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**Attitude of Library Users Towards Use Of Information Technology As  
An Application to Libraries In Relation to Gender and Age**

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**Introduction:**

Today, Punjab state libraries are functioning under consistently changing environment and face a variety of complex challenges like information explosion, ICT revolution, network evolution, shrinking library budgets, escalating prices of documents, high level of user expectations and availability of information resources in diverse media and so on.

Information technology offers a wide range of opportunities, which could provide solutions to most of these major challenges. Rapid advances in modern technologies have greatly improved the capabilities of storage, processing, retrieval, repackaging, communicating, sharing, and managing the explosive growth of information effectively and economically in libraries. Information Technology in libraries has become inevitably to stay in an era of information explosion and the emergence of a wide range of new technologies in order to satisfy the changing complex information needs of students of Punjab state.

Development of technology has played an important role in the improvement of library and information services. It has proved itself one of the best innovations (Riggs, 2011) and also marked a new era for the profession of librarianship. It has provided access to larger amounts of information at cheaper cost through faster communication (Neelameghan, 2011).

**Review Of The Litrature:**

**Chadha (2014)** wrote an article titled "Libraries and Information Services: Challenges Ahead." He discussed about the new role of Libraries and challenges of new technologies. He conduct a study Results of surveys carried out show that many users use Internet in a public or university Library. Internet has changed the functions of a Library and opened new horizons of networking. He described that Libraries will continue to play crucial role as gateway to information in future too. He explained in their study many ways to make the Internet useful for library's information service.

**Anand and Ravichandran (2014)** Wrote an article titled "A Scale to Measure the Attitude of Extension Personnel towards the Information and Communication Technology (ICT) Tools" The study revealed that extension personnel possessed favorable attitude towards Information and Communication Technology (ICT) tools.

**Gawadekar (2012)** said that the mode of library and information services and facilities are rapidly modified due to enrichment of technology and require of library users and staff. He explained that "A number of tools are emerged and available in the current era in free of cost". He express their view that "Library Professionals are keen interested to learn new tools and very helpful for the library users. These tools are very helpful for the library professionals for providing the utmost satisfaction of library users in the optimum time and form. These tools provide the elasticity of work, security of library resources,

avoiding of duplication work, security of library services and facilities with no bar of wall and save the time of library trinity viz.; Resources, Manpower and Users”.

**Objectives:**

1. To find out the difference in attitude of library users towards information technology as an application to libraries with respect to the gender i.e. male and female.
2. To find out the difference in attitude of library users towards information technology as an application to libraries with respect to the age i.e. (20-30, 30-40, 40-50 and 50-60 years of age).

**Hypothesis:**

1. There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their gender.
2. There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their age.

**Methodology:** This study is empirical in nature, conducted in the form of a survey designed to know the status of University Libraries.

**Location:** four universities of the state of Punjab namely Panjab University, Chandigarh; Punjabi University, Patiala; Punjab Agricultural University (PAU), Ludhiana and I.K. Gujral Punjab Technical University (PTU), Kapurthala.

**Data collection & Technique:** Large population spread over three cities of Punjab, it was decided to use questionnaire for data collection purposes. However, for collection of relevant data from concerned university libraries, observation and interview technique was used.

**Questionnaires:** two questionnaires were designed separately

**Data analysis technique:** values were calculated to locate the mean differences in attitude towards information technology as an application in libraries with respect to gender. One-way analysis of variance (ANOVA), therefore, was employed using F-test to compare the differences in attitude towards information technology as an application in libraries with respect to university, status, age, experience, frequency of visit to library and time spent in the library.

**Analysis & Interpretation:****Table-1****Response of the study in different universities**

Sr. No.	University	Distributed	Usable response(%)
1.	PAU	160	103 (64.37%)
2.	PTU	100	30 (30.00%)
3.	PU	160	102 (63.75%)
4.	Punjabi University	160	94 (58.75%)
	Total	580	329 (56.72%)

The Table -1 shows university- wise analysis of the usable

**Table -2****Sex of the respondents**

Sr.No.	Sex	Frequency (%)
1	Male	176 (53.50%)
2	Female	153 (46.50%)
	Total	329 (100%)

The Table -2 shows university- wise analysis of the usable

Gender wise analysis of the response in the above table shows that 53.50 percent male respondents participated in the study, while only 46.50 percent female responded.

In order to test the hypotheses formulated in this work, the data was analyzed by using relevant statistical techniques.

**Section I** as already stated is devoted to reveal the nature of score distribution among attitude of library users towards information technology as an application in libraries in terms of university, status of user, gender, age group, experience, number of visits in the library, and time spent in the library.

**Table -3**  
**Distribution of Library Users of various Universities of Punjab State (N=329)**

S.No.	Name of the University	N	Percentage
1.	Panjab University, Chandigarh	102	31.00
2.	Punjabi University, Patiala	94	28.57
3.	Punjab Agricultural University, Ludhiana	103	31.31
4.	Punjab Technical University, Kapurthala	30	9.12
	<b>Total</b>	<b>329</b>	<b>100</b>

Fig.1 : Percentage Distribution of Library Users of various Universities of Punjab State (N=329)

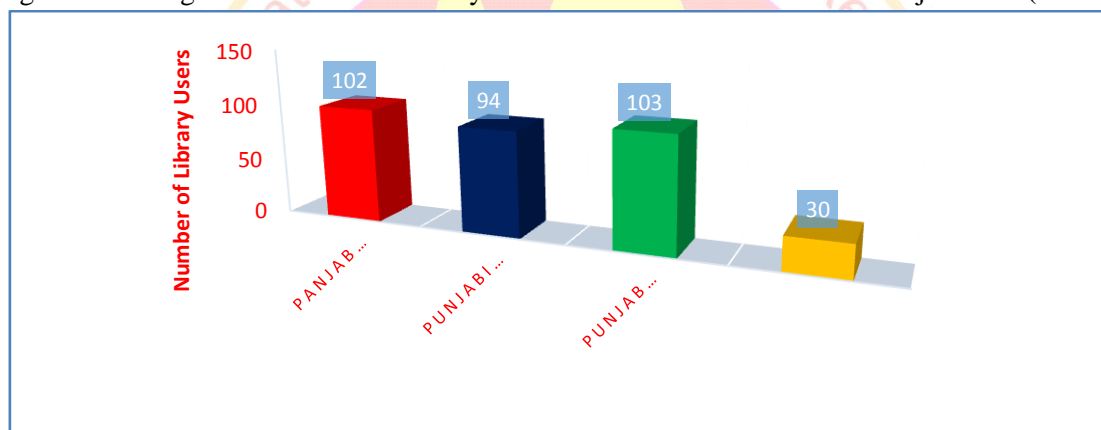


Table.3 & Fig.1 indicates that out of total 329 respondents, 102 i.e. 31% were from Panjab University, Chandigarh; 94 i.e. 28.57% were from Punjabi University, Patiala; 103 i.e. 31.31% were from Punjab Agricultural University, Ludhiana and 30 i.e. 9.12% were from Punjab Technical University, Kapurthala.

**Table-4**  
**Gender-wise Percentage Distribution of Library Users of various Universities of Punjab State (N=329)**

S.No.	Name of the University	Male	%age	Female	%age
1.	Panjab University, Chandigarh	51	15.50	51	15.50
2.	Punjabi University, Patiala	53	16.11	41	12.46
3.	Punjab Agricultural University, Ludhiana	60	18.24	43	13.07
4.	Punjab Technical University, Kapurthala	7	2.13	23	6.99
	<b>Total</b>	<b>171</b>	<b>51.98</b>	<b>158</b>	<b>48.02</b>

**Fig.2: Gender-wise Distribution of Library Users of various Universities of Punjab State (N=329)**

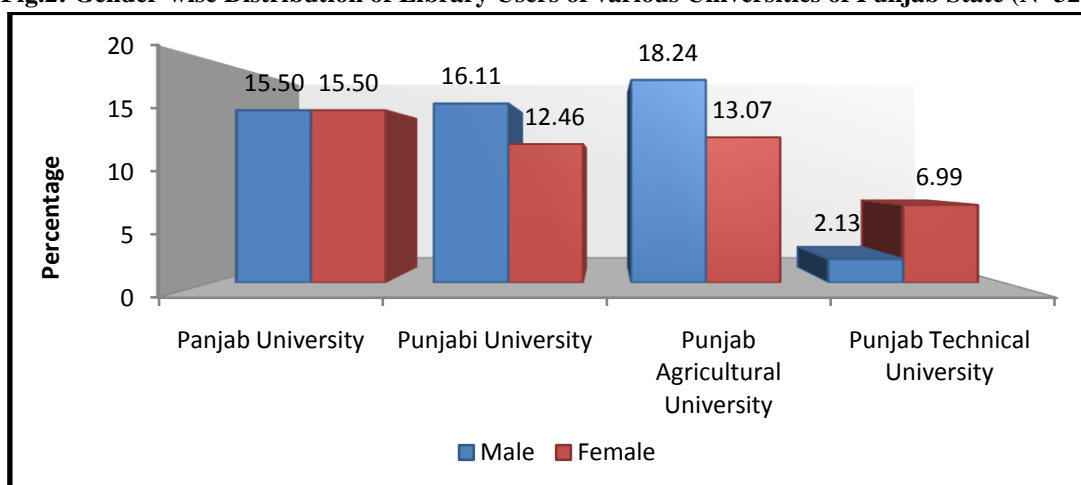


Table-4 & Fig.2 indicates that out of total 102 respondents from Panjab University, Chandigarh, 51 i.e. 15.50% of total sample are male and 51 i.e. 15.50% of total sample are female; out of total 94 respondents from Punjabi University, Patiala, 53 i.e. 16.11% of total sample are male and 41 i.e. 12.46% of total sample are female; out of total 103 respondents from Punjab Agricultural University, Ludhiana, 60 i.e. 18.24% of total sample are male and 43 i.e. 13.07% of total sample are female and out of total 30 respondents from Punjab Technical University, Kapurthala, 7 i.e. 2.13% of total sample are male and 23 i.e. 6.93% are female. Out of total 329 students, 171 i.e. 51.98% were male and 158 i.e. 48.02% were female.

**Table-5**  
**Age-wise Percentage Distribution of Library Users of various Universities of Punjab State (N=329)**

S. No.	Age (in years)	N	Percentage
1.	20-30	222	67.48
2.	30-40	53	16.11
3.	40-50	32	9.73
4.	50-60	22	6.69
	<b>Total</b>	<b>329</b>	<b>100</b>

**Fig.3: Age-wise Distribution of Library Users of various Universities of Punjab State (N=329)**

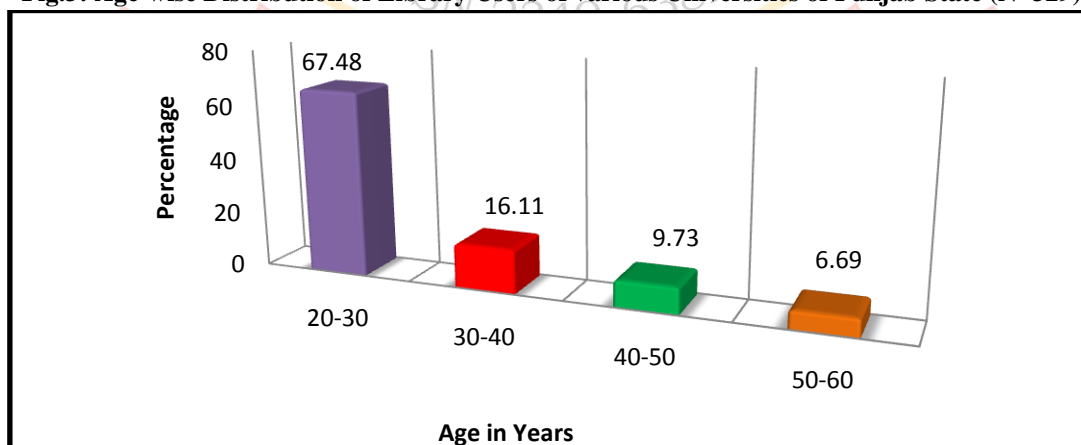




Table 5 & Fig.3 indicates that out of total 329 respondents, 222 i.e. 67.48% of total sample were of age group 20-30 years; 53 i.e. 16.11% of total sample were of age group 30-40 years; 32 i.e. 9.73% of total sample were of age group 40-50 years and 22 i.e. 6.69% of total sample were of age group 50-60 years.

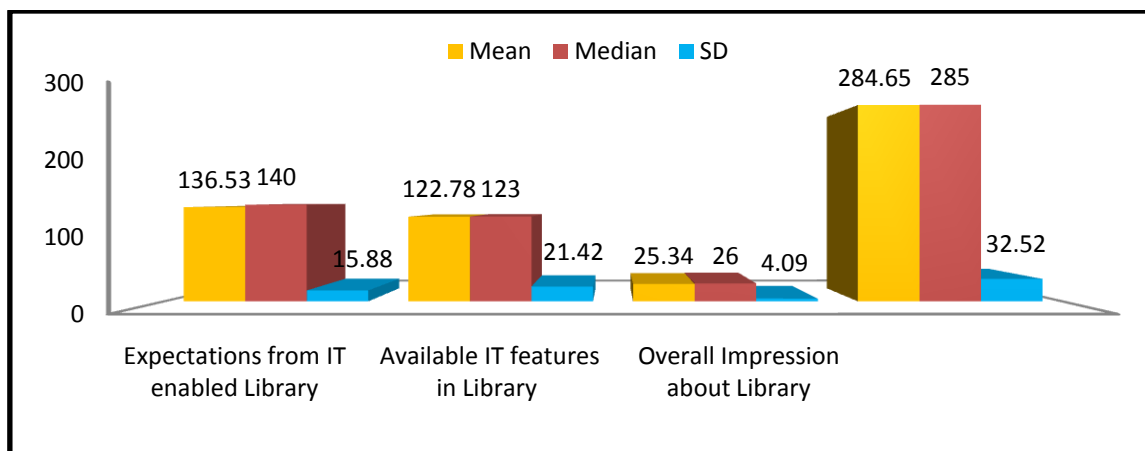
**Table-6**  
**Showing Mean, Median, Standard Deviation, Skewness and Kurtosis of Scores of Library Users on the variable of Attitude towards Information Technology as Application to Libraries (N=329)**

Variable	Mean	Median	S.D.	Skewness	Kurtosis
<b>Expectations from IT enabled Library</b>	136.53	140.00	15.88	-.841	.822
<b>IT features available in Library</b>	122.78	123.00	21.42	-.004	-.150
<b>Overall Impression about Library</b>	25.34	26.00	4.09	-.100	.012
<b>Attitude Towards Information Technology as Application to Libraries</b>	284.65	285.00	32.52	-.300	.265

Table-6 shows the descriptive statistics of attitude of library users towards information technology (N=329) which reveals the nature of distribution of the variables as:

- The values of mean and median of the scores of expectations of library users towards IT enabled library as are 136.53 and 140.00 respectively which are quite proximate to each other. The values of skewness and kurtosis for the same are -0.841 and 0.822 showing the curve as negatively skewed and leptokurtic. However the distortion in both the cases was negligible. Hence the distribution can be treated as normal.
- The values of mean and median of the scores of library users towards IT features available in the library as are 122.78 and 123.00 respectively which are quite proximate to each other. The values of skewness and kurtosis for the same are -0.004 and -0.150 showing the curve as negatively skewed and platykurtic. However the distortion in both the cases was negligible. Hence the distribution can be treated as normal.
- The values of mean and median of the scores of library users towards overall IT impression about library as are 25.34 and 26.00 respectively which are quite proximate to each other. The values of skewness and kurtosis for the same are -0.100 and 0.012 showing the curve as negatively skewed and leptokurtic. However the distortion in both the cases was negligible. Hence the distribution can be treated as normal.
- The values of mean and median of the scores of attitude of library users towards information technology as an application to libraries as are 284.65 and 285.00 respectively which are quite proximate to each other. The values of skewness and kurtosis for the same are -0.300 and 0.265 showing the curve as negatively skewed and leptokurtic. However the distortion in both the cases was negligible. Hence the distribution can be treated as normal.

**Fig.4: Showing Mean, Median and Standard Deviation of Scores of Library Users on the variable of Attitude towards Information Technology as Application to Libraries (N=329)**



**The first objective** of the present study was: To find out the difference in attitude of library users towards information technology as an application to libraries with respect to the gender i.e. male and female.

The hypothesis-3 framed to achieve the above said objective was worded as under:

Hypothesis-3 states, “There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their gender.”

To verify this hypothesis t-test was employed on the scores of attitude of library users towards information technology as an application to libraries with respect to gender i.e. male and female library users.

**Results**

**Table -7**

**Showing the Comparison of Mean Scores of Library Users with respect to Gender (Male and Female) on the variable of Attitude towards Information Technology as Application to Libraries (N=329)**

S. No.	Area of Study	Group	N	M	S.D	SE <sub>M</sub>	t-ratio
1.	Expectations from IT enabled Library	Male	171	137.20	15.52	1.19	<b>0.79</b> (NS)
		Female	158	135.82	16.29	1.30	
2.	IT features available in Library	Male	171	123.36	21.62	1.65	<b>0.52</b> (NS)
		Female	158	122.14	21.25	1.69	
3.	Overall Impression about Library	Male	171	25.23	4.00	0.31	<b>0.51</b> (NS)
		Female	158	25.46	4.19	0.33	
4.	Attitude Towards Information Technology as Application to Libraries	Male	171	285.80	31.51	2.41	<b>0.66</b> (NS)
		Female	158	283.42	33.63	2.68	

*NS-Not Significant*

**Fig. 5 :** Bar Graph showing the Comparison of Mean Scores of Library Users with respect to Gender (Male and Female) on the variable of Attitude towards Information Technology as Application to Libraries (N=329)

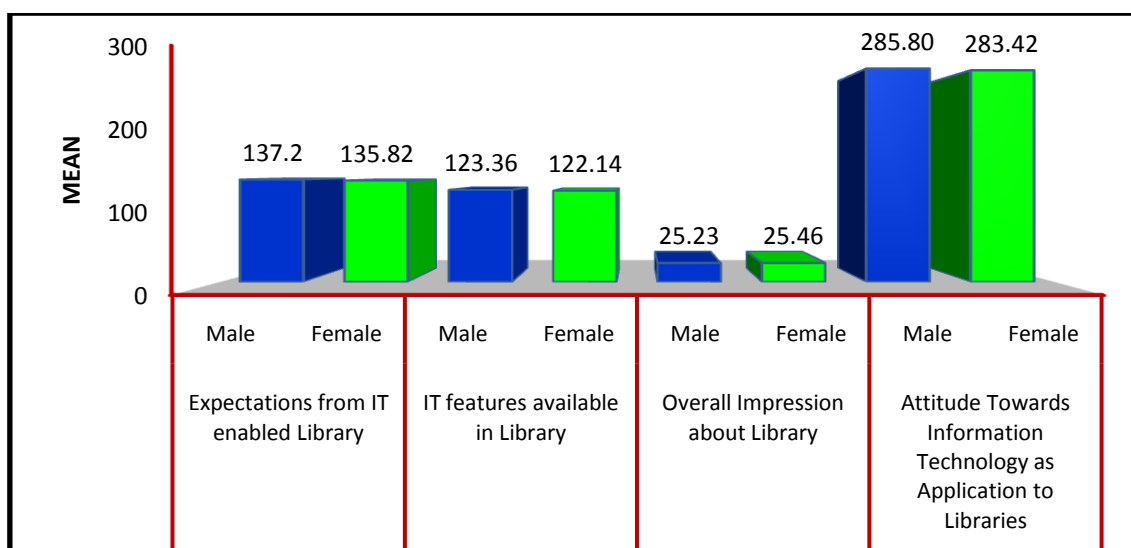


Table 7 & Fig.5 reveals that

- The mean scores of male and female library users on the expectations from IT enabled library are 137.20 and 135.82 respectively. The t-ratio is calculated as 0.79 with  $d_f=327$  which is not significant. This reveals that no significant difference exists between male and female library users on the expectations from IT enabled library.
- The mean scores of male and female library users on the IT features available in library are 123.36 and 122.14 respectively. The t-ratio is calculated as 0.52 with  $d_f=327$  which is not significant. This reveals that no significant difference exists between male and female library users on the IT features available in library.
- The mean scores of male and female library users on the overall impression about library are 25.23 and 25.46 respectively. The t-ratio is calculated as 0.51 with  $d_f=327$  which is not significant. This reveals that no significant difference exists between male and female library users on the overall impression about library.
- The mean scores of male and female library users on the attitude towards information technology as application to libraries are 285.80 and 283.42 respectively. The t-ratio is calculated as 0.66 with  $d_f=327$  which is not significant. This reveals that no significant difference exists between male and female library users on the attitude towards information technology as application to libraries.

As the male and female library users were found to be not significantly different on expectations from IT enabled library, IT features available in library, overall impression about library as well as on the total attitude towards information technology as application to libraries, therefore, hypothesis 3 stating, “There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their gender” is rejected.

Hence it may be concluded that the gender of library users does not influence the attitude towards information technology as application to libraries significantly.

**The second objective** of the present study was: To find out the difference in attitude of library users towards information technology as an application to libraries with respect to the age i.e. (20-30, 30-40, 40-50 and 50-60 years of age).

The hypothesis framed to achieve the above said objective was worded as under:

Hypothesis-4 states, “There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their age.”



To verify this hypothesis one-way ANOVA was employed on the scores of attitude of library users towards information technology as an application to libraries with respect to age of the library users i.e.20-30, 30-40, 40-50 and 50-60 years of age.

**Results**

**Table-8**  
**Showing Summary of One-way ANOVA for Scores of Library Users with respect to their Age (20-30, 30-40, 40-50 and 50-60 years) on the variable of Attitude towards Information Technology as Application to Libraries (N=329)**

Area of Study	Source of Variation	SS	d <sub>f</sub>	MS	F-Value
<b>Expectations from IT enabled Library</b>	Between Groups	24.06	3	8.02	0.03 (NS)
	Within Groups	82729.79	325	254.55	
	Total	82753.85	328		
<b>IT features available in Library</b>	Between Groups	1641.66	3	547.22	1.19 (NS)
	Within Groups	148881.70	325	458.10	
	Total	150523.36	328		
<b>Overall Impression about Library</b>	Between Groups	42.92	3	14.31	0.85 (NS)
	Within Groups	5439.27	325	16.74	
	Total	5482.19	328		
<b>Attitude Towards Information Technology as Application to Libraries</b>	Between Groups	2146.46	3	715.49	0.67 (NS)
	Within Groups	344668.04	325	1060.52	
	Total	346814.50	328		

*NS-Not Significant*

**Interpretation**

Table 8 depicts the F-value after comparing the groups of library users in terms of their age i.e. 20-30, 30-40, 40-50 and 50-60 years of age on the variable of attitude towards information technology as an application to libraries.

- The F-value on the comparison of library users with age group of 20-30, 30-40, 40-50 and 50-60 years on expectations from IT enabled library, was obtained as 0.03 which is not significant. This indicates that the library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly on their expectations from IT enabled library.
- The F-value on the comparison of IT features available in library by library users with age group of 20-30, 30-40, 40-50 and 50-60 years, was obtained as 1.19 which is not significant at 0.05 level of confidence. This indicates that the IT features available in library by library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly.
- The F-value on the comparison of library users with age group of 20-30, 30-40, 40-50 and 50-60 years on overall impression about library, was obtained as 0.85 which is not significant at 0.05 level of confidence. This indicates that the library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly on their overall impression about library.
- The F-value on the comparison of library users with age group of 20-30, 30-40, 40-50 and 50-60 years on attitude towards information technology as application to libraries, was obtained as 0.67 which is not significant. This indicates that the library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly in their attitude towards information technology as application to libraries.

As library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly on expectations from IT enabled library, IT features available in library and overall impression about

library as well as the overall attitude towards information technology as application to libraries, hence the hypothesis 4 stating, “There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their age” stands rejected.

Table-9

**Showing the Comparison of Mean Scores of Library Users with respect to Age (20-30, 30-40, 40-50 and 50-60 years) on the variable of Attitude towards Information Technology as Application to Libraries (N=329)**

Area of Study	20-30 years (N=222)	30-40 years (N=53)	40-50 years (N=32)	50-60 years (N=22)
Age				
<b>Expectations from IT enabled Library</b>	136.60	136.45	136.84	135.59
<b>IT features available in Library</b>	121.34	124.51	127.97	125.50
<b>Overall Impression about Library</b>	25.10	25.74	26.06	25.82
<b>Attitude Towards Information Technology as Application to Libraries</b>	283.05	286.70	290.88	286.91

Fig. 6 : Showing the Comparison of Mean Scores of Library Users with respect to Age (20-30, 30-40, 40-50 and 50-60 years) on the variable of Attitude towards Information Technology as Application to Libraries (N=329)

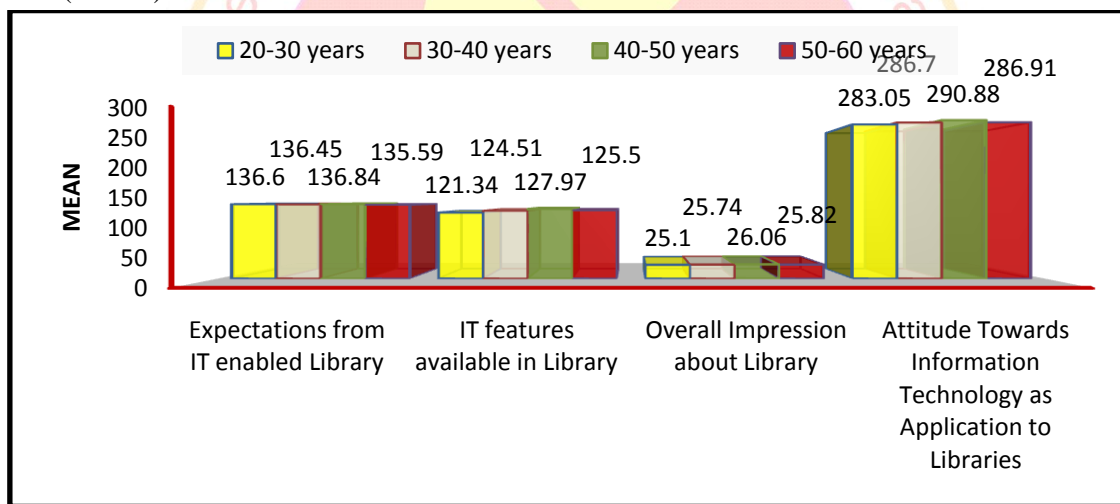


Table .9 and Fig.6 indicates that

- The mean score of library users with age group of 40-50 years (M=136.84) came out to be highest on expectations from IT enabled library followed by library users with age group of 20-30 years (M=136.60) and the mean score of library users with age group of 50-60 years (M=135.59) came out to be least on expectations from IT enabled library. However library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly on expectations from IT enabled library from each other.
- The mean score of library users with age group of 40-50 years (M=127.97) came out to be highest on IT features available in library followed by those of library users with age group of 50-60 years (M=125.50) and the mean score of library users with age group of 20-30 years (M=121.34) came out to be least on IT features available in library. However library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly on IT features available in library from each other.

➤ The mean score of library users with age group of 40-50 years (M=26.06) on overall impression about library came out to be highest followed by those of library users with age group of 50-60 years (M=25.82) and the mean score of library users with age group of 20-30 years (M=25.10) came out to be least on overall impression about library. However library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly on overall impression about library from each other.

➤ The mean score of library users with age group of 40-50 years (M=290.88) came out to be highest on attitude towards information technology as application to libraries followed by those of library users with age group of 50-60 years (M=286.91) and the mean score of library users with age group of 20-30 years (M=283.05) came out to be least on attitude towards information technology as application to libraries. However library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly on attitude towards information technology as application to libraries from each other.

The above discussion indicates that the library users with age group of 40-50 years have highest expectations from IT enabled library, found the libraries as best IT features available in library, have best overall impression about library and are most favourable in their attitude towards information technology as application to libraries. However library users with age group of 20-30, 30-40, 40-50 and 50-60 years do not differ significantly on expectations from IT enabled library, IT features available in library, overall impression about library and their attitude towards information technology as application to libraries.

Hence it may be concluded that the age of library users does not influence the attitude towards information technology as application to libraries significantly.

**Conclusion:**

It is concluded that the male and female library users were found to be not significantly different on expectations from IT enabled library, IT features available in library, overall impression about library as well as on the total attitude towards information technology as application to libraries and the age of library users does not influence the attitude towards information technology as application to libraries significantly.

**References:**

1. Neelameghan (2011). India, education for librarians and documentalists. In *Encyclopedia of library and information science*, Vol. 11, New York, Marcel Dekker, 1974. 323 p.
2. Riggs, M. (2011). *ICT for rural economic development: What can we improve?* Eschborn: ICT for Development.
3. Singh (2011). Impact of information technology and role of libraries in the age of information and knowledge societies.
4. Anand, K. and Ravichandran, V. (2014). A Scale to Measure the Attitude of Extension Personnel towards the Information and Communication Technology (ICT) Tools, *Trends in Biosciences*. 7(17), p.2583-2585.
5. Gawadekar, A.S. (2012). Amplification of Library services by dint of emerging tools and techniques in the emerging scenario of Virtual Library eon, *Conf. Proceeding. Philippine*, p. 388.