CHAPTER I
INTRODUCTION

Library organization has drastically changed its functional dimensions in terms of collection development, staff pattern and services since past few decades. The resources (both print as well as online) have occupied a significant space in the library collection, transactions of library documents such as books, journals, magazines, and others have been fully automated. Further, web-based services are offered by the Librarian to draw the attention of the user community. Like other Science disciplines, Library Science has also taken long strides in recent times, induced by the phenomenal outpouring of knowledge and information. Library Science or Library and Information Science is an interdisciplinary field which applies the practices, perspectives, and tools of management, information technology, education and other areas on collection, organization, preservation, and dissemination of information resources. Library and Information Science is the study of libraries and information field and topics include acquisition, classification, cataloguing, and preservation of library materials. This present study tries to focus on the LIS Professionals with special reference to Women Librarians in academic institutions of Tamilnadu, India. This study deals with various types of resource centres, different kinds of professionals' skills such as General Skills i.e. generic skills, managerial and professional, Essential Skills for LIS Professionals in the Digital environment, skills on computers, Programming Languages, ICT Tools, Library Automation software, Information Literacy, Information Management Skills, Knowledge Management, Leadership Skills, Soft skills, Open sources softwares, Library reference management softwares, Social Networking Sites, Electronic Resources and new identities of LIS Professionals.

Types of Information Centres

Information services are provided through well-organized institutions. These types of institutions are classified into different categories such as Library, Documentation Centre, Referral Centre, Information Centre and Data Centre. Organizations perform the functions either independently or as units of the larger group or systems or the networks.

Library

It is the oldest form of information service center. The library is called as the store-house of knowledge. Human knowledge can be recorded and preserved in various ways. It aims at identifying, collecting, storing, processing, cataloguing, classification of documents such as printed books, periodicals which include journals, magazines, reports, and other reading materials such as audio-visual, photographs, maps, microfilm, microfiche etc and displaying them for circulation, reference and reading purposes Written or printed documents were considered to be best medium for information and communication. Due to the development of science and technology, electronic media have been widely used for preservation of knowledge in different kinds of libraries. There are different types of Libraries such as Public libraries, Academic libraries, Special Libraries and National libraries.

Public Libraries

Public libraries are also called people's Library. It is for the people, by the people, and of the people. It exists from the civilization of mankind and serves as important custodian of human culture, knowledge and social customs. The UNESCO's manifesto on public libraries states that Public library is a living force for education, culture, and information and essential agent for fostering of peace and understanding between people and between the nations.

Academic libraries

Academic libraries are grouped into three i.e. School Libraries, College Libraries, and University Libraries. Further, they are classified by standards as mentioned below.

➢ Schools - Primary, Middle, Secondary and Higher Secondary

➢ College - Polytechnics, Undergraduate, Postgraduate and Professional

➢ University - Conventional Universities, Institute of Science and Technology, Agriculture Universities, and Indian Institute of Management.

Special Libraries

The special library became very popular since the beginning of 20th century. A special library serves a particular group of people, such as the employees of a firm of a government department, or the staff and members of a professional or research organization. Such a library deals essentially with information (Krishan Kumar; 1987, 72). These libraries invest on reading materials on specific subject areas of the institutions. They offer special services such as literature search, indexing and abstracting, Selective dissemination of information, Publications of Bulletins and journals.

National Libraries

A national library is established by the government of a country to serve as the pre-eminent repository of information for the country. Unlike public libraries, they rarely permit citizens to borrow books. They concentrate on rare, collections valuable or significant works. A National Library has to collect and preserve the literature of the nation within and outside the country.

According to Harrod's Librarian's Glossary and Reference Book (1987) defines the national library is *''a library maintained out of government funds; serving the nation as a whole; usually, books in such libraries are for reference only; they are usually copyright libraries; purchasing books published in other countries.''* The famous National Libraries are:

- ➢ The National Library of India (Kolkata)

- ➢ Library of Congress (USA)

- ➢ British Library (UK)

- ➢ The State Lenin Library (Russia)

Documentation Centre

Like a Library, Documentation center also functions as a repository for documents and emphasis on distribution and dissemination of information. Information is usually disseminated by a documentation center in a highly processed form such as indexes, abstracts, extracts, etc. It also provides translation services to specialized users on request. According to Librarian's Glossary, *documentation center is, 'a place where publications are received, processed, preserved, summarized, abstracts and indexed; where bulletin relating to such materials are prepared for distribution to those interested; where research is undertaken bibliographies are prepared, and copies and translations are made''*.

Clearing House

Clearing House is a specialized organization which acts as a central agency for document handling purposes i.e., collection, classification, and dissemination of specialized information. A clearing house will usually have six broad functions such as:

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1. Library,

2. Documentation,

3. Audio-visual,

4. Data processing,

5. Publications and

6. Organizational communications.

In addition, it also provides data search options, as well as publishes the materials. It serves between groups engaged in research in a particular field. It evaluates available information, adapts and processes them to meet the needs of the user community.

Referral Centre

A referral center is a specific organization which aims at referring enquires to sources of information in addition to other routines. In other words, referral center enables researchers for information and to appropriate sources such as libraries, documentation centers, information evaluation centers or documents or individuals. The functions of the referral center are:

- Collection of information about data and information resources within a particular subject or mission;

- Preparation of a comprehensive inventory of data/information/services available from various sources;

- Guiding users to appropriate sources or information.

Information Centre

This type of information service is usually established in accordance with a specific objective or mission. Functions are well designed to a particular field. It performs all activities such as identification, selection, acquisition, storage, processing, dissemination, and retrieval of information. It publishes indexing bulletins, translations, and research summaries.

Data Centre

A data center is established to perform the activities of collecting, processing, receiving, storing, retrieving, and disseminating data. It is usually created within the larger parent organizations such as University, research institute, Information Centre, Government departments/ministries etc. The main objectives of a data center are to maintain raw or partially processed data or results for immediate consultation.

> **Kinds Information Sources**

1. Documentary Sources
2. Non-Documentary Sources

> **Classification of Documents**

1. By Physical Characteristics
2. By Information Characteristics

1. By Physical Characteristics

S.R. Ranganathan had recognized four kinds of documents such as conventional, Neo- conventional, non-conventional and Meta-documents. **Conventional** documents are usually recorded on paper in a natural language by writing, typing, printing or some near-printing process. These documents include books, periodicals, maps, atlases, etc. **Neo - conventional** documents are a new class of micro-documents, such as standards, specifications, patents, data, etc.

Non-conventional documents are in non-conventional size, shape or material includes Audios, visuals, audio-visuals, and microforms. **Meta-documents** are the records of phenomena made directly, unmediated, by the human mind.

2. By Information Characteristics

According to Hanson, documents are divided into two i.e. primary and secondary whereas Grogan categorized as primary, secondary and tertiary-based on the Information characteristics.

➢ **Non-Documentary Sources**

Non-documentary sources are divided into two such as Institutional Resources and Human Resources. Human Sources are categorized such as Colleagues, Peers, Information Gatekeepers, Guides, Advisors, Consultants, Vendors, Contractors, Collaborators, etc.

1. Primary sources

1. Journals
2. Newspapers, news magazines
3. Conference proceedings,
4. Annual reports
5. Research monographs
6. Pamphlets
7. Reprints, photocopies
8. Working/discussion papers
9. Reports Literature
10. Theses and dissertations
11. Feasibility Reports

12. Correspondence Files

13. Manuscripts

14. Special category documents

15. Government publications

16. Standard specifications

17. Patents

18. Case studies

19. Manufactures' literature

20. Engineering drawings

21. Newspaper clippings

22. Maps, charts, atlases

23. Photographs and graphics

2. Secondary sources include indexing serials, abstract serials, current awareness serials, review serials, and book review serials, reference books such as dictionaries, encyclopedia, handbooks, treatises, monographs, and textbooks.

3. Tertiary sources deal with a bibliography of bibliographies, literature guides, directories, and yearbooks.

➤ **Information Services**

The users need facts and background type of information, most often they would able to collect information on their own. It is important that a Librarian should devise a means to bring additions to the Library to the information of students and teachers. The following is the list of services essential in a college library:

1. Charging / discharging,

2. Library orientation,

3. Bibliographic Instruction,

4. Assistance in the use of library catalog,

5. Reader's advisory service,

6. Provision of several or specific information,

7. Interlibrary loan,

8. Compilation of bibliographies,

9. Indexing and abstracting services,

10. New Arrivals,

11. Reservation of documents

12. Reprographic services.

> **Role of Women profession in a modern society**

A woman in her life has a large number of responsibilities than a man. The woman plays a key role at home as a housewife, and also out of the door as a career woman. Suwondo (1981) suggested that roles of women are (1). Being a member of a country in regard to civil rights and politics; it includes a fair deal to female labor force participation, also called an external function. (2). Being a mother in a family and wife in the husband-wife household, also called as an internal function.

Greenstein (2000), claimed that ''Women themselves shall work hard in cooperation to let their voice be heard and to reveal their perspectives on conference table while making a decision. Women need to be prepared to meet the challenges. Particularly, it applies to knowledge, engineering, mathematics, and technology to allow a woman to move forward.'' Jean Lau Chin (2007) stated that ''Women's capability is more apparent in various

kinds of jobs and profession. All the women are able to work as good as men can do, or none of the jobs are impossible for women. Their works are not worse than men, with an exception if the job requires a lot of energy, such as harbor porter. On the other hand, there is an occupation which will be more effective if it is performed by a woman as it requires womanhood.''

Now Women are educated, talented, confident, ambitious and career oriented. It enables them to juggle the tasks, manage, all the chores and strike a good balance between professional and personal life. They have a good foresight, patience, negotiating and budgeting skills. Today women have demonstrated their multitasking ability to a greater extent (Saloni Vora, 2017).

➢ **Librarian responsibilities**

The duty and function of a librarian are continually evolving to meet social and technological needs. A modern librarian needs to deal with provision and maintenance of information in many kinds such as books; electronic resources; magazines; newspapers; audio and video recordings; maps; manuscripts; photographs and other graphic materials; bibliographic databases; and web-based and digital resources. McDermott and Quint (2002) discussed the Librarian's responsibilities in their book, ''The librarian's Internet survival guide: strategies for the high-tech reference desk'' and listed below.

❖ Researching topics of interest for their constituencies.

❖ Referring patrons to other community and government organizations.

❖ Suggesting appropriate books ("readers' advisory") for children of different reading levels, and recommending novels for recreational reading.

- ❖ Reviewing books and journal databases

- ❖ Facilitating and promoting reading clubs.

- ❖ Developing programs for library users of all age groups and backgrounds.

- ❖ Managing access to electronic information resources.

- ❖ Assessing library services and collections in order to meet library users' needs.

- ❖ Building collections to respond to changing community needs or demands

- ❖ Creating pathfinders

- ❖ Writing grants to gain funding for expanded program or collections

- ❖ Digitizing collections for online access

- ❖ Publishing articles in library science journals

- ❖ Reply to incoming reference questions via telephone, postal mail, email, fax, and chat.

- ❖ Making and enforcing appointments to public access through the Internet.

Functions of LIS Professionals

Library activities and services are essential to the goals of creating, disseminating, utilizing and preserving knowledge. The fundamental activities are to provide information to the user community from the available resources. A number of authors and eminent scholars have explored in terms of library functions and their roles. According to NKC Report 2006 (NKC, 2008), the functions of libraries are listed below.

❖ For proper functioning of the libraries, the librarian and his/her subordinate staff performs the duties in acquisition section, cataloguing section, classification section, periodical section as well as different sections according to the need.

❖ To identify and recognize different methods to procure books in library economically and qualitatively.

❖ To acquire books, periodicals, journals through authorized vendors and as recommended by users/authorities.

❖ To circulate publisher catalogues among the faculties for the recommendations of books based on requirement.

❖ To communicate with the teaching faculty to recommend different titles, print journals required for the syllabus.

❖ To prepare a budget for the purchase of different resources and equipments in libraries.

❖ To record the acquired resources of both print and digital, collections.

- ❖ Process the material for access by catalogues and classify books, and prepare index to organize the collection for effective use.

- ❖ To provide indexing; abstracting; reference service; information services etc.

- ❖ To provide information from the traditional sources including access to digital resources.

- ❖ To provide Current Awareness Services (CAS) as well as Selective Dissemination of Information (SDI) to the users using different resources.

Library functions in Digital mode:

- ❖ To provide easy access to information to the users in various electronic formats.

- ❖ To identify the stakeholders needs and procure the information resources.

- ❖ To procure e-Books and online journals and other digital publications.

- ❖ To subscribe online journals, databases and provide internet facility for the utilization of resources.

- ❖ To automate the library with software and provide faster access.

❖ To provide OPAC service with networking facilities to the users.

❖ To develop library website for getting information from different locations by giving links to resources.

❖ To design digital library using a software to access the digital contents.

❖ To provide access to back issues of online journals.

❖ To maintain the digital library in addition to other routines.

❖ To train the Library staff about hardware and software to provide digital, electronic and virtual services.

❖ To provide pinpointed information services using different digital resources like databases and reference sources.

Challenges for LIS Professionals

Library and Information Science face a variety of complex challenges from multiple sectors of the knowledge society after the 21st century. The major challenges are identified by Bhalodi (2010) and listed below.

➢ Information explosion
➢ Information and Communication Technology (ICT)
➢ Growth and usage of web resources
➢ Use of digital resources
➢ Users' expectations

- ➢ Virtual learning environment
- ➢ Development of digital, virtual and hybrid libraries and
- ➢ Online bookshops and information services

These challenges have led to re-orientation, re-engineering, transformation and great changes in the information environment, library functions and the role of library and information science professionals.

PROFESSIONALS SKILLS

Qualifications of LIS Professionals

Generally, the library and information professionals should have a good academic background. They should be aware of the world and must be ready to commit to learn and to search various ways to improve the essential skills. They have to attend professional conferences, seminars, workshops and be touch with the latest upcoming technologies and developments in the field. A rich knowledge about latest technologies is essential for the library and information professionals. Further, following professional ethics are needed for them.

- ➢ Enthusiasm
- ➢ Flexibility
- ➢ Courage
- ➢ Humour
- ➢ Service commitment
- ➢ Leadership quality
- ➢ Effective communication etc.

General Skills

The required skills for LIS Professionals have been categorized into three such as Generic, Managerial, and Professional skills and listed accordingly. (Fisher, Fourie and Oldroyd, 2004).

i. Generic skills

Generic skills include basic skills which are necessary for operating a traditional library like classification and cataloguing of documents, acquisition, preservation, indexing and abstracting methods that are also required for Librarian working in the electronic environment. Some of the basic generic skills for library and information professionals have been identified by scientists:

1. Communication skills
2. Flexibility
3. Adaptability
4. Assertiveness
5. Self-confidence
6. Creativity
7. Innovation
8. Analytical skills
9. Problem-solving
10. Decision making
11. Service attitude
12. Customer relationship
13. Improving one's learning and experience
14. Presentation skills
15. Stress management

16. Time management

17. Interpersonal skills

18. Group skills

ii. Managerial skills

Library and information professionals are the managers of a library and information centers and they should possess managerial skills for various sections such as finance, human resource etc. to apply in planning, decision-making, motivating etc. Time management skill is one of the essential managerial skills for successful library and information professionals. Some of the managerial skills can be identified as:

1. Local and global thinking

2. Planning and organizational skills

3. Finance management skills

    a. Fundraising

    b. Skillful use of financial resources

    c. Accounting and auditing skills

4. Managing change

5. Team building

6. Decision making

7. Leadership skills

8. Negotiation skills

9. Consumer management skills

    a. User needs analysis

    b. Information seeking

    c. Behavior analysis

10. Project management

11. Stress management and

12. Time management

iii.   Professional skills

Professional skills refer to handle information technology (IT) and other related areas such as computer operation, telecommunication media, the creation of the online databases, designing of websites, searching information through the Internet so as to provide better service to the user community. Hence, learning and professional skills became essential for LIS Professionals.

1. Information Technology skills

2. Hardware/Software and Network skills

3. MS Office suite skills

4. Presentation software (e.g. Powerpoint)

5. Library automation skills

6. Database creation skills

7. Internet (e.g. email management, search tools)

8. Intranet skills

9. Scanning techniques

10. Networking skills

   a. Online search engine

   b. Online database search

11. Desktop publishing

12. Content development

13. Digitization

14. Web-based services

Essential Skills in Digital environment

1. Skills in Computer and related tools

- Hardware: Personal Computer, Server Computers, Network Technology (LAN, WAN, MAN), Digital Camera, Barcode Scanner, Document Scanner, Photocopier, Printer, Fax Machine, Head Phone, Portable Hard Drive, CD, DVD, Radio Frequency (RF) Security Gates, and RFID-Detection Security-Gates

- System software or Operating Systems and types such as Single- and multi-tasking, Single- and multi-user, Distributed, Templated, Embedded, Real-time, and Library. Example: different versions of Microsoft Windows (like Windows 10, Windows 8, Windows 7, Windows Vista, and Windows XP), Apple's macOS (formerly OS X), iOS, Chrome OS, BlackBerry Tablet OS, and flavors of the open source operating system Linux.

- Applications softwares such as Word processing software, Database software, Spreadsheet software, Multimedia software, Presentation Software, Enterprise Software, Information Worker Software, Educational Software, Simulation Software, Content Access Software, Application Suites, and Software for Engineering and Product Development.

  Example: MS Word, WordPad and Notepad, Oracle, MS Access, Apple Numbers, Microsoft Excel, Real Player, Media Player, Microsoft PowerPoint, Keynotes, Customer relationship management system, Documentation tools, resource management tools, Dictionaries: Encarta, Britannica Mathematical, MATLAB Others, Google Earth, NASA World Wind, Flight and scientific simulators, Accessing content through media players, web browsers, OpenOffice, Microsoft Office, and IDE or Integrated

Development Environments, Interface / interactive tools such as HTML, XML, Visual Basic.

2. Skills in Computer Programming

- C,
- C++,
- JAVA
- ACCESS
- .NET, etc.

3. Skills on ICT Tools

- Social Networking (Orkut, Facebook etc.)
- Web-based Professional forum
- Mailing list
- Instant messaging
- Blogging

4. Skills in Library Automation softwares

- Commercial: Autolib, RAHOO-ILMS, Easylib, E-Granthalaya, Gyanodaya, Libra 2000, Librarian, Library Manager, Libsuite, LibsysNalanda, NewGenLib, NexLib, Rovan LMS, SLIM, CDS/ISIS, SOUL, Libsys, etc.

- Open Source: Emilda, Glibms, Java Book Cataloguing, System, Koha, My librarian (For Schools) OpenBiblio, Open-ILS, PhpMyLibrary, etc

5. Skills in Information Literacy

According to ALA (2005), ''Information Literacy is knowing when and why you need information, where to find it, how to evaluate, use and communicate in an ethical manner.''

➢ Information Literacy (IL) for Individuals

Based on the above definition of Information Literacy, students and research scholars should be able to:

- Recognize the need for information timely

- Formulate questions based on information needs

- Identify potential sources of information

- Develop successful and effective search strategies

- Access various sources of information independently and efficiently

- Evaluate information obtained meaningful.

- Organize information effectively

- Integrate new information into an existing body of knowledge and

- Use information critically

6. Information Management Skills for LIS Professionals

1. Collection / Information Management Skills

2. Information Organization Skills

3. Information Retrieval Skills

4. Digital reference and information service skills

5. Information Literacy Skills

6. Information Evaluation Skills

7. Information Dissemination Skills

7. Skills in Knowledge Management

Abeli and Oxbrow (2001) discussed the link between knowledge management and information management skills which are emphasized by the following characteristics.

1. Identifying and acquiring internal information sources;

2. Structuring organization's internal information;

3. Sourcing, acquiring and evaluating external information;

4. Integrating internal and external information; and

5. Enabling the timely delivery of relevant and usable information.

In the new paradigm, the ultimate goal is not just to provide or make available knowledge on any queries, but to create knowledge channels which allow synergy of knowledge initiatives and learning gestures.

8. Leadership and Management Skills

➤ General Managerial Skills

➤ Research and Project Management Skills

➤ Resource Management Skills

➤ System(s) Management Skills

➤ Personnel and Financial Management Skills

➤ Effective Leadership Skills

➤ Public Relation Skills

9. Soft skills for LIS Professionals

1. Ability to accept and learn from objective criticism

2. Acceptance of others

3. Acting as a team player

4. Behavioral traits: Attitude and Motivation

5. Communication Skills

6. Creativity/Innovation

7. Customer Service Oriented

8. Diagnostic Insight

9. Emotional Management

10. Have a 'winner attitude'

11. Influencing Skills

12. Keeping your boss informed

13. Motivate yourself and lead others

14. Problem-solving ability

15. Risk-taking skills

16. Stress Management

17. Team Development / Management

18. Trust and Rapport Building

19. Winning Commitment (Ramesh Babu and Ramesha, 2007).

10. Skills in Library Open source softwares

Open source software provides access to the source code hence users can see how the software is designed. Additionally, users have the right to customize the software (change the code) to their use, experiment with different versions, and give away or resell the new product with the guarantee that they must also provide their source code, and so on. OSS is both a philosophy and a process. As a philosophy, it describes the intended use of software and methods for its distribution. OSS is a process for the creation and maintenance of software, (Morgan).

➢ **Specific Library Open Source Softwares and Platforms**

1. Integrated Library Management Systems (ILMS)

➢ KOHA - http://www.koha.org/

➢ Evergreen - http://wiki.code4lib.org/index.php/Evergreen

➢ Emilda - http://wiki.code4lib.org/index.php/Emilda

➢ OpenBiblio - http://wiki.code4lib.org/index.php/OpenBiblio

➢ phpMyLibrary - http://wiki.code4lib.org/index.php/PhpMyLibrary

➢ NewGenLib - http://www.verussolutions.biz/

2. Z39.50 Protocol for online search/retrieval (http://www.loc.gov/z3950/)

➢ YAZ Z39.50 Client - http://indexdata.com/yaz/

➢ Mercury - Z39.50 Client - http://www.basedowinfosys.com/projects/mzc

3. MARC Parsers / Editors / Tools

➢ MarcEdit http://oregonstate.edu/~reeset/marcedit/html/index.php

➢ MARC.pm (Perl), MARC4J (Java)

4. Library Oriented Search Engines

➢ Cheshire (http://cheshire.berkeley.edu/)

➢ dbWiz (http://researcher.sfu.ca/dbwiz)…

5. Portals - MyLibrary, Wordpress

6. OAI service providers and data providers - PHP OAI Data Provider

7. Database Management Systems - CDS/ISIS, Win/ISIS, GenISIS etc.

8. Serials Manager - CUFTS - http://researcher.sfu.ca/cufts

9. Citation Manager (PKP, Simon Fraser University, Canada)

➢ Bibliographic Management (http://researcher.sfu.ca/cm)

10. Link Resolving

➢ GODOT - Electronic (Online) Resources Management - http://researcher.sfu.ca/godot

11. OJS (Open Journal Publishing) - http://pkp.sfu.ca/ojs

12. OCS (Open Conference workflow automation) - http://pkp.sfu.ca/ocs

13. Open URL 1.0 - http://www.oclc.org/research/ software/openurl/default.htm

14. Open Digital Libraries / Archives / Institutional Repositories

> Greenstone Digital Library

> DSpace

> Eprints

> FEDORA

> CDSWare etc.

15. Open Archives Harvester

> Harvester - http://pkp.sfu.ca/harvester

16. Learning Management Systems (LMS)

> Moodle and Manhattan etc.

17. Content Management Systems (CMS)

> Joomla

> Drupal

> MediaWiki

18. XML Tools and Systems

> Utilities - Xalan, Xerces, libxml, libxslt, Saxon

> Editors - emacs / nxml-mode

> Database / Search Engines - Apache Xindice, Berkeley DB XML, eXist

> Publishing/Web Application Frameworks – AxKit, Cocoon.

11. Skills in Library reference management software

Reference management software (RMS) is also known as citation management software or personal bibliographic management software which is widely used by researchers, scientists, faculty members, and many professionals to mention the references in their research articles and papers. Telstar's defined as ''a Reference Management Software (RMS) enables an author to build a library of references by entering the details of each reference in a structured format. They usually support mechanisms for organizing sets of references by tagging or use of 'folders', and will generate references, citations or bibliographies in a range of referencing styles.'' The most popular Reference management softwares (RMS) are listed below.

- Mendeley
- Zotero
- RefWorks
- EndNote
- CiteULike,
- Docear
- Colwiz,
- JabRef, Etc.

12. Skills on Social Networking Sites

Boyd and Ellison (2007) discussed about social networking websites as systems that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. Some websites allow photo/video sharing, while others allow blogging and private messaging. The familiar social networking

sites are Facebook, Instant Messaging, Twitter, LinkedIn, Blogs, Delicious, Slideshare, Flickr, Wikis and YouTube.

14. Skills in Electronic Resources

An electronic resource is "Material (data and/or program(s)) encoded for manipulation by a computerized device. It requires the use of a peripheral connected to a computerized device (e.g. CD-ROM drive) or a connection to a computer network (e.g. the Internet)." (AACR2, 2005 Update). According to Gradman glossary, ''A publication in digital format which must be stored and read on a computer device. Direct access: these are physical objects such as CD-ROMs, diskettes, computer tapes, and computer cards, containing text, images, software, etc''

In on electronic environment, the reading materials and information services get changed from print to electronic form. Online information services are offered such as:

> ➢ Current Awareness Service (CAS),
>
> ➢ Selective Dissemination of Information (SDI),
>
> ➢ E-Document Delivery Services (EDDS),
>
> ➢ Online Public Access Catalogue (OPAC) and
>
> ➢ Mobile Libraries etc.

❖ **Types of E-Resources**

> ➢ E-Book: There are different formats competing for prime time, including Adobe PDF, Microsoft Reader, eReader, Mobipocket Reader, EPUB, Kindle, and iPad.
>
> ➢ E-Journals: E-journal occupies a significant place in library collections. E-journals are born due to information and communication technology.

- ➢ E-Newspaper: It is also known as online newspaper or web newspaper which exists on the World Wide Web or internet.

- ➢ E-Magazines: E-Magazine is one of the online and digital magazines.

- ➢ Indexing and Abstracting Databases: These are reference sources which provide bibliographic information about journals and abstracts as well.

- ➢ Full-text databases: E-databases are the organized collection of information on a particular subject or multidisciplinary subject areas and information within e-databases can be searched and retrieved electronically.

- ➢ Reference database: These are Dictionaries, Almanacs, and Encyclopedias, which are available on line (electronic formats).

- ➢ Statistical databases: These databases contain the numerical data which can be used for the particular subject and purpose.

- ➢ Image collection: Adventure of the e-images facility has enabled to check database.

- ➢ Multimedia products: This type of database covers videos, and audios and text, etc.

- ➢ E-Thesis: It contains Ph.D. thesis and dissertation published in e-formats.

- ➢ E-Clipping: It provides e-clipping with retrospective search and comprehensive analysis of new information.

- ➢ E-Patents: It is the exclusive right granted by the government to make use of an invention for a specific period of time.

> ➤ E-Standards: Such resources are written with definition, limit rule, approved and monitored for complains by the authoritative agency.

New identities of LIS Professionals

In the changing scenario, Library and information professionals are forced to adapt to the fast-growing technology. It is witnessed that the tremendous changes took place in terms of information resources and services such as infrastructure, content creation, collection development, user interface, information and knowledge management strategies etc. Digital libraries provide access to the required information at any place, anytime anywhere and even any format. In such a way, new identities of the Library and information professionals can be identified as:

- ❖ Collection Developer / Manager
- ❖ Cybrarian
- ❖ Documentation Officer
- ❖ Information Officer
- ❖ Information Scientist
- ❖ Information Manager
- ❖ Information Architect
- ❖ Information Specialist / Consultant
- ❖ Facilitator / Trainer
- ❖ Knowledge Officer / Manager
- ❖ Network Manager
- ❖ Multimedia professionals
- ❖ Education Channel Partners
- ❖ Information consortium shareholders
- ❖ Distributors of Digital Libraries

- ❖ Podcast producers and webcast Managers
- ❖ E-library Managers
- ❖ Mobile library helpdesk administrators
- ❖ Back-office libraries
- ❖ Virtual Librarians
- ❖ On-line knowledge workers/assistants/officers
- ❖ Resource Preserver and

Miscellaneous skills:

- ❖ Publisher
- ❖ e-Resources Agreements and Terms
- ❖ Professional Bodies
- ❖ Technical Support
- ❖ Online Guide/Bulletin Board
- ❖ FAQ/Blog/e-Mail Alert
- ❖ Hot News/Lecture
- ❖ Websites-Interactive
- ❖ New Additions
- ❖ Publicity and Exhibition.

Definitions of the key concepts

➢ **Librarian**

According to Librarians' Glossary, Librarian is defined is *''One who has charge of the contents of a library, making the stock and library services available to those who need them or are entitled to them''*. Reitz (2002) quoted about Librarians as *''a professionally trained person responsible for the care of a library and its contents, including the selection, processing and organization of materials and the delivery of information, instruction, and*

loan services to meet the needs of its users. In an online environment, the role of the librarian is to manage and mediate access to information which may exist only in electronic form''.

According to dictionary.com, Librarian is *''a person trained in library science and engaged in library service'' or ''a person in charge of a library, especially the chief administrative officer of a library'' or ''a person who is in charge of any specialized body of literature, as a collection of musical scores''.*

> **Skills**

It is an individual's ability or proficiency and capacity that are obtained through special knowledge or training, to easily solve intricate problems/activities/job functions that include cognitive, technical and interpersonal skills. According to dictionary .com, skill is *''the ability, coming from one's knowledge, practice, aptitude, etc to do something well or competent excellence in performance, expertness, dexterity''* (http://www. dictionary. com/browse/skill).

Merriam-Webster dictionary defined skill as *''dexterity or coordination especially in the execution of learned physical tasks or a learned power of doing something competently: a developed aptitude or ability''* (https://www.merriam-webster.com/ dictionary/skill). According to Business dictionary.com, skill is *''an ability and capacity acquired through deliberate, systematic, and sustained the effort to smoothly and adaptively carry out complex activities or job functions involving ideas (cognitive skills), things (technical skills), and/or people (interpersonal skills).'' (*http://www.Business dictionary.com/ definition/skill.html)

Importance of the study

The skills of selected group have to be measured at certain point of time. This will indirectly emphasize the quality of knowledge and experience exists among the chosen population. LIS professionals shall come across technology and expose to new devices which are required to manage a modern library. Moreover, training alone will make the professionals equip themselves with latest trends. Advancements in ICT and e-governance lead the professionals to train themselves so as to produce innovative output in Libraries. There are some kinds of external parameters which validate the capabilities of the individuals periodically. Such a study will enhance enthusiasm among the participants of the survey to realize the value and act upon. The present study will be a unique in nature and model for others. The study covers a larger population and different kinds of academic environments in toto.

Statement of the problem

A study on the skills of LIS professionals gains global importance in academic Institutions where women enter into niche positions including LIS. Preference of women professionals becomes a challenging task due to several reasons such as emergence of e- governance, implementation of online tools, and comparison with global scenario. Competency varies from one individual to another. Productivity can be achieved based on the capabilities possessed by the Individuals. Latest technology has driven the professionals to equip themselves to be fit for the emerging thrust areas in an organization. The experience and skill set of women LIS professionals make a lot of differences in the working environment of academic institution. Hence the present topic was chosen. Such a study will throw a light among the women LIS group and academic Institutions with a huge number. Further, this study considers the factors influencing the professionalism among the women LIS professionals. The men dominated LIS areas are now wide open to the women to exhibit their talents and administrative capabilities.

Objectives of the study

The main aim of this study is to identify the skills which are required to maintain/ function a modern Library.

1. To find out the different age group of women LIS professionals.

2. To compare the educational qualifications of the sample group.

3. To explore the experience, exposure and the managerial skills among the women LIS professionals.

4. To classify the different kinds of institutions where the respondents work.

5. To investigate the skills on open source softwares among the LIS professionals.

6. To know the active participations in various training programmes.

Hypotheses

The following hypotheses have been formulated for the study.

1. There is no significant difference between age of the respondents and professional skills factors.

2. There is no significant association between educational qualifications of the respondents and professional skills factors.

3. There is no significant relationship between years of experience as librarians and professional skills factors.

4. There is no significant difference between the type of institution where the respondents are working and professional skills factors.

5. There is no significant association between the location of institution where the respondents are working and professional skills factors.

6. There is no significant relationship between participation in professional development training programmes and professional skills factors.

Limitations

The study is limited to Tamilnadu state only. The study includes only the Academic Institutions (Government, Aided and Private) of Tamilnadu, which are approved by AICTE and UGC. The study covers only women LIS professionals not any other category of the staff of Academic Institutions. The study does not cover Industrial libraries which do not provide education to students. The study does not include IIT, IIM, IIITDM, NIT and similar institutes of national and international importance.

CHAPTERISATION

For the present study, the following chapters are organized in an effective manner.

1. **Chapter I: Introduction** deals with an outline of the conceptual framework, statement of the problem, variables and describes the various skills of Women LIS Professionals. Further, it also provides Objectives, Hypotheses, and Limitations.

2. **Chapter II: Review of Related Work** describes the related and existing research contributions which are relevant to the present study.

3. **Chapter III: Methodology** explains the research design, Data collection method, tools, Research Gap, and techniques used in the study.

4. **Chapter IV: Analysis and Interpretation** provide the computation, identification of value, and interpretation.

5. **Chapter V: Summary of Findings, Conclusion, and Suggestions** highlights the major findings, suggestions, conclusion and scope for further research.