Comparison between Electronic Resources Usage Pattern among University Libraries at Assam

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Abstract: *The Information Communication Technology has given rise to the evolution of several new terms like electronic resources, gateway, digital library, virtual library or hybrid library. Now-a-days, the libraries such as academic libraries are changed earlier role of library services by providing electronic resources like e-journals, e-books and databases along with printed resources to their users for fulfilling the day-to-day academic and research requirements of the library users as a result of which the user satisfaction level has been increasing. In 21st century, libraries are moving from print to e-resources either subscribing individually or through consortia. There has been paradigm shift in the collection development policies for acquiring printed as well as e-resources (both offline and on-line resources).This study aims to examine the e-resource usage pattern among the library users in Assam State. Further, it also compares the preference of e-resources usages among university library users.*

Keyword: *E-Resource, Usage Pattern, University Library, Library Users.*

1. Introduction

The changing scenario in library environment has arisen for the need and use of e-journals along with print version. Electronic journals has created new challenges before the library and information professionals to give full text access to scholarly publications both in print and electronic version to its end users. In this study, the researcher has tried to identify the various issues relating to the process of accessing e-journals, e-books & bibliographic databases of the scholarly peer reviewed journals which are being subscribed by the university libraries of Assam.

2. Need for E-Resource

The concept Electronic resources are regarded as the mines of information that are explored through modern ICT devices, refined and redesigned and more often stored in the cyber space in the most concrete and compact form and can be accessed simultaneously from infinite points by a great number of audience. The phrase "electronic resources", has broadly been defined as, information accessed by a computer, may be useful as bibliographic guides to potential sources but, as of yet, they infrequently appear as cited references in their own right (Graham, 2003, pp. 18-24; Bhattacharjee, 2014).

The electronic resources can be access over online or over Internet or by offline. Sometime on-line access of e-journal is also available along with printed volumes. Electronic resources include e-books, e-journals, CD-ROM/ DVD-ROM, Databases, On-Line Databases etc. There has been a trend in academic libraries for adopting consortia model for accessing to electronic resources over Internet (Sinha, Bhattacharjee & Bhattacharjee, 2013).

3. Objective of the Study

The main objectives of the study are as follows:

➢ To examine awareness of e-resource by the library users;

➢ To examine the preference of e-resources by them;

➢ To examine the time spent for e-resource searching/ accessing;

➢ To evaluate the problem faced by them.

4. Scope of the study

The present study has made an attempt to understand the usage pattern of e-resources in the university libraries of Assam. The area of the study selected for the research is "Assam" state of Northeast India; with four universities i.e. two central universities and two state universities as mentioned below:

• Assam University, Silchar (Central University);

• Gauhati University, Guwahati (State University);

• Dibrugarh University, Dibrugarh (State University); and

• Tezpur University, Tezpur (Central University).

5. Research Methodology Adopted

For the study "Sample Random Sampling Method" was used. "Survey Method" of research was used to collect data from the library users of Assam. The tools used for collection of data pertaining to the present study are questionnaire; which is followed by Interview-schedule.

6. Data Analysis and Interpretation

6.1 Distribution of Total Questionnaire and the Response Received

There are total 480 numbers of questionnaires that has been distributed among the library users of four different universities of Assam, which consists of research scholars and faculty members, out of which the respondent's feedback were collected for this present study. Out of 480 numbers of questionnaire distributed, only 389 duly filled in questionnaires were received during the said period. Thus the response rate is 73.55%.

Table: 6.1 Number of response received from the Respondents (N=480)

	Distributed	Received	Percentage within University	Percentage within Total Response (N=353)
TU	120	99	82.5	28.0
DU	120	94	78.34	26.6
AU	120	85	70.84	24.1
GU	120	75	62.5	21.2
Total	**480**	353	73.55	100.0

(Source: Computed from returned questionnaires)

Further, Table: 6.1 shows that out of 120 numbers of questionnaires distributed to each university separately, the responses received from Tezpur University (TU) was highest (99; 82.5%) which is followed by Dibrugarh University (DU) (94; 78.34%); Assam University (AU) (85; 70.84%) and Gauhati University (GU) (75; 62.5%) respectively.

6.2 Awareness of E-resources among the Library Users

In the 21st century, libraries are changing from documents oriented environment to e-environment as a result, the demand of e-resources are increasing day by day to a large extent. Internet facility helps users to know about various developments and searching techniques for accessing the desired information. In this study, all 353 (100%) respondents are aware of Internet/e-resource, which indicates that the all the library users belong to different universities are well aware of e-resources and extensively using Internet to access e-resource and others facilities in their day to day activities.

6.3 Preference of the Types of E-resources Access by the Respondents

Further, questions were asked to the respondents about the types of e-resource, they generally search for their day to day activities. Here, respondents are allowed to give multiple responses against each option which is shown in Table: 8(A) and Table: 8(B).

Figure: 6.1; highlights that majority of the library users (298; 84.4%) use e-journals to a maximum extent, which are followed by 196 (55.5%) respondents use e-books, whereas 143 (40.5%) respondents use e-dictionary. Moreover, 138 (39.1%), 120(34.00%), 88 (24.90%), 87 (24.60%) and 47 (13.30%) respondents also use E-Thesis, Offline databases, Online database, Blog and others e-resources respectively. Again specifying about the other e-resources, majority of the respondents generally used e-dictionary, wiki, e-newspaper, e-news alerts, etc.
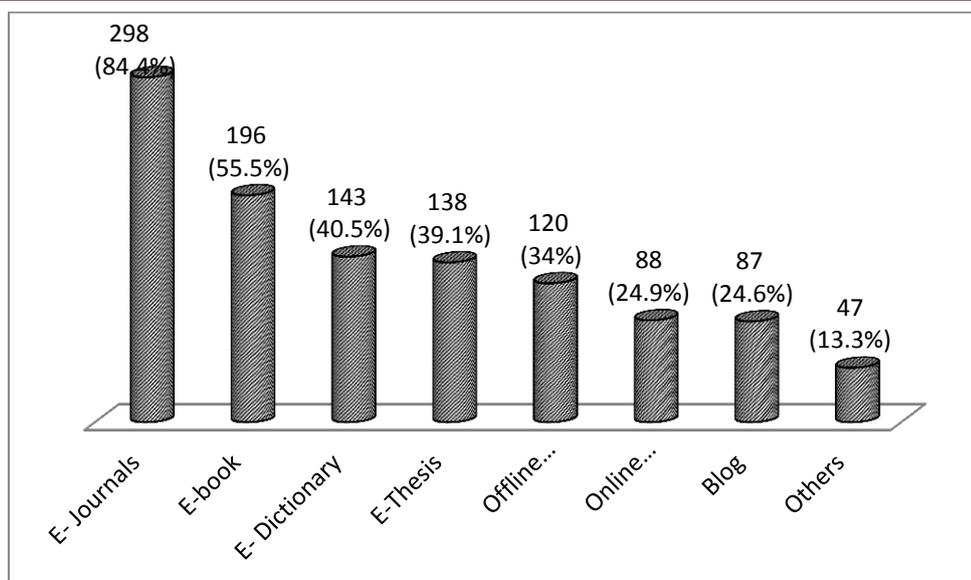
Figure: 6.1: Preference of the Types of E-resources Access by the Respondents

The Table: 6.2 shows the summary of the results of University wise data analysis; which shows that the library users from Tezpur University access e-journals to a maximum extent i.e. 85 (85.9%); which is followed by 75 (79.8%) respondents belongs to Dibrugarh University whereas 74 (87.1%) and 64 (79.8%) numbers of respondents belong to Assam University and Gauhati University respectively.

Further, from Table:6.2, it shows that the usage of e-book is highest in Dibrugarh university 63 (67.1%) which is followed by 54 (54.7%) library users belong to Tezpur University whereas 45 (52.9%) and 34 (45.3%) library users belong to Assam University and Gauhati University. Further Table: 8(A) shows that 92 (26.1%) does not access e-book whereas majority 136 (38.5%) respondents do not access e-dictionary also. This shows that majority users may not feel comfortable of using e-book/ e-dictionary for information seeking purpose.

Table: 6.2 Summary of the Preference of E-resource Usage by the Respondents (University Wise) (N=353 each)

		E-Journals	E-book	E-Dictionary	E-Thesis	Offline databases	Online database	Blog	Others
University	AU	74	45	30	9	22	16	20	12
	TU	85	54	39	11	35	23	26	12
	GU	64	34	25	6	22	17	23	11
	DU	75	63	49	11	41	32	18	12
Total		298 (84.40%)	196 (55.50%)	143 (40.50%)	138 (39.10%)	120 (34.00%)	88 (24.90%)	87 (24.60%)	47 (13.30%)

(Source: Computed from returned questionnaires)

From Table: 6.2, it is found that majority of the respondents 48 (48.7%) belong to Tezpur University use e-thesis to a maximum extent than other universities.

Further, it is observed that, 120 (34.00%), 88 (24.90%) and 87 (24.60%) respondents use Offline databases, Online database, Blog respectively, which is very low in compares to the respondents 143 (40.5%), 155 (43.9%) and 126 (35.7%) who does not use Offline databases, Online database, Blog respectively.

These show that majority respondents are not using various kinds of e-resources in their information seeking pattern. Proper awareness towards maximum utilization of e-resources has to be provided to them for making maximum utilized.

6.4 Preference of E-resource on the basis of Response Received

Table: 6.3; highlights that the library users from Science, Technology and Management (STM) use e-journals to a maximum extent i.e. 189 (53.5%) whereas only 109 (30.7%) library users from Linguistic,

Humanities and Social Science (LH&SS) use e-journals. Again, majority of the respondents belong to STM (137; 38.8%) use e-book, whereas 59 (15.7%) respondents belong to LH&SS, who are using e-books.

Table: 6.3 Accessing Document and Stream -Wise Distribution of Respondents
(N=353 each)

	Stream				Total	
	STM		LH&SS			
	Yes	% of Total	Yes	% of Total	Count	% of Total
E- Journals	189	53.5%	109	30.7%	**298**	84.4%
E-book	137	38.8%	59	15.7%	**196**	55.5%
E-Dictionary	108	30.6%	39	11.0%	**143**	40.6%
E-Thesis	97	27.5%	41	11.6%	138	39.1%
Offline databases	86	24.4%	34	9.6%	120	34.0%
Online database	62	17.6%	26	7.4%	88	24.9%
Blog	74	23.1%	13	3.5%	87	24.6%
Others	47	13.3%	2	0.2%	49	14.3%

(Source: Computed from returned questionnaires)

Further, it is also shown that E-Dictionary 108 (30.6%), E-Thesis 97 (27.5%), Offline databases 86 (24.4%), Blog 74 (23.1%), Online database 62 (17.6%) and other resources 47 (13.3%) used by STM respondents are comparatively higher than LH&SS respondents with 39 (11.0%) numbers of "E-Dictionary", 41 (11.6%) numbers of "E-Thesis", 34 (9.6%) numbers of "Offline databases", 26 (7.4%) numbers of "Online database", 13 (3.5%) numbers of "blog" and very less 2 (0.2%) numbers of "other resources" are being used by the respondents.

These shows that usage pattern of e-journals/ e-books by the library users of Science, Technology and Management (STM) in compare to Linguistics, Humanities and Social Science (LH&SS) respondents are not at all same. STM are generally using e-resources effectively whereas library users of LH&SS are not using it or they may not be getting their required documents/ information.

6.5 Time Spend by the Library Users in Accessing E-Resources/ E- Consortia in a Week

To know the time spent in a week by the library users for accessing E-Resources/ Library Consortia; questions were being asked to the respondents and the responses received are shown in Figure: 6.2.

Figure 6.2 shows that majority of the respondents 111 (34.6%) used E-Resources/ Library Consortia for 1- 6 hours a week; which is followed by 49 (15.3%) used E-Resources/ Library Consortia for 13-18 hours a week whereas 48 (15.0%) used E-Resources/ Library Consortia for 13-18 hours a week. Again, 30 (9.4%) used E-Resources/ Library Consortia for more than 18 hours a week.
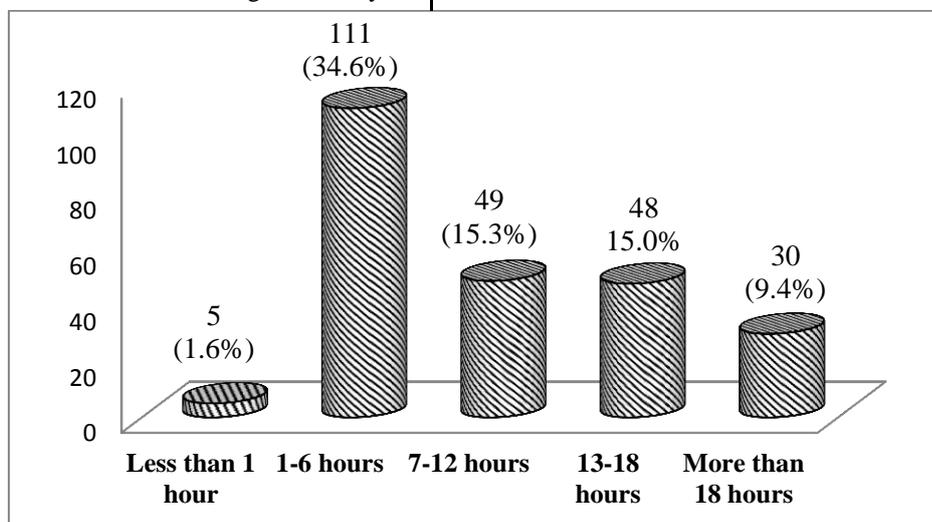

Figure: 6.2 Time Spend to Access to E-Resources/ Library Consortia

Again, Table: 6.4; shows that majority of the respondents belong to STM 77 (39.4%) used E-Resources/ Library Consortia for 1- 6 hours a week; whereas 34 (21.5%) numbers of respondents belong to LH&SS used E-Resources/ Library Consortia for 1- 6 hours a week, which is followed by 36 (18.4%) respondents use E-Resources/ Library Consortia "7-12" and "13-18" hour in a week each whereas 13 (8.2%) respondents use E-Resources/ Library Consortia "13-18" hour in a week respectively.

Table: 6.4 reveals that 77 (39.4%), 36 (18.4%), 36 (18.4%) and 28 (14.3%) numbers of respondents belong to STM usually access E-Resources/ Library Consortia for 1-6 hours, 7-12 hours, 13-18 hours and More than 18 hours respectively. Whereas, 34 (21.5%), 13 (8.2%), 12 (7.5%)and 2 (1.2%) numbers of respondents belong to LH&SS usually access Library Consortia for 1-6 hours, 7-12 hours, 13-18 hours and More than 18 hours respectively. This shows library users belong to STM usually access E-Resources/ Library Consortia for long time in compare to the respondents belong to LH&SS.

Table: 6.4 Time spend to access to Library Consortia in a week (N=321)

| | | Stream | | | | Total | |
| | | STM | | LH&SS | | | |
		Count	% of STM	Count	% of LH&SS	Total	% of Total
Time spend	Less than 1 hour	0	0.0%	5	3.1%	5	1.6%
	1-6 hours	**77**	39.4%	**34**	21.5%	111	34.6%
	7-12 hours	**36**	18.4%	**13**	8.2%	49	15.3%
	13-18 hours	**36**	18.4%	**12**	7.5%	48	15%
	More than 18 hours	**28**	14.3%	**2**	1.2%	30	9.4%
	NR	18	9.2%	92	58.2%	110	34.3%
Total		195	60.7%	158	39.3%	321	100%

(Source: Computed from returned questionnaires)

6.6 Problems Faced By the Respondents

For each question respondents were asked to provide multiple responses as per the problem faced by them while accessing documents from e-consortia. The study shows that out of 353 respondents, the most of the respondent (296; 83.9%) are facing problem due to "Less no. of relevant journals". Again comparing within University wise responses, it is observed that majority of the respondents belong to Assam University (70; 82.4% within AU) and Gauhati University (63; 84.0% within GU) are facing the problem of non-adequate e-journals whereas respondents belong to Tezpur University (13; 13.8% within TU) and Dibrugarh University (30; 35.1% within DU) are not facing it as major problems.

Again, it is found that majority of the respondents are facing problems due to the difficulty in judging relevant information (214; 60.6%); which is followed by "problem in accessing relevant information from e-resources/ e-consortium" (195; 55.2%) whereas 185 (52.4%) numbers of respondents face "problems on accessing articles of own field".

Further, University wise shows that majority of the respondents belong to Tezpur University (47; 47.6%within TU) face the problem due to difficulties in judging relevant information whereas majority of respondents belong to Dibrugarh University (53; 56.4% within DU) face problems while accessing articles of their own field.

7. Suggestions

From the above discussions, it is found that the respondents are not satisfied with the collection of e-resource while accessing e-resources from the library. The general findings of the study and on the basis of the problems they faced, following suggestions can be implement to provide an effective services.

➢ It is found from the study that users are not happy with the collection of library particularly about e-resource; thus, consortia might be a great support for library users to solve the problem;
➢ Therefore, library should continue the consortia services with more valuable e-resources;
➢ Library electronic collection must be in different format;
➢ Library should also provide adequate electronic resource collections as per the needs of the respondents;
➢ Proper e-journals subscribed should be made in each relevant field by the library;
➢ There should be proper guideline how to build library e-collections.

8. Conclusion

Recently, academic libraries are utilizing the consortia services to provide common access to electronic resources. They are also using these consortia on a national basis or state basis Library. However, the present study shows that by using a consortium among libraries, it becomes possible to purchase information in stabilized and reasonable prices. E- Resources are the most supporting tool in the present academic library specially university libraries of Assam for both the research scholars as well as for the faculty members. Therefore, library should continue the consortia services with more valuable or additional e-resources.

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