



AUTOMATION AND DIGITIZATION OF Dr.B.R.AMBEDKAR UNIVERSITY LIBRARY, SRIKAKULAM, ANDHRA PRADESH (INDIA): A STUDY

**Dr. DUVVU CHAKRAPANI*

Assistant Professor

*Dept. of Library and Information Science
Dr.B.R.Ambedkar University, Srikakulam
Andhra Pradesh(India)*

***Mr. K. SANGAMESULU*

Guest Lecturer

*Dept. of Library and Information Science
Government Degree College, Pathapatnam
Andhra Pradesh(India)*

Abstract

Dr.B.R.Ambedkar university libraries automation and digitization reduces the workload for library staff in terms of cataloguing, circulation and acquisitions. This frees up time to provide a higher quality of service to library patrons. The staff becomes available to answer reference questions, help people with research work and find information on request. With automation, finding library materials such as books and reference journals becomes easier and less time consuming. Patrons no longer have to wait ages for a harried library staff member to attend to requests. A library which is an integral part of university, administered to meet the needs of its students, faculty, and staff for scholarly information and research services is the academic library. They are using computers and networks to identify process and retrieve information more speedily and efficiently. This switch over has helped library professionals to serve the risers better.

Keyword: automation, digitization, web cataloguing, circulation, acquisitions, IT, ICT, DELNET, DELSIS, OPAC, NISSAT, Library web page, digital resources, library services

1. Introduction

Dr.B.R.Ambedkar University libraries are adopting automation of their function and services and also changing to digital libraries and new libraries that are being set up are increasingly automated and digital libraries. When we refer to automated libraries, generally we mean computerization of libraries housekeeping mechanical operations which is an important activity in this context. As a result, there is widespread interest in this field of automation and digitization of libraries and consequently, a lot of research and development activities are being carried. The information technology (IT) is the broad term referring to the tools used in the generation, gathering, processing, storage, retrieval, communication and delivery of information. The fast development of the information and communication technology (ICT) has brought change in the university community.

2. Library automation and digitization

Dr.B.R.Ambedkar university libraries automation and digitization is a first step for establishing digital libraries. Automation is required for improving the efficiency of the services to be delivered at all levels. University

library not only possess vast store of information in the form of books, bound volumes of journals and information generated by users, but university libraries have good collection of manuscripts which are precious and valuable sources of information. The direct access to this huge source of information can be made available in the university library.

3. Areas of automation in university libraries

Computers can be used practically in all library operations. A lot of research is going on to develop a knowledge based expert system for classification. The operations/activities that enable computerization can be divided into three parts: 1. Library house-keeping operations, 2. Information storage; retrieval and dissemination, 3. Management support activities.

4. University library books

The Central library aims at providing access to its printed resources such as books and journals as well as electronic journals and online databases primarily for the use of faculty and staff at the university. The library stock is increasing at a rate of approximately 1,000 books a year. Currently a collection of 35,000 books (Arts-19,400, Science-13,000 and for Engineering- 2,600) with around 10,000 titles of books (Arts-6,210, Science-3,300 and Engineering-490) are available for access. As of now there are 500 Volumes. The library also subscribes to over 30 current periodicals and to a range of electronic journals and databases.

5. Library access control system

The system is activated after working hours (9.00 A.M to 10.00 P,M) and holidays including Saturdays and Sundays. The access will be there to all the faculty members, students, research scholars individually and to the JRFs with prior permission from the concerned course coordinators. All the entry and exit will be reflected in the register specifically maintained.

6. Computers in the university libraries

The library offers at presently 50 user computers that are on the Infflibnet and Delnet network for users to access internet, online journals and other databases. One PC is restricted to access online/web catalogue of the library. The library web catalogue can also be accessed from all other PCs in the campus with a 'http' The computer facilities are provided for academic work only.

7. Developing library network (DELNET)

It was initially supported by the national information system for science and technology (NISSAT), department of scientific and industrial research, Government of India. It was subsequently supported by the national informatics centre, department of information technology, ministry of communications and information technology, Government of India and the ministry of culture, Government of India. DELNET has been established with the prime objective of promoting resource sharing among the libraries through the development of a network of libraries. It aims to collect, store, and disseminate information besides offering computerized services to users, to coordinate efforts for suitable collection development and also to reduce unnecessary duplication wherever possible. DELNET has been actively engaged with the compilation of various union catalogues of the resources available in member-libraries. It has already created the union catalogue of books, union list of current periodicals, union catalogue of periodicals, CD- ROM database, database of Indian specialists, database of periodical articles, union List of video recordings, Urdu manuscripts' database and database of theses and dissertations, sample databases of language publications using GIST technology and several other databases. The data is being updated in these databases and is growing rapidly. All the DELNET databases have been resident on DELSIS, in house software developed on BASIS Plus, an RDBMS, the product of information dimensions Inc. of USA which has been provided to DELNET courtesy national informatics centre, New Delhi. Dr. B. R. Ambedkar university successfully completed DELNET institutional membership for the benefit of the user community related to arts.

8. Digitization

The Primary method of building digital resource is Digitization. Digitization is defined as, "Conversion of analog items into digital format for the purpose of extending access and where appropriate, to assist with preservation. Digitization is not an activity which can be seen in isolation. It is linked to all aspects of services provided by the library." In simple words, digitization means acquiring, converting, storing and retaining

information in standardized and organized manner with technology support. With specialized scanners, documents are converted into digital formats and stored for further reference via CDs or web based application. The digital content may be locally held or accessed remotely via computer networks. The fundamental requirements for the digitization are process of information selection; selecting documents, and selecting data, digitization gadgets, software, etc.

9. Steps to be taken for creating the digital library

A library is to be a digital library when it renders information service required by the user in a digital form. The following processes are carried out when a library that follows traditional functions is converted into a library that employs digital mode for all its libraries activities are: 1. Implementation of Barcode Technology, 2. Online Public Access Catalogue (OPAC), 3. Internet connectivity, 4. Resource dissemination through CD/DVD, 5. Online journals database subscription, 6. Online database subscription, 7. Procurement of e-books, 8. Converting printed resources into digital resources, 9. Library web page, 10. Developing library information portal.

10. Review of Literature

The study of related literature implies locating, reading and evaluating reports of research as well as reports of causal observation and opinion that are related to the planned research project. The search for literature should be conducted in a systematic way to achieve optimum results.

Byamugisha (2010) discusses that the People have become increasingly dependent on digital information and the internet as medium for gaining and exchanging information. However, despite promising developments numerous challenges that are related to digital content and collection, interoperability, standards, knowledge organization systems, users and usability, legal, organizational and social issues, staff education, infrastructure, language barrier, and technology remain.

Iwhiwu and Eyekpegaha (2009), on the basis of their study, are of the opinion that the libraries lack written policy on digitization, inadequate ICT infrastructures and manpower, fund, and inadequate government support. Users are not given user education/digital literacy to enable them adequately utilizing the available digitized resources and services, thus posing challenges to effective information delivery.

Bansode, (2008) highlights the digitization activities undertaken by Shivaji University Library to preserve rare materials. The author attempts to calculate the costs incurred in the digitization process. He has explained that digitization is the solution for the preservation of, and access to, rare manuscripts and suggests the complete budget required for the digitization of manuscripts and best possible preservation and access strategy according to the local needs of the users. The paper provides valuable insight into the development of digital libraries in India. It is useful for setting the infrastructure required for digitization and a guideline for preservation and access to the rare materials.

11. Objectives of the Study

1. To explore the status and nature of resource sharing amongst the libraries under reference.
2. To know the view points of library users about the services provided by the libraries and their views about their satisfaction levels.
3. To explore the possibilities of further improvement in the existing components and tools of automation, digitization and various services provided by the Dr.B.R.Ambedkar University libraries from the feedback received from library professionals.
4. To ascertain: whether there is any specified policy to remove hindrances in implementing library automation and digitization in a time-bound framework, the ICT infrastructure in place to enhance digitization of these libraries, the extent of funding to enhance digitization, the level of training of library staff in ICTs and user education/digital literacy programmes available to facilitate users' access to resources and services provided by the Dr.B.R.Ambedkar University libraries.

12. Research Methods

The present study both primary and secondary sources were chosen. The primary sources are those which are chosen by researcher for the first time and are studied by the researcher on his or her own and

information gathered from them is original in character. The secondary sources, on the other hand, are those which are collected from references sources.

13. Data Analyses

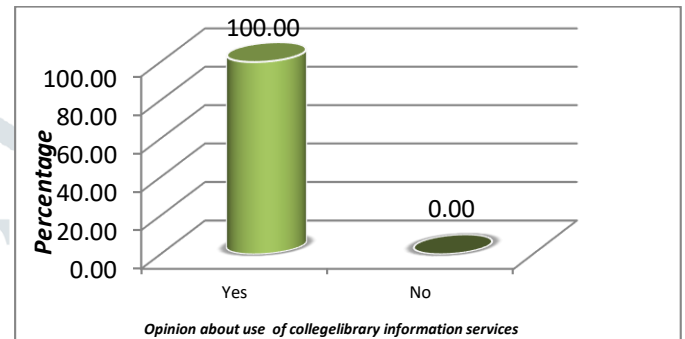
The analysis of data collected from different types of users. The investigation reveals the awareness about the use of electronic resources and services, frequently used sources, ways of finding information, opinions on the usefulness of library tools and services most frequently used resources of information.

13.1. Use of college library information services

In order to assess the extent of use of information sources and services in the library the users were asked about their use of this facility. The responses were analyzed and presented in the following table.

Table & Figure No-13.1: Opinion about use of college library information services

S. No	Opinion	Total (N=2196) (%)
1	Yes (N=2196)	2196 (100.00)
2	No (N=00)	00 (00.00)
	Total	2196 (100.00)



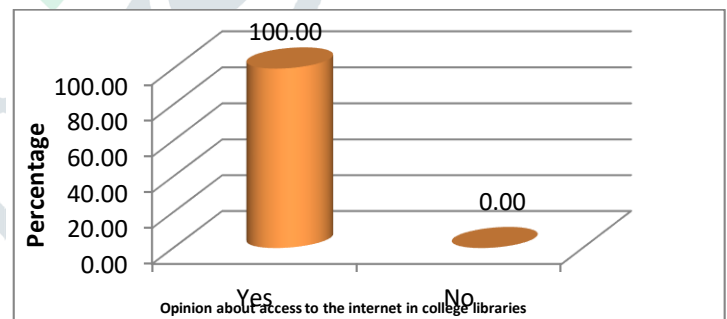
The analysis of responses on the use of college library & its services reveals that all most all the (100%) users, irrespective of their status back ground are utilizing their library resource and services.

13.2. Opinion about access to the internet in college libraries

Internet is providing a rich source of information. The present era is treating the information age. In any sector, especially educational environment internet is creating a big boom. Without using internet, we are unable to reach the objectives of any environment. The following table will explain the opinion of the users in engineering colleges, either they are using the internet or not.

Table No-13.2: Opinion about access to the internet in college libraries

Sl. No	Access Internet	Total (N=2196) %
1	Yes (N=2196)	2196 (100.00)
2	No (N=00)	00 (00.00)
	Total	2196 (100.00)



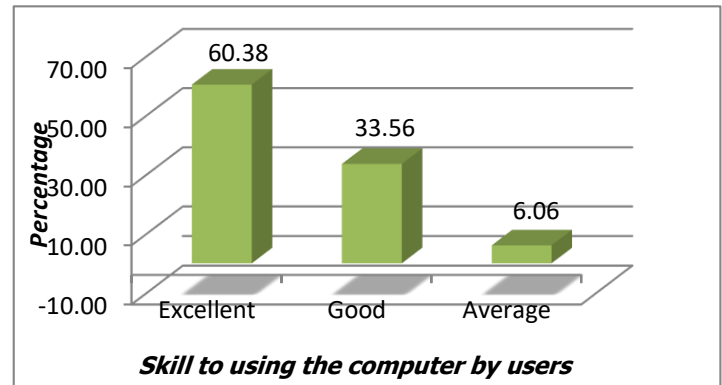
Above table analyzed that the data whether the users are using internet or not in their parental libraries in engineering colleges. All the users responded positively (2196/100%) all most all of them using internet in their respective college libraries. None of them are found not using this facility.

13.3. Skill to use the computer by users

In order to assess to find out the users are skills to using computers. In the digital environment computer skills or computer literacy play prominent role to manipulating the gathered data, or production of new kind of Information or many more. Computer is inseparable thing for human beings. Without computers they can't do anything in some circumstances. The following table sought out to users computers skills, whether they sound skill or not.

Table-13.3: Skill to using the computer by users

S. No	Level of Skills	Total (N=2196) (%)
1	Excellent (N=1326)	1326 (60.38)
2	Good (N=737)	737 (33.56)
3	Average (N=133)	133 (6.06)
	Total	2196 (100.00)



Above table present the results regarding skills to use computer by users reveals that, highest percent of them (above 60.38) skilled using the computer which is an 'excellent' job, followed by the percent of the users (33.56) having 'good skills' and few of them (6.05) also had ability to translate knowledge to meet their technological requirements.

13.2. Most frequently used sources of information

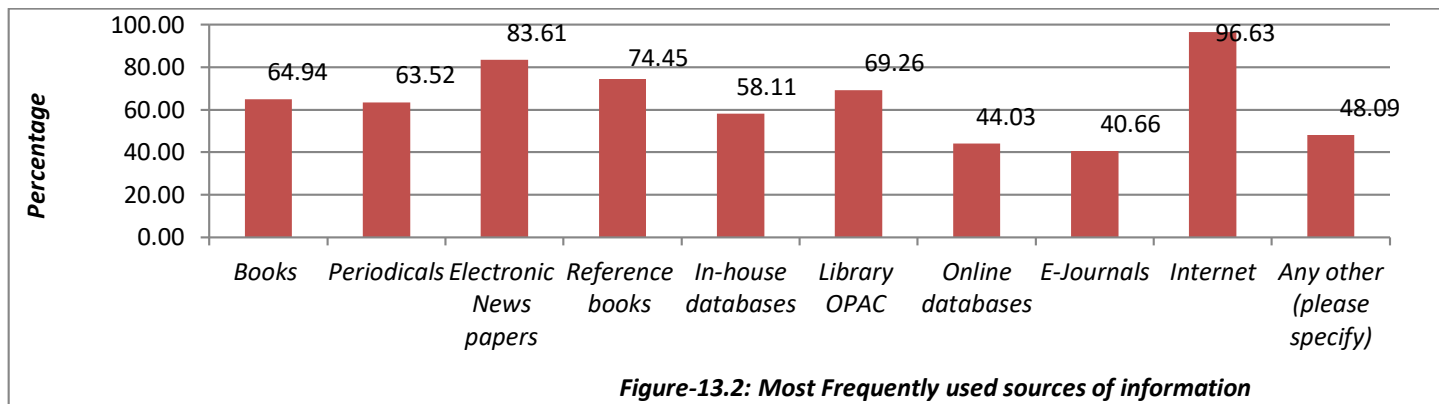
Library and information centers place them variety of sources and services to their users, such as collection of books, reference books, periodicals, library OPAC, online data bases, e-journals internet, newspapers, audio/visual materials, and are the most popular sources of information. Among various sources, the users were asked to specify most often used source (s) of information. The preferences of users are shown in the following table.

Table No-13.2: Most frequently used sources of information

S. No	Most frequently used sources	Total (N=2196) (%)
1	Books (N=1426)	1426 (64.94)
2	Periodicals (N=1395)	1395 (63.52)
3	Electronic News papers (N=1836)	1836 (83.61)
4	Reference books (N=1635)	1635 (74.45)

5	In-house databases (N=1276)	1276 (58.11)
6	Library OPAC (N=1521)	1521 (69.26)
7	Online databases	967 (44.03)
8	E-Journals (N=893)	893 (40.66)
9	Internet (N=1239)	2122 (96.63)
10	Any other (please specify) (N=1056)	1056 (48.09)

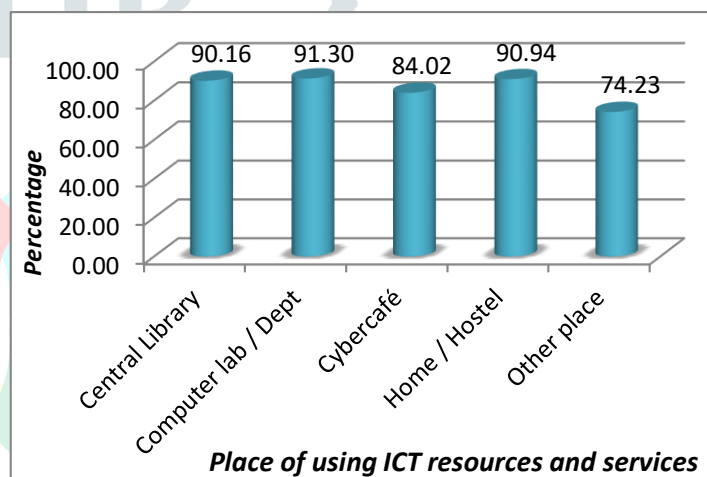
It is clearly evident that the above table, library users, especially users are depending on different sources of information. In the order of priority, highest percent (96.63%) are frequently using internet as sources of information followed by those who are using newspapers (83.60%). The percent (74.45) of users using reference books occupied with third position. Fourth place was occupied (69.26) by those who are using library OPAC as most frequently used source of information. Books was used as most frequently used source information by nearly 65 percent of the users and followed by the percent of them (63.52) using the periodicals as a most frequently used source. In house data bases (58.11) and other purposes (48.09) online data bases (44.03) e-journals (40.66) approached by the users respectively.



13.3. Opinion about place to using ICT based library resources and services

Information and communication technology (ICT) enable users for fast access of information with audio and video including graphics. These are providing 4th and 5th generation of information technology. The study also ascertain users point of view where they use the ICT based library resources and services. If they use properly, need sufficient internet connection must need. The following table will elaborate the opinion place of using ICT based library environment and will encapsulate the results.

S. No	Place	Total (N=2196) (%)
1	Central Library (N=1980)	1980 (90.16)
2	Computer lab / Department (N=2005)	2005 (91.30)
3	Cybercafé (N=1845)	1845 (84.02)
4	Home / Hostel (N=1997)	1997 (90.94)
5	Other place (N=1630)	1630 (74.23)



Above table indicating about place of using ICT based library resources and services. It is found that highest percent (39.48) of them are using at their central library, which is associated with their parental organization and followed by nearly 26 percent of them have been using this facility at their respective computer lab/Departments. Third highest percent (19.13) of them are use this resources at cyber cafe and nearly 10 percent of the users are access this facility at their home/ hostel. Above 5 of the costumers are also using above said environment at other places. Where they have convenient space is available.

13.4. Purpose of use of ICT based library services

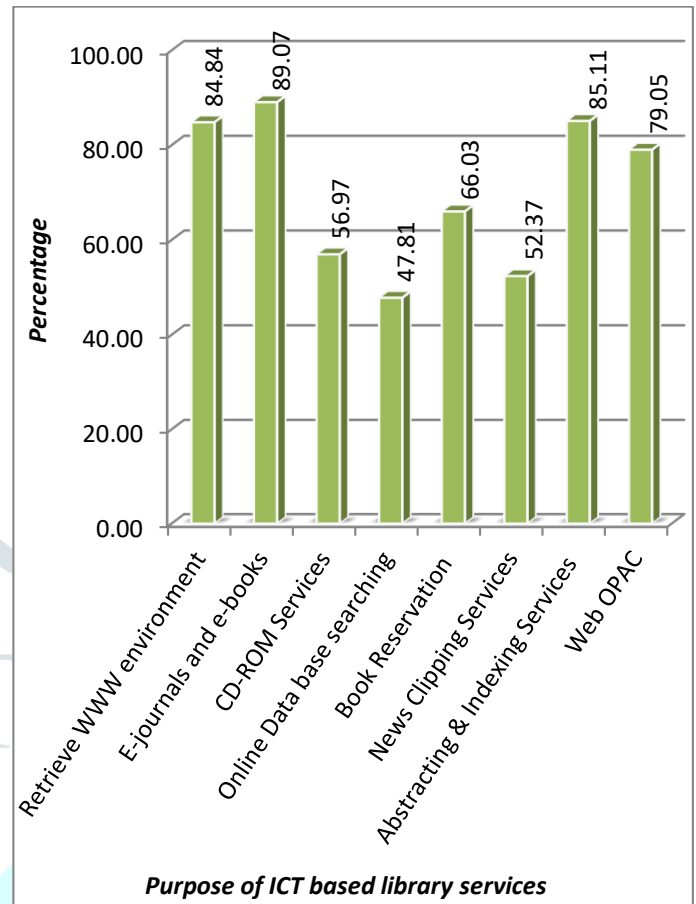
Recent past libraries shifted their services from traditional to electronic. They are offer several ICT based services to their users convenient. The following table will explain about purpose of use of ICT based services to users.

Table No-13.4: Purpose of using the ICT based library services

S. No	Library Services	Total (N=2196) (%)
1	Retrieve information through WWW environment(N=1863)	1863 (84.84)
2	E-journals and e-books	1956

	(N=1956)	(89.07)
3	CD-ROM Services (N=1251)	1251 (56.96)
4	Online Data base searching (N=1050)	1050 (69.85)
5	Book Reservation and Borrowing Services (N=1450)	1450 (66.02)

6	News Paper Clipping Services (N=1150)	1150 (52.36)
7	Abstracting & Indexing Services (N=1869)	1869 (85.11)
8	Web OPAC (N=1736)	1736 (79.05)



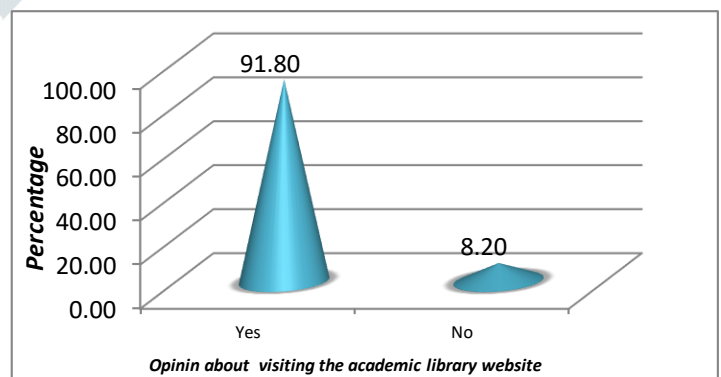
Above table explored regarding purpose of using ICT based library services. Highest percent of them (above 89%) are using e-journals and e-books for main purpose of using the ICT based library services. The percent (85.11) of them also purpose of ICT based library services for abstracting & indexing services. Third highest percent (nearly 85) of the users are using ICT based library services for ‘retrieve information through WWW environment’ and followed by ‘web OPAC’ (79.05) ‘book reservation and borrowing services’ (66.02) CD-ROM Services (nearly 57) newspaper clipping services (52.36) online database searching (nearly 48) respectively.

13.5. Opinion about visiting the academic library websites

Academic Library websites are providing variety of electronic resources and services in their users. Some services are exclusively meant for their registered users like electronic journals, e-books and bibliographic information etc, and some are for everyone .i.e. which are available open source with an appropriate link. The following table will explain about the opinion about visiting the academic library websites and will present the data.

Table No-13.5: Opinion about visiting the academic library websites

S. No	Academic Library Website visit	Total (N=2196) (%)
1	Yes (N=2016)	2016 (91.80)
2	No (N=180)	180 (8.20)
	Total	2196 (100.00)



Above table indicates that the visiting of academic library websites reveals that nearly 92 percent of the users are visiting their academic library websites for gathering different type of information related to on line

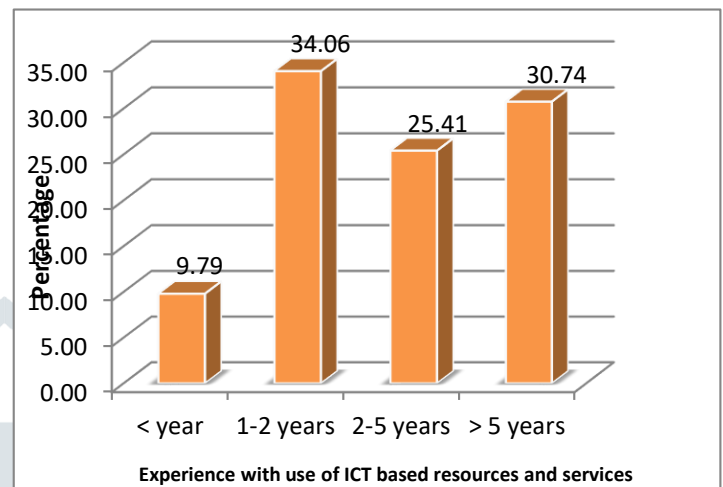
resources. Above 8 percent of the users is not being visiting their rich source of information. This shows lack awareness about facilities which is available through their college library websites.

13.6: Experience with use of ICT based resources and services

The following table will explain about the experience the use of ICT based library services.

Table No–13.6: Experience with use of ICT based resources and services

S. No	Experience	Total (N=2196) (%)
1	< year (N=215)	215 (9.79)
2	1-2 years (N=748)	748 (34.06)
3	2-5 years (N=558)	558 (25.41)
4	> 5 years (N=675)	675 (30.74)
	Total	2196 (100.00)



Above analysis indicates the experience with use of electronic based library resources and services. The study found that the highest percent of users (34.06) had been experienced with 1-2 years experience use of ICT based library resources and services. The second highest percent (30.74) found that the experienced with above 5 years regarding the access ICT based resources and services. Coming to the third highest percent (25.41) the users are gain experience with 2-5 years span and also 9.70 percent of them have less are year experience to access and utilize the ICT based library services, which is providing by the engineering college libraries particularly their registration users.

14. Conclusion

To conclude, It is well recognized that University libraries in Srikakulam distract are undergoing transformation, especially owing to the path breaking developments in information and communication technologies. These technologies, their applications in libraries and networking, and conceptual designs have been briefly discussed above. Being the need of the hour, traditional libraries are changing to digital libraries and new libraries that are being set up are increasingly of the digital kind. As a result, there is widespread interest and consequently, a lot of research and development activities are being carried out in this area. In university affiliated college libraries are in the process of setting up digital libraries and many scholars and practitioners are conducting research on automation of library operations and digital libraries. The present study has been undertaken with a clear perspective to explore the status of automation and digitization among the traditional academic libraries of the select Dr.B.R.Ambedkar universities, Srikakulam. The selected university library, which had been, in the past, following the traditional library services and now are adopting automation and digitization. Views of the library professionals on the problems and challenges faced by them in the endeavors and those of the library users to determine their needs and satisfaction levels will help in further planning on these matters.

References

1. Adebayo MuritalaAdegbore (2011).University Faculty Use of Electronic Resources: A Review of the Recent Literature. PNLQ Quarterly, the official publication of the Pacific Northwest Library Association, 75(4).
2. Adeleke, A.A., &Olorunsola, R. (2010). ICT and library operations. The Electronic Library, Vol. 28 (3), 453 462.
3. AdeyinkaTella ., & Faith Orim. (2017). The use of electronic resources by academic staff at the University of Ilorin, Nigeria. 23(1), Educ. Inf. Technol.

4. Ahmad, N., & Fatima, N. (2009). Usage of ICT products & services for research in social sciences at Aligarh Muslim University. *Desidoc Journal of Library & Information Technology*, 29(2), 25-30.
5. Akande Samson Oyeniya (2013). Gender differences in information retrieval skills and use of electronic resources among information professionals in South-western Nigeria. *International Journal of Library and Information Science*, 5(7), 208-215.
6. Akande, S. O. (2011). Computer and Internet Facilities Use in Distance Education: A Survey of Sandwich Students of University of Ado-Ekiti, Nigeria. *Library Philosophy & Practice*, 39-47.
7. Akande, Samson, Oyeniya. (2013). Gender differences in information retrieval skills and use of electronic resources among information professional in southern-western Nigeria. *International Journal of Library and Information Science*, 5(7), 208-215.
8. Akhtar Hussain ., & Krishna Kumar (2013), Utilization of Information Resources and Services of the Master School of Management Library: A Study. *International Journal of Library Science*, 09 (3), 39-52.
9. Akhtar Hussain, et.al (2010), Study of Information Sources and Services of the National Medical Library in India. *Library Philosophy and Practice (e-journal)*, paper 480,

