
EMPLOYABILITY SKILLS OF A NEW GENERATION OF LIS PROFESSIONAL : AN INDIAN SCENARIO

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ABSTRACT

Describes details of the research design, data collection methods, sampling procedures, scope and coverage, population and data analysis involved in this questionnaire based survey research study regarding required employability skills to gain employment in LIS profession. There were two groups to be considered when analysing the employability skills through survey method. One is LIS alumni/recent graduate library and information science professionals who just obtained his/her degree and got employment in public and private organisation; and research scholar who wish to work in libraries. The alumni of nine LIS departments were selected for this study and now these all alumni are working at the different universities, institutions, academic colleges, corporate and government organisations. Study includes senior and expert library and information science professionals as a group, who do perform a daily library work, such as teaching, managing, classification, cataloguing, reference service, editing and interviewing candidates for the purpose of recruiting LIS professionals.

KEYWORDS: LIS Education-India, LIS Professionals, Competencies, Employability Skills

Introduction

Proliferation of information and communication technology and web technology has significant impact on information service profession. Paradigm for today's information and documentation centres has shifted from information security to information dissemination. That is to say, library professionals, depending on their work, have to work and act as information manager, information systems analyst, documentation officer, information scientist, information officer, knowledge managers and analysts, cybrarians, information brokers, corporate information managers, webmasters, network navigators, information mappers etc. Each of these positions has a separate specialised set of duties, functions and responsibilities along with the general duties, functions and responsibilities of a professional librarian. To perform the different functions related to these various roles, library professionals must possess the different skills and competences. This study was designed to be exploratory in nature and aimed to reflect a clear picture of the current situation of the selected Indian LIS Schools education and their graduate outcomes.

With the shift of LIS towards information technology and e-libraries, some difficulty in management of such libraries in this environment is foreseen. Therefore, the manager must create stability zones, these may be activities or environments that would rejuvenate and refresh the individual to cope with all aspects of life (Knight, 2009). The greatest challenge for the LIS profession and LIS schools in the near future is the emergence of a parallel information management profession. There is a need to redefine the boundaries of our profession in order to continue to be relevant in terms of developing and providing human resources for the typical 21st century workplaces, which require knowledge and skills of a different kind and of a different order (Raghavan, 2007).

Howard (2010) opined that, "Education for Library and Information professionals in managing the digital environment has been a key topic for discussion within the LIS environment for some time. However, before designing and implementing a program for digital library education, it is prudent to ensure that the skills and knowledge required to work in this environment are properly identified in order to enable informed programs to be

developed and delivered.” The LIS are responsible for producing high calibre professionals to manage the digital libraries and various kinds of information centres and for the purpose, it requires re-designing and re-engineering the digital library course content (Varalakshmi, 2009).

At present, libraries are integrated into the technology more but technology is not more integrated into the LIS courses. This further promotes the idea that library work and information science work are two very different things. Until recently, Library and Information Science courses in India did not teach how to cope with technological change, how to manage technology projects, or how to evaluate technologies. These “big picture” topics are among the most important technological competencies librarians can have in the coming years, as technologies continue to change at a rapid pace.

Employing libraries often experience stress during this time because in most instances recent graduates do not have the necessary skills, simply due to lack of applied experience and education. Horvat (2003) said that, “the changes brought about by the new information and communication technology have a great impact on LIS education that requires more than habitual updating of the curriculum content practiced up to the present. Apart from a number of new topics that have to be introduced into the curriculum, the form of the delivery of the content has to be changed.” Such changes defined and required new roles for the Library and Information Science (LIS) Professionals. The next generation of LIS professionals must possess some specific skills and competencies like: digital content selection, management, organisation, web ontology, web authoring, digitisation and digital preservation. Because, these skills are very crucial to be successful in the contemporary digital environment.

Review of Literature

Many international LIS schools have surveyed their alumni and recent graduates, and gathered data on their employment experiences, knowledge, skills and attitudes. The literature on job competencies for the digital environment consists of various fields as information and communication technology skills, management skills, communication skills, leadership skills, research skills, job and employability skills.

EMPLOYABILITY SKILLS OF A NEW GENERATION OF LIS PROFESSIONAL: AN INDIAN SCENARIO

The manpower of today will meet in the near future the new challenges and the onslaught of the impact of Information Technology on LIS which envisages making substantial contribution to the ever perpetuating Information Society. They need to be equipped in this context with necessary skills and competency to satisfy the high level, complex and ever-growing multifarious information needs of the user (Karisiddappa, 2004). For this purpose many skills have been identified by Middleton, to prepare incoming professionals for such tasks as: end-user instruction; database design; electronic reference service; metadata management; digitisation project management; Web site evaluation; business analysis; and knowledge management (Middleton, 2003). Therefore, to work efficiently and effectively in the fast-changing digital age, a new generation of LIS professionals should have the qualifications in providing information as well as dynamically exercising personal skills, generic skills and discipline-specific knowledge (Nonthacumjane, 2011).

The transition from traditional library model to digital library model has affected professionals' roles and activities due to new required skills (Choi and Rasmussen, 2009), and it is found that that different library sectors had different emphases in terms of the employability skills required (Stephens and Hamblin, 2006). Employability skills include the handling and retrieval of information in any format, communication and presentation, planning and problem solving, and social development and interaction (Varalakshmi, 2006). ICT skills have been recognised as essential qualities for LIS graduates' employment (Buarki, Hepworth, and Murray, 2011).

Contemporary Library and Information Science curricula are more marketing oriented, but have yet to bridge the divide between system-centered approaches and clientele-centered approaches (Harmon, 2003). Professionals should have skills and knowledge for marketing of library resources and services and public relations. In today's competitive knowledge based economy, the theoretical knowledge of academic subject is not enough for LIS graduate to survive in the information market. The graduates will have to develop market-oriented skills to meet the challenging as well as changing needs of employers (Warraich and Ameen, 2011). Ashcroft (2004) stated that information professionals are facing the

challenge of new and emerging skills and professional demands, the most important aspect of this change is to be able to adapt existing skills and to remain flexible within a changing work environment.

National Knowledge Commission (2007) submitted proposals on staffing of libraries and recommended that skills required for fulfilling the changing role of libraries are : library and information-handling skills; service orientation; ICT knowledge skills; communication and training skills; marketing and presentation skills; understanding of cultural diversity; and, knowledge mapping skills etc. In another research study Marion (2001), displayed in a three-dimensional concept map, indicated 19 categories comprising of both computer related skills and behavioural characteristics that can be interpreted along three continua: (1) technical skills to people skills; (2) long-established technologies and behaviours to emerging trends; (3) technical service competencies to public service competencies.

Lutwama and Kigongo-Bukenya (2004) also conducted a research study and found that the majority of the *East African School of Library and Information Science (EASLIS)* graduates from 1995-1999 are employed in academic, government, banking and NGO libraries where they perform various professional activities; employers complain about lack of practical skills among the graduates, the staff-student ratio is unmanageable and specialization through electives is inadequate. Pember's (2003) study of records management graduates at Curtin University for the period 1992-2000 revealed that graduates have lack of practical skills.

Kennan, Willard and Wilson (2006) assessed the changing needs of employers found an increasing requirement for skills in information technologies, and behavioural characteristics and communications skills in both traditional and non-traditional job markets. Miwa (2006), based on the findings of the Library and Information Professionals and Education Renewal Project (LIPER), inter-alia observed two prevalent issues: low interest among well-educated graduates in Asia in the public library market owing to low salary and social status, and lack of understanding among employers to accept LIS graduates as knowledge workers.

EMPLOYABILITY SKILLS OF A NEW GENERATION OF LIS PROFESSIONAL: AN INDIAN SCENARIO

Mammo (2007) in a research study of Library and Information Science (LIS) education in Ethiopia, strengths and weaknesses of existing LIS programs, the reasons for discontent of employers on the services provided by LIS professionals as well as the reasons for the dissatisfaction of the LIS professionals were investigated and found that LIS professionals believe that their qualifications are inadequate for performing their job. The study gives a general overview of the challenges of LIS education and reasons for the dissatisfaction of LIS employers and professionals. Moreira (2001) surveyed employers to obtain some insight into how satisfactorily newly hired employees performed.

Loughridge (2003) in the United Kingdom, the Department of Information Studies at the University of Sheffield has tracked its Master's programs graduates for more than thirty years maintaining that these ongoing investigations have been valuable in developing curricula relevant to the changing LIS workplace. A 2005 report by the Canadian Library Human Resource Study states that generally, recent entrants into the profession do not believe there is a good match between the course content of their MLIS programs and the demands of the job. While just under two-thirds felt their graduate program had provided the general skills and abilities required for library work, less than one-half stated that the problem-solving and information technology skills provided were adequate to effectively perform their jobs (Ingles et al., 2005). In the next paper (Cherry, et al., 2011), reports on a four year study of master's students enrolled in an institution undergoing a transition toward an iSchool. The self-administered questionnaire was distributed to students enrolled in the Master of Information Studies program at the University of Toronto.

Research Methods and Sampling Techniques

The research study is based on survey method. The literature was reviewed to design instruments for data gathering and for understanding of subject knowledge. A thorough review of the literature showed that questionnaire/opinionnaire was the best appropriate instruments for using in the research study. Therefore, an instrument was constructed by the researcher that addressed the questions investigated in this study. A structured questionnaire was designed using a 5-point Likert scale to collect data (Varalakshmi, 2006; Warraich and

Ameen, 2011), which is tabulated and presented in the data analysis and interpretation. It consists of two parts to analyse the relevance of library and information science curriculum for contemporary employment market.

A sample is defined as a representative subset or cross section of the population in miniature. It should homogeneously represent the entire field. In this procedure, a stratified random sample was drawn for this research study to collect data from Library and Information Science professionals from various universities and institutions. Then the researcher selected the sample from the population who comes under the criteria for inclusion in this research study, and also asked them to recommend/forward it to others who they may know and comes into criteria. Although this method would hardly lead to representative samples, but at that time, it might be the best method available to collect data from different and scattered Library and Information Science professionals. This type of sampling techniques called as Snowball sampling techniques and it is especially useful when we are trying to collect data from scattered samples.

Employers and Employees Survey

Employers and employees of central universities of India were surveyed. The questionnaire was distributed and collected from employing library, senior Library and Information Science professionals from different libraries of central universities of India. The reason behind the selection of senior LIS professionals is that they are involved in teaching, training, research and development, recruitment and guiding recent graduated LIS professionals.

Alumni/Recent Graduate Professional Survey

Alumni and recent graduate LIS professionals were surveyed who graduated between the three academic years of the 2006, 2007 and 2008. A descriptive cross-sectional survey employing five point Likert-type summated rating scales questionnaire was developed to gather information from alumni/recent LIS graduate professionals and senior LIS professionals concerning: the demographic characteristics of alumni and senior LIS

EMPLOYABILITY SKILLS OF A NEW GENERATION OF LIS PROFESSIONAL: AN INDIAN SCENARIO

professionals such as job title, the highest professional qualification, year of passing of MLIS degree and year of experience in LIS profession. The questionnaire was distributed to alumni those who graduated from nine Department of Library and Information Science of Central University in India and now working in different service sector of library in different parts of countries. The questionnaire included a combination of open and closed type questions to collect data from employers as well as recent graduates.

Key Objectives of the Research Study

The survey questionnaire began with nine demographic questions regarding respondents. In these demographic information questions included about professionals' academic qualification, year of passing of MLIS, year of experience in LIS profession, and current job position etc.

Professionals were asked to give their opinion in 5 coding scheme that what competencies (knowledge, skills and attitude) are important to gain employments and/or better job opportunity in Library and Information Science field.

Finally, some subjective format type questions (open ended type questions) were asked by professionals to give their own suggestions and recommendation to improve employability skills.

Scope, Coverage and Limitations of the Study

Twenty central universities were selected for conducting survey for this research study including nine LIS departments for alumni survey. Researcher surveyed the employees of 20 central universities of India. Researcher excluded those professionals from the study who were not any how concerned with these twenty universities. Limitations were also covered to those professionals who were students in the LIS departments except research scholar.

Population of the Study

Teaching faculty, alumni and research scholars of the nine Library and Information Science Department of the central universities in India have selected as population for the research study. Senior LIS professionals working at the twenty Central Universities in India were also included for the research study (Table 1). The alumni and recent graduates of these all nine LIS Departments were selected for this study and now these alumni were working at the different universities, institutions, academic colleges, corporate and government organisations. This research study included employees who received a salary from a daily library work, such as teaching, managing, classification, cataloguing, reference service, editing and interviewing contacts for the purpose of recruiting LIS professionals. A letter was sent to each Librarian or Library-in-Charge requesting that the number of LIS professionals, as defined by the study, working at the library be disclosed, distribute and collect questionnaire for the study.

EMPLOYABILITY SKILLS OF A NEW GENERATION OF LIS PROFESSIONAL:
AN INDIAN SCENARIO

Table 1: List of Central Universities Selected for Employers' Survey

Name of the Central University
Aligarh Muslim University, Aligarh, Uttar Pradesh**
Allahabad University, Allahabad, Uttar Pradesh*
Assam University, Silchar, Assam*
Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh**
Banaras Hindu University, Varanasi, Uttar Pradesh**
Central Agricultural University, Imphal, Manipur*
Delhi University, New Delhi**
Hyderabad University, Hyderabad, Andhra Pradesh*
Indira Gandhi National Open University, New Delhi**
Jamia Millia Islamia University, New Delhi*
Jawaharlal Nehru University, New Delhi*
Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Maharashtra*
Manipur University, Imphal, Manipur**
Maulana Azad National Urdu University, Hyderabad, Andhra Pradesh*
Mizoram University, Aizawl, Mizoram**
Nagaland University, Kohima, Nagaland*
North-Eastern Hill University, Shillong, Meghalaya**
Pondicherry University, Pondicherry**
Tezpur University, Tezpur, Assam*
Vishwa Bharati University, Shantiniketan, West Bengal*

* Library employees were included from this central university

**Faculty and alumni were included from this central university

Administration of Questionnaire

A letter detailing the study, its purpose, goals and time requirements was sent to each LIS professionals by post and e-mail to ensure delivery. This was supplemented with telephone calls and e-mails to contacts that were useful in encouraging participation. These included personal contacts of professionals and staff working at the different public and private library in India. After the initial step, the researcher travelled to their work place where the questionnaire was personally delivered to LIS professionals. Since direct access to professionals at their respective organisation was difficult due to time-constraints and security issues, a contact in each organisation was identified by the researcher to act as a liaison between the researcher and the LIS professionals. In most cases, the contacts were either the Librarian's office, a prominent official in the organisation, or any one of LIS professional. The liaison was responsible for distributing the questionnaire to the professionals, and receiving completed ones in sealed envelopes. An attempt was made to numerically code each questionnaire so that it was possible to describe the return-rate as part of the results. However, this effort was not successful due to bureaucratic processes that control the work environment. To be successful, the liaisons had to provide weekly information about the number of questionnaire completed.

Once the questionnaire was delivered, the researcher tracked responses, through the liaison, every two or three week. After one month, follow-up letters were delivered to the liaisons at each library and professionals for complainece. These letters acted as a friendly reminder of the questionnaire, and emphasized the importance of participating. A second follow-up letter was delivered to the liaison after two month from the distribution of the questionnaire. Again, the letter encouraged participation, and highlighted the importance of the study, and the deadline for responding. After each follow up letter yielded relative increase in the number of responses. Once the survey study was completed, the responses were processed for analysis.

Coding of Questionnaire and Data Analysis

Since the data is intended to be descriptive of the entire population of LIS professionals working in libraries in India, frequencies (counts), percentage, means, and standard deviations were utilized to reflect the data. The Statistical Package for the Social Sciences (SPSS) and MS-Excel were used to enter data, analysis of data, and also for designing graphs and charts. Once the data was ready for analysis, the researcher started by describing the characteristics of the population, and detailing any significant differences where they existed. This process was repeated for the whole population to answer each research question according to variables- year of experience as a LIS professional, the highest educational qualification, type of job institution and the current profession etc. The analysis mentioned each instance where a significant difference was present and presented the data accordingly.

Missing Value

The researcher adopted an approach where missing values were ignored during data analysis since the effect was minimal. Most respondents provided fully completed questionnaire.

Objectives of the Study

The objective of the present study was to identify fundamental competencies (knowledge; skills and attitudes) necessary for information professionals to navigate swiftly in a fast changing ICT environment. To suggest including the every necessary skills to meet present and future demands. To put forward some suggestions regarding what measures should be implemented to solve the existing problems on the basis of the findings. The researcher will also suggest increasing the employability skills for Library and Information Science professionals.

Significance of the Study

This study has several beneficial findings, conclusions and suggestions that would be beneficial for Library and Information Science schools, researcher and educators who might be interested in reviewing, designing and developing more skill upgrading curriculum

according to market oriented. It will facilitate the policy makers and authorities for formulating appropriate policies to improve LIS curricula. This study will also provide findings aiming to improve educational curricula, work-practices, training, and system design.

Data Analysis and Findings

Distribution and Response Rate of Questionnaire

The researcher tried to collect data from LIS professionals working at different universities and institutions in India. According to estimates provided by each professional, the entire population at the time of the study consisted of 514 LIS professionals. There were 514 LIS professionals included in the sample for this study but only 358 professionals responded. Of the total consulted population, 358 responded to the self-administered questionnaire yielding a response rate of 69.65%. In these 358 questionnaire, 26 questionnaire was not filled up properly, so these all questionnaire were excluded from the analysis. Therefore, remaining 332 questionnaire were analysed for this study that was 64.59% of the total population and these response rates show that questionnaire was self-administered. This response came from various modes i.e. through post and e-mail. In this total analysed questionnaires (N=332) 43 response came through e-mail, and this is the 12.95% response of the total analysed questionnaire.

Table 2: Response Rate of Questionnaire

	Alumni		Employees		Total	
Total Distributed Questionnaire	297	100%	217	100%	514	100%
Total Response Received	190	63.97%	168	77.41%	358	69.65%
Analysed Questionnaire	171	57.57%	161	74.19%	332	64.59%
Response Through E-mail	28	16.37%	15	09.31%	43	12.95%

Respondents' Demographics and General Characteristics

The population were characterised by nine unique variables for collecting demographic information about the respondent. Two groups were selected for collecting the data from respondents. First were the Library and Information Science employees of central universities and faculty members of the LIS schools and departments of all these central universities and the others were the alumni and recent graduate LIS professionals of the nine different LIS departments (Table 1) and now they are working in different public and private institutions/sector in India (Figure 1).

Demographic Profile of Alumni/Recent LIS Professionals

The study of alumni/recent graduate professionals' perceptions on employability skill who had graduated from the nine different LIS department of central universities of India, in the year 2006, 2007 and 2008, and now working in library and information centres or in related fields. The sample includes 171 alumni of the Library and Information Science department who got employment; and, 161 employers from the 20 central universities of India who are actively engaged in research, training and recruitment of the LIS professionals.

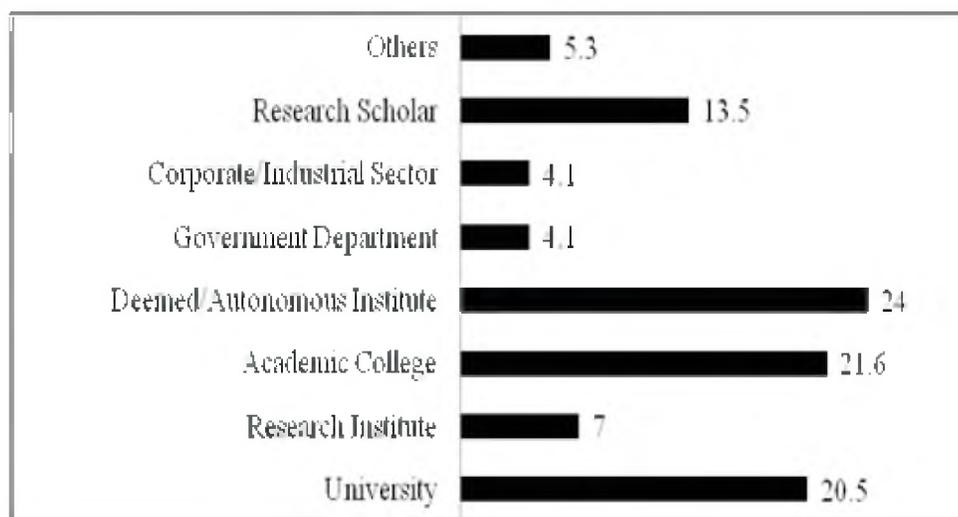


Figure 1: Institutions Wise Distribution of Alumni's Jobs

Respondents' Qualification and Experience

Further, respondents were asked to provide information about their highest professional qualification and experience in LIS profession. Table 3 shows that the maximum numbers of respondents had less than five years of experience, while the less numbers of respondents had experienced between 26-30 years in LIS profession. Table 3 provides more information about the respondent's characteristics. Total 248 (M=178; F=70) respondents were having MLIS degree as highest professionals qualification; 48 (M=43; F=5) professionals were having PhD degree and 36 (M=21; F=15) professionals were having MPhil degree. Total 74.7% respondents were MLIS qualified and 10.8% respondents were MPhil qualified. There were 48 respondents having PhD degree as highest professional qualifications. 65.4% respondents received their MLIS Degree between the years 2001 to 2008. The most experienced professionals were 14.5% of the total population those who were having PhD degree as highest professional qualification.

Table 3: Respondents' Qualification and Experience

Experience (in years)	Qualification						Total
	MLIS		M.Phil.		Ph.D.		
0-5	176	93.1%	12	6.3%	01	0.5%	189 (100%)
6-10	53	67.9%	16	20.5%	09	11.5%	78 (100%)
11-15	13	48.1%	05	18.5%	09	33.3%	27 (100%)
16-20	04	22.2%	03	16.7%	11	61.1%	18 (100%)
21-25	02	15.4%	00	00.0%	11	84.6%	13 (100%)
26-30	00	00.0%	00	00.0%	07	100%	07 (100%)
Total	248	74.7%	36	10.8%	48	14.5%	332 (100%)

Professionals Perceptions on Employability Skills

Research question one seeks to determine about the employability skills or competencies (knowledge, skills and attitude) are important for better job opportunity in LIS field. The perceptions of employees/employees and recent graduate Library and Information Science professionals about the employability skills was collected on a five-point Likert scale. The preceding choices were assigned numerical values of 1, 2, 3, 4, and 5 respectively.

Bridging of academic studies and professional activities and making firm links between them is beneficial for achieving an enhanced employability. “Employability is a set of achievements– skills, understandings and personal attributes-that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy (Bologna Process Report, 2005).” Employability also enables professionals to gain new knowledge, skills, attitudes, aptitudes and also develop leadership quality to support their future professional development.

The main objective of the professional course is to maintain the standards and employability demands of the profession. Indeed the curriculum needs intermittent auditing to enhance the employability of their products. To find out the real contribution of curriculum towards employability of the products, the opinion of recent graduated library and information science professionals and senior library and information science professionals was sought. The purposive samples were collected from professionals who were involved in recruitment, teaching and training to the products of Library and Information Science schools.

The two major challenges for the employers today are recruiting good Library and Information Science professionals and give them training. This is of real issues and challenge also to librarians looking to recruit well competent recent graduated Library and Information Science professionals. This is called as skilled-gap whatever the difference between the competencies required for the job and those possessed by aspirants or job seekers. Employers would like to recruit well trained graduates and enthusiastic as well having good communication skills who are ready to go to work. Employers expected these

competencies should have in recent graduated Library and Information Science professionals to provide better and specific information to the information seeker.

Most of the employing libraries and employers are very much concerned about recent library and information science professionals. This is very big challenge to find well trained professionals who have competencies or employability skills that assist them to be fit into and remain in the work environment. Employing libraries and employees searching for well-trained, competent and responsible Library and Information Science professionals who can handle real situation problems and who have the team leadership quality to lead and work together with other Library and Information Science professionals.

Table 4: Alumni/Recent Graduate Library Professionals' Perceptions on Employability Skills

Employability Skills	Range	Mean		Std. Deviation	Variance	Skewness (Std. Error=.186)	Kurtosis (Std. Error=.369)
	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Statistic
ICT Skills	2	4.56	.048	.633	.401	-1.124	.166
Communication skills	2	4.36	.052	.675	.456	-.589	-.707
Professional attitude	3	4.30	.052	.676	.458	-.906	1.439
Good interview skills	2	4.22	.058	.755	.571	-.382	-1.157
Achieving professional goal	3	4.14	.059	.777	.604	-.478	-.530
Time management skills	4	4.13	.059	.771	.595	-.848	1.619
Leadership quality	4	4.10	.064	.838	.702	-.797	.821
Online searching skills	3	4.09	.065	.846	.716	-.286	-1.251
Problem solving skills	2	4.05	.054	.705	.497	-.074	-.971
Good academic records	3	3.92	.063	.822	.676	-.618	.103
Working experience	4	3.86	.078	1.025	1.051	-.610	-.322
Planning and organizing	4	3.75	.077	1.006	1.013	-.423	-.582
Marketing LIS services	3	3.62	.067	.875	.766	.239	-.860
Computer Science degree	4	3.43	.078	1.023	1.047	-.350	-.157
Regional language	4	3.01	.073	.961	.923	-.132	-.128
Foreign language	4	2.89	.062	.812	.659	-.138	.552

Table 5: Employer's and Employee's Perceptions on Employability Skills

Employability Skills	Range	Mean		Std. Deviation	Variance	Skewness (Std. Error=.191)	Kurtosis (Std. Error=.380)
	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Statistic
ICT skills	2	4.56	.048	.611	.373	-1.062	.106
Communication skills	3	4.25	.059	.752	.566	-.548	-.735
Professional attitude	3	4.21	.061	.770	.593	-.799	.360
Time management skills	4	4.12	.063	.797	.634	-.603	.207
Online searching skills	3	4.09	.065	.820	.673	-.381	-.880
Good interview skills	3	4.06	.060	.764	.584	-.191	-1.015
Problem solving skills	3	4.02	.057	.720	.518	-.333	-.153
Achieving professional goal	3	3.99	.066	.837	.700	-.366	-.643
Leadership quality	4	3.94	.069	.878	.771	-.607	.053
Good academic records	3	3.87	.067	.845	.714	-.440	-.316
Working experience	4	3.75	.089	1.125	1.266	-.682	-.186
Planning and organizing	4	3.72	.073	.930	.865	-.216	-.608
Marketing LIS services	3	3.60	.068	.869	.755	.192	-.771
Computer Science degree	4	3.53	.073	.929	.863	-.314	-.377
Regional language	4	3.16	.066	.833	.694	-.365	.650
Foreign language	4	3.09	.073	.927	.860	.003	-.217

EMPLOYABILITY SKILLS OF A NEW GENERATION OF LIS PROFESSIONAL: AN INDIAN SCENARIO

The recent graduates and senior employees have given their views on employability skills and these all skills tabulated in Table 4 and Table 5. The findings illustrate the view of recent graduates and employees concerning employability skills i.e. information and communication technology skills, communication skills, professionals attitude, time management, interview skills, online searching skills, achieving professional goals, problem solving aptitude, leadership skills, good academic records, working experience, and planning and forecasting are the core skills required to gain and retain in Library and Information Science employment.

There was significant difference found between the opinion of alumni/recent graduates and employers/employees. But, according to employers time management skill is more important than opinion given by recent graduates. The highest mean of ICT skills (Mean=4.56) shows that this skill is the most important for LIS professionals to gain employment in digital environment. The other important skills evident from the professionals' opinion are communication skills (Mean=4.31), professional attitude (Mean=4.26), interview skills (Mean=4.15) and time management skills (Mean=4.13) which should be possessed by the Library and Information Science professionals to gain employment and to work in different settings of library environment.

Table 6: Summative Ranking of Employability Skills Provided by Professionals

Descriptive Statistics					
Ranking	Employability skills	Range	Mean	Std. Deviation	Variance
1	ICT skills	2	4.56	.616	.380
2	Communication skills	3	4.31	.714	.510
3	Professional attitude	3	4.26	.723	.523
4	Good interview skills	3	4.15	.765	.585
5	Time management skills	4	4.13	.783	.612
6	Online searching skills	3	4.09	.830	.689
7	Achieving professional goal	3	4.06	.808	.652
8	Problem solving skills	3	4.04	.712	.506
9	Leadership quality	4	4.02	.860	.740
10	Good academic records	3	3.89	.830	.689
11	Working experience	4	3.81	1.069	1.143
12	Planning and organizing	4	3.74	.965	.931
13	Marketing LIS services	3	3.60	.876	.767
14	Computer Science degree	4	3.48	.981	.963
15	Regional language	4	3.07	.910	.829
16	Foreign language	4	2.99	.867	.752

Some other employability skills are also important for the LIS graduates to gain employment in LIS profession e.g. online searching skills (Mean=4.09), problem solving skills (Mean=4.04) and leadership skills (Mean=4.02). Library employers also provided their opinion that LIS graduates required to have a sound knowledge of regional and foreign language to gain employment in different public and corporate sectors to handle multilingual information. According to the recent graduates, employers and employees of different employing libraries ICT skills and communication skills is most highly ranked to get

EMPLOYABILITY SKILLS OF A NEW GENERATION OF LIS PROFESSIONAL: AN INDIAN SCENARIO

employment and retain in the job; and, communication skills, technological expertise, customer orientation, professional attitude, leadership quality and marketing and service culture are the core knowledge and skills for the Library and Information Science professionals. Professional attitude and service culture is also very much important for the applicants because staff's relationship and interaction with its customer/users play a significant role in influencing the usage of libraries' resources and its services.

Suggestions

Following are the some suggestions based on the findings of this research study. Some suggestions were also given by LIS professionals to improve LIS curriculum. The course curriculum of Library and Information Science programme should have affordability, adoptability, flexibility and modular kind of approach for sustainable growth and development of the library and information science profession and for the professionals.

The researcher will suggest changes in general, in education, in training and in workplace practices to meet the challenges of preparing LIS professionals in digital environment and will suggest in particular, updating and reshaping the structure of LIS education in India. When adopted and implemented, these suggestions will be effective in enhancing the competencies (knowledge, skills and attitudes) and ICT skills for the benefit of LIS professionals, readers, educators, and society as a whole.

LIS Schools should be give more emphasis on practical classes than theoretical class and LIS Schools should provide huge infrastructure to emphasize web based teaching and learning in the classroom. Developing communication skills is one of the most neglected areas of professional development in LIS school. Short term courses and workshops should be planned by LIS schools to overcome this deficiency. For this purpose, identify both theoretical and practical teaching applications and methods for specific programs of study by examining global library practices and information environments.

Discussion and Conclusion

It is fact that India is in the mainstream of information and communication technology

exploitation and consumption. As researcher observes that the Library and Information Science discipline is much of still traditional, but swapping to digital library as in the rest of the world. Indian Library and Information Science schools have embarked on this task by somewhat incorporating one separate 'Information and Communication Technology Modules' in their course curriculum after University Grant Commission recommendation in the year 2001. The most of universities in the western countries are offering courses with changes in their course content in digital context. It is time for the 'LIS schools and departments in India to evaluate and assess the relevance of their courses for the employment market and to the employer's needs in the service oriented profession (Varalakshmi, 2006).'

The design and development of Library and Information Science course curriculum comes under the departmental jurisdiction. Therefore, most of the Library and Information Science department have designed and developed a separate ICT module and this ICT module incorporated with other different six modules. However, incorporating of ICT module into the Library and Information Science programmes has not been successfully achieved due to so many internal and external issues and problems faced by Library and Information Science schools and departments.

Library and Information Science programs in India are progressing from educating traditional librarian towards crafting specialists who could be employed in the vast information sector. Nearly all LIS department of India have incorporated changes in their curricula in the last few years ranging from total revamping of the curricula to minor changing. Despite this, it is often felt that the present curriculum however is not suitable to meet the expected demands of professional skills and employability. This appears to be a growing consensus that the Library and Information Science curricula should focus on the wider context of information studies and also should be suitable for employability.

The researcher finds that the present practising as well as working professionals are not happy with the outcomes of different Library and Information Science schools/departments because they are not able to provide better services to the users/customers due to lack of knowledge and skills in different domain and areas. Employees of the different university

EMPLOYABILITY SKILLS OF A NEW GENERATION OF LIS PROFESSIONAL: AN INDIAN SCENARIO

and institutions support what schools/department of Library and Information Science are producing, but often they want more than that what they are producing. Some of the employers and senior LIS professionals think that recent graduates must have more subject knowledge and skills and specialisation especially in information and communication technology, digital library, management and leadership quality; and some of the professionals think recent graduates must have greater depth and breadth.

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