of LIS professionals in browsing web applications are: blogs (88%, Facebook (92%), YouTube (92%), WhatsApp (92%, Skype (56%), mail servers (88% and Wikipedia (88%).

The above data depicts that LIS professionals effectively handle web applications. The competencies of LIS professionals in browsing web applications are: blogs (88%, Facebook (92%), YouTube (92%), WhatsApp (92%, Skype (56%), mail servers (88% and Wikipedia (88%). The LIS professionals having difficulties in using Twitter because only 8% of LIS professionals are aware of Twitter.

Table No. 6 Problems faced in acquiring ICT skills

Challenges	Percentage
Inadequate training opportunities to develop ICT Skills	19 (76%)
Lack of infrastructure & network facility	20 (80%)
Lack of support from the higher authority/ Management	18 (72%)
Lack of budget to attend the training programs	21 (84%)
Lack of support from colleagues	16 (64%)
Fear of learning ICT	10 (40%)
Not interested in acquiring ICT Skills	2 (8%)

Table 6 shows the challenges that LIS professionals face when learning ICT skills. The following are the major challenges for LIS: a lack of infrastructure and network facilities (80%), a lack of budget to attend training programs (84%), a lack of support from higher authority or management (72%), and insufficient training opportunities to develop ICT skills (76%). According to the above data, only 40% of LIS professionals fear learning ICT.

Table No. 7 Areas of Training Programmes / Continuing Education Programmes

Area to improve	Percentage
Cloud Computing	22 (88%)
Information / Knowledge Management	19 (76%)
Digital Library	20 (80%)
Library Automation	16 (64%)
Use of Social Media Platforms	18 (72%)
Web Designing	22 (88%)
Open Access Resources	14 (56%)
OPAC/ WEB OPAC	10 (40%)

Table No. 7 illustrates the area for training programs and continuing education. Cloud computing 88% is the area in which LIS professionals need training to gain competencies. While Digital Library 80%, Web design 88%, Information / Knowledge Management 76%, and use of social media platforms 72%. The LIS professionals don't need more training about OPAC and Web OPAC because only 40% of LIS professionals seek for training and continuing education programs.

Conclusion:

The current study has shed light on how library staff in the college libraries it examined have acquired information communication technology skills and competencies. The majority of Library professionals, according to the findings, are well-known about the internet and they have acquired library-related skills and knowledge. Although library professionals have brilliant automation skills. This demonstrates that professionals of LIS still require these ICT abilities in the aforementioned areas to deliver users with active and well-organized digital library services short of killing their time, per Ranganathan's fourth law, "Save the time of the user." In the current day's technology-driven atmosphere, Library and Information Science professionals will not be able to meet the challenges posed by ICT because they lack prior ICT competencies and skills. In this ICT age, Library professionals need to familiarize themselves with changes that require skills and competencies to stay alive and remain relevant with the intention of providing superior digital services to their users. In an environment where technology is constantly evolving, Professionals of LIS need to keep their skills and competencies up to date regularly.

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