Use of Electronic Information Resources by Thanthai Periyar Government Institute of Technology, Vellore, Tamil Nadu: A Study

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Abstract - Electronic Resources is one of the emerging environment in libraries & Information communication in the competitive service. E-Resources usually consist of e-books, e-Journals, articles, newspaper, thesis, dissertation, databases and CD-ROMs, which are likely to be the alternative to the print media. Emerald, Ebsco, Scopus are some of the examples of online databases. All updated information is published in these e-resources. The familiarity and use of electronic information resources in the libraries for rapid development is necessary and important. The aim of this study is to identify how electronic information resources are utilized by Thanthai Periyar Government Institute of Technology - [TPGIT] library users and specific trends that can be seen among faculties and students. Further the study also examine the use pattern, acceptance, perceived importance and satisfaction on electronic resources over print resources. A total of 300 questionnaires were distributed among the random sample of faculty members and students of selected disciplines of TPGIT College. Out of 300 questionnaires, a total of 236 questionnaires were collected.
Keywords: Electronic Databases, Academic Libraries, Information Seeking Behavior, Thanthai Periyar Government Institute of Technology, Vellore, Tamil Nadu

I. INTRODUCTION

The twenty first century was shaped by sweeping changes in communication technologies. The emergence and use of information technology is the century's most significant development affecting scholarly communication. The application of computers to information processing has brought several products and services to the scenes. Consequently, the academic community has undergone tremendous changes during these years, assuming new dimensions influenced by technology-driven applications. Libraries have witnessed great metamorphosis in recent years both in their collection development and in their service structures. Thus, libraries are using technology to improve the management of scholarly information to strengthen and speedy access to scholarly information.

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II. OBJECTIVES OF THE STUDY

1. To assess the amount of familiarity and frequency in the use of the different types of electronic resources
2. To find the purpose and utilization of the electronic resources and services by the users
3. To know the level of satisfaction on current e-resources
4. To know the difficulties encountered by the users while using e-resources
5. To assess the opinions of users on electronic format over the print format

III. LIMITATIONS OF THE STUDY

The present study aims to find the use level of e-resources in Thanthai Periyar Government Institute of Technology - [TPGIT], Vellore. The investigator was able to identify the major limitations, such as the present study consists of only the e-resources users.

IV. REVIEW OF LITERATURE

A large number of research studies have been conducted on the use of electronic resources. A survey conducted by Ismail and Zainab (2005)[1] found that students used e-books mainly for writing assignments/research projects (54.3%), reference (30.9%), leisure reading (6.2%), and browsing (3.7%). Moreover Ozoemelem (2009) bring up that there is

a low level of skillfulness in the use of ICT among Postgraduate Students of the Department of Library and Information Science, Delta State University, Abraka. He concluded from the study that there are Issues encountered when using electronic resources like large mass of irrelevant information, the need to filter the results from search, download delay, failure to find information, inadequate/lack of search skills, high cost of access, power outages, inaccessibility of some electronic resources, and difficulties in navigating through electronic resources.

Verma et al. (2009)[2] reveal that most of the faculty members have used E-journals, some of them found it excellent and for some of them it is good. For some faculty OPAC is good, very few members say that circulation service is excellent and for some of them it is satisfactory. Display board service, interlibrary loan, reprographic, reference service and technical enquiry services are not provided or there is lack of awareness. They found that most of the respondents seek assistance of the library staff on regular basis. Assistance by the staff is needed by the faculty member for using online journals, searching books and other library services.

S.A.Rogers (2001)[3] studied faculty and graduate student use of electronic journals, printed journals and electronic databases was conducted at Ohio State University (OSU) during the years 1998-2000. The surveys were administered three times (once in a year), allowing the researcher to gain insight into the changes of attitudes and adoption over time of electronic services. The findings of the surveys showed that since 1998 there has been a significant progress in the acceptance and usage of electronic journals at OSU. In 1998, only 200 e-journals were available, while in 2000, the number of available e-journals increased to more than 3,000. In 1998, 19% of the respondents used e-journals at least once a week, while in 2000, the percentage increased to 36%. At the same time, the at least weekly usage of printed journals decreased from 45% in 1998 to 34% in 2000.

Weingart and Anderson (2000)[4] measured the Awareness of the faculty and administrators toward electronic resources2 was studied at the University of Utah. The findings showed greater need for publicity and training. The questionnaires were distributed to all faculty and administrators (856 individuals). The return rate was 49.8%. The questionnaire contained a list of 55 databases available to the faculty and administrators. For each database, each respondent was asked to check whether he/she was aware of the existence of the database. For each database the respondent used, he was asked to rank its ease of use. Only 54% accessed the databases remotely, the rest of the respondents accessed them from the library.

Hewitson's (2002)[4] study explores the result of an investigation into the awareness and extent to which the university's academic staff use and assimilate Electronic Information Services (EISs) into their work. the research

was conducted using two methods: a quantitative study involving a questionnaire mailed to a random stratified sample of 200 university staff and a qualitative study, which addressed four specific areas" the characteristics of the respondents (age, gender, faculty); the perceived level of the information technology (IT) literacy of staff; the frequency of use by academic staff; the extent to which academic staff integrate the use of EISs into students; educational license; and what the university can do to support staff better in their use of EISs.

Dadzie (2005)[5] has investigated the use of electronic resources by students and faculty of Ashesi University, Ghana, the level of use, the type of information accessed and the effectiveness of the information communication tools for information research.

Igun (2005)[6] has identified to the challenges faced by the libraries and information centre in Africa in the establishment of electronic publishing. Apart from the information source that can be obtained through the internet and downloaded online, the actual acquisition of electronic books is still not possible.

Kumbar Mallinath and Lohar (2005)[7], focused on student attitudes toward digital resources and services. It revealed that the majority of the students are using the digital resources frequently.

A. *Thanthai Periyar Government Institute of Technology Library*

The College library has a well-stocked library with Books, Video courses and CDs pertaining to various disciplines. Apart from engineering texts and books of technical importance, a number of books of general value and interest are available. It has a wide collection of over 26,992 volumes. The Students are updated with the latest information with the help of the numerous national and international journals subscribed by the library. SC/ST students are benefited by the functioning of a book bank. The library follows the Open Access System. The Library is supervised by a senior member of staff on behalf of the Principal. The Library staff consists of two members. It is kept open on all week days from 10.00 am to 5.45 pm. The Library is a member of INDEST Consortium which enables the access to numerous IEEE, IEE, ACM journals online.

V. METHODOLOGY

The survey used the questionnaire tool to know the access and awareness of electronic resources among the students & faculties of Thanthai Periyar Government Institute of Technology - [TPGIT] Library. At present there are 1300 undergraduate, 350 postgraduate students and 250 faculty members in this college. Nearly 300 questionnaires were distributed among the faculty and students of Thanthai Periyar Government Institute of Technology - [TPGIT] Library, Vellore. But out of 300 Users, 236 (78.7%) were responded.

A. Analysis and Interpretation

A simple percentage analysis was carried out for the major part of the data analysis.

The respondents personal details were tabulated (Table 1) according to the gender, age group, category, course wise, programme wise, accommodation, frequency of library visit, awareness of e-resources. Of the total, the percentage of males (68.6%) was slightly more than females (31.4%). The majority of the respondents (60.2%) belonged to the age group of 20-29 years and 134 users are students. Fewer respondents from the age of above 50.

TABLE I DEMOGRAPHIC PROFILE OF RESPONDENTS

Particulars	Categories	Student	Faculty	Total
Gender	Male Female	140 (76.9 %) 42 (23.1 %)	22 (40.7 %) 32 (59.3 %)	162 (68.6%) 74(31.4%)
Age Group (years)	Less than 19 20 to 29 30 to 39 40 to 49 50 to 60	48 (26.37%) 134(73.63 %) - - -	- 8 (14.8 %) 28 (51.9 %) 16 (29.6 %) 2 (3.7%)	48 (20.3%) 142(60.2%) 28(11.9%) 16(06.8%) 2(00.8%)
Course wise	CSE/IT ECE / EEE Mechanical MCA	64 (35.2 %) 52 (28.5 %) 8 (4.4 %) 58 (31.5 %)	22 (40.8 %) 16 (29.6 %) 4 (7.4 %) 12 (22.2 %)	86(36.4%) 68(28.8%) 12(05.1%) 70(29.7%)
Mode of Accommodation	Hostel Outside	116 (63.7 %) 66 (36.3 %)	14 (25.9 %) 40 (74.1 %)	130(55.1%) 106(44.9%)
Frequency of Library Visits	Daily Weekly Twice Weekly Once Two weeks once Rarely	48 (26.4 %) 50 (27.4 %) 56 (30.8 %) 16 (8.8 %) 12 (6.6 %)	12 (22.2%) 16 (29.6 %) 12 (22.2 %) 10 (18.5 %) 4 (7.5 %)	60(25.4%) 66(27.9%) 68(28.8%) 26(11.1%) 16(06.8%)

The highest percentage of users belongs to computer science course (36.4%) P.G. Programme Users is Using E-Resources comparatively more than the U.G. Programme. 44% of respondents are doing Master Degree. (55.1%) of the respondents are staying at hostel. The majority of respondents (34, 28.8%) visits library at weekly once, Most of the respondents (50, 42.4%) preferred print format for reading purpose. 21.2% of the users preferred both type of format.

TABLE II LEVEL OF AWARENESS AND USE OF E-RESOURCES

Awareness Level	Students	Faculty
Aware	150(82.4 %)	44 (81.5%)
Somewhat aware	22(12.1%)	10(18.5%)
Unaware	10 (5.5 %)	–

Table II shows that 10(5.5%) users are not familiar with the e-resources available in the library. Highest percentage (82.4%) felt that they considered themselves as "fully aware" and another 12.1% "Somewhat aware" of e-resources in the library.
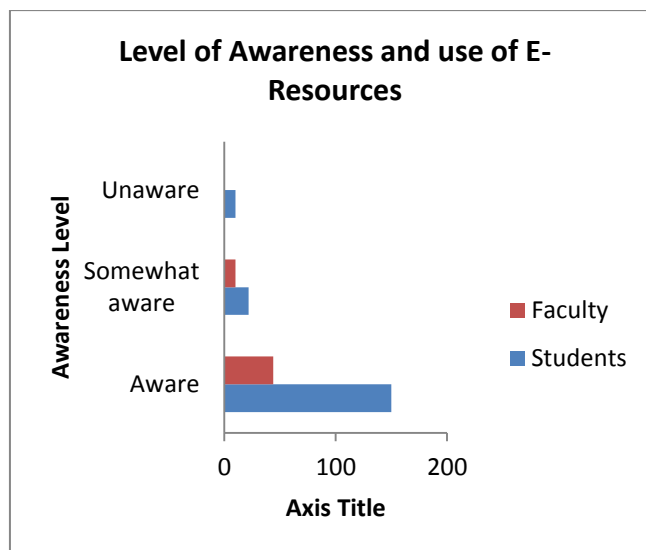

Fig. 1 Level of Awareness and use of E-Resources

Table III shows that, majority of the students (32.6%) using e-resources at once in a week, but most of the faculties using e-resources at the interval of weekly twice. 10.5% of the respondents using e-resources rarely

TABLE III FREQUENCY OF USE

Frequency	Students	Faculty
Daily	32 (17.4 %)	10 (18.5 %)
Weekly twice	48 (36.4 %)	18 (33.3 %)
Weekly once	58 (32.6 %)	12 (22.2 %)
Monthly	24 (12.8 %)	6 (11.1 %)
Rarely	20 (10.5 %)	8 (14.8 %)

TABLE IV EXPERIENCE IN USING E-RESOURCES

Experience	Students	Faculty
< 6 months	32 (17.6 %)	10 (18.6 %)
6 M to 1 year	52 (28.6 %)	24 (44.4 %)
1 to 2 year	54 (29.7 %)	12 (22.2 %)
> 2 year	44 (24.2%)	8 (14.8 %)

Table IV shows that most of the respondents (29.1%) having one year experience in using e-resources and 24.2% of the responses having two year experience. 17 % of the users knowing the e-resources recently.

Table V shows that, most of the students are spending time in library and using electronic resources. (44.2%) respondents use e-resources for study and 10.5% of the respondents for research. 16.3% of users for updating knowledge. Table VI reveals that highest percentage of

(52.5%) respondents preferred e-journals &e-books, and (11.5%) respondents are preferred online databases.

TABLE V PURPOSE OF USING E-RESOURCES

Purpose	Students	Faculty
For Study	80 (44.2%)	12 (22.2%)
For Research	20 (10.5%)	16 (29.6%)
To update knowledge	30 (16.3%)	14 (25.9%)
Teaching	-	8 (14.8%)
Projects & others	52 (29%)	4 (7.5%)

TABLE VI PREFERRED TYPE OF E-RESOURCES

E-Resources	Students	Faculty
CDs/DVDs	42 (23.1%)	24 (44.4%)
Online databases	24(13.2%)	4 (7.4%)
E Journals & E Books	106(58.2%)	22 (40.8%)
Other resources	10 (5.5%)	4 (7.4%)

Table VII shows that 34.5% of respondents are rating e-resources available in digital library are good. And 27% of respondents are rating available e-resources is very good. Only 7% of respondents felt that electronic resources offered by the library are poor.

TABLE VII USERS OPINION ABOUT THE E-RESOURCES

Opinion	Excellent	Very Good	Good	Average	Poor	Total
IEEE	27(61.9%)	21(33.3%)	24(30.8%)	6(20%)	0	78(33.6%)
DELNET	8(19.1%)	19(30%)	23(28.2%)	6(20%)	2(12.5%)	58(24.8%)
QUESTIA	4(9.5%)	11(16.7%)	19(23.1%)	4(13.3%)	4(25%)	42(17.7%)
BCLOnline	4(9.5%)	9(13.3%)	9(10.2%)	4(13.3%)	4(25%)	30(12.4%)
Others	0	5(6.7%)	6(7.7%)	9(33.4%)	6(37.5%)	28(11.5%)
Total	44(18.6%)	62(26.5%)	80(34.5%)	32(13.3%)	18(7.1%)	236

TABLE VIII PROBLEMS ENCOUNTERED BY THE RESPONDENTS

Problems encountered	Students	Faculty
Slow speed/ connectivity/PCs & Others	40(22.0%)	16(29.6%)
It takes too long to view/download web pages	62(34.0%)	12(22.2%)
Overload of information on the internet	28(15.4%)	18(33.4%)
Lack of knowledge / training	52(28.6%)	8(14.8%)

In Table VIII, (15.4%) respondents face problems when accessing e-resources due to overload of information on the internet, 34% users said that downloading, 28.6% due to lack of training
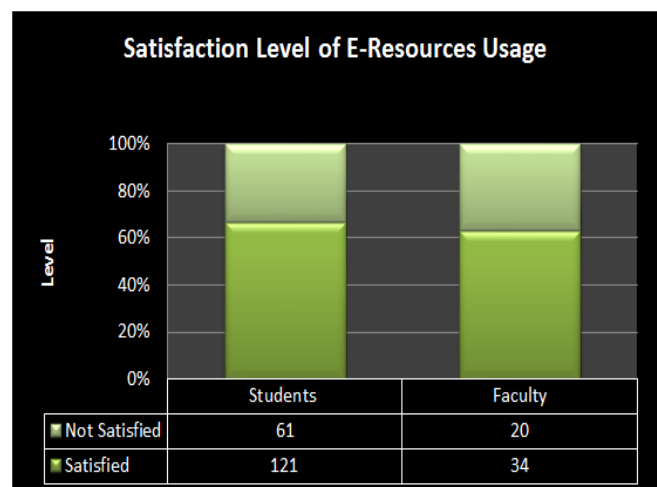

Fig.2 Satisfaction Level of E-Resources Usage

TABLE IX SATISFACTION LEVEL OF E-RESOURCES USAGE

Level	Students	Faculty
Satisfied	121(67.4%)	34(63%)
Not Satisfied	61(32.6%)	20(37%)

Table IX shows that 32% of users expressed that there were not satisfied with e-resources they were accessing in terms of meeting the needs. Rest of them satisfied.

VI. CONCLUSION

The major findings are students are leading users of e-resources in terms of respondents. 77% of students and 23 % of faculty members. Majority of the users (42%) indicated that they preferred print version of resources for their convenience. 36% of users from the computer science & Information technology. It is higher than others. In the aspect of frequency of visit, 29 % of users visits library at weekly once and 7% of rarely visits to library. Of the total 226 users aware of facilities and services of digital library and make use of it. 30% users visits digital library at weekly once and make use of it. Only 12% of the respondents use e - resources rarely.

A total of only 52 respondents indicated they have at least 2 years experience in using e-resources, an indicator that the concept of e-journals is still fairly new phenomenon. Most (45%) of the students using the e-resources for studying and 18.6 % of users for updating the knowledge. Half of the users (55 %) preferred electronic journals and e-books. It is higher than the other types of resources. And 28 % of respondents preferred CDs/DVDs. The highest percentage (34%) of the users access the IEL online. Only 16 respondents felt that poor collection of resources available in digital library. The problems encountered by the users are measured, 31% of the respondents rated that downloading is a major problem. Also 26% of the users said that lack of knowledge is another major problem.

Majority (66%) of the respondents satisfied with the e-resources available in the library.

They are giving more importance to electronic version of documents. With the availability of more resources through the Internet with high-speed connectivity the demand for E-resources in their specific subject is increasing. Accordingly, the libraries have to evolve more scientific methods to develop a standard collection of E-resources along with print documents assessing the requirements of the users community.

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