User Perception Towards E-resources and Services of IIT-Guwahati Library

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ABSTRACT

The Indian Institute of Technology-Guwahati made voluminous efforts to provide better e-resources services to its users. This study is an attempt to examine and measure the extent and use of e-resources, information alert services, awareness towards the e-resources, purpose of using the e-resources, attitude of library staff and overall quality of e-services offered by the library of Indian Institute of Technology-Guwahati. 394 survey based questionnaires were distributed and received from PG students, research scholars and faculty members of IIT-Guwahati which were analysed in this study. The findings show that e-journals are more popular than print journals; the library regularly invites users views regarding the information constraint; and the library continuously puts forward information alert services to their users. Most of the users are aware about the e-journals/database offered by the library concerned to their subject and also are able to explore the e-resources allied to their area of interest.

Keywords: E-resources, user perception, INDEST-AICTE consortium, IIT-Guwahati

1. INTRODUCTION

These days the service qualities of an institution are measured in terms of digital collections, e-resources, networking element, ICT tools, etc. Electronic information is the most recent development in information technology and is among the most powerful implement ever invented in human history[1]. The library users' satisfaction plays a crucial role in the enlargement and provisions of the library services. The potential users' feedback regarding the library resources, services and facilities should be considered for providing necessary resources and amenities in the library. In particular, academic institutions need to measure the users' satisfaction to maintain the quality in all the activities[2]. The IIT-Guwahati witnessed remarkable change in collections, services and access to resources since the mid-1990s. Computers and computer applications have been widely initiated, and an integrated library system has been installed. The Library provides remote access to e-resources. In fact, the dawn of a new era in library services and access to resources has risen in IIT-Guwahati in harmony with the worldwide information revolution in academia[3].

In the IIT-Guwahati library has made efforts to optimise the use of library resources including web-based e-resources. IIT-Guwahati has been acquiring a large number of web-based e-resources for its users. The Library now have access to over 12000 full-text e-journals, e-books, and databases which can be accessed by the users through library homepage both on and off-the-campus[4].

2. LITERATURE REVIEW

A number of relevant studies have been carried out on the user satisfaction of the e-resources. Thanuskodi[5] executed a study on education faculty members in Chennai to determine the extent to what number of users are aware and make use of e-resources and also examine the search pattern of e-journals. Mounissamy & Swaroop Rani[6] in their study signify that 67 % of the researchers and 33 % of faculty members regularly access and utilise the e-journals for multiple purposes.The study furnishes some methods to make aware of users towards the e-resources. Sharma[7] in his study describe that majority of the faculty members and research scholars are capable to access the e-resources without difficulty. The survey was further reported that about half of total faculty members have taken training for the use of electronic resources. Garg & Tamrakar[8] executed a study at Indian Institute

of Technology-Roorkee to view the efficiency of e-resources offered by INDEST-AICTE consortium. They found that majority of users preferred e-journals to fulfill their information needs. Bhat & Mudhol[9] examined the awareness and use of e-resources by students available in the Medical Institute's Library. The result shows that most of the users were aware about e-resources and they use them frequently, but less number of terminals, slow speed of internet and less number of e-resources were the elementary barriers of library services. Various suggestions were made to improve the service quality of the library.

Tunji, Abdulmumin & Adisa[10] in their study revealed that the frequency of use of e-resources by faculty members was low. They pointed-out various problems such as; lack of awareness among users about e-resources offered by the library, slow internet speed, frequent power cut and inadequate searching skills, were the major problems in proper utilisation of library services.

Simmonds & Andleer[11] in their research found that the academic library usage is mostly influenced by a users' awareness and the various resources of the library. They suggested that library services might be improved by considering both factors, user's awareness and various e-resources. The research executed by Fidzani[12] reflects that assistance to the patrons by the library staff is very significant in the utmost utilisation of services and a variety of library information resources of the library.

Sasireka[13], *et al.*, in their research found that e-journals are given high priority by the users, online journals are given first choice by deemed universities, IEL online is the most preferred e-journals followed by ASME and ASCE. Most of the institutions are subscribing e-resources through consortium approach. Ali[14] studied about use of electronic information devices among the library users of IIT-Delhi. The study has been examined the awareness of e-resources, use of e-journals, advanced search facilities, users involvement with e-resources, the purpose of using e-information, difficulties faced by the users while accessing e-information, available infrastructure in the library and satisfaction level of the users.

Jotwani[15] describe the role of IITs in higher education and research. The study shows about big range of e-resources and services offered by the IITs libraries to their users. Nisha & Ali[16] in their research paper focused about use of e-journals by IIT-Delhi and Delhi University library users and result shows that e-resources offered by the libraries are much beneficial for the library users. Study illustrate various critical issues such as slow downloading speed, non-availability of specific issue of journal, lack of training, regarding e-services, etc. There is no study conducted so far in the IIT-Guwahati to measure the use e-resources and to assess factors that may influence further usage of e- resources and services. Moreover, the cited literature make known that the studies of use, user perception and user satisfaction with e-resources have been accomplished in the other analogous institutions. Therefore, a survey was deemed necessary to investigate the use of e-resources and services in the IIT-Guwahati library and to uncover the barriers that influence efficiency.

3. OBJECTIVES

The basic objectives of the study are to:

(a) Study about preferred information sources by library users frequently.

(b) Ascertain whether library consider users' views while selection of e-journals for library.

(c) Know about user's awareness towards availability of e-resources.

(d) Find out the foremost purpose of using the e-resources.

(e) Examine the attitude of library staff towards users.

(f) Determine the overall quality of the e-services offered by the library.

4. METHODOLOGY

To fulfill the stated objectives questionnaires for collecting the data from the PG students, research scholars and faculty members of the following 10 departments of IIT-Guwahati: (1) Department of Biochemical Engineering and Biotechnology; (2) Department of Chemical Engineering; (3) Department of Chemistry; (4) Department of Civil Engineering; (5) Department of Electrical Engineering; (6) Department of Computer Science and Engineering; (7) Department of Humanities and Social Sciences; (8) Department of Mathematics; (9) Department of Mechanical Engineering; and (10) Department of Physics.

The questionnaires were randomly distributed to the users who were present at their concerned departments and library. Data were collected from the aforesaid users, as well as personal interviews were also made with respondents and library in-charge to clarify the ambiguities (Appendix-1). For the purpose of this study overall 773 questionnaires were randomly distributed among the users, and 394 questionnaires were received back. 196 (51.57%) respondents were PG students, 116 (48.73 %) were research scholars and 82 (52.90 %) were faculty members. Another questionnaire was sent to the librarian to get the additional required information on the topic. The data collected was scrutinised,

classified and tabulated for better understanding and clarity. Published materials and website of the IIT-Guwahati library were also used to collect additional required information.

5. DATA ANALYSIS

5.1 Most Preferred Source of Information

Table 1 shows that majority of respondents 157 (39.84 %) preferred e-journals to gratify their academic/research desires frequently, followed by 119 (30.20 %) who preferred print journals. On the other hand 72 (18.27 %) users consult the back volumes of the periodicals. 31 (7.86 %) respondents utilise other computerised databases. However, 15 (3.80 %) users opted to other information sources, like educational CDs, cassettes, e-books, etc. It is noticed that e-journals are the first choice of all the three categories of users than other sources.

of respondents 239 (59.39 %) specified that they are continuously getting alert services from the library about new information resources, training and orientation programmes of the library and about other similar kind of information to the library. However, 18.27 % respondents retorted that they are not getting regularly alert services from the library, whereas 22.23 % respondents have not given their views in this regard.

5.4 Awareness about Availability of E-resources

Table 4 shows that 59.89 % users are aware about availability of e-journals/database in library. Whereas, 40.10 % users specified that they do not know about them.

5.5 Purpose of Using the E-resources

Table 5 shows that 36.54 % users explore the

Table 1. Most preferred source of information

User	Response (%)					Total (%)
	Print journals	Back vol. of periodicals	E-journals	Databases	Other	
PG students	60 (35.71)	40 (20.40)	75 (33.16)	16 (08.16)	05 (02.55)	196 (100)
Research scholar	27 (31.89)	27 (23.27)	48 (32.75)	10 (08.62)	04 (03.44)	116 (100)
Faculty members	32 (39.02)	05 (06.09)	34 (41.46)	05 (06.09)	06 (07.31)	82 (100)
Total	**119 (30.20)**	**72 (18.27)**	**157 (39.84)**	**31 (07.86)**	**15 (03.80)**	**394 (100)**

5.2 Asking User's Views on Subscription of E-journals

The respondents were asked to specify, whether the library asks their views while subscripting of e-journals for the library. Table 2 shows that 88 (44.89 %) PG students, 62 (53.44 %) research scholars and 46 (56.09 %) faculty members responded 'yes' as the library repeatedly invites their views; while 23.60 % users reported that library do not ask about their information needs before selection of e-journals. Whereas, 26.64 % users, those occasionally visit

Table 2. Asking user's views on the subscription of e-journals

User	Response (%)			Total (%)
	Yes	No	I don't know	
PG students	88 (44.89)	60 (30.61)	48 (24.48)	196 (100)
Research scholars	62 (53.44)	18 (15.51)	36 (31.03)	116 (100)
Faculty members	46 (56.09)	15 (18.29)	21 (25.60)	82 (100)
Total	**196 (49.74)**	**93 (23.60)**	**105 (26.64)**	**394 (100)**

the library were not be acquainted about any such type of act ensued by the library.

5.3 Alert Services Rendered

Table 3 reveals that the highest proportion

Table 3. Alert services rendered by the library

User	Response (%)			Total (%)
	Yes	No	I don't Know	
PG students	112 (57.14)	40 (20.40)	44 (23.15)	196 (100)
Research scholars	65 (56.03)	22 (18.96)	29 (25.00)	116 (100)
Faculty members	57 (69.51)	10 (12.19)	15 (18.29)	82 (100)
Total	**234 (59.39)**	**72 (18.27)**	**88 (22.33)**	**394 (100)**

Table 4. Awareness about availability of e-resources

Users	Response (%)		Total (%)
	Yes	No	
PG students	102 (52.04)	94 (47.95)	196 (100)
Research scholars	74 (63.79)	42 (36.20)	116 (100)
Faculty members	60 (73.17)	22 (26.82)	82 (100)
Total	**236 (59.89)**	**158 (40.10)**	**394 (100)**

e-resources for searching full text e-journals. Followed by 30.96 % to obtain abstract or specific-articles. 18.27 % use e-resources to acquire back files of e-journals. 14.21 % users utilise the e-resources to find bibliographic databases. It appears from the analysis that full text e-journals are highly desirable by all the three categories of the respondents.

Table 5. Purpose of using the e-resources

Users	Search				Total (%)
	Full text e-journal	Abstract/ articles	Biblio-graphic databases	Back files of e-journals	
PG students	82 (41.83)	64 (32.65)	26 (13.26)	24 (12.24)	196 (100)
Research scholars	41 (35.34)	35 (30.17)	18 (15.51)	22 (18.96)	116 (100)
Faculty members	21 (25.60)	23 (28.04)	12 (14.63)	26 (31.70)	82 (100)
Total	**144 (36.54)**	**122 (30.96)**	**56 (14.21)**	**72 (18.27)**	**394 (100)**

5.6 Courteousness of Library Staff/Volunteers

Majority of the respondents (61.42 %) opined that library staff/volunteers are courteous; they are very supportive and assist them in locating particular source of information (Table 6). Although, 16.24 % respondents feel that library staff/volunteers are impolite. 22.33 % respondents did not give their views.

5.7 Overall Qualities of the E-services

180 (45.68 %) respondents rate up the overall quality of e-services as very helpful while 28.93 %

Table 6. Courteousness of library staff/volunteers

User category	Response (%)				Total (%)
	Helpful	Very helpful	Extreme helpful	Not helpful	
PG students	30 (15.30)	95 (48.46)	51 (26.02)	20 (10.20)	196 (100)
Research scholars	12 (10.34)	52 (44.82)	40 (34.48)	12 (10.34)	116 (100)
Faculty members	06 (07.31)	33 (40.24)	23 (28.04)	20 (24.39)	82 (100)
Total	**48 (12.18)**	**180 (45.68)**	**114 (28.93)**	**55 (13.95)**	**394 (100)**

Table 7. Overall qualities of the e-services

Users category	Response (%)			Total (%)
	Yes	No	I don't Know	
PG students	106 (54.08)	40 (20.40)	50 (25.51)	196 (100)
Research scholars	75 (64.65)	16 (13.79)	25 (21.55)	116 (100)
Faculty members	61 (74.39)	08 (09.75)	13 (15.85)	82 (100)
Total	**242 (61.42)**	**64 (16.24)**	**88 (22.33)**	**394 (100)**

expressed 'extreme helpful', where as a small group of respondents (13.95 %) are not satisfied with the e-services offered by the library (Table 7). According to the overall feedback received from the respondents, e-services offered by the library seems effective.

6. FINDINGS AND RECOMMENDATIONS

6.1 Most Preferred Source of Information

(a) Most of respondents (39.84 %) preferred e-journals for their academic/research purpose followed by print journals and to seek the back volumes of periodicals.

(b) 7.86 % users utilise other computerised databases, such as, educational CDs, DVDs, off-line journals, etc.

(c) E-journals are given high preferences by all the three categories of the users.

(d) Print journals are still as popular as e-journals. Therefore, yet in this digitisation age, e-journal cannot absolutely replace the existing print version but both will complement each other.

6.2 Subscription of E-journals

(a) Before subscription of e-journals/databases by the library, 23.60 % respondents were not enquired on their information requirements.

(b) To involve users in collection development the library may consider other ways in which to obtained feedback from its user on electronic resources and on potential new e-resources as well as opinion on existing e-resources.

(c) The library should also inform users about new e-resources and services as well as existing resources.

(d) Library should inquire potential information need of the users. Subsequent to consultation with faculty, liaisons, appropriate library, staff and students, coordinator of e-resources will solicit feedback and evaluate the product and its necessities based on the trial.

6.3 Alert Services

(a) 59.39 % respondents get regular information alert services from the library. 18.27 % respondents are not getting proper alert services from the library side.

(b) The library may offer users the facility to create research alert profiles so that automated keyword search and tables of contents alerts for journals could be sent regularly to an e-mail address generated by the user. For security point of view some special alert services might be limited to IIT-Guwahati faculty, student and staff.

(c) To access alert services off campus, user may need to go through the library proxy server using the bookmark or by proxying URLs.

(d) The library may also send out alerts via RSS or web-feeds, for that users should have a simple software identify as feed reader, collectively the web feeds of their choice, permit them to browse fresh contents via, the reader, rather than having to visit different websites or go through various e-mails.

6.4 Awareness about the Availability of E-resources

(a) 59.89 % respondents were aware about available e-journals/database in library in their subject areas. A large group of respondents (40.10 %) were not aware about. To enhance awareness, programmes should be organised, so that the users know about the facilities and benefits obtainable from e-format.

(b) More Information literacy and user education programmes could be organised by the library with prominence on information exploring skills.

(c) The consortium with the publishers should impart workshops and training programmes for patrons to makes better use of e-resources.

(d) IIT-Guwahati library may provide access to the recent table of contents of scholarly journals.

6.5 Purpose of Using the E-resources

(a) Most of the respondents explore the e-resources to get full text e-journals, followed by using e-resources to obtain abstract or specific-articles and to acquire back files of e-journals, small group of respondents make use of the e-resources to find bibliographic databases.

(b) Most of the users of IIT-Guwahati are aware of e-journals and are using them for information, updating their knowledge, and for collecting significant material for their study and research purposes.

6.6 Courteousness of Library Staff/Volunteers

(a) Most of the library staff/volunteers of IIT-Guwahati are found courteous; they were very supportive and assist the users in locating specific resources.

(b) Services being offered by the IIT-Guwahati library staff seems effective but more perfection is still required.

(c) The library authority may arrange systematic training programs for staff members time to time to improve their professional expertise.

6.7 Overall Qualities of the E-services

(a) 45.68 % opined that e-services offered by the library are 'very helpful' followed by 'extreme helpful' and 'helpful' but, 13.95 % respondents are not satisfied.

(b) E-services offered by the library of IIT-Guwahati have positive influence on the users' academic efficiency through increased access to current information, ease research process as well as improve their professional competence.

(c) 75 % users of IIT-Guwahati agreed that the library offered an adequate range of e-resources and services, but also suggested to incorporate more e-resources and extensive services in future to enhance the utilisation of library services.

7. CONCLUSIONS

The library should have to institutionalise its performance assessment by customers approach. This might be done periodically to have a response from the users on how excellently the library is meeting their information necessities. The study has clearly indicated that the e-resources seem to be highly constructive for the research and academic community of IIT-Guwahati. Most users of the library preferred journals in both print as well as electronic format. Therefore, both versions should harmonise each other to meet the information desires of the users. Training of users is acknowledged as continuing challenge that requires new and more inventive approaches. It was found that most of the users are aware of e-journals and they are not only using them to update their knowledge but also to accumulate relevant material for their studies and research. The study also reveals that library staff is courteous and co-operative.The overall qualities of e-services offered by IIT-Guwahati library are found effective.

REFERENCES

1. Goharinezhad, S.; Faraji, Z. & Jameie, B. Knowledge attitude and practice study of faculty members on integrated digital library in Tehran University of Medical Sciences. *Int. J. of Digital Lib.,* 2012, **2**(2), 51-62.

2. Oman B.; Sriram & M.K.G. Rajev. Impact of academic library services on user satisfaction: Case study of Sur University College, Sultanate, *DESIDOC J. of Lib. & Inf. Tech.,* 2014, **34**(2), 140-46.

3. Indian Institute of Technology-Guwahati: http://www.iitg.ernet.in/lib/ (accessed on 26 May 2015).

4. Jotwani, D. Marketing of electronic resources in IIT libraries. *DESIDOC J. of Lib. & Inf. Tech.*, 2014, **34**(2),162-69.

5. Thanuskodi, S. User awareness and use of e-journals among education faculty members in Chennai: A survey. *Inter. Res.: J. of Lib. &*

Inf. Sci., 2011, **1**(1) 1-13.

6. Mounissamy, P. & Swaroop Rani, B.S. Evaluation of usage and usability of electronic journals. *SRELS J. of Inf. Manag.*, 2005, **41**(2) 189-205.

7. Sharma, C.Use and impact of e-resources at Guru Govind Singh Indraprashta University: A case study. *E. J. of Acad. and Spec. Lib.,* 2009,

    10(1), 3-8.

8. Garg, R.G.; Tamrakar, A & Tamrakar, R. Users view towards the efficiency of the e-resources offered by INDEST-AICTE consortium: A study of IIT-Roorkee. *J. of You. Lib. Asso.,* 2011, **4**(1), 71-8.

9. Bhat, I. & Mudhol, M.V. Use of e-resources by faculty members and students of Sher-E-Kashmir Institute of Medical Sciences. *DESIDOC J. of Lib. & Inf. Tech.*, 2014, **34**(1), 28-34.

10. Tunji, B.M.; Abdulmumin, I. & Adisa. M.Y. User perception of electronic resources in the Universityof Ilorin, Nigeria. *J. of Emer. Tren. in Comp. & Inf. Sci.*, 2011, **2**(11), 554-62.

11. Simmonds, P.L. & Andaleeb, S.S. Usage of academic libraries: The role of service quality, resources and user characteristics.*Library Trends*, 2001, **49**(4), 626-34.

12. Fidzani, B.T. Information needs and information seeking behaviour of graduate students at the university of Botswana. *J. Lib. Rev.*, 1998, **47**(7), 329-40.

13. G. Sasireka, et al. Use of e-resources in digital environment among engineering institutions in Tamilnadu: An empirical study. *Euro. J. of Sci. Res.*, 2011, **60**(3), 326-33.

14. Ali, N. The use of electronic resources at IIT-Delhi: A study of search behavior. *The Electronic Library*, 2005, **23**(6), 691-700.

15. Jotwani, D. Library resources and service in Indian Institute of Technology. *Ann. of Lib. & Inf. Stud.*, 2013, **60**, 204-211.

16. Nisha, F. and Ali, P.M.N. Use of e-journals by IIT-Delhi and Delhi university library users. *Inter. J. of Digital Lib. Ser.*, 2012, **2**(3), 23-42.

APPENDIX-A

QUESTIONNAIRE

Please indicate your response with a (tick mark) and write in the space provided:

1. Name of Institute:	_____

2. Category of Respondents:	☐ P.G. Student	☐ Research Scholar	☐ Faculty Member

3. Designation: _____

4. Name of Department: _____

5. What kind of information source you would like to prefer in the library to get your required information?
    (a) Print Journals	☐ Yes	☐ No
    (b) Back volume of periodicals	☐ Yes	☐ No
    (c) E-journals	☐ Yes	☐ No
    (d) Computerized database	☐ Yes	☐ No
    (e) Any other (Please specify)	☐ Yes	☐ No

6. For what purpose do you use e-resources of INDEST-AICTE consortium?
    (a) To search for full-text electronic journals	☐ Yes	☐ No
    (b) To search for specific article/ abstract	☐ Yes	☐ No
    (c) To search for bibliographic database	☐ Yes	☐ No
    (d) To search for back files of electronic journals	☐ Yes	☐ No

7. Are you aware about total number of e-journals/databases available in the library related to your subject/discipline?
    ☐ Yes	☐ No

8. Does library ask about your information needs before selection of e-journals for the library?
   ☐ Yes   ☐ No   ☐ I don't know

9. Does library provide any information alert service about new e-resources/ database, new files added or declined in the library collection?
   ☐ Yes   ☐ No

10. Does the library staff/ volunteers are consistently courteous?
    ☐ Yes   ☐ No

11. How would you rate overall quality of e-services provided by the library?
    a. Not helpful   ☐ Yes   ☐ No
    b. Helpful   ☐ Yes   ☐ No
    c. Very helpful   ☐ Yes   ☐ No
    d. Extreme helpful   ☐ Yes   ☐ No

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