Use of E-Resources by Faculty Members & Research Scholars in Indian Institute of Technology, Kanpur

Ekta Bajpai
Research Scholar
Dept. of Library and Information Science
Integral University, Luckknow
nektamogh@gmail.com

Abstract

This paper aims to investigate and analyze the use of e-resources by the faculty members and research scholars of the library of Indian Institute of Technology, Kanpur, India. The purpose of this paper is to what problems faced by the users, their level of satisfaction with the collection of library and trace out the characteristics for using the e-resources in the library of IIT, Kanpur. To fulfill the objectives of the study questionnaire and interview method was used to check users attitude for e-resources, data was collected directly from the users of the library both by the faculty members and research scholars. Study deduces that all the respondents are well aware about e-resources, All the users are using e-resources. Library must enhance their services and motivate the users to spent their time in the library, to utilize e-resources collection for their information needs.

Keywords

Literacy, information and communication technology, University Libraries.

The journal is available at www.jalis.in

Journal of Advances in Library and Information Science
ISSN: 2277-2219 Vol. 3. No.3. 2014. Pp169-178

INTRODUCTION

Electronic resources have enhanced library services in variety of ways, drastically changed the interactions between users and library staff. Electronic resources are regarded as the mines of information that are explored through modern ICT devices, refined, redesigned and more often stored in the cyber space in most concrete and compact form and can be assessed simultaneously from infinite points by large number of audience.

Libraries are involved in dealing with diverse range of electronic resources having different nature, characteristics and available in various formats thereby making its development and management a complex task. There are two types of E-resources: data and programs. Resources are becoming very important these days as they are more up-to-date and can be accessed anywhere, crossing all geographical boundaries, resources adding value while conducting R & D activities. IIT, Kanpur provides a wide range of services and resources that support academic activities of students, faculties and research personnel. Library is a rich reservoir of various resources print as well as e-resources to satisfy the information needs of its clientele.

Inception of internet has metamorphosed the role of libraries. Users way of communication and searching techniques has been transformed. There has been a BB the INFONET consortium by faculty and research scholars of Physics and Chemistry at Kurukshetra University, India and found that the users are more attracted towards e-journals than print journals. The respondents are responding the need for training in using e-resources and getting the required information from resources from time to time. Sudharma Haridarsan and Majid Khan, (2009) in their study presented that the electronic resources are eloquent/revealing part of library collection. Baljinder Kaur and Rama Verma (2009) in their study described the use of electronic resources and services provided at the Central Library of IIT, Delhi. The focal point of this study was to know who were the electronic information service users how often the use the services and the place where the information is accessed. Bunkell and Dyas-correia, (2009) in their study indicated that e-books on science direct are used for scientific research. They highlighted the advantages of e-books, as online books are a cost

effective solution and increasingly becoming more so over passage of time, optimized usage of books. Khan, Zaidi and Bharti, (2009) studied the popularity of availability of on-line databases and its frequent use by scholars in their research work and producing high quality manuscripts. Ashok Kumar, Saravanan and Balasubramani, (2008) analyzed that the popularity of electronic resources in scholarly pursuits and acceptance towards e-learning. Bharti and Zaidi, (2008) also studied on e-journals and databases subscribed by UGC-INFONET consortium and its usage at Aligarh Muslim University and extensively gone through the analysis of users satisfaction level and utilization. Wu Shuling (2007) investigated and analyzed the current use of electronic resources in University Library of Shaanxi University of Science and Technology, investigated that the half of the readers of the library are satisfied with the collection of the library. Readers preferred the traditional printed books.

OBJECTIVES OF THE STUDY

The major objectives of the present study are:

- To find out the use and purpose of e-resources by the faculty members and research scholars of the library.
- To find out the problems faced by them.
- To find out that their level of satisfaction with the collection of e-resources in the library of IIT, Kanpur.
- To trace out the characteristics for using the e-resources and
- Suggest some measures to make more and more the use of e-resources by the users of the library of IIT, Kanpur.

SCOPE OF THE STUDY

In science and technologies institutes libraries significant growth is collection. They invest largely to improve and enhance their collections and services. For fulfilling the desired information need of the users these libraries have well maintained information resources and they are investing on subscribing e-resources. The study is focusing on the collection, user satisfaction of the P.K. Kelkar Library, IIT, Kanpur.

METHODOLOGY OF THE STUDY

The best tools for this study are questionnaire and interviews to check users attitude for e-resources. Data collection has been provided directly by the users of the library both by the faculty members and research scholars.

DATA ANALYSIS AND INTERPRETATION

The data was analyzed by Chi-Square Test for significance and Weighted Mean Statistical Techniques were, used. The survey through questionnaire was used in this study. In this study questionnaire instrument was used for data collection that is the very common method in social science research for data collection. The questionnaire was distributed and collected personally from the users of the library. Total 300 questionnaires were distributed to the users of the library of IIT, Kanpur and 240 questionnaire (80%) were collected back.

The survey results show that the awareness level about e-resources of the users of IIT, Kanpur library is 100%. means this that everyone know (including faculties and students) the importance of e-resources.

Table 1: How Readers Get To Know About E-Resources

Sources	Faculty Members		Research Scholars		Total	
	Response	%	Response	%	Response	%
Through Friends	0	0.00%	50	29.41%	50	20.85%
Through Librarian	10	14.28%	10	5.88%	20	8.33%
Through Library Staff	0	0.00%	10	5.88%	10	4.16%
Through Search Engines	10	14.28%	10	5.88%	20	8.33%
Through Faculties	10	14.28%	10	5.88%	20	8.33%
Through Library Website/Portal	40	57.14%	80	47.05%	120	50.00%
Total	**70**	**100.00%**	**170**	**100.00%**	**240**	**100.00%**
$\chi 2$= 38.34 (calculated value), Degree of freedom = 5, Significance Level = 0.05						

The table shows that the most of the users of the library come to know about the e-resources through library website or portals. 50% users of the population gives the answer in the favour of library website or portals, 20.85% users come to know through their friends about the e-resources. In this table value of chi-square is 38.34, it is a calculated value and the tabulated value is 11.07. Value of degree of freedom is 5 and the significance level is 0.05. It shows the strong relationship between the sources and the users of the library.

Table 2: Users Place of Accessing E-Resources

Place of accessing	Faculty Members		Research Scholars		Total	
	Response	%	Response	%	Response	%
Library	5	7.14%	20	11.76%	25	10.41%
Department	25	35.71%	10	5.88%	35	14.58%
Hostel	0	0.00%	90	52.94%	90	37.50%
Campus	30	42.86%	50	29.41%	80	33.33%
Home	10	14.28%	0	0.00%	10	4.16%
Total	70	100.00%	170	100.00%	240	100.00%
$\chi 2 = 116.8$ (calculated value), Degree of freedom = 4, Significance Level = 0.05						

The e-resources are provided by the library through internet, which can be accessed from various places within the institute. In IIT Kanpur e-resources can be access anywhere inside the campus. Through special search techniques and simple search techniques user get his/her desire information. Table shows that the highest proportion of users (students) i.e. 37.50% are using hostel for accessing the e-resources. 33.33% students using other places inside the campus to access the e-resources, A very small portion means only 10.41% students are sitting inside the library to access the e-resources. The highest proportion of faculties using the campus i.e 42.86% to accessing e-resources, 35.71% faculties using departments to accessing e-resources only 7.14% faculties using libraries to accessing e-resources. The result shows that the library is used less for accessing the e-resources as compared to other places. In this table the value of chi-square is 116.8 is (calculated value) and 9.49 is (tabulated value). Degree of freedom is 4 and the significance level is 0.05. It shows the strong relationship between the place of accessing and the users.

Table 3: Users' Source to Locate and Access of E-Resources

Source	Faculty Members		Research Scholars		Total	
	Response	%	Response	%	Response	%
Library website/ Portals	40	57.14%	110	64.70%	150	62.50%
OPAC	10	14.28%	20	11.76%	30	12.50%
JCCC	10	14.28%	0	0.00%	10	4.16%
Provider Website	0	0.00%	40	23.52%	40	16.66%
Journal Portals	10	14.28%	0	0.00%	10	4.16%
Total	70	100.00%	170	100.00%	240	100.00%
$\chi 2 = 65.85$ (calculated value), Degree of freedom = 4, Significance Level = 0.05						

This table depicts that the library websites/portals source mostly used by the users of the library. Total 40 (57.14%) Faculty members and 110 (64.70%) research scholars are using library website / portals to locate and access e-resources. Only 14.28% faculty members and 11.76% research scholars are using OPAC to access and locate e-resources. 14.28% Faculty members and 0% research scholars are using JCCC source to locate and access e-resources. 0% Faculty members and 23.52% research scholars are using provider websites to access and locate e-resources. 14.28% faculty members and 0% research scholars are using journal portals for accessing and locate e-resources. In this table the value of chi-square is 65.85 is (calculated value) and 9.49 is (tabulated value). Degree of freedom is 4 and the significance level is 0.05. The result of the statistical analysis shows the strong relationship between the sources and the users.

Table 4: E-Resources Mostly Used by Users

E-Resources	Most Frequently		Frequently Use		Occasionally Use		Rarely Use		Never			
	Response		Response		Response		Response		Response			
	FM	RS	FM	RS	FM	RS	FM	RS	FM	RS	Total	Weighted Mean
												Rank
E-books	25	50	15	45	30	30	0	25	0	20	865	0.145
												3rd
E-journals	40	90	0	50	30	20	0	10	0	0	1020	0.172
												1st
CD-ROM Bib. Databases	0	10	10	10	40	20	10	50	10	80	520	0.087
												6th
CD-ROM Full-text Databases	0	0	10	50	10	20	10	30	40	70	520	0.087
												6th
Online Bibliographic Databases	10	15	20	20	10	80	10	35	20	20	685	0.115
												5th
Online Full-text Databases	20	40	50	70	0	60	0	0	0	0	960	0.162
												2nd
Digital Repository	0	30	0	50	30	30	40	40	0	10	500	0.084
												7th
Education Web Resources	20	40	25	40	15	70	0	10	10	10	855	0.144
												4th

The digital age has changed user behaviors. Now users like to use electronic resources, and they have accepted the transition from printed collections to electronic collections. Today users know that e-resources are important to their studies. They know that the library could support most documents they need in digital format. Other than the internet, the library is the first and major source for faculties as well as for students searching for documents related to their needs and studies. Many types of e-resources are subscribed by the IIT, Kanpur library for their users.

In this table we used weighted mean and then rank these e-resources according to the responses given by the respondents. Respondents given Ist rank to e-journals because e-journals are more up to date and they are the eye of the particular storm that has hit scholarly communication with the growth of internet. E-journals are powerful research tools for locating desired information without any limitation to geographical or chronological boundaries. IInd rank given to on-line full text databases. The databases offers simple and advance search facilitates, enabling users to locate relevant information without any barriers. Online data bases can be accessed 24/7 from anywhere. IIIrd rank given to e-books. E-books can be subscribed on line as well as offline also. The accessibility of e-books makes it a perfect source for users as well as for libraries. Users have 24/7 hours availability of the collection from any where. IV th rank given to Educational Web Resources. These

resources are used for improvement of library collections which offer added value to the internal resources as it includes multimedia information. Vth rank given to online full-text databases, VI th rank CD-ROM Bibliography Databases, VII th rank to On-line Bibliography Databases and VIII th rank to Digital Institutional repository.

Table 5: E-resources and their Usefulness

E-Resources	Excellent Response		Very Good Response		Good Response		Average Response		Poor Response			
	FM	RS	FM	RS	FM	RS	FM	RS	FM	RS	Total	Weighted Mean / Rank
E-books	40	40	20	40	0	30	10	50	0	10	860	0.119
	40		20	40		30	10	50		10	860	5th
E-journals	60	80	10	40	0	40	0	10	0	0	1040	0.143
	60		10	40		40		10			1040	1st
CD-ROM Bib. Databases	30	30	15	30	15	40	10	60	0	10	795	0.110
	30	30	15	30	15	40	10	60		10	795	8th
CD-ROM Full-text Databases	40	40	20	30	10	30	0	50	0	20	840	0.116
	40	40	20	30	10	30		50		20	840	6th
Online Bibliographic Databases	30	30	20	30	10	60	10	50	0	0	830	0.114
	30	30	20	30	10	60	10	50			830	7th
Online Full-text Databases	50	70	15	50	0	40	50	10	0	0	1010	0.139
	50	70	15	50		40	50	10			1010	2nd
Digital Repository	25	60	20	50	15	40	10	20	0	0	930	0.128
	25	60	20	50	15	40	10	20			930	3rd
Education Web Resources	30	50	20	60	10	30	10	30	0	0	920	0.127
	30	50	20	60	10	30	10	30			920	4th

Every resource is useful, we cant say that it is important and this one is useless, but we can measure the importance of them and then we can say that it is most important and this one is less importance. For a kid his/her text books are important and they are useful for them but for a research scholar a journal is most important in comparison to books. So priorities are different and usefulness is dependent upon information needs and priorities. According to the fulfillment of the information needs respondents rank these resources. They give Ist rank to journals, IInd to On-Line full text databases, IIIrd to Digital repositories, IV th Educational web resources, Vth to E-books, VIth to CD-ROM full text data bases, VII th to On-line bibliographical databases and VIIIth to CD-ROM bibliographical databases.

Table 6: Level of Satisfaction by The E-Resources

E-Resources	Extremely Satisfied Response		Satisfied Response		Moderately Satisfied Response		Unsatisfied Response		Extremely Dissatisfied Response			
	FM	RS	FM	RS	FM	RS	FM	RS	FM	RS	Total	Weighted Mean / Rank
E-books	10	30	10	60	30	50	10	20	10	10	800	0.119
	10		10	60	30	50	10	20	10	10	800	6th

E-journals	30	80	20	40	20	30	0	10	0	10	970	0.145
	30		20	40	20	30		10		10	970	1st
CD-ROM Bib. Databases	10	10	10	25	20	70	20	25	10	40	650	0.097
	10	10	10	25	20	70	20	25	10	40	650	8th
CD-ROM Full-text Databases	20	20	20	30	10	60	10	50	10	10	750	0.112
	20	20	20	30	10	60	10	50	10	10	750	7th
Online Bibliographic Databases	15	30	10	50	20	70	15	10	10	10	805	0.120
	15	30	10	50	20	70	15	10	10	10	805	5th
Online Full-text Databases	25	60	20	65	10	40	10	5	5	0	950	0.142
	25	60	20	65	10	40	10	5	5		950	2nd
Digital Repository	20	40	30	60	10	50	10	15	0	5	895	0.133
	20	40	30	60	10	50	10	15		5	895	3rd
Education Web Resources	10	40	30	40	20	80	5	10	5	0	865	0.129
	10	40	30	40	20	80	5	10	5		865	4th

A five point scale ranking Extremely Satisfied, Satisfied, Moderately Satisfied Unsatisfied and Extremely Dissatisfied was used. The result is summarized in table, where the aspects are ranked. E-journals are ranked highest, because journals are the primary sources of information. On the basis of respondents responses e-journals ranked on Ist place, on IInd place on-line full-text databases, on III rd place Digital repositories, on IVxth place Educational web resources, on Vth place On-line bibliography databases, on VIth place e-books, on VIIth place CD-ROM full text databases and on VIIIth place CD-ROM bibliographical databases. For the ranking of these e-resources using weighted mean technique is used and then according to the value of mean the ranks were given from higher to lower.

Table 7: Are e-Resources Enough to Fulfill the Users Information Needs

Reasons	**Faculty Members**		**Research Scholars**		**Total**	
	Response	**%**	**Response**	**%**	**Response**	**%**
Completely	10	14.28%	20	11.76%	30	12.50%
Enough	10	14.28%	35	20.58%	45	18.75%
Partially Enough	15	21.42%	25	14.70%	40	16.66%
Not Enough	20	28.57%	70	41.17%	90	37.50%
Can't Say	15	21.42%	20	11.76%	35	14.58%
Total	70	100.00%	170	100.00%	240	100.00%
$\chi 2$ = 7.88 (calculated value) Degree of freedom = 4 Significance Level = 0.05						

The above table depicts that the users needs are not entirely fulfilled by the collection of the library. Analysis of this statement is based on five point scale. To check the significance level using X2 test and check the relationship in variables. 10 faculty members, 20 research scholars total 30 respondents i.e. 12.50% respondents are completely satisfied with the collection of the library, 45 respondents i.e. 18.75% are given their responses that the library collection is enough to fulfill their needs. 40 respondents i.e. 16.66% respondents responses in the favour of partially enough, the library collection is partially enough to fulfill the needs of the users of the library. 37.50% respondents are not satisfied with the collection of the library. Their information needs are not fulfill from the collection of the library. They needed more resource should be subscribed by the library. 14.58% respondents give the responses in the

favour of can't say, the reasons are not clear why they are not responding properly. In this table Chi-square test apply to check tha significance. Value of Chi-square is 7.88 (calculated value) 9.49 is (tabulated value). Degree of freedom is 4, significance level is 0.05. this table shows the strong relationship between the reasons and the users variables.

Table 8: Purpose of Using e-Resources

Purposes	Regularly		Monthly		Fortnightly		Weekly		Sometimes			
	Response		Response		Response		Response		Response			
	FM	RS	FM	RS	FM	RS	FM	RS	FM	RS	Total	Weighted Mean
												Rank
Study/Research	30	80	20	10	15	40	5	30	0	10	915	0.163
												4th
Teaching Purpose	50	50	10	50	10	30	0	20	0	20	920	0.163
												4th
Project/Assignments	20	120	30	10	15	20	0	15	5	5	1005	0.179
												1st
Updating Knowledge	40	90	10	20	10	40	5	5	5	15	960	0.171
												2nd
Writing Report	20	60	20	30	10	50	10	20	10	10	860	0.153
												5th
Browsing without any purpose	40	90	10	10	10	40	5	25	5	5	950	0.169
												3rd

Table is depicts the purpose of using e-resources by the faculty members and research scholars of library of IIT, Kanpur. In this table give the ranks to the purposes as given by the responses of respondents. To rank these purposes weighted mean technique is used then rank them. Answers are based on five point scale, options are the regularly, monthly, fortnightly, weekly and sometimes. On the basis of research scholars and faculty members responses on the first rank the option projects/assignments, on second rank updating knowledge option comes, on third rank the option browsing without any purpose comes, for study/research work and for teaching options are on fourth rank, for planning and writing reports option comes on fifth rank. It means that the engulf majority of the readers have definite purpose when referring and consulting the e-resources.

Table 9: Problem Faced In the Access Of E-Resources

Reasons/ Problems	Faculty Members		Research Scholars		Total	
	Response	%	Response	%	Response	%
Inadequate access terminals	8	11.42%	15	8.82%	23	9.58%
Inadequate e-resources	10	14.28%	25	14.70%	35	14.%58
Information scattered in too many sources	20	28.57%	40	23.52%	60	25.00%
Lack of suitable guidance & training	5	7.14%	30	17.64%	35	14.58%
Access control (campus only)	20	28.57%	50	29.41%	70	29.16%
Speed of internet is slow	5	7.14%	5	2.94%	10	4.16%

Any other	2	2.85%	5	2.94%	7	2.91%
Total	70	100.00%	170	100.00%	240	100.00%
$\chi 2$ = 59.66 (calculated value) Degree of freedom = 6 Significance Level = 0.05						

Table depicts the problems faced by the users while hunting/attaining e-resources. Most of the users quoted ease of use for library e-resources. However they confronted some problems. Table 9 shows that 8 (11.42%) faculty members and 15 (8.82%) research scholars are facing problem in inadequate access terminals, 10 (14.28%) FM and 25 (14.70%) RS are facing problem the inadequate electronic resources, 20 (25.57%) FM and 40 (23.52%) RS are facing the problem the information is scattered in too many sources, 5 (7.14%) FM and 30 (17.64%) RS are facing the problem of the lack of suitable guidance and training, 20 (28.57%) FM and 50 (29.41%) RS are bearing/complaining about the problem of the access control. Library resources can be accessed only in the campus. 5 (7.14%) FM and 5 (2.94%) RS are facing the problem of the slow speed of the internet, 2 (2.85%) FM and 5 (2.94%) RS are facing other problems. These are the some common problems which are faced by the users of the library of IIT, Kanpur. To check the significance of the variables in this table using Chi- square test, X2 value is 59.66 (calculated value) and the 12.59 (tabulated value), degree of freedom is 6 and the significance level is 0.05. This statistical table shows the strong relationship between the reasons/problems variable and user variable.

.

Table 10: Rate Characteristics That Would Affect Choice of the E-Resources Over Print

Characteristics	Most Important		Important		Somewhat Important		Neutral		Not Important			
	Response		Response		Response		Response		Response			
	FM	RS	FM	RS	FM	RS	FM	RS	FM	RS	Total	Weighted Mean
												Rank
Convenience	10	40	20	85	30	40	10	5	0	0	910	0.089
												6th
Timeliness	40	100	20	60	10	10	0	0	0	0	1080	0.106
												2nd
Interactivity	20	30	20	40	10	80	20	20	0	0	840	0.082
												8th
Animation of graphics	10	35	10	45	20	70	30	15	0	5	810	0.079
												10th
Remote access	20	80	20	70	25	20	5	0	0	0	1005	0.098
												3rd
Hyperlink access to additional information	35	50	25	65	10	35	0	15	0	5	955	0.093
												4th
Currency of information	10	45	35	86	15	25	10	10	0	4	923	0.090
												5th
Availability at all times	20	25	30	48	20	72	0	20	0	5	858	0.084
												7th
Availability from desktop	10	22	45	40	10	80	5	8	0	20	816	0.080
												9th
Easy/faster access	45	135	20	30	5	5	0	0	0	0	1130	0.111
												1st
Inclusion of audio/video materials	10	10	15	30	68	45	36	60	2	25	838	0.082
												8th

Table 12 shows the peculiarity of the e-resources that affect the selection of the e-resources over the print resources. To check the rating of the characteristics that affect the choice of the users of the library of e-resources over the print using weighted mean and then rank these characteristics. Of these 'faster access' comes on first rank, 'timeliness' comes on second position, 'remote access' on third position, 'hyperlink access to additional access' on fourth position, 'currency of information' on fifth position, 'convenience' on sixth position, availability at all times' on seventh position, 'interactivity' and 'inclusion of audio video materials' on eight position, 'available from desktop' on ninth position, 'animation of graphics' on tenth position. Ranking is totally based on the responses of the respondents.

Mostly faculty members prefer the print resources, they like e-resources bcoz of some characteristics that make them better then print. Research scholars mostly preferred e-resources bcoz they needed every result on one click, they have not too much time to give on search. So e-resources are prefered too much by the users bcoz of their some qualities which make them useful and important.

Table 11: Rate the Coverage of E-Resources of the Library

Rating options	Faculty Members		Research Scholars		Total	
	Response	%	Response	%	Response	%
Excellent	12	17.14%	38	22.35%	50	20.83%
Good	18	25.71%	35	20.58%	53	22.08%
Average	24	34.28%	60	35.29%	84	35.00%
Poor	14	20.00%	30	17.65%	44	18.33%
Bad	2	2.86%	7	4.12%	9	3.75%
Total	70	100.00%	170	100.00%	240	100.00%
$\chi 2$ = 1.62 (calculated value) Degree of freedom = 4 Significance Level = 0.05						

Table shows that the users of the library are not satisfied with the coverage of e-resources which are subscribed by the library. Sometimes very important article are not open because the subscription area is limited and the struggle of a users gone waste. 35% respondents both faculty members and research scholars have given their responses that collection of the library is average. 22.08% respondents have given their responses that the collection is good and 20.83% are given their responses that that collection is excellent. 18.33% respondents have given their responses that the collection is poor and 3.75% respond that the collection is bad. To check the rate of the coverage of e-resources using five point scale rating and using chi-square to check the significance level between the variables. X2 value is 1.62 i.e. calculated value, degree of freedom is 4 and the significance level is 0.05. This table shows the strong relationship between the rating options and the users variables.

- A large number of faculty members and research scholars come to know about these e-resources through library website/portals. 20.83% research scholars are come to know about e-resources through their friend. Mostly the users i.e. 57.14% faculty members and 64.70% research scholars are using library website/portals to locate & access e-resources.
- On the behalf of the responses of the respondents that 71.42% faculty members are using e-resources for teaching work, 57.14% faculty members are using e-resources for updating their knowledge, 57.14% Faculty members are browsing without any purpose.
- 70.58% research scholars are using e-resources for the completion of their projects and assignments, 47.05% research scholars are using e-resources for their study and research work, 52.94% research scholars are using e-resources for updating their knowledge and 52.94% research scholars are browsing without any purpose.
- Highest responses from both faculty members as

well as research scholars are given that information scattered in too many sources and access is controlled (only in campus).

SUGGESTIONS & CONCLUSION

Some suggestions on the basis of the study and findings are as:

- Restriction of access control should be removed and global access to the users of the library of IIT, Kanpur should be provided
- Library has a good collection of e-resources inspite of this there is still a need to improve their collection of e-resources.
- From the responses of the respondents it has been noted that the IIT's are leading technical institutes and these technical institutes are mostly subscribing science and technology related e-resources and very less collection of social science related e-resources so these institutes should expand these collection of social science e-resources rather than the science and technology.
- According to the responses of the respondents mostly respondents are responding that they are using library website/ portals source to locate and access e-resources, it is good but library promotes that that users are using more OPAC, JCCC and Journal Portals, because they are also useful for users of the library.
- Library should enhance the e-book collection as e-books are also useful source of information.
- Library should enhance e-resources collection to fulfill the information needs of the users.
- Give a proper training to the users of the library because mostly respondents are saying that they don't get any training from the library that how to use e-resources.

Access of e-resources has increased research and other activities in all disciplines of study. This paper finds that all the users of the IIT Kanpur are aware about e-resources but they want that library gives a proper training that how to use these e-resources. Library should enhance their services so that the users comes to use these e-resources from the library instead of the hostel or departments. Users statistics should be maintained by the library. At last the situation demands that some useful steps should be taken by the library authorities to increase the use of e-resources in the library.

REFERENCES

1. Ashok Kumar, Saravananand, N.T. & Balasubramani, R. (2008). "Users attitude measurement towards e-resources in Madras University library". *Library Progress (International)*, 28, 1-9.

2. Bharati, M.S.Z. & Zaidi Mustafa (2008). "Use of e-journals and e-databases of UGC-INFONET consortium of faculty members and research scholars of Aligarh Muslim University." *Proceedings of 6th International Caliber, Allahabad University, Allahabad*, 28th-29th feb and 1st mar. 2008, Ahmadabad Inflibnet Centre, 341-346.

3. Bunkell, Jonathan & Sharon, Dyas-Correia (2009). "E-books vs print:which is the better value?" *The Serial Librarian*, 56(1), 215-219.

4. Gupta, Dinesh Kumar (2011). "Use pattern of print and electronic journals at the Kurukshetra University, India". *Electronic Library & Information Systems*, 45(2), 213-230, Retrieved from www.emeraldinsight.com.

5. Haridasam, Sudharma & Khan, Majid (2009). "Impact and use of e-resources by social scientists in National Social Science Documentation Centre (NASSDOC), India." *Electronic Library*, 27(1), 117-133, Retrieved from www.emeraldinsight.com.

6. Khan, A.M. Zaidi, S.M. & Bharti M.S.Z. (2008). "Use of on-line databases by faculty members and research scholars of Jawahar lal Nehru University & Jamia Millia Islamia, New Delhi:a survey". *The International Information & Library Review*, 41, 71-78.

7. Kaur, Amritpal (2012)." Academics attitudes towards use of electronic journals: a case study of Punjab & Chandigarh." *The International Information & Library Review*, 44, 182-193, Retrieved from www.sciencedirect.com.

8. Kaur, Amritpal (2011). "Impact of electronic journals on University Libraries of India: a study." *Library Management*, 32, 612-630, Retrieved from www.emeraldinsight.com.