Chapter 7

Conclusion

7.1 Summary and Findings

The Universities are the centres of higher education and research. The researchers are the users who need pinpointed, exaustive and uptodate information. They are conservative in their approach to sources but quick to seize new approach oppurtunities. Similarly, the demand for the desk top delivery of materials is also increasing. The speed and scale of electronic revolution can be expected to have impact on research collection with a force not felt since the arrival of printing press. It undoubtly bring new opportunities for information provisions to library users / researchers. So the collection will change to the truely hybrid resource which technology makes possible. The use of electronic resources is growing more rapidly than expected and the use of old journals in electronic format is increasing even more rapidly than use of electronic resources overall.

Meeting the objectives:

Keeping in view, the issues on use of e-resource in university libraries of North Eastern States of India, it was proposed to study the area with few basic objectives. These objectives are given due heed while preparing the thesis, the way the objectives are studied and results received are recorded here in the following few pages.

Objective 1: To determine the purpose and utilisation of the library services by faculty, research scholars and students.

In the study it revelaed the purpose and utilisation of the library services by faculty, reserach scholars and students. Chapter 3 discussed details about the different University libraries of Seven North Eastern states. All the selected eleven University Libraries served the users at highest extend with many library services. Several libraries keeps open 24 hours in a day to cater the needs of the users. Users also uses

the library services at a great extend. Table 6.1.2 in Chapter 6 shows the total collection of different university libraries. It is found that the collcetion is satisfactory for the users. Table 6.1.17 shows the user satisfaction on organization of the library, which shows the user satisfaction on organization of the library is that 72.22% users of Central Library Mizoram University is fully satisfied followed by Central Library Tripura University (55.26%). Again Table 6.1.18 shows that user satisfaction on services provided by the university library is highest in LBC Library IIT Guwahati (69.7%) followed by Central Library Tezpur University (60%) and Rabindra Library Assam University (47.73%). From the above analysis it revealed that the study on purpose and utilisation of library services by the users of university libraries.

Objective 2: To find out the user awareness in e-resource uses.

The study made a detailed study on user awareness in e-resources in the selected University Libraries. Most of the users are aware about the importance and use of e-resources. In Table 6.1.19 of Chapter 6 discussed about the user awareness in e-resources. It is found that awareness on using e-resources among users is more in LBC Library IIT Guwahati (100%), followed by LNB Library Dibrugarh University (97.67%) and Central Library Mizoram University (97.22). The awareness among users about e-resources in the selected libraries is quite satisfatory.

Objective 3: To know the different types of electronic information resources and services used by the faculty, research scholars, post graduate students.

In the study a detailed information is given about different types of electronic resources and services provided by the selected University Libraries. Chapter 5 discussed aboiut the use of e-resources in University Libraries of seven North Eastern States. It is found that all the Libraries subscribed many e-resources to meet the users demand. E-books, e-journals, e-newspapers, online databases etc. are some examples of commonly used e-resources. Among these e-resources, e-journals are used widely than any other type of e-resources. Open sources e-resources are also very important e-resources that meets the needs of the users as these resources are freely available.

Consortiums are become very popular in present context as the price for subscribing e-resources are very high. The libraries become member of different consortiums like UGC INFONET, DeLCON etc. to subcribe more e-resources with limited budget. The libraries also provide links of open sources e-resources in the library webpages. Library webpages are a great source of information about the e-resources available in the library. It acts as a gateway for different e-resources to the users.

Objective 4: To suggest suitable recommendations to improve the existing facilities.

In this study suitable recommendations are also given to improve the exixting facilities of Unversity Libraries. Some of the recommendations for the university libraries of North eastern Region are -- Proper training on OPAC, e-journals, e-books, online reference materials etc is essential for the users of the university libraries in the states of North Eastern Region of India to make effective and efficient use of these resources. It is also suggested to organise training programme/ workshop for library professional/ other staff at an regular interval. Number of computer terminals and availability of consistent high speed internet band width should be ensured for better accessibility over e-resources in university libraries in the states of North Eastern Region of India. The services relating to e-resources of the concerned Universities are not identical. Organised services should be provided in order to meet the users demand. Authority should give keen interest in this regard. Sufficient budget provision should be made for promotion of ICT development in general and e-resources in particular. Rather it is felt that the library budget should be incremental to maintain the existing e-resource subscription against ever increasing subscription rates and fluctuation of foreign exchange rates. If the University Libraries of the North Eastern States will follow the recommendations then these should definitely benefit to imporove the existing facilities.

Objective 5: To find a fruitful plan for the effective use of e-resources in the University Libraries of North Eastern Region.

In the study a friutful plan is also prepared for the effective use of e-resourcs in the University Libraries of North Eastern States.

Testing of Hypothesis:

The hypotheses can be tested positive or negative or null based on the result found in the study. The following hypotheses are assumed at the beginning of the study.

H1:--- University Libraries are not given due emphasis in terms of fund for which e-resource could not be well organised.

University libraries use to spend major portion of its annual budget for acquiring e-resources specially periodicals apart from acquiring text books, reference books and other reading matrials. University Libraries are not given proper importance in case of fund. Table 6.1.9 of Chapter 6 discussed about the budget of University libraries. Again from Table 6.1.24 it is found that the budget is not increasing every year in most of the universities subjected to study. On the other hand the demand for acquisition of new resources is ever increasing. Further the price of the e-resources increases at a very fast rate on yearly basis. Most of the e-resources subscribed by the university libraries are of foreign origin and hence their subscription has to be paid with foreign currencies. The rates of exchange of foreign currencies are ever increasing which can be visualized if a comparison is made on rates provided by Good Office Committee periodically for libraries. As against these, in some University Library it is seen that the budget is either stagnant or reduced in successive years due to which satisfaction level of users are less. In North East Institute of Science & Technology (NEIST), Jorhat, which is a similar research institution, the budget for the library resources was Rupees one (1) crore in the year 2016-17. One sciectific abstracting journal on Chemistry published by American Chemical Society, namely, Chemical Abstract, which was subcribed physically by the library costs about Rs. 9.60

Lac in the year 2010. But in the year 2011 the journal was migrated to only online format and called Scifinder and the subscription price was fixed at 44.50 lacs. So it was very difficult for the library to subcribe the above mentioned journal due to many fold increase of subscription price. In such a scenario the libraries of academic institution faces great problen in maintaining their existing subscription list. So, the university libraries should give due emphasis in providing sufficient and incrementing budget for e-resources to the academic libraries. But this is not observed through the present study on University Libraries of North Eastern region. So the first Hypothesis "H1" is tested positive.

Testing of Hypothesis 1 (H2) by Statistical Method (IBM SPSS Version 20) :

Table 7.1: Testing of hypothesis 1 (One-Sample Test)

One-Sample T-Test						
	Test Value = 0					
					95% Confidence Interval of the Difference	
Source	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Budget for e-resource (2016-2019) (Rs)	2.153	6	0.075	12495571.429	-1706316.58	26697459.44
E-resources	22.233	6	0.000	9328.571	8301.88	10355.27

Significance level is 5%

Note: The libraries like CLTRU, LBCLIITG, LNBLDU and RLAU have not provided their data regarding budget.

One-Sample T-Test has been conducted to test the hypothesis 1 which is accepted at 5% significance level and tested as proved.

H2:--- University Libraries could not provide e-resource service due to constrains of properly trained manpower.

Since the concept of e-resource is comparatively newer, users, particularly who are not well acquainted with it, needs guidance from the library staff. But it is observed that universities are not giving right emphasis on training their professional and semi professional staff to provide adequate services to its users. Table 6.1.12 of Chapter 6 shows that no University Library organises training programme on e-resources for the staff. In Table 6.1.13 of the same Chapter shows the participation of library professionals in other Universities or Institutins for the last 3 years. It is found from the table that the number of library professionals is very less who undergoes training on e-resources. Table 6.1.20 shows the user satisfaction on use of e-resources. It is found from the table that 45.76% of users are fully satisfied, 45.56% of users are partially satisfied and 4.62% users are not satisfied with the use of e-resources and 4.06% users didn't comment. So from the above analysis it seems that the due to lack of training of library professionals on e-resources a large number of users are not fully satisfied with the use of e-resources. Hence the second hypothesis "H2" is also tested positive.

Testing of Hypothesis 2 (H2) by Statistical Method (IBM SPSS Version 20) :

Table 7.2: Testing of hypothesis 2 (One-Sample Test)

One-Sample T-Test						
	Test Value = 0					
					95% Confidence Interval of the Difference	
Source	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Trained Manpower in %	6.457	8	0.000	49.222	31.64	66.80
User Satisfaction in %	15.564	8	0.000	46.556	39.66	53.45

Significance level is 5%

Note: The libraries like CLTRU and LNBLDU have not provided their data regarding trained manpower.

It is evident from the table **7.2 One-Sample T-Test** that the hypothesis 2 has been accepted at 5% significance level. It is tested and proved.

7.2 Suggestions

The following recommendations are suggested for improvement of University Libraries in terms of e-resources with its services.

1. Proper training of OPAC, e-journals, e-books, online reference materials etc is essential for the users of the university libraries in the states of North Eastern Region of India to make effective and efficient use of these resources.

2. Number of computer terminals should be increased to ensure better accessibility over e-resources in university libraries in the states of North Eastern Region of India.

3. The services relating to e-resources of the concerned Universities are not identical. Organised services should be provided in order to meet the users demand. Authority should give keen interest in this regard.

4. A fixed budget should be provided for promotion of ICT development in general and e-resources in particular.

5. No institution or University is sufficient in terms of resources. To overcome this problem a good coordination or networking facilities should be done through consortium. A consortium for Higher Educational Institutions should be set up for the North Eastern Region. A project was going on in this regard in the Department of Library & Information Science, Gauhati University. If implemented this will definitely help the Universities of the entire North Eastern Region.

6. There must be provisions of user awareness programme/ orientation programme to be organised by the respective University Library. It is also

suggested to organise training programme/ workshop for library professional/ other staff at an regular interval.

7. There are several oppurtunities for accessing the e-resources. One can access to electronic resources at the library and through LAN in their desktop. There is a need to strengthen the central facilities in the library and departments for accessing e-resources by providing the hardware, software and human ware for better use of e-resources.

8. An un-interrupted and high band width internet connectivity should be made available throughout all university libraries for faster access of e-resources.

7.3 Conclusion

Libraries are treated as the hub of all academic activities including research and play a pivotal role in bringing out the masses together and to enlighten them with the state of the art in various fields of development of knowledge. The LICs of North East India are trying to be at the national standard in using and managing online resources. There are large numbers of resources on the North East India is a matter of concern that people from outside the region are unaware of such resources mainly because of non availability of such resources in printed or in some cases in online mode. It is highly felt that these resources are to be brought together in a network environment; by converting to digitize form of the resources existing in non digitized and put together in an information hub. Of course, while going for digitization of the resources, some conditions like importance of particular documents, their usability, and target group for whom these are digitized, existing digital devices, etc. are to be considered. It is beyond the controversy, that once resources are in digitized form and made available in networking environment, the use will be enhanced and enable to overcome the geographical barrier that exist today. The main responsibility for LIS professionals is to make an attempt of how library services have to be changed in making users and the professionals accustomed with the online resources.

E-resources are the most supporting tool in academic purpose for the research scholars. Presently, UGC-Infonet Digital Library Consortium is quite popular among

them. With the rapid advancement in computer technology along with Information Technology (IT), and the use of such IT devices in   performing library jobs, new features have been added to the existing libraries resulting digital library, hybrid library, virtual library with electronic resources. As such, libraries are now increasingly involved in creating and acquiring e-resources. The availability of IT based electronic resources has exerted ever-increasing pressures on libraries as the online resources are expanding rapidly. However, in order to meet the ever increasing demand of the research scholars in a digital environment, libraries have to develop ways to manage access to materials available in electronic format and to effectively share them in both locally and remotely. Creation of an online union catalogue of available e-resources / print resources of university libraries of North Eastern region will be a useful tool for optimizing available resources among them.

The e-resources help to improve the quality education and research work. E-resources are becoming very popular and pervasive these days as it provides the freedom to access the content. Because of various advantageous factors, e-resources are extending, researchers irrespective of the subject discipline started relay on these resources for their study. It is seen from the study that users of university libraries of North East India also use such e-resources very much. The librarians dealing with online resources will be confronted by questions about equipment requirements, pricing policies, bibliographic control, archival access and staffing implications. Librarians need to balance various elements, demands, constant adjustment in provision of cost effective services. E-resources are the wave of future; it will be an ongoing challenge to libraries for years to come. The outcome of the study offers significant information on the existing situation of university libraries of North Eastern States of India. Though the situation is found to be quite encouraging in the existing online resource user, it needs more attention from different stake holders: management, research scholars, LIS professionals. Especially the LIS professionals need to develop their IT skill in regular basis in order to equip themselves to work in a modern library establishment.

Suggestions for the further Research

   Libraries and information centers will continue to be the meeting and learning places and to play important social, cultural, technical and pedagogic roles. The studies have been carried out on the use of e-resources in the university libraries in the states of North Eastern Region of India where very little research has been undertaken on the use pattern of e-resources. Some of the areas peripheral to the present study and are extremely important for further research are identified as follows:

  a. Intellectual Property Rights (IPR) and their relevance and implications in LICs for e-resources.

  b. Content creation and content evaluation, quality measures, and bibliographic control of e-resources on the web.

  c. Study of users' attitude towards online resources which creates probable environment/ global warming/ health hazards for both library staffs and users.

  d. Strategies for marketing of information products and services in e-environment.

  e. Knowledge management in Information Society.