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Skills of ICTs among Library Professionals of South Punjab

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ABSTRACT

The study aimed to explore the skills, knowledge, abilities, and competencies of library professionals working in the academic libraries of public sector universities and private sector universities located in south Punjab. Library professionals working in the libraries of public sector universities and private sector universities were the population of the study. Convenience sampling technique was used to meet the objectives of the study. Quantitative research technique followed by the questionnaire as a data collection tool was used to accomplish the research. The findings of the study revealed that ICT is an essential part of the libraries and librarians are there to perform library operations to facilitate the library users of their respective libraries. It is the basic necessity of the present age to learn new skills, abilities, and competencies related to ICTs to survive in the profession of librarianship. Training courses about ICT are an effort to enhance the skills of library professionals. Library associations can play an important role in uplifting the trainings regarding ICTs.

Keywords:

ICT competencies; ICT skills of library professionals; Librarians' skills of South Punjab

BACKGROUND & INTRODUCTION

Information and Communication Technology (ICT) is important in every field of life. It transferred the society into the information society. The impact of ICT is increasing in the field of libraries day by day. Wood (2000) stated that the present change of the term IT into ICT is a slight alteration, but very significant in clarifying the real meaning of the utilization of ICT. The term IT reflects one way of flowing information, where the user is the submissive receiver of the information displayed on his computer screen. But by combining the word communication, means more active communication between the user and the sources of information. Consequently, it declares that the computer has become a teaching machine, a tool to support education and scholarship and finally a mean of communication at the local and global level, basically ICT comprises three basic components that are:

(1) Computers: hardware, software, and information.
(2) Communication: hardware, software, and information.
(3) Know-how: Users and knowledge of using techniques

The above three are the indivisible mechanism of ICT because computers and communication technology resources would have limited usage without know-how.

Thanuskodi (2011) stated in his study that nowadays ICT is the famous slogan all over the world, which transferred society into information society which has a bigger impact on our daily life. The ICT consists of computers and IT that process, store and retrieve the information within a second. The ICT has changed the method of teaching and research; teachers are using multimedia to deliver their lectures in the classrooms. Thousands of research uploaded in different databases available on the internet.

The focus on investigates ICT literacy in librarians is very low in Pakistan. Internationally few comprehensive studies have been conducted on ICT. In Pakistan, some comprehensive studies have been found on ICT, but no study has been found regarding south Punjab, Pakistan. This study will be helpful in filling the gap of literature and give knowledge about the competencies of librarians who are designated in the academic libraries of south Punjab. This study will also give brief pictures of ICT and problems faced by librarians of academic librarians in south Punjab.

STATEMENT OF THE PROBLEM

ICT is very necessary in today's world because we are living in an information society. Nowadays information is created, organize, and disseminate by the use of ICT. The ICT has permeated every field of life. The ICT made things easy in our daily life. Libraries took benefits

from its creation. Libraries around the world are using a different types of automation and digital libraries' software. Librarians had gotten the skills on research databases and conducting workshops for their organizations' users. Now libraries are shifting from print books to e-books. These all things are happening due to the use of ICT.

Unfortunately, libraries of South Punjab are behind in the use of ICT as compared to other areas of Punjab. The librarians of South Punjab didn't have sufficient skills in ICT. The background of librarians regarding ICT is not strong. The majority of the librarians learned about ICT at the university level. The ratio of conducting workshops in South Punjab is very low. So, the opportunities for South Punjab librarians to learn about ICT are very least. This study will explore the librarians' level of ICT and the problems faced in the use of ICT. This study will identify the need for training workshops for South Punjab librarians.

RESEARCH QUESTION

- What is the level of ICT competencies among library professionals, serving in the libraries of South Punjab?

LITERATURE REVIEW

In 2005, Feret and Marcinek verified the results of the Delphi method study held in 1999, relating the competencies that were needed for future librarians. New things that were declared in this study were user expectations and search engines. The results revealed that ICT competencies were the most vital competencies required for future librarians and the subject knowledge was so much important as that of managerial competencies. The experts predicted that with the passage of time ICT is progressing which will change the shape and mode of operations of future libraries.

Bailin and Grafstein (2005) have declared that the basic role of the library, for example, collection development, access to the collection, provision of assistance in the required information, and efficient utilization of the collection have not been changed. However, due to the development of the internet and ICT, the library mode of operations and techniques of information handling has been changed. Therefore for academic librarians, they must manage their time and resources in a way that makes possible optimum utilization of internet resources.

Jange and Sarni (2006) Surveyed 17 National Institute of Technology (NIT) libraries in India, to examine the Internet as an information source in the libraries under study. The results demonstrated that all libraries were considering the importance of the Internet. The staff of the entire libraries understudy was using the Internet as a communication tool. E-mail, online databases, and World Wide Web were the most commonly used internet services among library professionals. The library staff mostly used the internet for searching new books, and serial publications for acquisition. Nearly all the respondents were using search engines to obtain the required information. The author recommended more ICT competencies for library staff to provide the best services to their patrons.

Vijayakumar (2007) surveyed five university libraries in Kerala (India), to explore the detailed information for example infrastructure, collection, staff, and budget allocation for the understudy libraries. The finding of the study regarding staff qualifications declared that the majority of the staff was highly qualified. The author suggested that staff should acquire more managerial skills and ICT competencies to cope with the emerging challenges of technology in the present information era.

Sampath Kumar and Biradar (2010) studied the use of ICT in college libraries in Karnataka, India, to explore the ICT infrastructure in college libraries, the current position of library automation, problems in library automation, and librarian's attitude towards ICT application in libraries. Data was collected through a structured questionnaire, observation, and informal interviews with the selected population of college librarians. The finding of the study revealed, that the application of ICT in college libraries in Karnataka, (India), was not on a satisfactory level. Budget, manpower, competent staff, and training deficiency were the main obstacles in automating library activities. Even though LIS professional's attitude was positive towards ICT application in college libraries, but they needed sufficient and appropriate training for proper application of ICT resources in college libraries.

Mugwisi and Ocholla (2003) investigated the efficient use of the internet for teaching and research purposes in the universities of Zimbabwe and Zululand. The findings of the study revealed a high level of computer and internet competencies among library professionals in both

universities. Both universities were facing the same problems as that of shortage of computers and internet accessibility. The results also declared a lack of training in the use of ICT resources and a lack of competencies among academic staff and prospective users about ICT resources.

Mohamed Haneefa (2004) studied the ICT resources application, library professionals ICT competencies, users and librarian's behavior towards ICT application, the main factors of promotion or obstruct in the application of ICT resources in libraries and training facilities in the resources for library professionals in the special libraries of Kerala, The analysis of the study declared basic level of ICT infrastructure in the libraries under study. The results also declared that library professionals and patterns were having highly positive behavior toward ICT application. The majority of the libraries were providing training facilities in the ICT resources to their library staff. The main obstacle in the proper application of ICT resources in the libraries understudy was the lack of ICT competent library staff.

Ramzan (2004) surveyed 244 library professionals in Pakistan to examine the availability and application of ICT resources in their libraries, Librarian's ICT knowledge, and behavior towards ICT resources application in their libraries. The findings demonstrated that a greater part of the respondents had a moderate level of knowledge about ICT resources, while 33 percent were having limited knowledge and 13.5 percent were having no knowledge about ICT resources. The findings also declared that ICT resources application and proper utilization in libraries improve the positive attitude of librarians toward technology for which continuous education and training is needed for library professionals.

Watane, Vinchurkar, and Chaukande (2005) surveyed 38 college libraries in Amravati city, India to examine the ICT knowledge and skills among librarians and ICT application in the libraries under study. The findings of the study revealed that a greater part of the librarians was ICT literate and was not feeling any sort of hesitation by the application of ICT in their libraries. More than 50% of libraries were providing library services based on ICT resources. Linda and Chris (2005) examined the provision of electronic information resources in Liverpool John Moores University (JMU) Nigeria and found some issues that were barriers in the provision of electronic information resources. The major issue was the lack of ICT competencies among the policymakers and

librarians. Furthermore, lack of programs for ICT training and lack of staff encouragement initiatives in acquiring the ICT skills were further barriers in the provision of electronic information resources. The study suggested some free international electronic information initiatives for example International Network for the Availability of Scientific Publications (INASP), should be followed by library professionals for the development of their ICT skills.

Idiodi (2005) studied the approaches to information literacy acquisition in the Nigerian University Libraries. The study found that although library automation and ICT resources have been introduced in the Nigerian University Libraries, very few library professionals were having the competencies to use these resources effectively in their libraries. The author argued that previous attempts towards library user education were also not very successful. The study concluded that the main hurdle in the effective library user education in the Nigerian University Libraries was the low level of ICT competencies among library professionals.

Ugboma (2006) explored the ICT literacy among librarians in Delta state, Nigeria. The study revealed that the LIS professionals in the Delta state were ICT literate, familiar with the communication forms like mobile phones, E-mails, and Fax, etc. But still, most of the libraries were not computerized. Most of the LIS professionals were having competencies of the internet, but they were not using it for official duties, therefore were lazy in the development of ICT skills. The study suggested that librarians should attend maximum ICT training programs to improve their ICT competencies. Amar, Bahil, and Kumar (2007) examined the level of ICT competencies among librarians of Chandigarh city libraries. The objectives of the study were “to investigate the ways through which they were using ICTs”, “the problems they were facing in the use of ICTs and their training needs”. The findings disclosed a low level of ICT competencies among librarians and a lack of conducting proper programs for ICT training in the academic libraries under study.

Ademodi and Adepoju (2009) surveyed 30 library professionals in the academic libraries of Nigeria to study the ICT competencies among librarians. The findings declared a low level of ICT competencies among librarians. Moreover, the study also found a lack of training in the ICT resources among library professionals and a shortage of computers in the academic libraries under study. Furthermore, the existing few computers were also used for administration purposes and

internet searching. The author recommended more funds for ICT trainings and infrastructure for the libraries under study.

Choudhury and Sethi (2009) examined the ICT competencies of the LIS professionals serving in the three major Universities of Orissa. Structured questionnaires and interviews methods were used for data collection. The results demonstrated that the majority of librarians were computer literate, having done a variety of computer courses like PGDCA, DCA, and other short-term courses. They were also having the competencies of an evaluation of web resources, electronic recourses, web OPAC, IPR, and search engines, etc. The researcher suggested that LIS professionals should attend various training programs to improve their ICT competencies. Hanadi et al. (2009) conducted a study educating LIS professionals in Kuwaiti higher education and found that LIS students' level of ICT skills was higher than teaching staff and professional librarians. Despite the fact, sufficient ICT training facilities were also not provided at their LIS department. The ICT courses in the curriculum were outdated and inappropriate. Lack of teacher's encouragement of students towards ICT, English language, the interest of students in the ICT, lack of resources and facilities, some social factors, lack of ICT facilities at home, shortage of time, and lack of ICT competent teaching staff were main factors that affected the ICT skills development of the LIS students.

RESEARCH DESIGN AND METHODOLOGY

The current study is based on a quantitative research approach. The target population of the current study was the librarians which were working in university libraries of South Punjab. The data through questionnaires were gathered from 21 universities and DAIs institutes which were located in South Punjab. Twelve universities and DAIs out of 21 were public while the remaining nine were private. The data were gathered via a questionnaire from 71 respondents who were designated in these 21 universities and DAIs. Forty-two respondents out of 71 belonged to the public sector while 29 were working in private universities and DAIs. The questionnaire was developed in light of literature review and under the guidance of a supervisor. Cronbach Alpha reliability analysis was employed to check the reliability of the self-developed questionnaire. This test was used on all the sections except the demographic section of the questionnaire. The Cronbach

value revealed that the average correlation coefficient of 80 statements was 0.951. Alpha coefficient for competencies in different ICT items was (38 statements) was 0.915. The researcher personally visited all four colleges and distributed this questionnaire among students. The researchers distributed questionnaires in the classroom, canteen, playground, and where the students were found. The researchers briefed the students where students asked. The responses were received from 100 students, 25 from each college. After the collection of data, the researcher checked the data, and a number was assigned to every questionnaire. All the responses were added to "Statistical Package for Social Science (SPSS)". The data was checked once more time in the SPSS file and mistakes were corrected. Descriptive stats were used to analyze and then interpret it accordingly. The findings of the study were presented in tables and graphs.

DATA ANALYSIS AND INTERPRETATION

Demographic

The results (Fig.01) demonstrated that a greater part of the respondents 46 (64.80%) were male while 23 (32.40%) were female. The results (Fig.02) revealed that the majority of the respondents 25 (35.20%) had ages above 40. The results demonstrated that 18 (25.40%) respondents were from the age group of 26-30 while 15 (21.1%) respondents were from the age group of 31-35. The findings (Fig.03) demonstrated that a greater part of the respondents 29 (40.80%) were librarians and 22 (31%) assistant librarians.

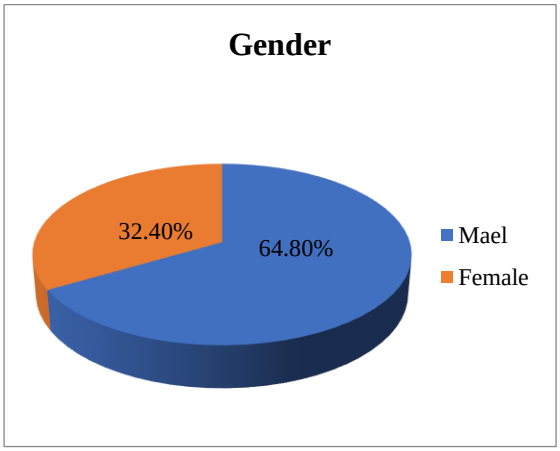

Fig. 01

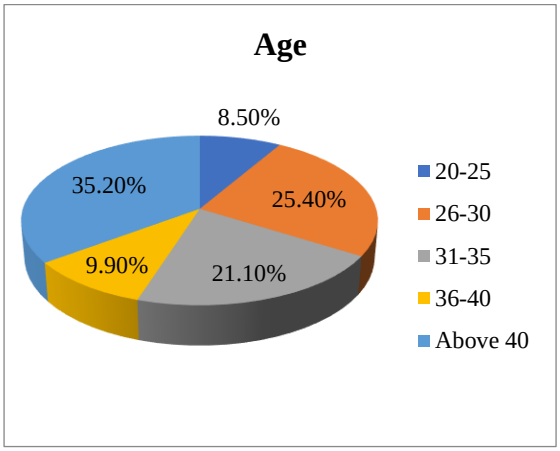

Fig. 02

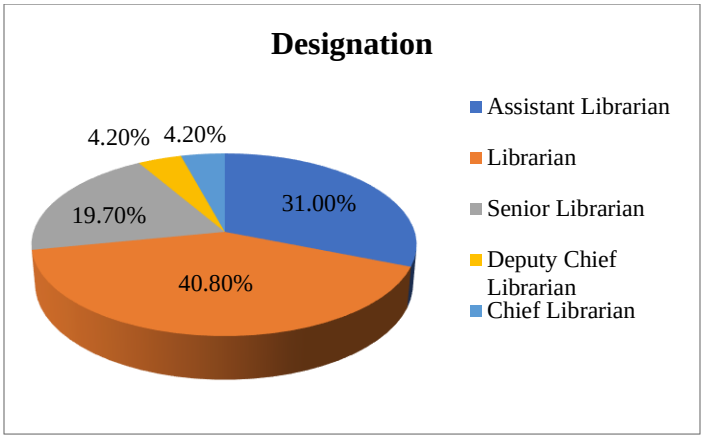

Fig. 03

The findings (Table 1) revealed that a greater part of the respondents 42 (59.2%) were from public sectors while 29 (40.8%) respondents were from private sectors. The greater part of the respondents 62 (87.3%) have MLIS/MLS degrees and only 7 (9.9%) respondents have been done an M.phil degree in "Library and Information Science (LIS)". The findings revealed that most of the respondents 29 (40.8) have 1-5 years of professional work experience and 24 (33.8%) have 6-10 years.

Table 1

"Demographic" (N=71)

"Variables"	"Levels"	"Frequency"	"Percentage"
Type of institute			
	Public	42	59.2
	Private	29	40.8
Professional Qualification			
	MLIS/MLS	62	87.3
	M.Phil	7	9.9
	Ph.D	2	2.8
Professional work experience			
	1-5	29	40.8
	6-10	24	33.8
	10-15	05	7.0

	16-20	02	2.8
	Above 20	11	15.5

Competencies Level in Operating System

The results (Table 4.2) demonstrated that only one statement got a mean > 3.00 and two statements got a mean > 2.00. The findings indicated that a greater part of the respondents has competencies in windows (mean=3.78), Linux (mean=2.53), and UNIX (mean=2.09). The fourth statement got a mean of < 2.00 which clearly showed that respondents have the lowest competencies in this operating system because it is an old operating system.

Table 2

Competencies level in the operating system (N=71)

Sr. no	Statement	Excellent		Very Good		Good		Average		Poor		Mean	Std.	Rank
		f	%	*f*	%	*f*	%	*F*	%	*f*	%			
i)	Windows	27	38.0	16	22.5	18	25.4	6	8.5	4	5.6	3.78	1.20	1
ii)	Linux	6	8.5	15	21.1	12	16.9	16	22.5	22	31.0	2.53	1.35	2
iii)	UNIX	1	1.4	9	12.7	13	18.3	21	29.6	27	38.0	2.09	1.09	3
iv)	MS-Dos	3	4.2	00	00	6	8.5	34	47.9	28	39.4	1.81	0.91	4

Competencies Levels in Operating Systems with Respect to Sector

"Independent sample *t*-test" was employed to examine the universities (public and private) variances on competencies level in the operating system. The findings (Table 3) showed that no statement got significant difference on competencies levels in operating systems which indicates that both types of respondents public and private have almost the same competencies levels on Windows, Linux, UNIX, and MS-Dos. However, some differences calculated especially private sectors' respondents have more mean than public sectors' respondents on windows operating systems. Which is an indication that private sectors respondents were more competent to use the Windows operating system than public sectors respondents.

Table 3

Competencies levels in operating systems between public and private sectors (71)

"Sr.#"	"Statements"	"Public University" (n= 42)		"Private University" (n= 29)		"t-(n=71)"	"t-test Sig (2tailed)"
		Mean	SD	Mean	SD		
i)	Windows	3.61	1.26	4.03	1.08	-1.43	0.15
ii)	Linux	2.28	1.29	2.89	1.37	-1.90	0.06
iii)	UNIX	1.90	1.00	2.37	1.17	-1.82	0.07
iv)	MS-Dos	1.76	0.93	1.89	0.90	-0.60	0.54

Competencies Levels in Library Automation Software

The findings (Table 4) revealed that only one statement got a mean > 4.00 and one statement got a mean > 3.00. The findings revealed that three statements got a mean > 2.00 while four statements got a mean < 2.00. The findings revealed that a greater part of the respondents was competent in Koha (mean=4.09) and LIMS (mean=3.35), and Virtua (mean=2.18). The remaining other software got the lowest mean which indicated that respondents lack competencies in these software.

Table 4

Competencies Levels in Library Automation Software (N=71)

Sr. no	Statement	Excellent		Very Good		Good		Average		Poor		Mean	Std.	Rank
		f	%	*f*	%	*F*	%	*f*	%	*f*	%			
i)	Koha	34	47.9	16	22.5	16	22.5	4	5.6	1	1.4	4.09	1.03	1
ii)	LIMS	17	23.9	23	32.4	11	15.5	8	11.3	12	16.9	3.35	1.40	2
iii)	Virtua	1	1.4	10	14.1	13	18.3	24	33.8	23	32.4	2.18	1.08	3
iv)	LMS	1	1.4	7	9.9	11	15.5	34	47.9	18	25.4	2.14	0.96	4
v)	LAMP	3	4.2	7	9.9	8	11.3	30	42.3	23	32.4	2.11	1.10	5
vi)	CDS/ISIS	1	1.4	3	4.2	7	9.9	33	46.5	27	38.0	1.84	0.87	6
vii)	IMAGIC	1	1.4	00	00	16	22.5	19	26.8	35	49.3	1.77	0.89	7
viii)	GLAS	1	1.4	2	2.8	4	5.6	36	50.7	28	39.4	1.76	0.80	8
ix)	WINISIS	2	2.8	00	00	5	7.0	29	40.8	35	49.3	1.66	0.84	9

Competencies Levels in Library Automation Software with Respect to Sectors

The findings (Table 5) demonstarted that the opinions of public and private sector's respondents recorded statistically significant for eight statements on competencies levels in library automation software. The difference revealed that private sectors' respondents were significantly have competencies in "Koha *(p=0.02)"*, "LIMS *(p=0.04)", "*Virtua *(p=0.00)",* "LAMP *(p=0.00)", "*CDS/SIS *(p=0.03)", "*GLAS *(p=0.03)", "*WINISIS *(p=0.00)", "*INMAGIC *(p=0.02)"* as compared to public sectors' respondents. Only statement of LMS didn't have significant difference.

Table 5

Competencies levels in library automation software with respect to sectors (N=71)

"Sr.#"	"Statements"	"Public University (n= 42)"		"Private University (n= 29)"		"t-(n=71)"	"t-test Sig (2tailed)"
		Mean	SD	Mean	SD		
i)	Koha	3.88	1.10	4.41	0.82	-2.32	0.02
ii)	LIMS	3.07	1.40	3.75	1.32	-2.07	0.04
iii)	Virtua	1.88	0.91	2.62	1.17	-2.84	0.00
iv)	LAMP	1.76	0.75	2.62	1.32	-3.16	0.00
v)	CDS/ISIS	1.66	0.65	2.10	1.08	-2.12	0.03
vi)	GLAS	1.59	0.73	2.00	0.84	-2.14	0.03
vii)	WINISIS	1.42	0.54	2.00	1.06	-2.95	0.00
viii)	INMAGIC	1.57	0.76	2.06	0.99	-2.37	0.02
ix)	LMS	2.04	0.93	2.27	0.99	-0.98	0.32

Competencies Levels in Digital Library Software

The results (Table 6) demonstrated that all four statements got mean < 3.00. The lowest mean showed that the respondents didn't have more competencies in digital library software. The findings (Table 4.4) demonstrated that a greater part of the respondents has competencies in DSpace (mean=2.98) and Fedora (mean=2.95). These lowest mean

showed that the use of digital libraries in South Punjab institutes was very low and respondents have lack competencies in digital library software.

Table 6

Competencies Levels in Digital Library Software (N=71)

Sr. no	Statement	Excellent		Very Good		Good		Average		Poor		Mean	Std.	Rank
		f	%	*f*	%	*f*	%	*f*	%	*f*	%			
i)	Dspace	12	16.9	20	28.2	12	16.9	9	12.7	18	25.4	2.98	1.45	1
ii)	Fedora	15	21.1	13	18.3	13	18.3	14	19.7	16	22.5	2.95	1.46	2
iii)	E-Print	13	18.3	10	14.1	13	18.3	13	18.3	22	31.0	2.70	1.49	3
iv)	Green Stone	11	15.5	12	16.9	10	14.1	17	23.9	21	29.6	2.64	1.45	4

Competencies Levels in Digital Library Software with Respect to Sectors

The findings (Table 7) indicated that the opinions of public and private sector librarians were not statistically significant on competencies levels in digital library software.

Table 7

Competencies Levels in Digital Library Software between Public and Private Sectors (N=71)

"Sr.#"	"Statements"	"Public University (n= 42)"		"Private University (n= 29)"		"t-(n=71)"	"t-test Sig (2tailed)"
		Mean	SD	Mean	SD		
i)	Dspace	3.11	1.46	2.79	1.44	0.92	0.35
ii)	Green Stone	2.54	1.43	2.79	1.49	-0.69	0.48
iii)	E-Print	2.85	1.53	2.48	1.42	1.03	0.30
iv)	Fedora	3.04	1.49	2.82	1.44	0.61	0.53

Competencies Levels in Application Software

The findings (Table 8) demonstrated that three statements got mean > 4.00, two statements got mean > 3.00, and two statements got mean > 2.00. The respondents of South Punjab libraries were more competent in MS word (mean=4.19.), MS Excel (mean=4.07), and PowerPoint (mean=4.04). The findings revealed that respondents also had competencies in MS Access (mean=3.38) and Photoshop (mean=3.05).

The lowest mean in Library Electronic Tools (mean=2.80) and Corel Draw (mean=2.54) showed that respondents need to enhance their competencies levels in both this application software.

Table 8

Competencies Levels in Application Software

Sr. no	Statement	Excellent		Very Good		Good		Average		Poor		Mean	Std.	Rank
		f	%	*F*	%	*f*	%	*f*	%	*f*	%			
i)	MS Word	30	42.3	29	40.8	10	14.1	2	2.8	00	00	4.19	0.88	1
ii)	MS Excel	30	42.3	21	29.6	17	23.9	1	1.4	2	2.8	4.07	0.99	2
iii)	PowerPoint	36	50.7	15	21.1	10	14.1	7	9.9	3	4.2	4.04	1.20	3
iv)	MS Access	13	18.3	23	32.4	22	31.0	4	5.6	9	12.7	3.38	1.22	4
v)	Photoshop	9	12.7	24	33.8	13	18.3	12	16.9	13	18.3	3.05	1.32	5
vi)	Library Electronic Tools (E-DDC etc.)	15	21.1	10	14.1	11	15.5	16	22.5	19	26.8	2.80	1.50	6
vii)	Corel Draw	8	11.3	11	15.5	10	14.1	25	35.2	17	23.9	2.54	1.31	7

Competencies Levels in Application Software with Respect to Sectors

The findings (Table 9) revealed that the opinions of public and private sector librarians were statistically significant for two statements on competencies levels in application software. The results showed that private sectors respondents were more competent in MS word *(p=0.04)* and MS Excel *(p=0.01)* than public sectors respondents. There was no significant difference was recorded for the remaining statements of this section.

Table 9

Competencies Levels in Application Software with Respect to Sectors (N=71)

"Sr.#"	"Statements"	"Public University (n= 42)"		"Private University (n= 29)"		"t-(n=71)"	"t-test Sig (2tailed)"
		Mean	SD	Mean	SD		
i)	MS Word	4.02	0.97	4.44	0.68	-2.02	0.04
ii)	MS Excel	3.83	1.08	4.41	0.73	-2.51	0.01
iii)	PowerPoint	3.83	1.20	4.34	1.14	-1.79	0.07
iv)	MS Access	3.35	1.22	3.41	1.23	-1.90	0.84
v)	Photoshop	3.04	1.39	3.06	1.25	-0.66	0.94
vi)	Corel Draw	2.40	1.32	2.75	1.29	-1.11	0.26
vii)	Library Electronic Tools (E-DDC etc.)	2.64	1.49	3.03	1.52	-1.07	0.28

Competencies Levels in Web Awareness

The results (Table 10) showed that all the statements got unanimously mean > 3.00. The findings revealed that respondents have competencies in Email (mean=3.8), wide area network (mean=3.84), local area network (mean=3.77), social media network (mean=3.77), and web OPAC/OPAC (mean=3.56). The respondents need to enhance their competencies in e-journal searching (mean=3.35) and in the use of the internet for collection development (mean=3.26).

Table 10

Competencies Levels in Web Awareness (N=71)

Sr. no	Statement	Excellent		Very Good		Good		Average		Poor		Mean	Std.	Rank
		F	%	*f*	%	*F*	%	*f*	%	*f*	%			
i)	Email	22	31.0	30	42.3	9	12.7	8	11.3	2	2.8	3.87	1.06	1
ii)	Wide area network	19	26.8	25	35.2	00	00	24	33.8	3	4.2	3.84	0.87	2
iii)	Local area network	12	16.9	36	50.7	19	26.8	3	4.2	1	1.4	3.77	0.83	3
iv)	Social media network	27	38.0	22	31.0	5	7.0	13	18.3	4	5.6	3.77	1.28	4
v)	Web OPAC/OPAC	20	28.2	21	29.6	18	25.4	3	4.2	9	12.7	3.56	1.29	5
vi)	Search Engines	18	25.4	22	31.0	15	21.1	12	16.9	4	5.6	3.53	1.20	6
vii)	Bibliographic Database	21	29.6	21	29.6	11	15.5	9	12.7	9	12.7	3.50	1.37	7
viii)	Webpage Designing	15	21.1	19	26.8	19	26.8	17	23.9	1	1.4	3.42	1.11	8
ix)	Web Browsing	15	21.1	25	35.2	18	25.4	6	8.5	7	9.9	3.40	1.33	9
x)	Video conferencing call	12	16.9	26	36.6	14	19.7	16	22.5	3	4.2	3.39	1.13	10

xi)	Internet for reference quarries	17	23.9	16	22.5	17	23.9	19	26.8	2	2.8	3.38	1.19	11
xii)	E-Journal Searching	19	26.8	18	25.4	13	18.3	11	15.5	10	14.1	3.35	1.39	12
xiii)	Internet for collection development	16	22.5	16	22.5	18	25.4	20	28.2	1	1.4	3.26	1.28	13

Competencies Levels in Web Awareness with Respect to Sectors

The results (Table 11) showed that the opinions of public and private sector librarians were statistically significant for two statements on competencies levels in web awareness. The results showed that private sectors respondents were more competent in web browsing *(p=0.03)* and email *(p=0.04)* than public sectors respondents.

Table 11

Competencies levels in web awareness with respect to sectors (N=71)

"Sr.#"	"Statements"	"Public University (n= 42)"		"Private University (n= 29)"		"t-(n=71)"	"t-test Sig (2tailed)"
		Mean	SD	Mean	SD		
i)	Bibliographic Database	3.33	1.45	3.75	1.21	-1.29	0.20
ii)	Web OPAC/OPAC	3.38	1.34	3.82	1.19	-1.43	0.15
iii)	E-Journal Searching	3.19	1.46	3.58	1.26	-1.17	0.24
iv)	Web Browsing	3.23	1.26	3.86	1.02	-2.20	0.03
v)	Email	3.66	1.09	4.17	0.96	-2.00	0.04
vi)	Search Engines	3.38	1.18	3.75	1.21	-1.30	0.19
vii)	Webpage Designing	3.47	1.13	3.34	1.11	0.48	0.63
viii)	Internet for collection development	3.26	1.14	3.51	1.18	-0.90	0.36
ix)	Internet for reference quarries	3.26	1.21	3.55	1.18	-1.00	0.32
x)	Video conferencing call	3.28	1.11	3.55	1.18	-0.96	0.33
xi)	Local area network	3.73	0.88	3.82	0.75	-0.44	0.65
xii)	Wide area network	3.88	0.91	3.79	0.81	0.41	0.68
xiii)	Social media network	3.78	1.33	3.75	1.24	0.08	0.93

CONCLUSION

The study has found that respondents were competent in windows and Linux operating systems; however, they need to enhance competencies in UNIX and MS-Dos. The respondents have competencies in Koha, LIMS, and Virtua library automation software. The results showed that the majority of the respondents have competencies in DSpace and Fedora software which are

using to make a digital library, however, respondents need to enhance their competencies in E-print and Green Stone software. The respondents were found competent in MS Word, MS Excel, Powerpoint, MS Access, and Photoshop. The respondents have awareness levels in email, wide area network, local area network, the social media network, and web OPAC/OPAC. Overall the respondents of South Punjab sectors' have competencies in a different type of software and ICT. There is a dire need to enhance competencies for digital and library automation software and other application software.

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