Libraries are reshaping its services; we speak about electronic references, full text data access, web resources, that are integral part of university education in the electronic environment. Study focuses on the use of e-resources in Libraries. The study reveals the findings related to main objectives. Data received from different universities presented in tabular form with graphs, so that collected information can be used significantly in relation to hypotheses. Hypotheses are tested based on findings of the study provided by different universities.

This chapter discusses about the results obtained from analysis of the universities studied in the previous chapter.

6.1 Findings of the Study

- From all the five universities, 39% chemists and 35.53% physicists users were aware about e-resources. This is confirmed by the obtained chi-square value, it is non-significant at 5% level. There is no significant variance among the users of the universities having awareness of e-resources.

- It has been found that 69.77% chemists from PU, Chandigarh; 48.75% from PU, Patiala have visited the library website as compared to users from rest of the Universities.

- On the other hand, 61.54% physicists from MDU, Rohtak; 51.25% physicists from GNDU, Amritsar have visited the library website.
• The results from the data illustrates that chemists from KU, Kurukshetra 17(36.96%), and chemists from PU, Chandigarh 23(53.49%) were more aware as compared to other universities.

• From the total respondents, 33.68% users were aware of the consortium and 68.75% users were unaware of it. There is non-significant difference among the users of all five universities.

• Table No.5.6.4 indicated that, out of the total users of the five universities 83(29.12%) chemists and 79(25.99%) physicists were using consortium and 204(71.58) chemists and 223(73.35%) physicists were not using the same. Thus, a majority of respondents were using the consortium.

• It was revealed from Table. No. 5.6.5 that 58(20.35%) users of chemistry and 61(20.06%) users of physics use **e-journals** for seeking information.

• From the total respondents **e-books** were used by 9.82% users of chemistry and 13.49% users of physics.

• The use of **databases** was very less and the response from all the users was 5.61% chemists and 6.25% physicists.

• The result reveals that response for **ETDs was** (10.53%). From the total users, 18.24% chemists and 18.75% physicists were consulting **conference proceedings**.
• Majority of users were using e-journals and conference proceedings.

• None of the users responded for blog and open source literature.

Mohamed (2007) revealed in his study that e-journals, on-line databases, e-books, web based resources and a variety of other electronic resources are fast replacing the traditional resources of modern libraries.

• Majority of respondents of both the subjects of all the five universities were using American Chemical Society with 160(27.16%) followed by Science Direct with 90(15.58%).

• About 14% chemists and physicists equally used Annual Reviews as well as Springer link and more than 10% of the total use APS, IPP and RSC.

• Less number of users used CUP, ES, PP and OUP. At least JSTOR was used only a single university i.e. KU, Kurukshetra with 6(1.01%).

• It has been found from university wise (Table No. 5.6.6) that 60(21.5%) chemists and 61(20.06%) physicists were using e-resources for research needs.

• 28(9.82%) chemists and 41(13.49%) physicists reported that they were using e-resources for education purpose.

• E-resources were consulted for professional achievement by only fewer users i.e. 16(5.61%) chemists and 19(6.25%) physicists from the total respondents.
• The e-resources were used for writing research articles by 10.53% users of chemistry and physics.

• Majority of users i.e. 18.24% chemists and 18.75% physicists were using information for current information.

• Majority of the respondents were using e-resources for their research needs and current information.

  **Rehman and Ramzy (2004)** investigated in his study that libraries are extensively used for research needs, preparation of lectures, and for obtaining current knowledge.

• Users face many hindrances while accessing e-resources. Table No. 5.6.8 shows that 47(16.49%) chemists and 64(21.05%) feel that it is time consuming while accessing e-resources.

• It has been found that 30(10.53%) users from chemistry and 29(9.54%) users from physics said that they faced the problem of fewer computers.

• Slow speed was one of the problems for accessing e-resources was felt by 54(18.95%) chemists and 64(21.05%) physicists.

• The users who responded that they faced the problem of lack of trained staff were 48(16.64%) chemists and 61(20.06%) physicists.

  **Ali and Satyanarayana (2002)** revealed in his study that a sizable number of users are facing numerous problems while browsing electronic information such as lack of
knowledge about the resources, lack of trained staff, inadequate terminals, lack of proper printing facility, etc.

- Satisfaction level shows that whether respondents are satisfied with e-resources. Table No.5.6.9 shows that 39(13.68%) chemists and 44(14.47%) physicists were very satisfied with e-resources.

- The respondents who said that they were moderately satisfied were 49(17.19%) chemists and 54(17.76%) physicists from the considered universities.

- The overall response was 7.72% chemists and 8.2% physicists from all the five universities in regard to somewhat dissatisfaction level of e-resources.

- 20(7.02%) chemists and 13(4.28%) physicists from all the five universities were not satisfied with e-resources.

Sevukan and Sivaraman(2008) in his study found that with regard to the satisfaction on the adequacy of e-resources provided by Pondicherry university library, majority of the respondents were satisfied with e-resources.

- Overall results show that 244(85.61%) chemists and 261(85.85%) physicists from all universities are in favour of training and felt that with training e-resources can be used maximum. This infers that there is no significant variation among users of the universities as far as the importance and need of training to make maximum use of e-resources is concerned.
6.2 Testing of Hypotheses

Hypothesis 1: There is no significant difference between chemists and physicists regarding the awareness of e-resources.

The questionnaires were distributed in the department of chemistry and physics. From 589 respondents it has been found that not all the users were using the library. 110(39%) chemists and 108(35.53%) physicists of the total users were aware about e-resources and 175(61.40%) chemists and 196(63.49%) physicists of them were not. It indicates that there is no significant difference between chemists and physicists in the awareness of e-resources.

Thus, the study clearly proves the hypothesis.

Hypothesis 2: There is no significant difference in using e-resources by Chemists and Physicists.

- It is evident from the Table No. 5.6.5 that 20.35% users of chemistry and 20.06% users of physics use e-journals.
- From the total respondents e-books were used by 9.82% users of chemistry and 13.49% users of physics.
- Fewer users were using databases and the response from all the users was 5.61% chemists and 6.25% physicists.
- The results reveal that 10.53% users from both the departments use ETDs. Majority of users i.e. 18.24% chemists and 18.75% physicists were consulting conference proceedings.
• Majority of users were using e-journals and conference proceedings.

• From 589 respondents, 29.12% users from chemistry and 25.99% users from physics were using the consortium.

• From the total respondents, 27.16% users were using American chemical Society, whereas 15.28% were using Science Direct.

• APS and Springer link were used by 14.43% users from both the subjects.

• Fewer users (3.90%) from chemistry and physics were consulting Oxford University Press.

• Therefore, from the above findings of the study it is crystal clear that there is no significant difference in using e-resources by Chemists and Physicists

Thus, the findings of the present study prove the second hypothesis.

Hypothesis 3: There is no significant difference between chemists and physicists in terms of problems faced by them while using e-resources.

• 16.49% chemists feel that it is time consuming while accessing e-resources whereas 21.05% physicists hold the same view.

• 10.53% users from chemistry and 9.54% users from physics stated that they faced the problem of fewer computers.
Majority of users i.e. 18.95% chemists and 21.05% physicists felt the problem of slow speed was one of the problems for accessing e-resources.

16.64% chemists and 20.06% physicists faced the problem of lack of trained staff.

With the above discussions, it can be found that all the respondents were facing the problems. The third hypothesis is supported by the findings of the study.

6.3 Conclusion

The fast growth of ICT and particularly e-resources has changed the traditional method of research, storage and retrieval. The impact of ICT has revolutionized every walk of life. On the basis of the analysis, it is found that all the five universities are subscribing e-resources under the consortium.

A good number of chemists are aware of e-resources.

Many users are not aware of the name of consortium, e-resources available in the library, but those who are aware are using these e-resources.

The universities provide intranet facilities.

Users prefer to use the information in both the formats i.e., electronic as well as print.

Users face the problem in seeking information due lack of trained staff and slow speed.

E-resources are used by the users for research needs and current information.

Less number of users use databases.
• Due to information technology (IT) the image of the libraries has improved and changed.

To get maximum benefit of s-resources one has to pay conscious effort to keep place with the changes in the ICT scenario. The academic libraries should also facilitate the maximum use of e-resources. The study deals with the use of e-resources in the field of chemistry and physics. This can be extended over to the other universities in India. Further study could identify which barriers occur at which stages.

6.4 Suggestions

In the light of the analysis and findings of the survey, the following suggestions are made for the effective use of e-resources provided by the library.

• The library should take initiative for organizing user Education Programme and short term training.

• The library should conduct feedback/user surveys to determine the needs of users from time to time.

• Extra bandwidth should be sought by the Library so as to provide faster access that will save users time, thus becoming a source of motivation to use e-resources. This will also solve the problem of slow downloading.

• Trained staff should be appointed to assist the users in accessing the information.

• Wi-Fi connectivity should be available in all the areas of the university campus.

• The users should be intimated about new arrivals of e-journals.
Reference


