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Use of Information Technology as an Application to Libraries in Relation to the Frequency of the Visit and Time Spent In the Library

Abstract

The present study compares the opinion of users of Punjab towards use of information technology as an application to libraries in relation to the frequency of the visit and time spent in the library. A sample of 329 research scholars and faculty members of university libraries of Punjab was selected randomly from these universities. Two different questionnaires were designed to collect the data; the questionnaire used 12 categories to collect the information related to the aspects. The result revealed that there exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their time spent in the library "is partially accepted.

Keywords: Information Technology, frequency, time spent, library uses, Panjab universities, library visit.

Introduction

Information technology have become an integral part of the library to automate a wide range of administrative and technical processes, build databases, provide OPACs, participate in various networks and provide better services to their users in recent years wide spread use of IT in libraries has created a profound impact on all aspects of the present library environment (Ramana, P Venkata & Rao, V Chandrasekhar, 2003).

Modern information technologies are: Computers, CD-ROMs, DVDs, Databases, On-line information services, CD-ROM networking, Internet, Intranet, Multimedia technologies, Electronic Journals, Internet Telephony, Bar code technology, E-mail, Electronic publishing, Cyberspace technology, World Wide Web and so on.

State libraries of Punjab have undergone a significant change in the past two decades due to the application of information technology (IT) in automated cataloguing, circulation systems, online information retrieval, electronic document delivery, and CD-ROM databases. The advent of the Internet, digitization, and the ability to access library and research materials from remote locations had also generated dramatic changes by the end of the twentieth century (Ostrow, 2008).

Review of Literature

Kumar (2016) studied on "use of e-resources by the medical students of M.M. university, Ambala." The objectives of the study was to identify the type of e-resources used by the medical students; find out the search patterns; know the purpose of using e-resources ; to know the frequency and time spent while using of e-resources and the place were to be assessed e- resources by the medical students. The study was limited by post graduate and under graduate students of the institute & survey method was used. He concluded that medical students frequently used search engines as well as e-research report by title and subject of the required information for updating medical knowledge, maximum medical student's state that e-resources are more informative and all the undergraduate students use e-resources daily and spent more time than the postgraduate students. It is interesting to note that a large number of students are aware of the e-resources from library notice/e-mail and colleagues, and use library to access the e-resources. The result of the study found that the satisfaction level was not high among PG and UG students on usage of e-resources. The major problems PG students feel for using e-resources are time consuming and face slow downloading



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whereas UG students face virus, slow downloading and feel that using e-resources makes it more expensive. He suggested that new development is required in the field of modern digital technology to reduce the problems of the students. The study shown that medical library of Maharishi Markandeshwar University is leading to create environment for the attraction of the students.

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 of the Study

1. To find out the difference in attitude of library users towards information technology as an application to libraries with respect to the frequency of visit to library i.e. (daily, once in 2-3 days, once in a week, once in 15 days & occasionally).
2. To find out the difference in attitude of library users towards information technology as an application to libraries with respect to the time spent in the library i.e. less than 3 hrs. & more than 3 hrs.
3. To find out the difference in attitude of library users towards information technology as an application to libraries with respect to the university.

Hypothesis

1. There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their frequency of visit to library.
2. There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their time spent in the library.

Methodology

This study is empirical in nature, conducted in the form of a survey designed to know the status of University Libraries. The purpose to investigate the attitude of library users of 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 towards information technology as an application in libraries. to use questionnaire for data collection purposes.

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,

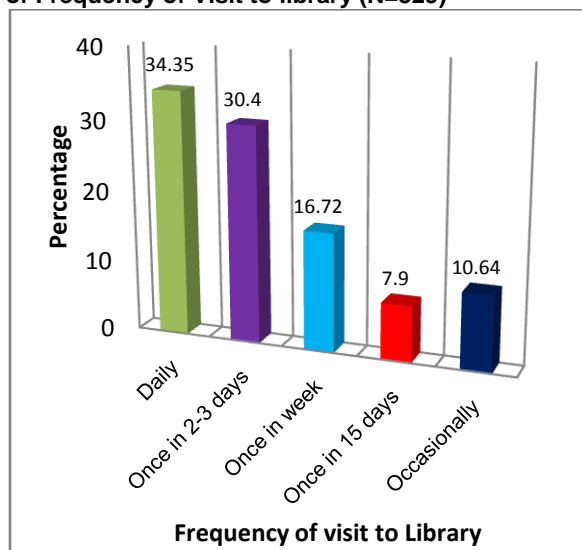
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status, age, experience, frequency of visit to library and time spent in the library.

Analysis, Interpretation and Discussion of Results
Table .1 Distribution of Library Users of various Universities of Punjab State on the basis of Frequency of Visit to library (N=329)

S. No.	Frequency of Visit to Library	N	Percentage
1.	Daily	113	34.35
2.	Once in 2-3 days	100	30.40
3.	Once in week	55	16.72
4.	Once in 15 days	26	7.90
5.	Occasionally	35	10.64
	Total	329	100

Fig.1. Percentage Distribution of Library Users of various Universities of Punjab State on the basis of Frequency of Visit to library (N=329)



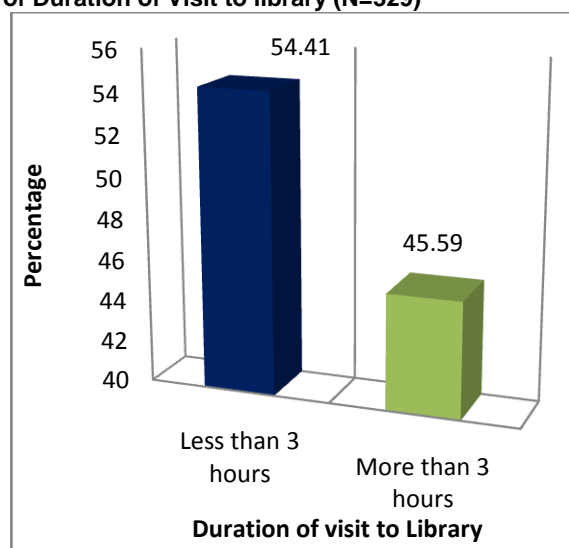
As it can be seen from Table.1. & Fig.1 indicates that out of total 329 respondents, 113 i.e. 34.35% of total sample visit library daily; 100 i.e. 30.40% of total sample visit library once in 2-3 days; 55 i.e. 16.72% of total sample visit library once in a week; 26 i.e. 7.90% of total sample visit library once in a 15 days and 35 i.e. 10.64% of total sample visit library occasionally.

Table. 2: Distribution of Library Users of various Universities of Punjab State on the basis of Duration of Visit to library (N=329)

S. No.	Duration of Visit to Library	N	Percentage
1.	Less than 3 hours	179	54.41
2.	More than 3 hours	150	45.59
	Total	329	100

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Fig.2 Percentage Distribution of Library Users of various Universities of Punjab State on the basis of Duration of Visit to library (N=329)



As it can be seen from Table.2 & Fig.2. Indicates that out of total 329 respondents, 179 i.e. 54.41% of total sample visit to library less than 3 hours; 150 i.e. 45.59% of total sample visit to library more than 3 hours.

To find out the difference in attitude of library users towards information technology as an application to libraries with respect to the frequency of visit to library i.e. (daily, once in 2-3 days, once in a week, once in 15 days & occasionally).

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

Hypothesis-1 states, "There existed a significant difference in attitude of library users towards information technology as an application to libraries with respect to their frequency of visit to library."

To verify this hypothesis one-way ANOVA test was employed and the results are presented in the following table.

Table 3: Showing Summary of One-way ANOVA for Scores of Library Users with respect to their Frequency of Visit to library (Daily, Once in 2-3 days, Once in a week, Once in 15 days & Occasionally) on the variable of Attitude towards Information Technology as Application to Libraries (N=329)

Area of Study	Source of Variation	SS	df	MS	F-Value
Expectations from IT enabled Library	Between Groups	2232.84	4	558.21	2.25 (NS)
	Within Groups	80521.01	324	248.52	
	Total	82753.85	328		
IT features available in Library	Between Groups	4738.88	4	1184.72	2.63*
	Within Groups	145784.47	324	449.95	
	Total	150523.36	328		
Overall Impression about Library	Between Groups	41.76	4	10.44	0.62 (NS)
	Within Groups	5440.43	324	16.79	
	Total	5482.19	328		
Attitude Towards Information Technology as Application to Libraries	Between Groups	14010.45	4	3502.61	3.41**
	Within Groups	332804.05	324	1027.17	
	Total	346814.50	328		

** Significant at .01 level

* Significant at .05 level

Interpretation

Table 3 depicts the F-value after comparing the groups of library users in terms of their frequency of visit to library i.e. daily, once in 2-3 days, once in a week, once in 15 days & occasionally on the variable of attitude towards information technology as an application to libraries.

1. The F-value on the comparison of library users with frequency of visit to library as daily, once in 2-3 days, once in a week, once in 15 days & occasionally on expectations from IT enabled library, was obtained as 2.25 which is not significant at 0.05 level of confidence. This indicates that the library users with frequency of visit to library as daily, once in 2-3 days, once in a week, once in 15 days & occasionally do not differ significantly on their expectations from IT enabled library.
2. The F-value on the comparison of IT features available in library by library users with frequency

of visit to library as daily, once in 2-3 days, once in a week, once in 15 days & occasionally, was obtained as 2.63 which is significant at 0.05 level of confidence. This indicates that the IT features available in library by library users with frequency of visit to library as daily, once in 2-3 days, once in a week, once in 15 days & occasionally differ significantly.

3. The F-value on the comparison of library users with frequency of visit to library as daily, once in 2-3 days, once in a week, once in 15 days & occasionally on overall impression about library, was obtained as 0.62 which is not significant at 0.05 level of confidence. This indicates that the library users with frequency of visit to library as daily, once in 2-3 days, once in a week, once in 15 days & occasionally do not differ significantly on their overall impression about library.
4. The F-value on the comparison of library users with frequency of visit to library as daily, once in 2-3 days, once in a week, once in 15 days & occasionally on attitude towards information

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technology as application to libraries, was obtained as 3.41 which are significant at 0.01 level of confidence. This indicates that the library users with frequency of visit to library as daily, once in 2-3 days, once in a week, once in 15 days & occasionally differ significantly in their attitude towards information technology as application to libraries.

once in 15 days & occasionally differ significantly on IT features available in library and overall impression about library as well as on the overall attitude towards information technology as application to libraries, hence the hypothesis 1 stating, "There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their experience" stands partially accepted.

As library users with frequency of visit to library as daily, once in 2-3 days, once in a week,

Table 4: Showing the Comparison of Mean Scores of Library Users with respect to their Frequency of Visit to library (Daily, Once in 2-3 days, Once in a week, Once in 15 days & Occasionally) on the variable of Attitude towards Information Technology as Application to Libraries (N=329)

Area of Study	Daily (N=113)	Once in 2-3 days (N=100)	Once in a week (N=55)	Once in 15 days (N=26)	Occasionally (N=35)
Expectations from IT enabled Library	138.75	137.78	134.24	134.65	130.83
IT features available in Library	125.09	124.89	122.47	117.73	113.49
Overall Impression about Library	25.25	25.70	25.44	25.38	24.46
Attitude Towards Information Technology as Application to Libraries	289.09	288.37	282.15	277.77	268.77

Fig. 3 : Showing the Comparison of Mean Scores of Library Users with respect to their Frequency of Visit to library (Daily, Once in 2-3 days, Once in a week, Once in 15 days & Occasionally) on the variable of Attitude towards Information Technology as Application to Libraries (N=329).

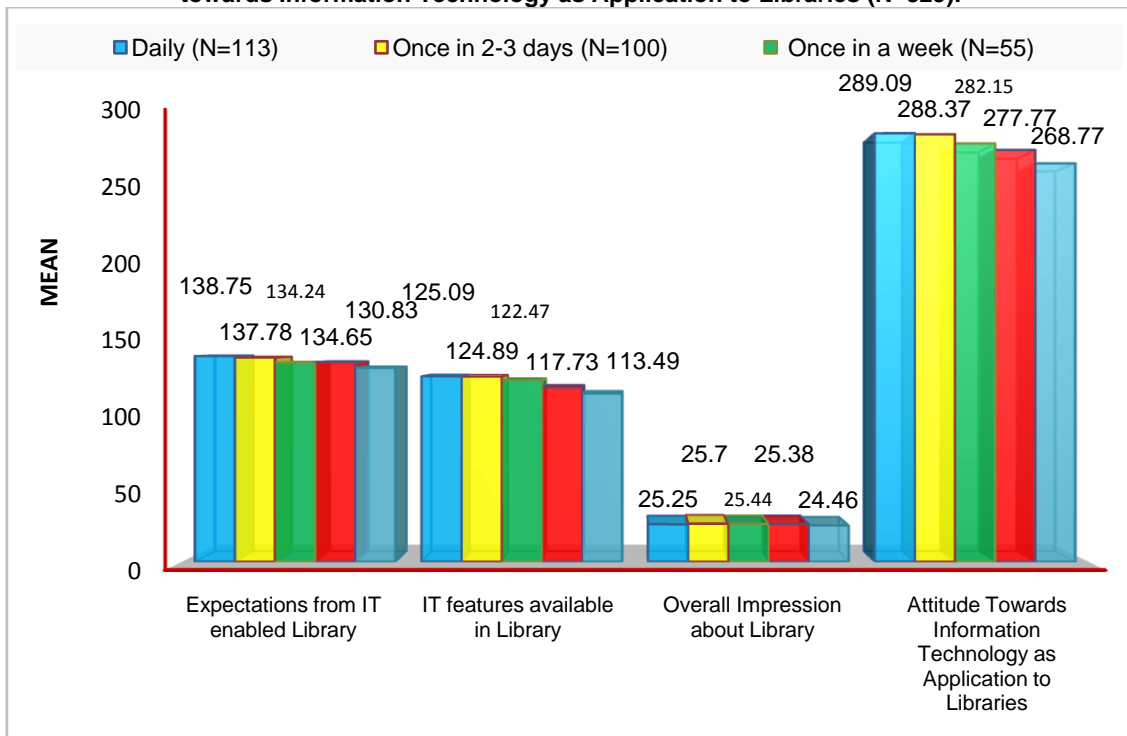


Table 4 and Fig.3 indicates that

1. The mean score of library users who visit the library daily came out to be highest (M=138.75) on expectations from IT enabled library followed by library users who visit the library once in 2-3 days (M=137.78) and the mean score of library users who visit the library occasionally (M=130.83) came out to be least on expectations from IT enabled library. This indicates that the library users who visit the library daily had highest expectations from IT enabled library whereas the library users who visit the library occasionally had

least expectations from IT enabled library. However library users who visit the library frequency of visit to library daily, once in 2-3 days, once in a week, once in 15 days & occasionally do not differ significantly on expectations from IT enabled library from each other.

2. The mean score of library users who visit the library daily came out to be highest (M=125.09) on IT features available in library followed by those of library users who visit the library once in 2-3 days (M=124.89) and the mean score of

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library users who visit the library occasionally came out to be least (M=113.49) on IT features available in library. This indicates that the library users who visit the library daily found the IT features available in library as best whereas the library users who visit the library occasionally found the IT features available in library as worst. Moreover the library users who visit the library daily, once in 2-3 days, once in a week, once in 15 days & occasionally differ significantly on IT features available in library from each other.

3. The mean score of library users who visit the library once in 2-3 days came out to be highest (M=25.70) on overall impression about library followed by those of library users who visit the library once in a week (M=25.44) and the mean score of library users who visit the library occasionally (M=24.46) came out to be least on overall impression about library. However the library users who visit the library daily, once in 2-3 days, once in a week, once in 15 days & occasionally do not differ significantly on overall impression about library from each other.
4. The mean score of library users who visit the library daily (M=289.09) came out to be highest on attitude towards information technology as application to libraries followed by those of library users who visit the library once in 2-3 days (M=288.37) and the mean score of library users who visit the library occasionally (M=268.77) came out to be least on attitude towards information technology as application to libraries. Also the library users who visit the library daily, once in 2-3 days, once in a week, once in 15 days & occasionally differ significantly on attitude

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towards information technology as application to libraries from each other.

Results

The above discussion indicates that the library users who visit the library daily 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. Also the library users who visit the library daily, once in 2-3 days, once in a week, once in 15 days & occasionally differ significantly on IT features available in library as well as the overall attitude towards information technology as application to libraries.

Hence it may be concluded that the frequency of the visits to the library by library users influences the attitude towards information technology as application to libraries significantly.

The 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 time spent in the library i.e. less than 3 hrs. & more than 3 hrs.

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

Hypothesis-2 states, "There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their time spent in the library."

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 the time spent in the library i.e. less than 3 hrs. & more than 3 hrs.

Table 5: Showing the Comparison of Mean Scores of Library Users with respect to Time Spent in the Library (Less than 3 hrs. and More than 3 hrs.) 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 _M	t-ratio
1.	Expectations from IT enabled Library	<3 hrs.	179	134.42	15.88	1.19	2.66**
		>3 hrs.	150	139.05	15.57	1.27	
2.	IT features available in Library	<3 hrs.	179	122.85	22.02	1.65	0.07 (NS)
		>3 hrs.	150	122.68	20.76	1.70	
3.	Overall Impression about Library	<3 hrs.	179	25.63	4.25	0.32	1.37 (NS)
		>3 hrs.	150	25.01	3.87	0.32	
4.	Attitude Towards Information Technology as Application to Libraries	<3 hrs.	179	282.91	33.76	2.52	1.07 (NS)
		>3 hrs.	150	286.74	30.96	2.53	

** Significant at .01 level

NS-Not Significant

Fig. 4 : Bar Graph showing the Comparison of Mean Scores of Library Users with respect to Time Spent in the Library (Less than 3 hrs. and More than 3 hrs.) on the variable of Attitude towards Information Technology as Application to Libraries (N=329)

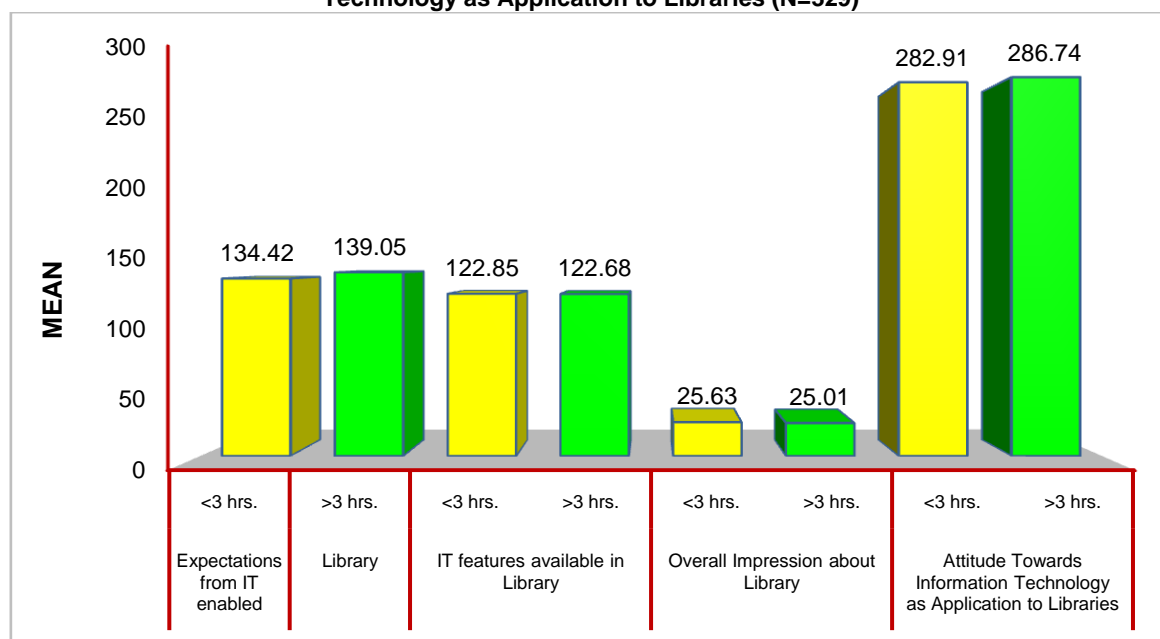


Table 5 & Fig.4 reveals that

1. The mean scores of library users who spent less than 3 hrs. And more than 3 hrs. in the library on the expectations from IT enabled library are 134.42 and 139.05 respectively. The t-ratio is calculated as 2.66 with $d_f = 327$ which is significant at .01 level of confidence. This reveals that a significant difference exists between library users who spent less than 3 hrs. And more than 3 hrs. In the library on the expectations from IT enabled library.
2. The mean scores of library users who spent less than 3 hrs. And more than 3 hrs. In the library on the IT features available in library are 122.85 and 122.68 respectively. The t-ratio is calculated as 0.07 with $d_f = 327$ which is not significant. This reveals that no significant difference exists between library users who spent less than 3 hrs. And more than 3 hrs. in the library on the IT features available in library.
3. The mean scores of library users who spent less than 3 hrs. And more than 3 hrs. In the library on the overall impression about library are 25.63 and 25.01 respectively. The t-ratio is calculated as 1.37 with $d_f = 327$ which is not significant. This reveals that no significant difference exists between library users who spent less than 3 hrs. And more than 3 hrs. in the library on the overall impression about library.
4. The mean scores of library users who spent less than 3 hrs. And more than 3 hrs. In the library on the attitude towards information technology as application to libraries are 282.91 and 286.74 respectively. The t-ratio is calculated as 1.07 with $d_f = 327$ which is not significant. This reveals that no significant difference exists between library users who spent less than 3 hrs. And more than 3

hrs. In the library on the attitude towards information technology as application to libraries.

As the library users who spent less than 3 hrs. And more than 3 hrs. In the library were found to be significantly different on expectations from IT enabled library whereas the library users who spent less than 3 hrs. And more than 3 hrs. in the library were found to be not significantly different on 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 2 stating, "There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their time spent in the library" is partially accepted.

Conclusion

As per the objectives and hypotheses, it is concluded that the frequency of the visits to the library by library users influences the attitude towards information technology as application to libraries significantly. There exists a significant difference in attitude of library users towards information technology as an application to libraries with respect to their time spent in the library is partially accepted.

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