Chapter – VI

Findings, Conclusion and Suggestions
FINDINGS, CONCLUSION AND SUGGESTIONS

The present study is to find out the Information Sources and Services in Anna University, Tirunelveli Engineering College libraries. It is an analytical study. The primary data have been analyzed and presented in the previous chapter. The findings, conclusion and suggestions are given in this chapter.

6.1. FINDINGS OF THE STUDY

Based on the analysis, the following findings are made:

Socio demographic variables and library facilities

- Majority of the users 967 i.e (54.3 per cent) are male. On the other hand 814 (45.7 per cent) users are female. Majority of the users belong to the age group of below 22 years. It is followed by 822 (46.2 per cent) users who belong to the age group of 23-30 years and remaining 109 users are of 31-40 age group and above 40 years. Majority of the users i.e 1573 (88.3 per cent) are unmarried and the remaining 208 (11.7 per cent) users are married. Majority of the users are students i.e 1507 (84.6 per cent) and remaining 274 (15.4 per cent) are faculty members.

- There is no significant difference in the opinion of users regarding the seating facility based on gender and type of users. But there is a significant difference in the opinion of users regarding the seating facility based on age.

- There is a significant association between the availability of departmental library facility and the opinion of users based on gender and age. But there is no significant association between the availability of departmental library facilities and type of users.
In the case of an IT help desk, 47 per cent users felt that it is an important one and 26.3 per cent marked that it is somewhat important. Whereas 32.7 per cent users have the opinion that the installation of more computers in the library is very important. Whereas 47.1 per cent users mentioned that the installation of more computers in the library are important. 25.5 per cent of users have the opinion that the library open 24 hours is least important facility. Meanwhile 25.5 per cent users marked that availability of colour printer and scanners are least important. Hence the researcher concludes that the libraries should improve the number of computers, library working hours and an IT help desk.

The most preferred machine is the photocopy machine. It is preferred by 58.8 per cent users. 58.6 per cent users preferred Scanning machine. Meanwhile 22.2 per cent users prefer Fax machine. Subsequently 9.5 per cent users prefer the Printing equipment.

There is significant association between the age of the users and printing and multimedia facilities. But there is no significant association between the scanning facility and the age of the users.

There is no significant difference in the opinion of users regarding the usage of computer facility based on gender. But there is a significant difference in the opinion of users regarding the usage computer facility based on age and type of users.

There is no significant association between the availability of library website facility and gender. But there is significant association between the availability of library website facility with age and type of users.
There is significant association between the availability of Online Public Access Catalogue with respect to gender, age and type of users.

There is a significant difference in the opinion of users regarding the usage of different internet browsers based on gender and type of users. But there is no significant difference in the opinion of users regarding the different internet browsers based on age.

**Information Sources**

For 73.1 per cent of users, books are the very important source of information. In the case of the journals, 56.6 per cent users marked that it is very important. 39.7 per cent users say that CD-ROM database is very important. Whereas 49.2 per cent users have the opinion that online database is very important. Meanwhile 10.1 per cent users say that online database is not so important.

There is a significant difference in the opinion of users regarding the multiple copies of books in the library based on gender and type of users. But there is no significant difference in the opinion of users regarding the multiple copies of books in the library based on age.

There is no significant association between the preference on format based on gender, age and type of users.

There is a significant difference in the opinion of users regarding the sufficiency of library collection based on gender, age and type of users. There is a significant difference in the opinion of users regarding the condition of books based on gender, age and type of users.
Quality of text books are excellent to 33.5 per cent users. Whereas 7.9 per cent users marked that the quality of the text books are average. In the case of subject books 27.2 per cent users mentioned that the quality of subject books are excellent. Whereas 7.9 per cent users have the opinion that the quality of the subject books are average. Meanwhile 29.1 per cent users said that the quality of reference books are excellent. Whereas 13.7 per cent users marked that the quality of reference books are average. Subsequently 24.3 per cent users marked that the quality of general books are average.

There is a significant difference in the opinion of users of library regarding overall quality of collection of books based on gender, age and type of users.

Preference of dissertation/thesis available in the library are excellent for 13.5 per cent users. Whereas 11.7 per cent users felt that the preference of dissertation/thesis available in the library are poor. Meanwhile 25.1 per cent users mentioned that the preference of dissertation / thesis available in the library is average.

There is no significant difference in the opinion of users of library regarding the availability of dissertation and other documents based on gender, age and type of users.

Collection of Engineering Magazines are excellent for 29.4 per cent users. 15.7 per cent users mentioned that the collection of Engineering Magazines are average. In the case of overall journal collection in the library 27.5 per cent users marked that it is excellent. Meanwhile 15.7 per cent users have the opinion that the overall journal collection
in the library is average. 29.3 per cent users marked that the collection of Engineering Magazines in local languages is average. Whereas 21.1 per cent users marked that the collection of Engineering magazines in local languages is good.

➢ There is no significant difference in the overall opinion about periodical collection in the library based on gender and type of users. But there is significant difference in the overall opinion about the periodical collection based on age.

Electronic Sources

➢ Friends are the major mode of awareness medium for electronic information sources to 42.8 per cent users. Whereas 34.5 per cent users are aware of the electronic information sources through teachers. Meanwhile 32.2 per cent users get the awareness of electronic information sources through the librarians.

➢ There is no significant difference in the opinion of users regarding the provision of compiled list of e-resources based on gender. But there is significant difference in the opinion of users regarding the provision of compiled list of e-resources based on age and type of users.

➢ The most preferred e-reference source of the users are E-news papers. It has been preferred by 66.1 per cent users. Encyclopedias are preferred by 49.2 per cent users and dictionaries are preferred by 46.2 per cent users.

➢ The most preferred media resource is CD. It is preferred by 54.6 per cent users. It is followed by VCD/DVD which is preferred by 24.4 per cent users. Whereas 23.9 per cent users prefer video
cassettes. Online video conferencing has been preferred by 8.0 per cent users only.

- The most preferred search engine is Google. It is preferred by 79.6 per cent of the users. Yahoo is preferred by 32.8 per cent users. Meanwhile AltaVista is preferred by 11.2 per cent users. MSN Search is preferred by 3.6 per cent users. However Web Crawler is preferred by only 2.2 per cent users.

- There is a significant difference in the opinion of users of library regarding the Internet Information sources based on gender and the type of users. But there is no significant difference in the opinion of users of library regarding the Internet Information sources based on age.

- In the case of CD-ROM database 51.7 per cent users felt that it is adequate. Meanwhile 5.7 per cent users marked that CD-ROM database is most inadequate. And 54.2 per cent users have the opinion that online databases is adequate. Meanwhile 5.2 per cent users mentioned that online database is most inadequate. Web resources are adequate to 50.8 per cent of users, whereas 6.9 per cent users mentioned that Web resources are inadequate to them. In the case of Media resources, 49.10 per cent users marked that it is adequate and 18.5 per cent users have the opinion that it is most adequate media resources.

- There is no significant difference in the opinion about the adequacy of e-collection based on gender. But there is significant difference in the opinion about the adequacy of e-collection based on age and type of users.
Reference books are being accessed by 33.7 per cent users daily. It is followed by 32.7 per cent of users who access reference books several times a week. Meanwhile 3.1 per cent of the users do not use reference books. However, 31.6 per cent of the users use dictionaries daily. Whereas 27.8 per cent users use dictionaries several times a week and 5.5 per cent users do not use dictionaries. Again 29.3 per cent of the users use electronic journals daily, whereas 27.3 per cent users use electronic journals several times a week. 10.6 per cent of users do not use electronic journals.

There is no significant difference in the overall opinion about usage of electronic resources based on gender, age and type of users.

For 49.9 per cent of the users individual training to use the electronic resources is needed. But 34.5 per cent users need training for a research project. Only 32.6 per cent users need group training for using electronic resources. This clearly shows that the training offered by the library professionals do not reach to the users effectively.

There is a significant difference in the opinion of users regarding the assistance of library staff for the use of electronic resources based on gender, age and type of users.

**Conventional Services**

For 37.5 per cent of users books/periodicals/other documents are easily available. Whereas 7.3 per cent users rarely can get a books/periodicals/other documents from the library. In the case of personal assistance of staff in locating the materials on their subject interest, 36.7 per cent users say that they are always getting it.
There is a significant difference in the opinion of the users of library regarding the overall services with gender, age and type of users.

Majority of the users prefer reference service. It is preferred by 57.4 per cent users. However 33 per cent prefer literature search service. Current titles and abstracting services are preferred by 32.5 per cent users and 16.9 per cent respectively. Meanwhile SDI service is preferred by 7.9 per cent users. The least preferred service is the translation service which is preferred by 7.7 per cent users.

Monthly bulletins of latest additions of books/reports are most useful for 39.2 per cent users. In the case of weekly content list of current periodicals received in the library, 54.3 per cent users mentioned that it is useful. Bibliographical reviews in the areas of interest is most useful to 31.7 per cent users. Meanwhile 44.4 per cent users have the opinion that bibliographical reviews in the areas of interest are useful. However 7.9 per cent users marked that least useful CAS is informal answers, guidance, provision of documents and information.

There is no significant difference in the opinion about CAS provided by library based on gender, age and type of users.

There is no significant difference in the opinion of users regarding the usage of inter library loan services based on gender. But there is significant difference in the opinion of users regarding the usage of inter library loan services based on age and type of users.
There is a significant difference in the opinion of users regarding the usage of photocopying service based on gender, age and type of users.

There is a significant association between the gender and age with charges for photocopying and printing services by the users. But there is no significant association between charges for photocopying and printing services with type of users.

There is no significant difference in the opinion of users regarding the information provided by the library staff on various services available in the library based on gender. But there is a significant difference in the opinion of users regarding the information provided by the library staff on various services available in the library based on age and type of users.

There is a significant difference in the opinion of users regarding the attitude and knowledge of the library staff with respect to gender, age and type of users.

Introductory lecture is preferred by 45.5 per cent users. Meanwhile 33.7 per cent users prefer informal programme / orientation. Whereas 21.1 per cent users prefer occasional get together. However 8.5 per cent users give least preference to printed guide. Subsequently 19.1 per cent users prefer credit course.

Electronic Services

There is no significant association between the opinion of users regarding the availability of computer terminal and gender. But there is a significant association between the opinion of users regarding the availability of computer terminal with respect to age and type of users.
Among the various facilities offered by the libraries, the facilities like CD-ROM facility, online database/search facility and networking facility are very much used by the users. Networking facility is used by 43.6 per cent; local terminal facility by 35.1 per cent; online database/search facility by 31.2 per cent; whereas other facilities are utilized by very few.

There is no significant association between user preference on e-mail communication and gender. But there is a significant association between user preference on e-mail communication with age and type of users.

There is no significant association between the library usage instruction given by library staff and gender. But there is a significant association between the library usage instruction given by library staff with age and type of users.

There is no significant difference in the opinion of users regarding the e-resource usage training provided by library staff based on gender. But there is a significant difference in the opinion of users regarding the e-resource usage training provided by library staff based on age and type of users.

**Satisfaction Level in Sources and Services**

In the case of books, 46.3 per cent users are fully satisfied. Meanwhile 32.9 per cent users are satisfied with dictionaries. Whereas 23.9 per cent users are fully satisfied with the periodicals. However 25.2 per cent users are not satisfied with thesis.
There is a significant difference in the user opinion about the overall satisfaction related with documentary sources with regard to gender and type of users. But there is no significant difference in the overall user satisfaction with documentary sources based on age.

For 46.9 per cent users are satisfied with CD/DVD. Whereas 22.4 per cent users are not satisfied with CD/DVD. Meanwhile 44.7 per cent users are satisfied with audio visual materials whereas 25 per cent users are not satisfied.

There is no significant difference in the overall satisfaction of users regarding non-documentary sources based on gender, age and type of users.

Majority of the users (87.9 per cent) are more satisfied with newspapers. Whereas 87.3 per cent users are more satisfied with books. Subsequently 87.3 per cent users are more satisfied with Journal/Magazines. Meanwhile 30.8 per cent users are not satisfied with Non-English language materials.

There is no significant difference in satisfaction of users in overall resources available with gender. But there is a significant difference in satisfaction of users in the overall resources available based on age and type of users.

In the case of printed books 58.8 per cent users are satisfied and 30.9 per cent users are more satisfied. 1.5 per cent users are more dissatisfied with printed books. Meanwhile 51.7 per cent users are satisfied with the electronic books. 59.1 per cent users are satisfied with the printed journals. Meanwhile 47.4 per cent users are satisfied with the online journal articles. Apart from this 47.3 per cent users are satisfied with the DVD and Videos.
There is a significant difference in the user satisfaction with library collections based on gender and type of users. But there is no significant difference in the user satisfaction with library collections based on age.

It is evident that 37.6 per cent users are of the view that they are more satisfied with the availability of library staff. Meanwhile 35.3 per cent users are more satisfied with the helping attitude of the library staff. 56.7 per cent users are satisfied with the working hours and 51.6 per cent users are satisfied with the overall appearance and comfort. Meanwhile 12.6 per cent users are dissatisfied with the working hours and 11.1 per cent users are dissatisfied with the helping attitude of the library staff. 10.4 per cent users are dissatisfied with overall appearance and comfort.

There is a significant difference in the overall user satisfaction based on gender and age. But there is no significant difference in the overall user satisfaction based on type of users.

It is noted that 86.5 per cent users are more satisfied with the book returning method. 81.9 per cent users are more satisfied with checking out of the books. But 29.6 per cent users are not satisfied with the renewing method of books over telephone and 25.7 per cent users are not satisfied with borrowing book through ILL.

There is a significant difference in the user satisfaction on overall Library services based on gender, age and type of users.
Lighting in the library is adequate to 84.1 per cent users. Whereas 77.1 per cent users are more satisfied with the timings. However, 35.9 per cent users are not satisfied with video class rooms. 33.4 per cent users are not satisfied with electronic class rooms and 31.3 per cent users are not satisfied with downloading and printing facilities.

There is a significant difference in user satisfaction with library facilities based on gender and type of users. But there is no significant difference in user satisfaction with library facilities based on age.

Problems

Resources needed are not available to 52.2 per cent users in the library. Meanwhile 40.5 per cent users face the difficulties because of insufficient quantities of materials. Moreover 36.9 per cent users face difficulties regarding library hours. 11.7 per cent users face difficulties due to the inability of the library staff in making the necessary arrangements. 32.5 per cent users say that they encounter difficulties because of the inadequacy of time in using the library.

Lack of printing facility is discouraging 41.7 per cent users from accessing e-resources. Meanwhile 26.6 per cent users mentioned that lack of trained personnel is the major reasons which discourages them to keep away from accessing e-resources.

Slow downloading is the major difficulty faced by the users. It is faced by 42.4 per cent users. Other difficulties faced by the users are lack of knowledge about the sources (28.4 per cent) and slow downloading...
speed (27.3 per cent). However, 11.2 per cent users reported that they have no problem in using electronic information services.

- Lack of time is the major reason for non use of electronic resources for 48.2 per cent users. 25.4 per cent users marked that unfamiliarity in computer knowledge is the major reason for not using e-resources.

- E-journals not found in the site concerned is the major problem for 33.9 per cent users. 31.9 per cent users marked that system time out is the problem faced by them. 19.3 per cent users felt that they face ETP error message problem. The problems faced by the users while accessing the e-journals are mainly related to internet service providers.

- Major problems encountered by the users while searching internet is slow access speed. It is faced by 42.7 per cent users. Meanwhile 33.8 per cent users face the problems of over load of information on the internet and 32.6 per cent users face difficulties because of the slow speed in downloading.

- There is a significant association between the help rendered by the library staff while facing problems during the internet usage and gender. But there is no significant association between help rendered by the library staff while facing problems during the internet usage with age and type of user.
Suggestions

➢ Library service should be improved as per the suggestion of 69.2 per cent of the users. Meanwhile 59.9 per cent users suggest for increasing the accessibility to physical library. Subsequently 51.1 per cent of the users suggest to increase the library promotional efforts.

➢ Most of the users suggest that the library professionals should be more user friendly (65 per cent). Meanwhile, 48.4 per cent of the users suggest that the Librarian must be more friendly and helpful. Moreover 38.5 per cent users suggest that more help from the staff is required.

➢ Since the users require latest information for their respective field, 52.8 per cent of the users suggestion is to update the collection. Meanwhile, 43.8 per cent users suggest an increase in the number of computer terminals, which facilitate to access e-resources easily without any constraints. Meanwhile 38.6 per cent users suggest for an increase in e-collection. Moreover, 23.1 per cent of the users suggestion is to improve the on-line catalogue.

➢ Basic facilities are excellent as per the opinion of 28.6 per cent users. Meanwhile 23.9 per cent users marked that the rules and regulations are excellent. Moreover 20.6 per cent users have the opinion that collection is excellent. However, 13.4 per cent of the users are of the opinion that electronic database is very poor. And 12.4 per cent of the users is of the opinion that the electronic services are very poor.

➢ There is a significant difference in the overall opinion about services and facilities based on gender and type of users. But there is no significant difference between the overall opinion about services and facilities based on age.
6.2. DISCUSSION ON THE FINDINGS OF THE STUDY

The present study is designed to examine the Information Sources and Services in Anna University, Tirunelveli Engineering College libraries. The present study reveals that printed journals and books are the most preferred information source. This finding is similar to Ahmad and Hassani (2008); Ehikhamenor (1990); Biradar (2009); Mostert (2005); Crompton (1989); Thanuskodi (2010); Malekani (2006); Sami and Iffat (2009); Patil and Parameshwar (2009); Vasappa and Shivalingaiah (2009); However Choukhande and Dongre (2004) are of the view that both printed and electronic sources are preferred by the users. The result is in contradiction with the findings of Manohar (2007); Shamin (2005) and Sharma and Sharma (2010). Parvathamamma and Shankar (2010) are of the view that newspapers and magazines are the most frequently used information sources in public libraries in Gulbarga district, Karnataka State, India. Meanwhile Maheswarappa and Havanur (1998) are of the view that abstracting and indexing journals, primary periodicals, research reports and subject bibliographies are the most frequently used sources of information.

The present study reveals that Google is the most preferred search engine to retrieve information from internet source. This finding is similar to the findings of Mathew and Ally (2007); Lohar and Mallinatha (2005); Paratchiselvi and Murugesapandian, (2011).

The present study reveals that the seating facility is adequate in the Engineering college libraries. These findings are contradiction with the findings of Ajdahun (2006) who is of the view that library lacks adequate seating spaces.
The present study reveals that majority of users are using the departmental library for their references. This finding is similar with the findings of Naushad and Hassan (2006).

Findings of Lohar (2007) on multiple copies of books reveal that the majority of users suggest to improve document collection. The same findings are seen in the present study also.

The present study reveals that OPAC are used by almost all the faculties. This finding is similar to the findings of Rajeswari (2005).

The present study reveals that most of the users are satisfied with photocopying service. This finding is supported by the finding of Singh (1994), but contradicts with the finding of Livingston and Narasimha (1992).

The present study has found that library staff are providing assistance and training for accessing e-resources. It is similar to the findings of Satpathy and Rout (2010).

The present study reveals that lack of printing facilities, inadequate telecommunication facilities, and lack of trained personal are the major reasons that discourage the users from assessing e-resources. This result is similar to the finding of Ali (2005).

6.3. IMPLICATIONS OF THE STUDY

The findings of the study have wide implications for the management and library professionals of Engineering colleges about providing the Information Sources and Services to the users. The findings of the present study shows that the variables gender, age and type of users influence the behavior of the users regarding the availability of seating facility, computer
facility, department library facility and library website facility. It is an eye opener to the concerned in the Engineering colleges for improving the existing sources and services. The library professionals as well as the users should be given orientation programmes regarding the latest trends in e-resources.

The lack of facilities regarding printing, trained professionals, updated technology and timely maintenance discourage the users in using resources. So the managements should concentrate on improving the above said facilities. There are some problems in the internet services which has to be solved by the internet service providers, thus facilitating the maximum utilization of e-journals. The difficulties while using e-resources are mainly due to the external factors and it could be minimized with the upgradation of the existing technology.

6.4. SUGGESTIONS

Based on the findings of the study, the following suggestions are given which would help the professionals concerned to improve the existing sources and services.

1. Infrastructure facilities in the existing libraries should be improved as per the opinion of the users.
2. Training and orientation must be given to the users for the effective use of library sources and services.
3. Adequate e-resources should be provided to the users.
4. The library professionals should be trained to handle the modern technology and equipments.
5. The photocopying service should be provided with nominal charges.
6. Whenever new e-journals are released the contents must be displayed on the notice board.

7. Training should be provided to the users regarding the use of electronic databases.

8. Latest technologies should be adopted by using the internet and incorporating the computers which have higher configuration.

9. The feedback of the users should be collected periodically to know about their requirements.

10. Libraries should improve the collections in all forms to cater the need of users.

11. Periodical training should be given to the users for the effective utilization of the sources and services.

12. Every library should have its own websites which will providing the detailed information regarding the sources and services available in the library.

13. Every department has to maintain the departmental library.

14. Printing and scanning facilities should be provided in the library.

15. Users should be given training on OPAC.

16. Different internet browsers should be made available in the library so that the users can get familiarity with all type of browsers.

17. Multiple copies of the books used frequently should be made available as per the demand of the users.

18. Both the printed and electronic format of the same material should be made available in the library, so that the users can access it as per their desire.
19. The books which are damaged should be replaced by new ones.
20. Inter Library Loan service should be encouraged among the libraries.
21. The number of computer terminals should be increased as per the demand of the users.
22. E-mail communication between the users and library staff should be encouraged for referring the necessary data.

6.5. SUGGESTIONS FOR FURTHER RESEARCH

Since the time frame is a limited one, eventhough the scope of study is very high, the researcher has to restrict herself to certain limits. So there are some uncharted areas in every research. In the case of present study also there is a wide scope of further research as follows:

1. Further studies can be conducted on the information literacy among the users of engineering college libraries.
2. Similar studies can be undertaken by including more number of colleges and Universities.
3. By reducing the geographical area and increasing the number of samples the study can be replicated.
4. Similar study can be conducted in the Arts and Science College environment.
5. Comparative study can be conducted on selected services and usage among engineering colleges.
5. Similar studies can be conducted by comparing with reputed Institutions like IIT and IIM
6.6. CONCLUSION

College libraries play a vital role in acquiring a wide variety of knowledge. The user needs are varying according to their requirements. So to fulfill their requirements the interaction between the library professionals and the users is very important. Librarians should provide the printed as well as e-resources to cater the needs of users.

The present study reveals the sources and services offered by the libraries and the subsequent effective utilization of the same by the users. The users still prefer printed media as their first choice eventhough there is the availability of electronic media. Regarding the search facilities, users prefer electronic media which provide faster results by using keywords. The present study concludes that the infrastructure facilities should be improved. Moreover the users and library staff should be given periodical training regarding the sources and services and the maximum utilization of sources and services can be achieved by providing adequate training.