EDUCATION AND EMPLOYMENT OPPORTUNITIES IN LIBRARY AND INFORMATION SCIENCE IN INDIA: A REVIEW

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Abstract - Library & Information Science is a dynamic profession & the best career option for individuals. It has the potential to build a successful career in different ways. This article reviews the scope of LIS education in India and identifies the various employment opportunities available in the LIS sector. The review paper shows that there is broad scope in the LIS sector for studying from basic certificate level to higher post-doctoral level. The LIS sector in India has a big potential of providing more and more employment opportunities according to the level of education and skills acquired by the individual. The role of LIS professionals is now becoming more vibrant and multidimensional.

Keywords - Employment, Education, LIS, Library and Information Science

1. Introduction : In the modern information era, information is constantly changing & expanding. With changing times, more and more information is being published in different forms such as books, journals, reports, CDs, e-databases, etc. as well as being made available on the Internet. All of this information is massive & overwhelming which is called the 'Information Explosion'. Libraries and their professionals are desperately needed to control this flood of information & manage it effectively even more than before. With the arrival of information and communication technology and change of patron needs, the functioning of libraries and their services have changed radically and the education in the LIS sector also changed. Education in Library and Information Science (LIS) brought a lot of employment opportunities, career growth, and personal enrichment to the individuals. Today, the LIS is seen as an important and best career option for individuals that offer huge employment prospects in both ways; as a teacher and in librarianship. A person can choose a suitable career option suitable for his/her interest and background.

2. About Library & Information Science : Library and Information Science (LIS) is an interdisciplinary field that deals with access, organization, storage, and dissemination of information and knowledge resources. LIS represents the intersection of library science, information science, and communications (Librarianship Studies and Information Technology, 2021). It has a combination of two words- 'Library Science' & 'Information Science'. The joint term- 'Library and Information Science' was firstly used in the School of Library Science at the University of Pittsburgh that added the term 'Information Science' to its name in 1964 (International Society for Knowledge Organization, 2021). LIS has now emerged as a major interdisciplinary subject for building a successful career and professional education

3. Literature Review : Several studies have been conducted concerning education and employment in the LIS. The literature review consists of selected studies having different research approaches that are related to the education and employment in the LIS sector in India and divided into the following two broad categories mainly:

a) the studies conducted on LIS Education in India;

b) the studies conducted on Employment in the LIS sector in India

3.1 Studies conducted on LIS Education in India Fatima and Ansari (2021) compared the LIS courses offered in the universities of the United States, the United Kingdom, and India. The study discussed and compared the curriculum of Master of Library and Information Science courses with the curriculum recommended by the University Grants Commission of India, American Library Association of US, and the Chartered Institute of Library and Information Professionals of UK. The researcher suggested that the LIS courses in India should be accredited to improve the quality of LIS education and to provide uniformity across the country.

Chadha (2019) showed that LIS departments should constantly revise their syllabus to incorporate new modules and information handling skills to prepare the LIS professionals for librarianship in the new era.

Baruah (2013) in her Ph.D. thesis- 'Relevance of library and information science education in the Indian job market' revealed that there is a large gap of differences between the existing reviewed LIS courses and the actual job requirements so that a lot of changes need to be done in the LIS curriculum accordingly to meet the requirements of the LIS job market in India. **Baruah and Hangsing (2012)** attempted to understand the changes required for the LIS profession in connection with the current employment market. They suggested that the existing teaching-learning and the curriculum contents should be changed accordingly to meet the requirements of the LIS job sector.

Jain (2007) discussed the challenges in LIS education in the Indian context. He found that the library schools in India have failed to develop the required knowledge and skills relating to the use of IT among students. He suggested preparing LIS graduates for leadership and management roles by emphasizing e-learning in LIS education with collaboration and resource sharing among LIS schools

Kawatra and Singh (2006) provided an insight into the recent innovative multi-channel delivery modes that were adopted by the different universities in India for the LIS distance learners. They also examined the impact of the Internet on the teacher's role and identified the skills and strategies needed for effective learning environments.

Mahapatra (2006) attempted to project issues related to LIS education in India. The study stressed the need for revised course contents for the readiness of Indian LIS education to face the challenges in the digital era.

Singh (2003) described the emergence of LIS education in India before and after independence. The study identified the different educational programmes in LIS offered by Indian universities and discussed the problems of LIS education and suggested different ways for preparing LIS professionals to face challenges in the LIS job market.

The results of all the above studies revealed that LIS education in India is in the developing stage and there is a considerable gap between the current LIS education curriculum and the actual requirements of the employment market.

3.2 Studies conducted on Employment in the LIS sector in India

Biswas and Roy (2019) inquired about the recent trends of job opportunities available to qualified LIS professionals by examining all LIS job advertisements appearing on online job websites related to the LIS professionals. The study was preliminary and limited to the year 2017.

Veer, Gawli, and Khiste (2018) reviewed LIS job trends by analyzing all job advertisements published in different 17 newspapers that were related to the library professionals. The results revealed that there were more job opportunities available in Maharashtra for LIS professionals than in other states.

Sawant and Sawant (2017) studied how the marketing of LIS jobs was done through the Mailing List and Online Portals. The researchers found that the maximum numbers of job advertisements were published in the first half of the year and January month receiving the highest number of job advertisements on portals.

Yadav and Bankar (2016) examined the trend of employment opportunities in the field of LIS. It was found that the LIS profession requires eligible candidates with knowledge of library management, proficiency in English and ICT skills, etc. to meet the current job market demands.

Sinha and Pandey (2014) revealed that in comparison to the intake capacity of LIS programmes, the advertised LIS posts were very less. They suggested government authorities create a sufficient number of vacancies for the LIS professionals in schools, colleges, universities, and other institutions to keep a balance between the demand and supply of employment in LIS.

Baruah (2010) identified the changes in the different designation of LIS professionals, their requirements, and nature of work. It also revealed the deviation of requirements of LIS skills between the corporate and academic sectors.

Jeevan (2003) assessed the LIS job advertisements and suggested making the interaction between prospective employers and the library training schools to attune the training programs with potential job skills.

Anand (1984) assessed career opportunities and the employment market of the LIS field in India and reported steady growth in a survey on employment trends in India for the years 1981, 1982, and 1983.

Nayar, Gupta, and Srivastava (1979) conducted a study on over 400 job vacancies for information scientists

including Librarians, Documentalists, translators, Data Processing personnel, advertised in India during the period April 1977 to March 1978 and found that most of the vacancies appeared in the educational institutes

The above studies show that there is a considerable gap between admission capacity of LIS courses and the advertised employment posts. It is also seen that the employment positions in this sector have been influenced by information technology.

Education & Employment in LIS sector in India

4.1 History and Overview of LIS Education in India

The first formal course in Library Science in India was offered by the Central Library of Baroda in 1911/12 by the W.A. Borden and in 1915 by A.D. Dickinson at Punjab University, Lahore (Dutta and Das, 2001). In the pre-independence period, there were five universities providing diploma courses in library science, i.e. Andhra University, Madras University, Banaras Hindu University, University of Bombay, and the University of Calcutta. After independence, new colleges and universities started the different courses in LIS. Aligarh Muslim University was the first university that started the Bachelor of Library Science course in India. The first diploma course and Masters in Library Science were started by the University of Delhi in 1947 and 1951 respectively; later on, an M.Phil degree was started.

LIS education in India is presently at the dynamic stage with a multidisciplinary approach. As the nature of LIS has changed time by time, it has also had an impact on LIS education. In India, LIS has a very broad scope for studying from basic certificate level to higher post-doctoral level which offers good employment according to the education level in the field.

4.1.1 LIS Curriculum : Updating the curriculum is an essential part of every academic system. The expert committee was appointed by the University Grants Commission (2001) for preparing a model curriculum for LIS education in India. The committee suggested a 60:40 approach for practical and theoretical sessions in the LIS curriculum. The following components are generally incorporated in the syllabus of the LIS courses conducted in different universities and institutions in India:

a. Foundation of LIS
b. Library Management
c. Classification (Theory & Practical)
d. Cataloguing (Theory & Practical)
e. Reference Work
f. Information Science

g. Applications of ICT/ Digital Libraries (Theory & Practical)
h. Research Methodology
i. Project Work

4.1.2 LIS Courses - Different educational institutes and universities in India organize different courses in the field of LIS. A course structure, fees, and eligibility differ from institute/ university to institute/ university. According to the Shiksha.com portal (2021), there are 498 institutes in India offering LIS courses. Around 118 colleges and universities in India offer higher education in LIS and some universities also offer LIS education through distance mode.

Following courses/ degrees are conducted in India by various institutes/ universities:

a. L.T.C. (Library Training Certificate)- Short Term Course of 3 months after 10th Std.

b. CLISc (Certificate Course in Library & Information Science)- after 10 + 2

c. DLISc (Diploma Course in Library & Information Science)- after 10 + 2

d. B.Lib. & I.Sci (Bachelor of Library & Information Science)- Degree Course of 1 Year after graduation in any discipline

e. M.Lib. & I.Sci or MLIS (Master of Library & Information Science)- Degree Course of 1 Year after B.Lib. & I.Sci or 2 Years integrated course after graduation in any discipline

f. M.Phil in Library & Information Science- after M.Lib. & I.Sci from recognized institute or university

g. Ph.D in Library & Information Science- after M.Lib. & I.Sci from recognized institute or university

h. PGDLAN (Post Graduate Diploma in Library Automation & Networking)- 1 Year course after graduation in any discipline

i. DRTC (2021), Bengaluru organizes MS-LIS (MS in Library & Information Science)- 2 Years integrated course after graduation from recognized Indian or Foreign university (obtained after 12 + 3 years of education). The selection of candidates is based on the academic record, a result of all India level written examination and interview.

j.   CSIR- NISCAIR (2021), New Delhi organizes the following short-term courses in the field of LIS that are designed for LIS professionals, students, R & D personnel, etc. Training on 'DSpace Software for Design & Development of Institutional Repositories- AdvanceTraining on 'Open Journal Systems (OJS) Software for Journal Publishing'Training on 'Website Development'Training on 'Library Automation & Digitization'

k.   and many courses in LIS are being conducted by different universities, colleges, and organizations.

4.2 Employment Opportunities in LIS Sector in India

The trend of employment in LIS is continuously changing in India as well as at the global level. The LIS sector in India has a diverse working environment in various types of libraries. The role of libraries and LIS professionals is now becoming more vibrant and multidimensional.

The Government of India also has initiated to establish around 9000 libraries across India that are having ICT facilities for sustained attention for the development of Libraries and Information Science Sector through the National Mission on Libraries- NML (2021). Initially, the 'High Level Committee' of NML recommended that initial recruitment should be at the level of 'Library and Information Assistant' and a bachelor's degree in LIS should be a minimum qualification for the recruitment.

4.2.1 Employment Sectors for LIS Professionals

LIS professionals can perform in several sectors as it deals with information and no one sector can move ahead without the information support. The role of libraries and library professionals in managing information and access to knowledge is now becoming more crucial even than before. There are many employment opportunities available in different fields for LIS professionals as described below:

Sector Role of Libraries/ LIS Professional

Education : Management of educational libraries of schools, colleges & universities, etc.

Research : Managing training centres, libraries of research and development organizations, research institutes Manufacturing Industries   Handling and organization of documents- standard, patents, designs, manuals, etc. of manufacturing companies

Medical and Pharmacy : Information management in hospitals, medical research firms, pharmaceutical companies

Agriculture : Handling different reports, statistics in libraries of agricultural institutes

Banking - Information management of banks, economic institutions, handling financial documents

Publishing - Handling documents in publishing firms, editing, indexing, abstracting documents

Law - Management of legal documents in government courts and other private firms related to law

Communication & Media Channels- Information access and dissemination, processing of news documents in media libraries, radio centres

Entertainment - Handling multimedia documents- music, video, tapes, scripts, etc. in the entertainment industry

Travel and Tourism - Managing libraries and documents of tourism agencies and their clients

Defence - Handling sensitive documents and management of information of defence institutions

Foreign Embassies - Different responsibilities in information centres- translating, managing commission documents

Corporate Companies - Managing business documents, agreements of corporate companies, business firms

Museum and Archives - Preservation and care of rare material, historical documents

Ministries and Govt. Organizations Management of libraries and information centres of different departments of government

NGOs & Private Sector - Handling libraries of Non-Government and private organizations working in different areas

International Organizations - Information services and working in libraries of International organizations and documentation centres like WHO, WTO,UNESCO, UNO, IFLA, World Bank, etc.

4.2.2 Employment Posts in LIS

Findings from previous studies indicate that new employment opportunities are emerging in the field of LIS. It also appears that the designation has changed

according to the nature of the work. Some of the employment designations in the LIS profession are as follows:

Designation Nature of Work : Librarian Overall management of library functions such as procuring reading material, staff management, user services, library enrichment, publicity programmes, etc.

LIS Teacher : Teaching different subjects of LIS in schools, colleges, and universities

Classifier : Classifying library readin g material according to the classification systems and organization of documents

Cataloguer : Managing the catalog of materials at a library. Preparing bibliographic and item records for monographs, journals, and other library material, Inputs data about materials into the electronic catalogue

Indexer : Review & evaluate documents & compile indexes to make information searches easier, build up lists of searchable terms for things like books, magazines, reports, websites, and photographic collections

Information Scientist : Gathering the relevant information from various resources, databases, Managing the acquisition, supply, and distribution of information within an organization or section, making that information accessible to users

Archive Manager : Creation, storage, preservation, organization, and access to rare materials

Documentalist : Assisting researchers in their search for scientific and technical documentation, Document registration, distribution, and archiving, as well as provision of reproduction services of documents and media

Technical Information Officer Info. support services, document delivery, Providing access of library resources to patrons, activities for the acquisition, description, and maintenance of print and electronic resources

Library Director : Overall managing public library functions, user services, preparing budget, policies, planning for public and governmental relations, reporting to the governing board, fundraising, hiring staff, motivating staff, etc.

Information Literacy Librarian : Planning, implementation, & coordination of a library instruction program that supports student retention and success. Design and deliver services to research communities, monitoring students learning processes

Database Manager : Develop, maintain, and troubleshoot information access aids, such as databases, annotated bibliographies, web pages, electronic pathfinders, software programs, etc.

Digital Librarian - Support and coordinating access to digital resources, enhance its virtual spaces, maintenance of the digital library services, web pages, web tools, online services

System Analyst - Designing and managing information systems, analyzing and tracking data needed to facilitate organization projects and various operations

Information & Media Specialist - Planning, implementing and monitoring the organization's social media strategy to increase brand awareness

E-Resource Manager

Managing electronic resources in the library. cdevelop, recommend, and implementan updated management strategyfor all of the library's electronic resources

Technical Librarian -Directs and supervises the operations of the library circulation and technical services staff

Media Librarian - Acquiring & managing especially non-print reading material for teaching & learning, promoting library media programme, handling social media, etc.

4.2.3 Salaries in the sector of LIS : The salaries in the LIS sectors differ from employer to employer and it depends upon different factors such as an individual's education, experience, acquired skills, responsibilities and nature of work, and type of employer organization, etc. The report of CtrlSal (2020) on 'Librarian Salary Income' published on Feb. 2020 reflected that the average annual salary of a Librarian in India is [1] 2,81,344 and according to the Occupational Outlook Handbook (2020) of Bureau of Labour Statistics, USA, the median annual salary of Librarians in the USA is recorded $ 60,820 in the year 2020

4.2.4 Skills & competencies required for Employment in LIS : Susan Myburg (2013) explored the essential characteristics and qualities of a future information professional in his research. It clearly showed that ICT plays an effective role in the rejuvenation of librarianship. Apart from knowledge of Library & Information Science, an individual must have certain

skills to get satisfactory employment in this field that can be categorized in following three broad categories:

a. Administrative Skills: Human Resource Management, Financial resources management, budgeting, strategic planning, etc.

b. Soft Skills: Interpersonal skills, collaboration, organizational skills, etc.

c. Language & Communication Skills: English speaking, foreign languages, effective handling of social & other communication media, etc.

It can be stated that along with a LIS degree if a person has additional skills in ICT and communications can get high-quality employment in this field.

4. Conclusion : No business or industry can function without information so the LIS Professionals have a bright career in the future and they can work in all types of industries, businesses, and organizations with all types of professionals. Building a career in the LIS sector in India appears to have changed over time. However, there is a wide scope for education and employment in the field of LIS in India.

The educational institutes/ universities offering LIS courses in India need to make appropriate changes in their course syllabus to suit the current employment market. LIS education should place more emphasis on practical sessions than theoretical knowledge. It seems that in addition to LIS education, the knowledge of ICT, language communication, and other soft skills are most important to get satisfactory employment in this field.

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