

ICT SKILLS AMONG ENGINEERING AND POLYTECHNIC COLLEGES LIBRARY PROFESSIONALS AT MADURAI DISTRICT, TAMIL NADU: A STUDY

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Abstract : Information and Communication Technology (ICT) applications have transformed from present libraries into digital libraries, electronic libraries and virtual libraries. As such, it has become very essential for the college and research centre librarians to get expertise in ICT skills. In this regard, training and research is needed for these technical institute library professionals in latest trends of ICT techniques. Today the world is full of computer based technology segments and the resources are available more and more in the throughout the world. But the humans do not know about the resources and how to coordinate it and the library professionals do not have adequate ICT skills. The research paper talks about the Information and Communication Technology (ICT) skills of the library professionals. The purpose of the study was examining the various skills of Technical Institute, Engineering Colleges and Polytechnic Library Professionals at Madurai District of Tamil Nadu.

IndexTerms - ICT Skills, Library Professionals, Technical Institute, Engineering Colleges, Polytechnic Colleges, Madurai District.

I. INTRODUCTION

The role of libraries and librarians are changing rapidly due to the growth in science and technology in all fields. Prior to this period, library professional jobs were limited to library boundaries, but now it has spread across the globe knowing as digital library. So, today librarians need to play different roles, and activities which are demanded various skills ranging from an old culture to new fashion. Hence, library Professional apart from their educational practices required different kinds of skills and competency to give right information at the right time for right users. Professional skills are specific skills that are required in teaching, Learning library programs and ICT applications. Information and Communication Technology (ICT) has changed the landscape of libraries and librarianship in the globe. Libraries are being transitioned from the four walls to cyber environment. The library resources are transformed from print to digital and web resources. This growing ICT driven information services have posed challenges to library and information professionals.

II. OBJECTIVES OF THE STUDY

The objective is to make an analysis of the ICT skill of Library Professionals working in Technical Institute, Engineering and Polytechnic of Madurai District in Tamil Nadu.

- To find out the awareness about the application of ICT skills of Library professionals working in Technical Institute such as Madurai District in Tamil Nadu.
- To find out the awareness about library automation software's in Technical Institute such as Madurai District of Tamil Nadu.

III. HYPOTHESIS

H01: There is no mean difference between professional qualification and Awareness about ICT based applications.

H02: There are no mean differences between professional qualification and Awareness about library automation software's.

IV. SCOPE AND LIMITATIONS

The scope of the study encompasses the ICT skills of Library professional working in Technical Institute such as Engineering colleges and Polytechnic colleges only in Madurai District, Tamil Nadu only. The study has following limits.

- The study is limited to Madurai District of Tamil Nadu only.
- The study is including only the engineering colleges and polytechnic colleges only.
- The study covers only Library Professional (Librarian, Deputy Librarian, Assistant Librarian, Library Assistant, Library Technical Assistant, Library Professor In charge, etc...) ICT Skills only.

V. METHODOLOGY

This research work is exploratory research in nature. The exploratory research is often conducted when a problem has not been clearly defined as yet, or its real scope is as yet unclear. Since the awareness of ICT skills among library professionals has not been studied, the researcher formulated some hypothetical presumption to identify the findings for his objectives. In this research work mostly a sample of respondents are studied, because we cannot study the entire universe. In this study convenience sampling method is adopted. Respondents were selected according to the convenience of the researcher. All the respondents relating to Library Professional in Madurai district are the sample population. A random 150 Library Professionals were targeted. However, due to non-response the sample size is reduced to 120. Both primary and secondary data were used for this study. Primary source of data was the feedback obtained from the respondents under study. Secondary sources include of books, journals, magazines, newspapers, and various web sites. The collected data have been sorted and tabulated. In order to make analysis with the help of simple percentages, weighted Ranking technique. To test the hypothesis defined the statistical tools such as, weighted average mean i.e. measures of central tendency and f-test are used.

VI. REVIEW OF LITERATURE

Sampath Kumar and Birada (2010) examined the use of ICT in 31 college libraries in Karnataka, India, using questionnaires, observation and informal interviews with selected college librarians. The study discovered that the application of ICT in Indian college libraries had not reached a very high level. The study also discovered that the main constraints for not automating library activities were lack of budget, manpower, skilled staff and training opportunities.

Thanuskodi (2011) Studied ICT literacy among the Engineering College library professionals in Tamil Nadu and found that 95.12 percent of professionals have knowledge in computer fundamentals, 81.07 percent in Internet, 42.68 percent in multimedia and only a very few professionals 29.26 percent have knowledge in computer programming.

Sivakumaren, et al., (2011) examined the various attitudes of library professionals on ICT in the libraries. The questionnaire method was used to collect data from the respondents working in universities and colleges in Chennai. The study found that the majority of library professionals have positive attitude on ICT and some of them were not able to update their knowledge and skills on ICT.

Kumar (2013) This paper highlights knowledge of information communication Technology (ICT) in engineering institutional library and information science professionals working engineering institutions of Rayalaseema region of Andhra Pradesh librarians lack better knowledge in technical skills such as optical character recognition and imaging technology. The main constraints faced by professionals in acquiring ICT skills are the poor infrastructural facilities and lack of cooperation form management.

Kaltimani and Naik (2013) evaluated the competence in librarianship and ICT skills between different designations of library professionals, who worked in the engineering college libraries, affiliated with Visvesvaraya Technological University (VTU), in Belgaum, Karnataka, India. The study used a combined methodology of questionnaire, observation and interaction with library and information professionals. Results revealed a significant difference between the different designations towards competence in the operation of computers, creation of files and folders, radio frequency identification, library automation software modules, Internet-related skills, Web design/Web editing, search engines and digitization of IR materials. The study further revealed that the majority of the professionals are facing financial problems, work overload and negative attitudes from their administrators in acquiring ICT skills.

Selvantony, et al. (2014) The study was examining the various skills of library professionals in Engineering Colleges of Tamilnadu. The study was conducted using surveying method with sample of 617 respondents to determine level of skills like low, high and moderate among library professionals in all the categories of Library staff are found more in the moderate skills and found less in the high skills among Librarian, Assistant Librarian and Library Assistant. It is clear from the above discussion in that in all the categories of Library staff are found more in the moderate skills and found less in the high skills among Librarian, Assistant Librarian and Library Assistant.

Seena and Sudhier Pillai (2014) The study was conducted to investigate the awareness, skill and attitude towards Information and Communication Technologies (ICT) among library professionals in Kerala University Library, Thiruvananthapuram. The study is based on a questionnaire survey of library professionals employed in the central and departmental libraries of the University of Kerala. The analyses revealed that the library professionals in the Kerala University library system have relatively average level skills in various ICT related tasks in libraries. Libsys software was more used in libraries and a good number of professionals indicated that the main constraint in the application of ICT in libraries is inadequate training in ICT applications. All the professionals expressed a positive attitude towards the application of ICT in libraries.

Ojedokun A. Ayoku and Victoria Nwamaka Okafor (2015) this paper is an audit of information technology (IT) skills set of librarians in some Nigerian university libraries with the aim of examining their relevance and adequacy to the digital environment. Nigerian universities as knowledge creators and their libraries as gatekeepers of knowledge are rapidly witnessing the introduction of various IT. One of the challenges facing IT/digital library projects in Nigeria has been the readiness of the university libraries in terms of knowledge and skills to implement the digital and electronic library services. That many of the respondents do have knowledge and skills of email use and word processing tasks but lack knowledge of search engines and directories other than Google and Yahoo, respectively. Many of them do not know how to evaluate and catalogue e-

resources; have no knowledge of subject gateways, specialized databases and some open-access library databases; have no knowledge of database management; are not skilled in Web design; and are equally not familiar with Web design applications. The study recommends management support for IT skills training and continuous professional development to improve the librarians. Librarians are also challenged and encouraged to explore the range of training resources available over the Internet for self-development.

VII. ANALYSIS AND INTERPRETATION

Table: 1 Gender wise classification of Respondents

Gender	Frequency	Percentage (%)
Male	76	63.33
Female	44	36.67
Total	120	100

Source: Primary Data

The above table 1 reveals that the male respondents are more in this study i.e. 62.5 percent of the respondents and rest of them are female respondents in this study.

TABLE: 2 AGE WISE CLASSIFICATION OF RESPONDENTS

Age	Frequency	Percentage (%)
23-35 years	52	43.33
36-45 years	46	38.33
46-55 years	22	18.33
Total	120	100

Source: Primary Data

The table 2 shows the age wise classification of the respondents. 36-45 years age group of respondents occupied a large population in this study i.e. 46.9 %. 28.1 percent respondents are between 23-25 years age group. And 25% of Respondents belong to 46-55 years age group.

TABLE: 3 BASIC EDUCATIONAL QUALIFICATIONS OF RESPONDENTS

Basic Qualification	Frequency	Percentage (%)
B.A	20	16.67
B.Sc	24	20
B.Com	12	10
M.A	40	33.33
M.Sc	15	12.5
M.Com	9	7.5
Total	120	100

Source: Primary Data

The table 3 shows that the basic educational qualifications of the respondents that 31.3 percent respondents are M.A Graduates. 18.8 percent respondents are B.Sc Graduates and 15.6 Percent respondents are B.A Graduates and M.Sc graduates. Similarly, 9.4 percent respondents are B.Com graduates and M.Com Graduates respectively.

TABLE: 4 PROFESSIONAL QUALIFICATIONS

Professional Qualifications	Frequency	Percentage (%)
B.L.I.Sc	31	25.83
M.L.I.Sc	42	35
M.Phil	34	28.33
Ph.D	13	10.83
Total	120	100

Source: Primary Data

The table 4 shows that the professional qualification of the respondents. 23.4% of respondents have Bachelor Degree in Library and Information Science, 40.6% of Respondents has Masters Degree in LIS, 29.7% of the respondents have M.Phil in LIS and 6.3% of the respondents Doctorate in Library and Information Science.

TABLE: 5 PROFESSIONAL EXPERIENCES

Professional Experiences	Frequency	Percentage (%)
Below 5years	31	25.83
6 - 10 years	34	28.33
11 -15 years	30	25
Above 15 years	25	20.83
Total	120	100

Source: Primary Data

The table 5 talks about the professional experience of the respondents. 23.4% of the respondents have worked in libraries for 1-5 years. 28.1% for 6-10 years, 25% respondents for 11-15 years and 23.4% of the respondents worked more than 15 years.

HYPOTHESIS TESTS -1

H01: There is no mean difference between professional qualification and Awareness about ICT based applications

TABLE: 6

Factors	Mean Value				F value	P value
	B.L.I.Sc	M.L.I.Sc	M.Phil	Ph.D		
Operating system Windows	2.07	1.88	1.74	1.75	0.245	0.865
Operating system Linux	2.93	4.42	4.37	3.25	7.325	0.000
MS office package	1.87	1.58	1.37	2.25	1.818	0.154
Photoshop	3.2	4.12	3.58	2.75	3.508	0.021
Web page design	3.93	3.27	3.53	4.5	1.639	0.19
Create metadata / tag	3.93	3.19	3.53	4.5	2.268	0.09
Installation and customization of software	3	3.85	3.79	2.5	3.877	0.013
Database Management System	2.87	3.04	3.89	4.5	4.614	0.006
RFID Technology	3.2	2.77	3.37	2.75	1.137	0.341
Barcode Technology	2.27	3.81	3.47	2.5	9.423	0.000

Source: Computed Primary Data

From the above table, the null hypothesis is rejected by 5 variables because their significant value is less than 0.05 i.e. there is association between professional qualification and Awareness about ICT based applications like Installation and customization of software, Database management system, Barcode Technology, Operating System Linux and Photoshop. Therefore, the remaining other applications like Operating system windows, MS office package, Web page design, Create metadata /tag and RFID technology have no association between the professional qualification.

HYPOTHESIS TEST – 2

H₀2: There are no significant mean differences between professional qualification and Awareness about library automation software's

TABLE: 7

Factor	Mean Value				F value	P value
	B.L.I.Sc	M.L.I.Sc	M.Phil	Ph.D		
AUTOLIB	1.87	2.73	3.05	1.5	4.688	0.005
KOHA	3.13	4.23	4.21	3	6.758	0.001
NEWGENLIB	3.13	4.23	4.21	3	1.657	0.186
LIBSYS	3.53	3.96	3.95	3.25	1.235	0.305
WINISIS	4.2	4.73	4.95	4	15.449	0.000
EVERGREEN	3.53	3.96	3.95	3.25	1.235	0.305

Source: Computed Primary Data

From the above table, the null hypothesis is rejected by 3 variables because their significant value is less than 0.05 i.e there is association between professional qualification and Awareness of library automation software's like WINISIS, KOHA, AUTOLIB. Therefore, the remaining other software's like LIBSYS, NEWGENLIB and EVERGREEN have no association between the professional qualification.

VIII. SUGGESTION AND CONCLUSION

The above study tells about the Awareness of ICT Skills and knowledge among Library Professionals. From the study, Library professionals need more training and research regarding the usage as well as the awareness about the ICT segment. Because today's world is entirely of automated by network of networks and computers. Provide training to professionals regarding the Automated Software's and make user friendly software's. The ICT infrastructure here means providing computers, internet connectivity, sufficient suitable software's and training and development about the softwares, subscription to e-books and e-journals, subscription to library consortia, etc. It is also suggested to the college librarians to gain knowledge and expertise in ICT applications to libraries. There is a need to provide sufficient hardware, and software for library administration and user services, and to subscribe to electronic databases for effective library services. No library can function properly without an email and Internet connection in this information driven society. Each graduating librarian must complete a certain period of internship before entering into the profession go gain necessary confidence and insight to the practical aspects of the librarianship. A separate budget should be allocated for training whenever a new technology is acquired even if it is highly expensive. Librarians should initiate orientation programs for staff and users for newly implemented systems and technologies

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