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Study on ICT Proficiency Among Working Librarians in Academic Libraries

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ABSTARCT

Information Communication Technology (ICT) has dramatically altered all human activities, including the library and information science fields, in order to assess the level of ICT literacy among library professionals and the need for training and orientation in ICT-based resources and services for library professionals working in Academic Libraries. This research gives an overview of how library professionals use information and communication technology-based resources and services. There is optimism that the majority of library professionals are ICT literate and have the foundational ICT skills. As ICT applications have evolved, libraries now provide print, electronic, and ICT-based information services, altering our perception of how LIS specialists serve users. Individuals may now get information without wasting time thanks to technological advancements. Information distribution and access patterns are shifting away from traditional technologies and toward digital ones. Due to the digital transformation, LIS professionals must learn how to use a variety of ICT tools, such as automation, bibliographic standards, ICT-based library services, web 2.0 skills, mobile information services, ILMS, Citation, IR, and others, in order to perform their duties effectively. The current study aims to identify critical ICT abilities among LIS workers, particularly in Academic Libraries. ICT expertise is now required, not optional, for library personnel. Librarians must continue to successfully manage digital resources, improve user experiences, safeguard data privacy and security, and adapt to the rapidly changing information ecosystem. Individuals may now get information without wasting time thanks to technological advancements.

KEYWORDS: Skills in information and communication technologies (SICT), a positive outlook, knowledge and digital skills on Technology acceptance in Academic Libraries**.**

INTRODUCTION

Libraries are seen as a service-oriented institution that meets the information requirements of its users and has made major contributions to the growth of civilization. With the introduction and extensive usage of ICT, LIS professionals now employ it for a wide range of library operations, with the bulk of transactional and other critical services performed digitally or electronically. An academic library is considered as the heart of educational institutions, providing a critical resource for the university's numerous academic demands such as teaching, learning, and research. With the growth and use of multiple ICT approaches in all aspects of life, libraries of all sorts discovered it beneficial as a motivator to meet the demands of their patrons. LIS practitioners must be well-versed in the use of various ICT technologies, including automation.

The expanding role of librarianship highlights the importance of librarians having a diverse set of abilities that combine conventional instructional design techniques with technology ability. Traditionally, the librarian is responsible for collecting, organizing, and maintaining library resources. The expansion of information and communication technology has resulted in changes to both information and its accessibility. It is vital for quickly and easily acquiring the information you want, particularly in academic libraries. These factors also influenced the development of the Internet and the World Wide Web.

Nonetheless, libraries throughout the world have made major advances in the previous thirty years. Global networking and telecommunications, digitalization, electronic publishing, and document delivery services have all emerged as a result. Bibliographical guidelines, web 2.0 features, mobile information services, ICT-based library services, ILMS, citation, and information retrieval, among others. To become effective assets to the institute, LIS workers must acquire a diverse set of ICT skills and learn to adapt to a continuously changing environment. As a result, LIS personnel must learn ICT skills in order to fulfil their tasks. The current study seeks to determine the requisite ICT competences among LIS workers.

Objectives of the Study:

- The goal is to understand the computer capabilities of LIS professionals in academic libraries, as well as the ICT abilities needed for specific library and information services.
- Examining LIS professionals' ICT abilities to provide library and information services in a collaborative era. Identifying the utilization of various ICT technologies for library services.
- Assessing LIS Professionals continuing professional Development (CPD) participation and recommending new ICT skills for Academic Libraries.
- Acquire new ICT skills, especially in web-based environments. Learn about how LIS professionals participate in various ICT-related activities.
- Understand how LIS professionals use ICT to refresh their libraries and expertise.
- Explore how ICT technologies may enhance e-resource collection in university libraries and address barriers to innovation.

Need of the Study:

The study's main purpose is to assess respondents' ICT information demands and information-seeking behaviour while getting ICT resources. Furthermore, they provide their perspectives on ICT and its measurement. It also demonstrates the extent to which ICT influences library professional employment. The study is relevant in this regard. The younger generation, known as the "digital generation," is accustomed to using ICT in both personal and professional situations. Libraries may give exceptional service to its users. This study aims to measure the ICT skills of librarians and other library professionals in order to foresee the development of enhanced library services. The study also identifies which ICT skill is the most accurate indication of enhanced library services.

Skill of library professionals

A library professional should have the following skills

1. Personal Skill: It includes analytical skill, creativity, adoptability, proactive, keen to learn, self-motivation, inspire the others, marketing…

2. Generic Skill: It includes personality, body language, communication, project management, critical thinking, team work, leadership, research skill, teaching and training, negotiation, sharing and caring…
3. ICT Skill: It includes implementation of automation in office and library activities like acquisition, cataloguing, classification, resource sharing, report generation, web site navigation, e-resources access and presentation, e-mail management, file management, online meeting, deep web, artificial intelligence, cloud computing, IoT, block chain technology, Augmented reality, barcode, QR code, RFID,.
4. Technical Skill: It includes search of databases, open access resources, advanced web technology, digital repository, digital preservation, digitization of resources and its retrieval, mobile application, electronic-books, electronic-journals and other electronic-databases acquisition and utilization,3D printing, …

Today, ICT is considered as a part of library services. A library performs different services for its users and it can include the ICT in acquisition, cataloguing, classification, resource sharing, report generation, information literacy, and research activities made by the researcher. Similarly, a library professional should have the knowledge about the different concepts of ICT like different software, hardware, office automation, library automation, networking, application software, remote access, digital repository, bibliographic and metadata, digital library.

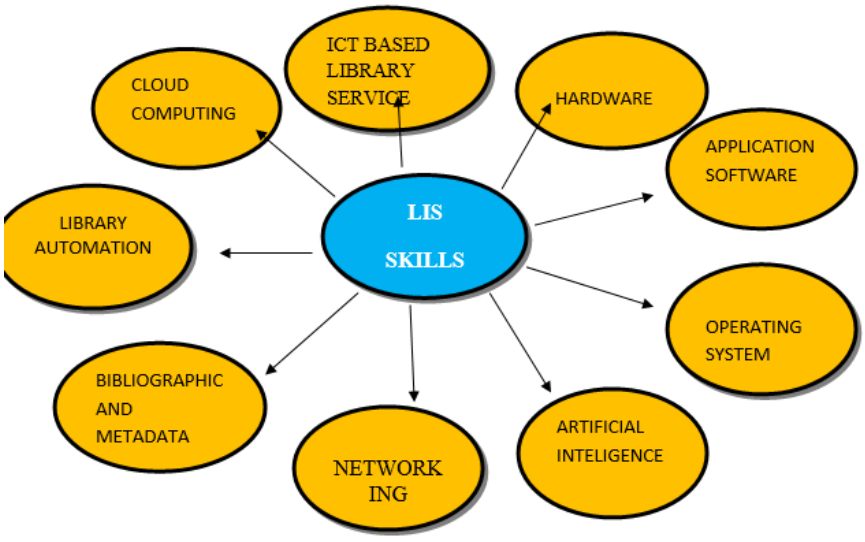
ICT holds the key to the success of modernizing information services. While there are many uses for ICT, its primary application is in digitizing the current paper-based records for storage, retrieval, and distribution.

The advent of diverse trends in information technology (ICT) has resulted in restructuring, modifications in work habits, as well as the need for new skills, job retraining, and job reclassification.

ICT has affected every aspect of academic library operations, particularly the expansion of the library collection and strategies. ICT offers a chance to give their clients access to a vast range of digitally based information resources and value-added information services.

Modern ICTs are also being used by academic libraries to automate basic operations. The implementation of efficient and effective IT in libraries is having a significant global impact.

The different skills of a library person is represented in the below diagram.



Review of similar study.

Saleem, Shabana Tabusum & Sadik Batcha (2013) recommended that Academic libraries must strengthen their video conferencing capabilities by attending seminars, workshops, conferences, and library management software training programs, allowing users to get the most out of ICT-based activities and services. They also emphasized the need of awareness in identifying the ICT abilities and capabilities of LIS workers in the academic libraries under investigation.

According to "Bajpai and Madhusudhan"(2019) The majority of LIS employees are computer literate and have learned how to run libraries. Though they lack ICT skills and competencies in areas like operating systems, IR tools, bibliographic standards, cloud computing, artificial intelligence, Web 2.0 tools, electronic security and surveillance, mobile-based library services, and so forth, LIS professionals excel at automation.

Babu & Gopalakrishnan (2007) Indicated that The use of ICT tools in library operations has advanced beyond a basic degree of integration, with only a few tasks. Technological breakthroughs are transforming the world of an academic library. Print media has given way to web-based services, document ownership to information access, and physical libraries to digital or virtual libraries.

A study was carried out by Thanuskodi (2011) and found that Most people felt comfortable using computers and completing online searches. They were familiar with online search engines, and the majority of respondents expressed a need for education in library management software. The participants had experience with a variety of library automation software packages as well as digital library construction technologies.

Study Design

I have conducted a study focusing solely on library professionals working in the city of Bhubaneswar in order to assess their ICT competence. Only academic institutions—both public and private—have been taken into consideration. I evaluated the professionalism of library professionals by selecting them at random.

Analysis and finding of results

This present data is chosen randomly and tabulated as required. This survey contains some basic questions to have an idea on ICT practice. The collected data is shown in tabular form below.

Table 1 - Job Status

It states that the job status of LIS professionals, it highlights the professionals are working permanently or temporarily.

Sl. No	Job Status	No. of respondents	Percentage (%)
1	Permanent	18	78.3
2	Contractual	5	21.7
	Total	23	100

The above table shows that 18 (78.3%) of the LIS staff are working in their institute as permanently and rest 5 (21.7%) are working as contractual in their respective institution.

Table 2 – Distribution of age group

It states that the age group of LIS professionals is working in the library. We have classified into four groups and mentioned in below table in details.

Sl. No	Age group	No. of respondent	Percentage (%)
1	25 - 35	2	8.7
2	36 – 45	11	47.8
3	46 – 55	9	39.2
4	Above 55	1	4.3

The above table-2 shows that only 2(8.7%) of the LIS staff are between the age of 25-35 years of age, 11(47.8%) are belongs to 36-45 years of age, 9(39.2%) are belongs to 46-55 years of age and only 1(4.3%).It represents maximum number of LIS persons are comes under middle group and they have the good potentiality to learn or acquire ICT knowledge.

Table 3 – Qualification of LIS Professionals

This represents the highest qualification of LIS professionals. It includes MLISc., M.Phill and PhD in library and information science or related to this subjects.

Sl. No	Qualification	No. of respondent	Percentage (%)
1	M.LISc	16	70
2	M.Phil	3	13
3	PhD	4	17

The above table shows that 16 (70%) are having the minimum qualification i.e. Master in Library and Information Science, 3(13%) are qualifies M.Phil and 4 (17%) have qualified the PhD in library and information science. It shows that maximum LIS professional have qualified the master degree in Library and Information Science.

Table 4 –Working Experience

This table shows the working experience of LIS professional in some educational institutions.

Sl No	Experience	No. of respondent	Percentage (%)
1	1 – 10	5	22
2	11 – 20	14	61
3	21 – 30	4	17
4	More than 30	Nil	Nil

The above table no 4 shows that 14(61%) are worked in this profession for 11 – 20 years of experience, 4(17%) have come under 21-30 years of experience and no one have more than 30 years of work experience.

Table 5 – Opinion on Professional development program attended

This table shows the no of LIS professionals have attended the different career enhancement programs to increase their professional services towards their institutions.

Sl No	Opinion	No. of respondent	Percentage (%)
1	Refresher course	2	8.70
2	Online course	1	4.35
3	Training	3	13.04
4	Seminar	17	73.91
5	Conference	9	39.13
6	Workshop	7	30.43
7	Webinar	15	65.22

Table 5- Provides the professional development scenario of the working professionals. This study indicates that a significant proportion of LIS professionals (65%) have attended webinar and 74% have attended different seminars. There is a satisfactory observation that 39% have attended conference and 30% have experienced different workshop.

Table 6 – Knowledge on web resources

Today, a LIS professional should have the knowledge about the web resources, it includes the information about the website, database, social network, and e-mail and SMS alert and knowledge about the other resources.

Sl. No	Resources	No of respondents	Percentage (%)
1	Websites	14	60.87
2	Database	8	34.78
3	Social Network	19	82.61
4	INFLIBNET / INDEST Consortium	4	17.39
5	E-mails & SMS alert	11	47.83

Libraries provide excellent services their users. Here is an attempt to get some idea about Web Resources which are used to improve regular activities that patrons expect from libraries. Out of total, 61% took help of websites, 35% used databases, and 83% use social networking sites. There are 65%working professionals are interested in SMS alert and email alert service and 17% library professionals find their resource from INFLIBNET/INDSET Consortium.

Table 7 – Knowledge on accessing e-resource

Today, a LIS professional should have the knowledge about the e-resources and its usability.

Sl. No	Source	No of respondent	Percentage (%)
1	E – Library	16	69.57
2	Institutional Repository	2	8.70
3	Open access journal	11	47.83
4	Library website	4	17.39
5	Publisher's website	7	30.43

The advance of ICT is more popular now and accepted by the library professionals to manage the library operations in a comfortable new environment. This study finds the helpful sources to collect their needs.

This indicates that they are computer savvy and have knowledge to serve their users (Table 7).

Observation and findings

From the observation we found following points.

1. The majority of current library employee's have necessary ICT skills to manage the day-to-day activities required in libraries.
2. They show their willingness to adapt the changing environment by the rise of ICT.
3. Academics advocate ICT implementation in all LICs through network to ensure equitable and universal access to knowledge resources.
4. LIS experts excel in automation, but lack expertise in ICT, operating systems, IR tools, bibliographic standards, and related areas. Cloud computing, artificial intelligence, Web 2.0 tools, mobile library services, electronic security, and monitoring, among others

Suggestion

In order to provide effective and efficient services without wasting users' time, LIS professionals must continue to grow and improve their skills in the aforementioned domains, hence upholding S. R. Ranganathan's Fourth Law: "Save the user time." If LIS professionals lack prior ICT skills and abilities, they will be unable to deal with the challenges posed by ICT in today's technology-driven environment. This study proposed that the modern library setting would be advantageous in two ways: First, LIS professionals can prepare to compete in the digital environment. Second, given the shift in user expectations, LIS professionals will recognize that in order to manage information resources and services, they must have ICT-related skills, talents, and knowledge**.**

Conclusion:

A broader term, information and communications technology (ICT) or information technology (IT), emphasizes the importance of unified communications and the integration of computers, middleware, telecommunications, storage, and audio-visual systems, as well as the necessary software, to allow users to create, access, store, transmit, and manipulate information. Library automation, managing e-resources and content, organizing information on the Internet and intranet, building and maintaining digital libraries and institutional repositories, and web-based library services are all examples of new ICT skills that library professionals must be proficient in. The library profession requires great sincerity and devotion from its members. ICT has evolved as the foundation of every profession, including librarianship. Libraries may now provide exceptional services to their clients due to advances in information and communication technologies.

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