

Adequacy and Usage of e-Resources in Libraries of Selected Engineering Institutions Affiliated to RTU

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Abstract-e-Resources are essential library resources in today's digital era; these resources break many barriers like remote access facilities, storage problems, easy access, etc. In this study, 20 engineering institutes affiliated with Rajasthan Technical University, Kota, which are located in Jaipur and ranked in the quality index value of the university. A questionnaire prepared to assess the actual status regarding the status and usage of e-Resources available in the libraries, for which data collected through Google forms and face to face interviews by librarians and other staff of various selected institutions. In this study, it has been also specially taken care of what IT infrastructure is available in the libraries for various e-Resources in the respective libraries and how much the library staff is skilled in IT ground. According to the findings of the study, all libraries are using software for automation, and there is a need to increase the use of institutional repository software in these libraries. e-Resources of publishers like IEEE, Elsevier, Springer, EBSCO, Pearson, PHI, New age international, Kopykitab, and Laxmi Publications are available in various libraries. All 20 libraries have membership of the DELNET database. 14 Libraries stressed the need to increase the allocated budget. Almost all libraries use the allocated budget, and the librarian plays a vital role in selecting e-Resources. Almost everywhere, emphasis has been laid on improving IT skills in library staff. All libraries share information and links to available e-Resources to users through websites, OPAC or notice boards.

Keywords-e-Resources, QIV, RTU, questionnaires, e-Resources, Library, IT.

1. Introduction:

Engineering is a unique profession because it aims to make society progress through scientific knowledge and advance the community by diagnosing problems and giving reliable solutions. Engineers support, design, manufacture, and produce most of our modern civilization. Engineers of that country have made a massive contribution to nation-building. In the present milieu, electronic resources are seen as the backbone of every engineering institution because electronic resources are easy to use, affordable, accessible from anywhere, and can use by many users simultaneously [1].

Libraries are the backbone of any institution, and a well-documented library and quality education are the face of a quality institution. Traditionally libraries used to have various types of resources available in printed form, such as Books, Magazines, Journals, Manuscripts, Dissertations, Thesis, Audiotapes, Videotapes, CD/ROMs, and Floppies. After the 1990s, when the influence of technology increased, the way libraries used these resources changed and they were used

through technology. The landscape of libraries has changed a lot in the digital age [2].

E-Resources are resources in which information is stored electronically and made available through electronic means and networks. e-Resources can be accessed remotely via the Internet [3]. e-Resources are those resources available in digital form that the user accesses through electronic devices like computers, mobile, laptops, tablets, book readers, etc., as depicted in figure-1 [4].



Fig.1: Generation and Availability of e-Resources

This study focuses on the accessibility and Availability of e-Resources in various engineering institute libraries. For this study, 20 institute libraries affiliated with Rajasthan Technical University Kota and ranked in its Quality Index Value (QIV) and situated in the city of Jaipur have been chosen.

2. Literature Review:

A literature review comprehensively examines and analyzes existing literature and research studies on a specific topic. It summarizes the current state of knowledge and understanding of the subject. A literature review aims to establish the context, identify gaps, and inform the research design. It helps to situate the research within the existing knowledge and demonstrate its relevance and significance. A literature review evaluates previous studies' quality, validity, and reliability. It helps researchers identify research gaps and opportunities for further investigation. The thought of the literature supports the development of theoretical and conceptual frameworks. A systematic review of the present problem carried out by reviewing earlier published articles and the review papers in journals, conference proceedings, etc., chronologically presented below:

Kumari et al. (2022)[5] studied the usability of e-Resources among library and information science students. Ninety questionnaires were distributed to different users, out of which filled out 72. According to the available data, many users, language barriers, a lack of user awareness, and a lack of information technology skills prevent some students from having proper access to e-Resources. In contrast, other students are happy with the available e-Resources and digital infrastructure. Through this study, it has been recommended that the institution provide more money for e-resource subscriptions and that library staff members possess IT skills. According to an essential recommendation, library management should conduct more activities for the user awareness training program so that users may access e-Resources and obtain the information they need.

Panneerdas (2022)[6] researched electronic resources' influence and utilization in a few Coimbatore Management Institute libraries. This study employs the survey approach, and

questionnaires are used to collect primary data. E-Journals, E-Books, databases, ETDs, E-Research reports, courseware, CDs/DVDs, and E-Newspapers are the most often used electronic resources, with 63 percent, 49 percent, 30 percent, 22 percent, and 22 percent use rates, respectively. Regarding the benefits of using electronic resources, 45.0 percent strongly agreed with the statements "Time Saving, 46.0 percent Easy to Saving, More Informative, and Cost Saving." Accessing e-Resources through Library Orientation 25, the library staff 20, the faculty 26, the college website, the library email/circular 16, and self-exposure 21 is strongly recommended. Thirty-six percent and forty percent of respondents claim to use electronic resources for research and teaching purposes. It has been advised in this study that various marketing policies should be established and that there should be more user awareness programs for users to make better use of e-Resources.

Warkade and Verma (2022) [7] resulted in the 150 questionnaires issued for the study on the usage of e-Resources by postgraduate students and research scholars in the Arts stream at RDVV University Jabalpur, and 136 completed questionnaires were obtained based on the honest answer to these questions. Since 90% of users regularly access the Internet, this study concluded that e-Resources are crucial for students' ability and knowledge growth. Creating e-Resources should be a priority for universities and departments since they are gradually replacing print resources and are crucial for learning and research in the current digital world.

Moustapha (2021) [8] investigated how patrons of the Kwara State University Library in Nigeria used electronic resources. The study used a cross-sectional survey research approach. In the Library for the study, 3,670 registered users were present, and 367 samples were chosen for sampling. Data was gathered using questionnaires as the instrument. The questionnaire was distributed in 367 copies, and 345 copies were returned. Most students access e-books first in this study, followed by CDs and DVDs. According to the Type of Electronic Resources survey, 183 respondents claimed institutional repository content was not available, while 183 respondents indicated they had

institutional repository content. Additionally, 263 respondents said they had access to e-books, while 83 did not. Two hundred ninety-five people said they obtained information from accessible online sites. According to answer 290, the primary issue preventing them from accessing online resources is a poor power supply.

Sahu and Tiwari (2021) [9], at the colleges of Indira Gandhi Krishi Vishwavidyalaya, Studied the various aspects of e-Resources used by undergraduate students, including frequency, awareness, reasons for accessing e-Resources, level of satisfaction, and difficulties in accessing e-Resources. In the honest answer, it was discovered that 88 percent used online resources every day, while 13 percent did so twice or three times a week. 58 respondents claim that their friends have informed them about e-Resources. 96 respondents said they access e-books, 132 respondents said they access e-Krishi pathshala, e-Krishi shiksha, and e-Tutorials, 94 respondents said using e-Resources saves them time, and 93 respondents said they obtain the correct information they need from e-Resources. 67 replies said they were pretty happy with the e-Resources offered, whereas 80 responded that they have trouble accessing them. 69 respondents ascribed this to a lack of bandwidth.

Singh and Shukla (2021) [10] calculated the amount of e-resource use by library users during the COVID-19 outbreak based on 62 responses to questions concerning access to electronic resources. 149 faculty members from 6 private universities in the NCR region took part in the survey. The majority of the respondents (99%) state that they are well aware of the Library's online resources, and 32 people said it was extremely straightforward. Out of the overall number of Elsevier (Science Direct) users, 96% have used the same service; 92 percent have utilized Volley online journals; and 59 percent are happy with the Library's remote access service, with 39 percent rating it as extremely satisfied. 66 percent of faculty member respondents claimed they needed a high-speed Internet connection, 59 percent said they had trouble obtaining material because it was dispersed over many sites, and 52 percent said accessing e-Resources was challenging and complicated.

Joshua and King (2020) [11] conducted a study at Modibo Adama Technological University (MAUTEC) of Yola. The design was chosen for a mixed-method research study on how academics and students use the e-Resources of the Central Library, Ibrahim Babangida Library. In response to the question of whether there was enough internet access for library customers, 894 responses were collected, of which 70% said that there wasn't enough. 366 users were asked how familiar they are with electronic resources, and of them, 63% are aware of electronic journals, 53% are aware of electronic books, but users are not mindful of institutional repositories. A few suggestions were made in this study, including the need for frequent user training sessions, free WiFi, and remote access for users, as well as the need for a user-friendly acquisition procedure in libraries.

Bellary and Surve (2019) [12] researched that, Engineering databases are in high demand relative to other databases. The engineering academicians at NMIMS in Mumbai utilized the e-books published by ASCE, ASME, IEEE/IEL, Springer, Science Direct, McGraw Hill, and Pearson with rigor. They found that electronic resources are more popular than print resources. It was found that all e-Resources are in high demand (45.24 %) of faculties using them to a great extent every week. Most faculties use e-Resources for Research/Learning (87.71 %) and teaching (20.24 %) purposes. Most faculties prefer to access their Desk, i.e., 96.42 %. It was also found that Faculties were promoting e-Resources among the student community by assigning various academic projects like Classroom assignments (52.38 %) and updating their knowledge (47.61 %).

3. Research Methodology:

The survey approach was chosen as the best design tool to get a significant sample. The survey approach, which is most frequently employed in social science research as well as in Library and information science research and for studies of usage and satisfaction, is based on a questionnaire instrument. Surveys have been a standard data collection method in academic library research since they may evaluate efficacy,

support decision-making, prioritize services, address issues, and gauge user happiness [13].

To survey the use and adequacy of e-Resources in 20 engineering institute libraries located in Jaipur, affiliated to Rajasthan Technical University Kota, and ranked in University Quality Index value, this survey was done through a hybrid approach like face-to-face interviews, through Google form and filled questionnaire, for

this survey librarian or other staff of every library, were selected so that the actual results would come out.

Limitation of the Study: This study has been restricted to cover 20 leading RTU Engineering Institutions which are ranked by Quality Index Value (Session: 2020-21) and also located in the Jaipur city. The list of these institutes is shown in Table-1.

Table 1: List of selected engineering college

S. No.	QIV Score	NAME OF ENGINEERING COLLEGE	Year of Establishment
1	935	Swami Keshvanand Institute of Technology, Management & Gramothan	2000
2	890	Poornima College of Engineering	2000
3	875	Poornima Institute of Engineering and Technology	2007
4	874	Jaipur Engineering College & Research Centre	2000
5	808	Arya Institute of Engineering & Technology	2005
6	769	Arya College of Engineering & Information Technology	2000
7	670	Arya Institute of Engineering Technology & Management	2013
8	663	Anand International College of Engineering	2010
9	648	Global Institute of Technology	2002
10	643	Kautilya Institute of Technology & Engineering	2002
11	641	Rajasthan College of Engineering for Women	2002
12	638	Arya College of Engineering & Research Centre	2007
13	614	Shankara Institute Of Technology	2001
14	612	Vivekanand Institute of Technology	2008
15	607	Rajasthan Institute of Engineering & Technology	2000
16	555	Jaipur Engineering College	2000
17	544	Jagannath Gupta Institute of Engineering & Technology (JNIT)	2004
18	527	Sri Balaji College of Engineering & Technology	2000

19	510	Yagyavalkya Institute of Technology	2002
20	496	Poornima Group of Institutions- Faculty of Engineering & Faculty of Management	2009

4. Analysis and Interpretation:

A questionnaire was designed to survey the adequacy and use of e-resources in various libraries. The following are the results of face-to-face interviews, Google forms, and self-submission by library staff.

Library automation software: A total of 20 libraries selected in this survey. The first survey was based on library software, according to which 7 libraries are using software developed by their

institutions like ERP or any other software, and 5 libraries are using Koha open source software. 2 libraries are using LIBSYS software, 3 libraries are using DELPLUS software of DELNET, besides 3 libraries are using Vidya, Alice for Windows and librarian software. The results show that all libraries use the software for circulation and other services. Table-2 and Figure-2 show the different types of automation software used by libraries.

Table 2: List of automation software used by libraries

S.No.	Library Automation Software	Response	%
1	LIBSYS	2	10.00
2	KOHA	5	25.00
3	SOUL	0	0.00
4	Librarian	1	5.00
5	e-Granthalaya	0	0.00
6	Sanjay	0	0.00
7	Vidya	1	5.00
8	Alice for Windows	1	5.00
9	New Genlib	0	0.00
10	DELPLUS	3	15
11	Others	7	35.00

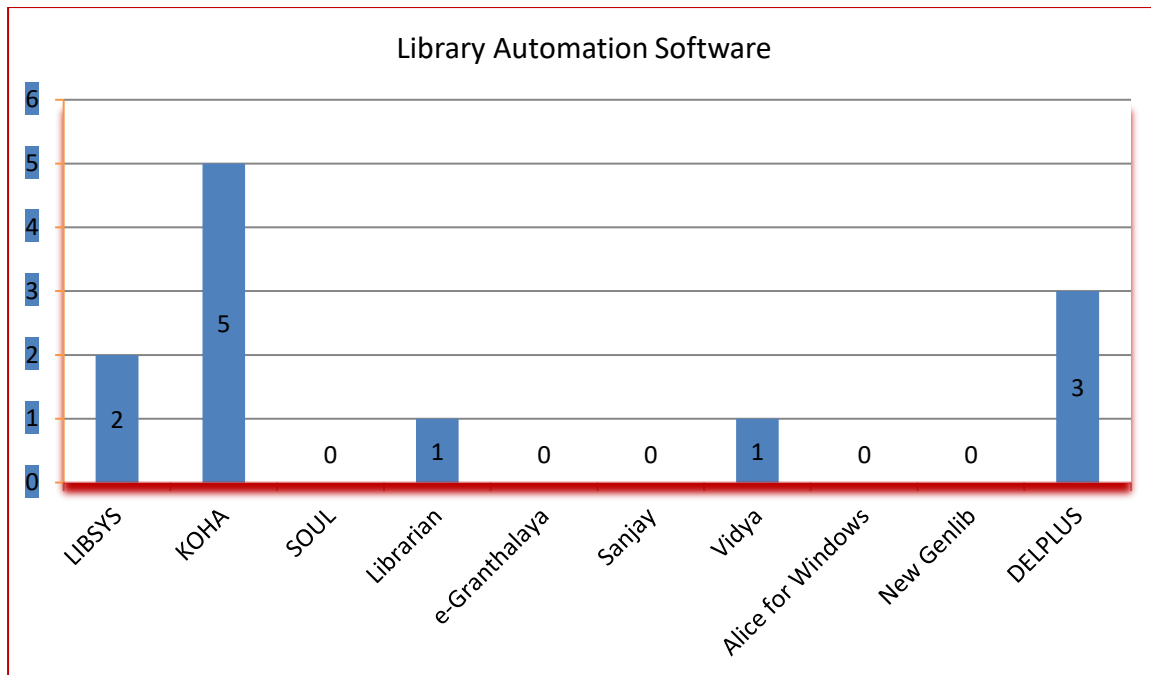


Fig.2: Automation software used by libraries

Digital/Institutional Repository Software: The survey conducted on Institutional Repository and Digital Library Software revealed that 17 libraries need to install Institutional Repository Software

only 3 colleges are using DSpace software for Institutional Repository. Table-3 and figure-3 show the different types of repository Software used by libraries.

Table 3: List of repository/digital library software used by libraries

S.No.	Digital/Institutional Repository Software	Response	%
1	DSpace	2	10.00
2	Eprints	0	0.00
3	GSDL(Green Stone Digital Library)	0	0.00
4	No repository software	18	90.00

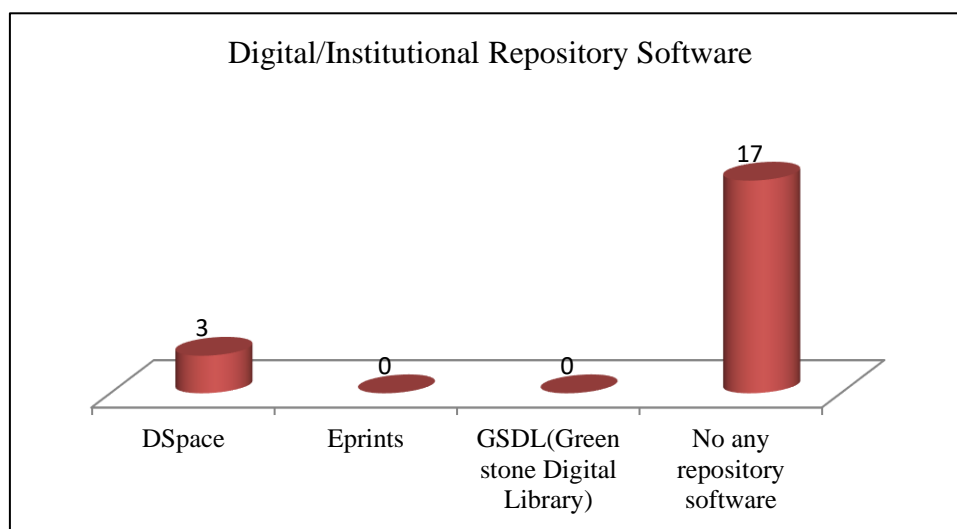


Fig.3: Percentage of repository software used by libraries.

Terminal reservation service: Terminal reservation service is a user-oriented service in libraries to save users time; in libraries with limited terminals, this service is very effective. As per the survey, an adequate terminal facility is only available in some of the libraries as these libraries have a sufficient number of terminals

available for the users. In the survey, 11 colleges said that they had yet to adopt terminal reservations. Only 6 college libraries follow the terminal reservation process. Table-4 and Figure-4 show the number of colleges having terminal facilities.

Table 4: Responses related to the terminal reservation services.

S.No.	Do you adopt terminal reservation service?	Response	%
1	Yes	6	30.00
2	No	11	55.00
3	Maybe	3	15.00

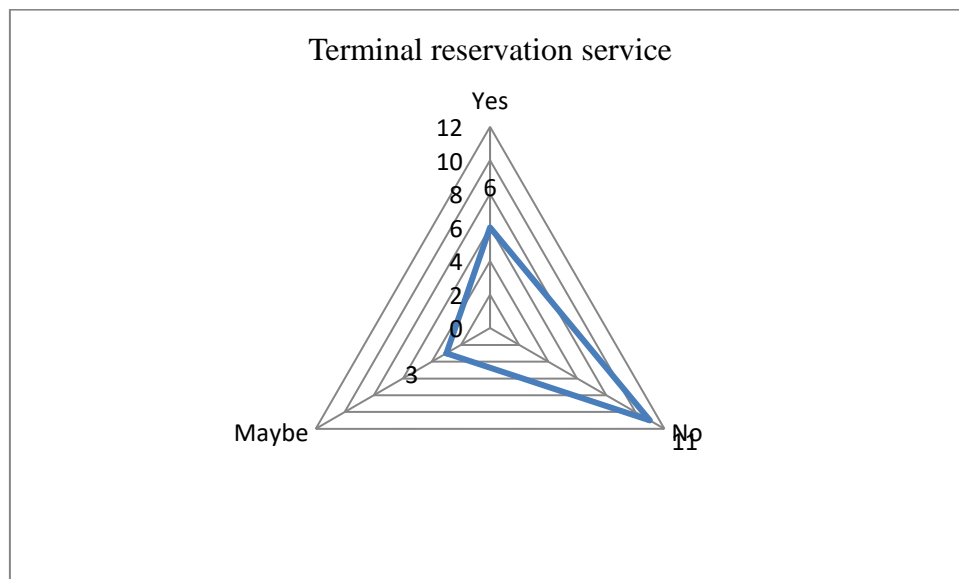


Fig.4: Responses related to the terminal reservation services

Printing facility for users: This is an essential service where users can print various articles and other learning materials. According to this survey, a printing facility is available for users in all

libraries, and for this, a separate section or area has been created in the Library. Table-5 and figure-5 show the number of libraries having printing facilities.

Table 5: Responses related to the printing facilities.

S.No.	Do you allow printing facility to users?	Response	%
1	Yes	20	100.00
2	No	0	0.00

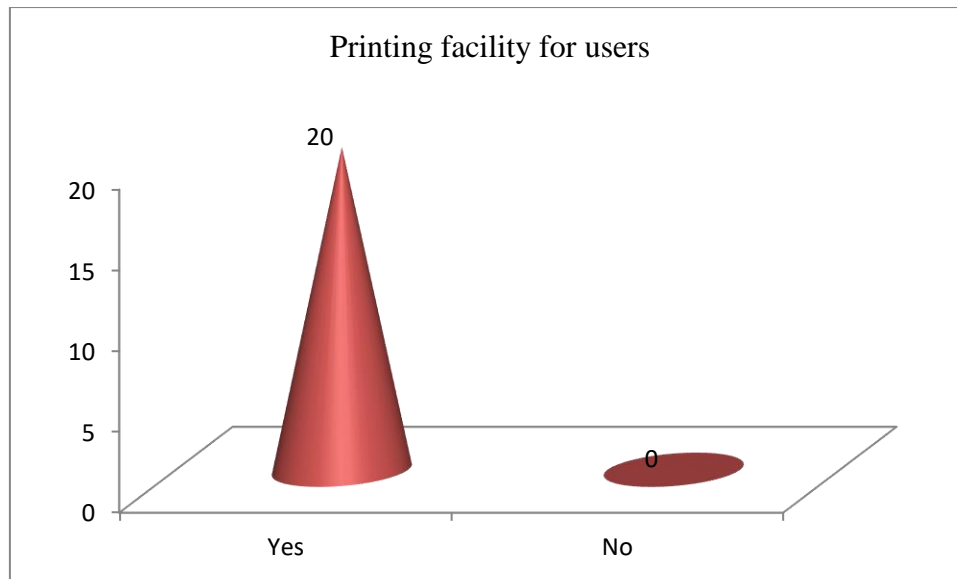


Fig.5: Availability of printing facility for users

Document-scanning facility for users: Document scanning is another facility all libraries provide. Still, most of the library administration said that this facility is in low demand because most library users have good-quality Android mobile phones, Table-6: Responses related to the scanning facilities.

so they scan their required documents through their mobile phones. Table-6 and Figure-6 show the number of colleges which have scanning facilities.

S.No.	Scanning facility for users	Response	%
1	Yes	18	90.00
2	No	2	10.00

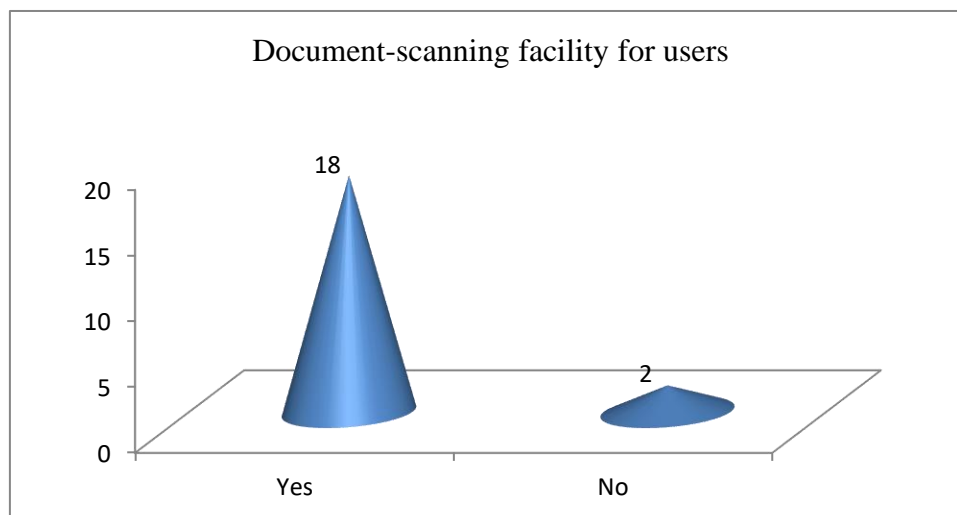


Fig.6: Availability of Document-scanning facility for users

Separate computer lab facility in the Library for access to e-Resources: For accessing e-Resources, all libraries have created different sections or labs for users to access the e-Resources. In this survey, all library administration said that computer

facilities are a must to access e-Resources, hands-on training, and expert talk to users. Table-7 and Figure-7 show the number of colleges which have separate computer lab facilities.

Table 7: Responses related to the separate computer lab facility.

S.No.	Computer lab facility for e-Resources	Response	%
1	Yes	20	100.00
2	No	0	0.00

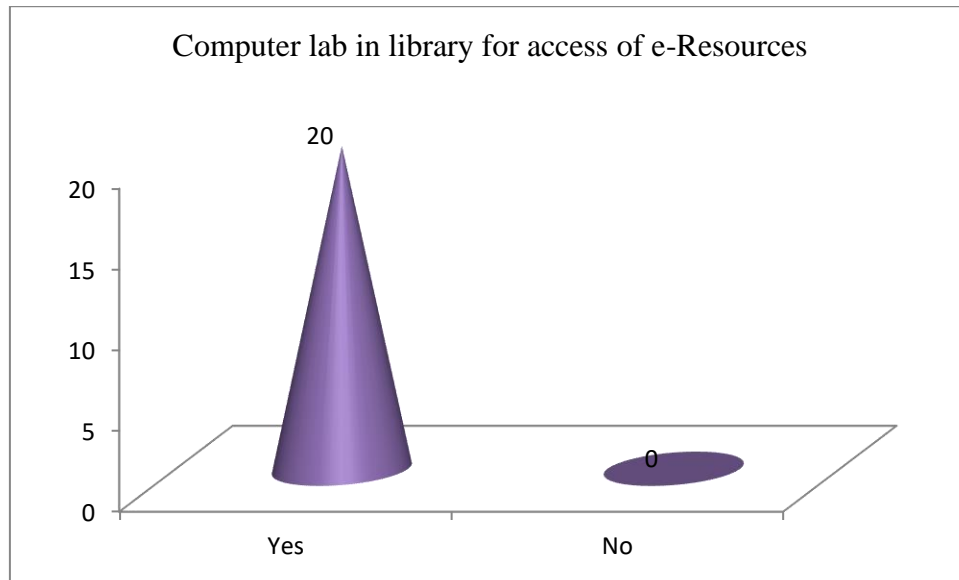


Fig.7: Computer lab facility for e-Resources

Availability of e-Resources: According to the survey of available e-Resources in the Library, 13 libraries have e-books, 15 libraries have e-journals, all 20 libraries have e-database of DELNET, and access of e-Magazines and e-News

Papers are available in all libraries. Very few libraries have e-Dissertations and e-Thesis. Table-8 and figure-8 show the availability of e-Resources.

Table 8: List of available e-Resources.

S.No.	Availability of E-Resources	Response	%
1	E-Books	13	65.00
2	E-Journals	15	75.00
3	E-Database	20	100.00
4	E-Dissertations	4	20.00
5	E-Thesis	4	20.00
6	E-Magazines	20	100.00
7	E-Lecture Notes	6	30.00
8	E-Journals Backfills	15	75.00
9	Audio/Video Material	8	40.00
10	E-Newspapers	20	100.00

11	E-Maps	2	10.00
12	E-Subject Guide	2	10.00
13	E-Conference proceedings & Souvenir	5	25.00
14	E-Video Lectures	1	5.00
15	E-Reports/Institutional Activities	2	10.00
16	E-Image Database	3	15.00

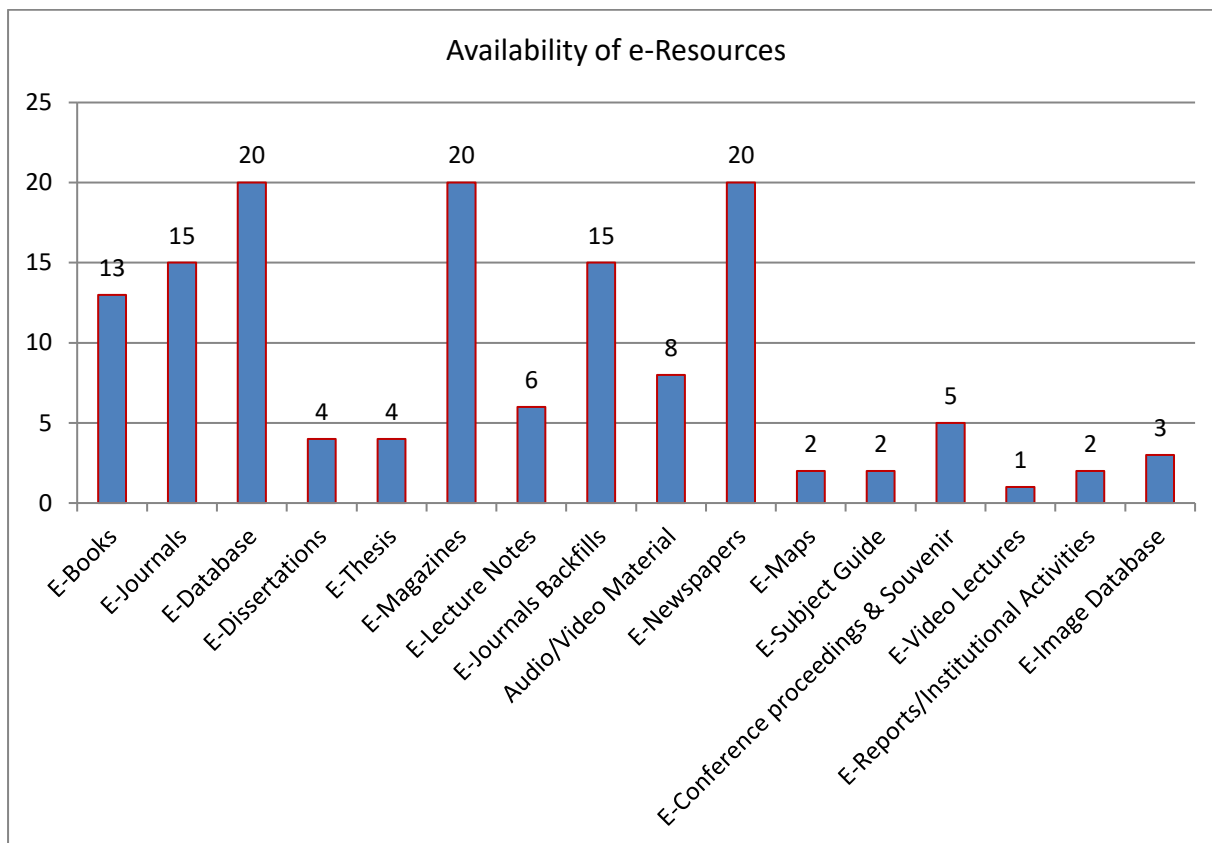


Fig.8: Availability of e-Resources

e-Resources access through intranet: As per the survey of access of e-Resources in the Library through the intranet, all the e-Resources available

in the below table are available for campus access to the library users. Table-9 and figure-9 show the Availability of e-Resources through the Intranet.

Table 9: List of available e-Resources accessed through the Intranet

S.No.	e-Resources access through intranet	Response	%
1	E-Books	13	65.00
2	E-Journals	15	75.00
3	E-Database	20	100.00
4	E-Dissertations	4	20.00
5	E-Theses	4	20.00

6	E-Magazines	20	100.00
7	E-Lecture Notes	6	30.00
8	E-Journals Backfills	15	75.00
9	Audio/Video Material	8	40.00
10	E-Newspapers	20	100.00
11	E-Maps	2	10.00
12	E-Subject Guide	2	10.00
13	E-Conference proceedings & Souvenir	5	25.00
14	E-Video Lectures	1	5.00
15	E-Reports/Institutional Activities	2	10.00
16	E-Image Database	3	15.00

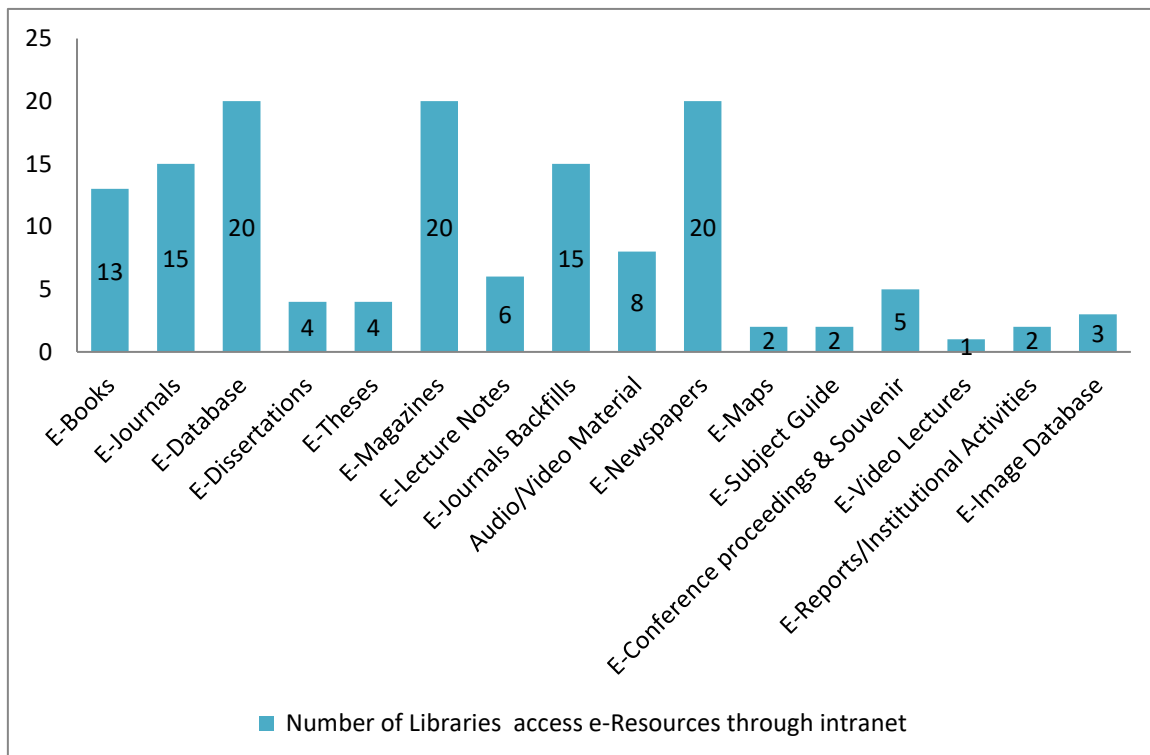


Fig.9: Number of Libraries provided e-Resources access through intranet

Remote access facility of e-Resources: According to the survey of remote access of e-Resources in the Library shown below Table-10 and figure-10.

Table 10: Remote access facility of e-Resources.

S.No.	Remote access facility of e Resources	Response	%
1	E-Books	13	65.00
2	E-Journals	12	60.00

3	E-Database	20	100.00
4	E-Dissertations	4	20.00
5	E-Theses	6	30.00
6	E-Magazines	20	100.00
7	E-Lecture Notes	5	25.00
8	E-Journals Backfills	3	15.00
9	Audio/Video Material	8	40.00
10	E-Newspapers	3	15.00
11	E-Maps	2	10.00
12	E-Subject Guide	2	10.00
13	E-Conference proceedings & Souvenir	5	25.00
14	E-Video Lectures	1	5.00
15	E-Reports/Institutional Activities	2	10.00
16	E-Image Database	1	5.00

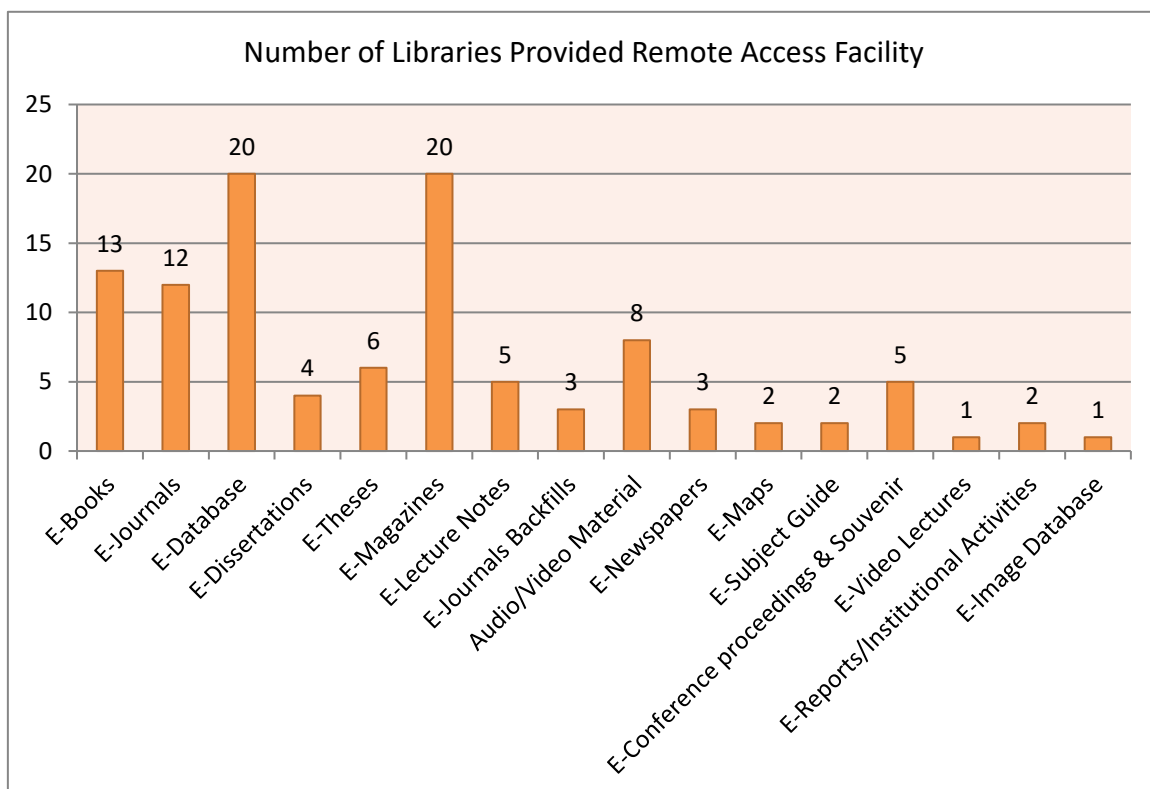


Fig.10: Number of libraries provided remote access facility

Criteria for Selection of e-Resources: Relevance in courses are given priority for subscription and purchase of e-Resources in libraries of all institutes. Apart from this, there are 15 libraries in which priority is given to the research area of

the institute, and it has been seen everywhere that the cost of e-Resources is a significant factor. The same 11 libraries are such where the budget for the Library is already approved. Accordingly, subscriptions and purchases of e-Resources are

made. Table-11 and figure-11 show the Criteria for the selection of e-Resources

Table 11: List of criteria for Selection of e-Resources

S.No.	Criteria for Selection of e-Resources	Response	%
1	Relevance as per courses	20	100.00
2	The research area of the Institute	15	75.00
3	Costing of product/Resource	18	90.00
4	Discount offered	2	10.00
5	Mode of Access (IP-based or User ID Password based)	2	10.00
6	Availability of Budget	11	55.00
7	Interface for Searching	1	5.00
8	Usage report generation	1	5.00

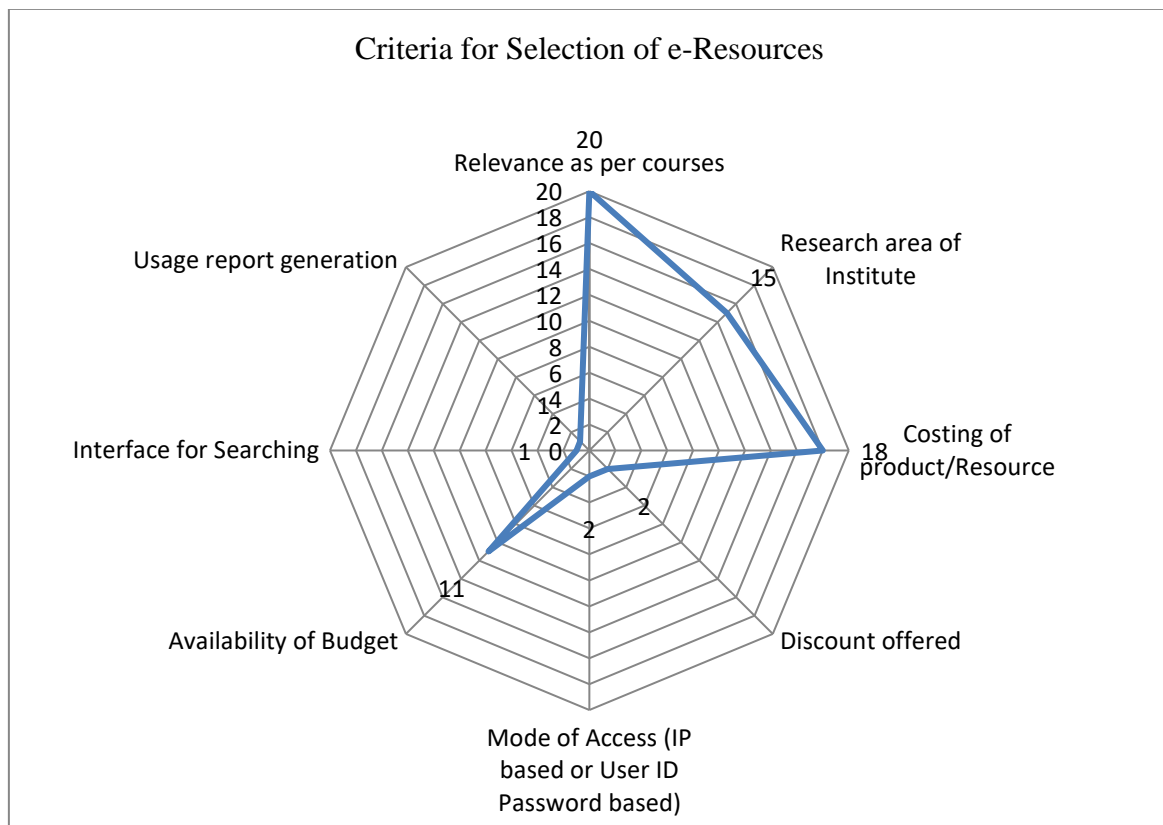


Fig.11: Criteria for Selection of e-Resources

Budget sufficient for e-Resources: Libraries of 14 colleges have demanded for adequate budget for e-resources, but they are not satisfied with the budget provided by the management for e-resources as per the requirement of library users,

only 6 college library administration said that they are satisfied with the provided budget. Table-12 and figure-12 show the response to budget allocation.

Table 12: Response to budget allocation.

S.No.	Is the library budget sufficient for e-Resources	Response	%
1	No	14	70.00
2	Yes	6	30.00

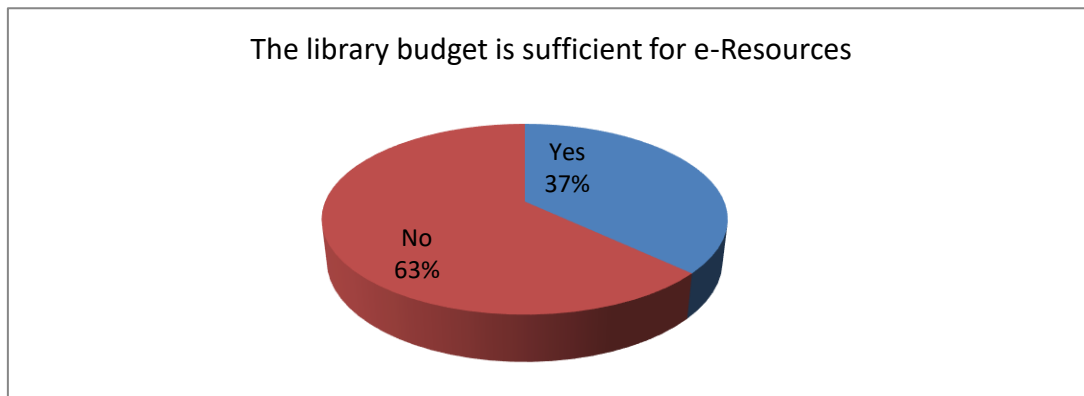


Fig.12: Response to budget allocation

The platform for access of e-Resources: According to Platform for Access of e-Resources, 15 libraries have made available the links of e-Resources subscribed by libraries to the users on OPAC; in addition, 3 libraries recommend accessing e-Resources from the publisher's Platform. Some libraries recommend accessing e-Resources through mechanisms developed by the institute.

Links/URLs of e-Resources Availability on the website: 10 Libraries provide links to the library users on the Library and college website to the e-Resources available with them. In comparison, 10 libraries send the links occasionally to the library users. Table-13 and figure-13 show the Availability of Links/URLs on the website.

Table 13: Availability of Links/URLs on the website.

S.No.	Are you showing the Links/URLs of the available e-Resources on your Library website/webpage?	Response	%
1	Yes	10	50.00
2	No	10	50.00

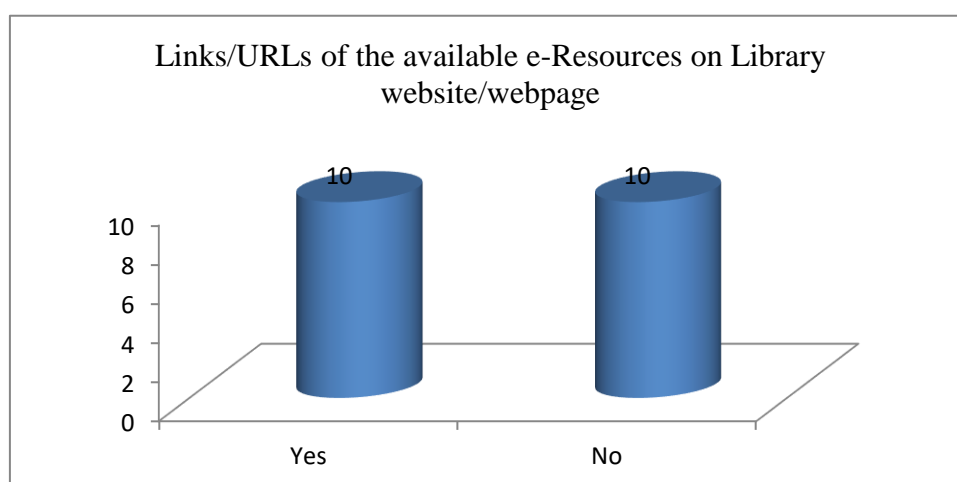


Fig.13: Links/URLs of the available e-resources on your Library website/webpage

Methods of assisting users in accessing e-Resources: For the awareness of e-Resources, libraries adopt various practices in which awareness sessions, Displays of links, emails, and other activities are done. 14 Libraries organize sessions from time to time with the publisher's

executive for this. 10 libraries organize user orientation for the users, which is conducted by the library staff. Table-14 and figure-14 show the method of assistance to their users for accessing e-Resources.

Table-14: Method of assistance to the users for accessing e-Resources

S.No.	How do you assist the users in accessing e-Resources	Response	%
1	Orientation program for newly admitted students	10	50.00
2	Awareness programs organized through publishers	12	60.00
3	Display of guidelines or awareness pamphlets on how to	14	70.00
4	Display of e-Resources website links/URLs	11	55.00
5	Providing e-Resources links on the Library website	9	45.00
6	New additions of e-Resources list mail or Display on notice	5	25.00

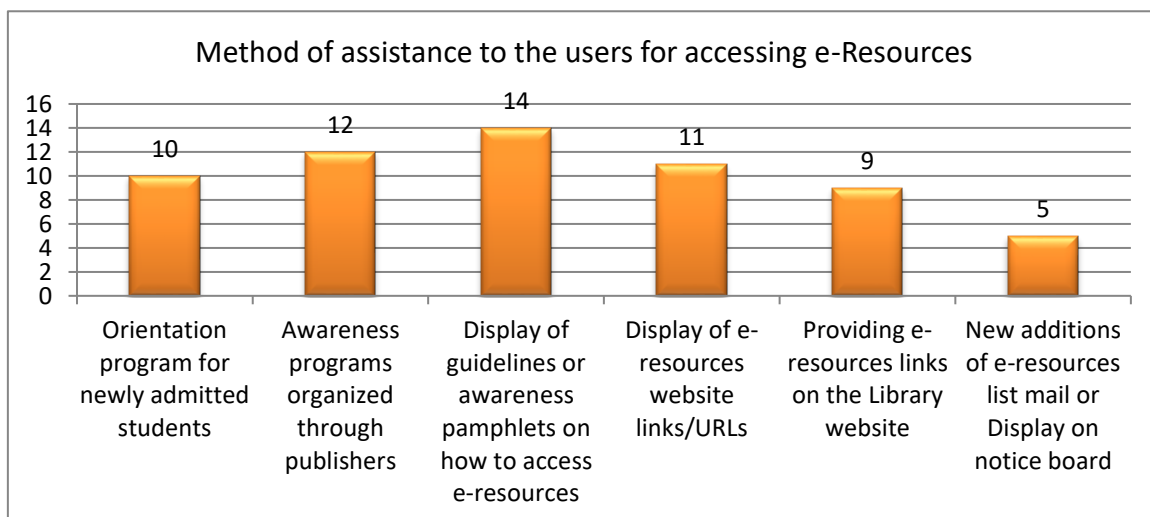


Fig.14: Method of assistance to the users for accessing e-Resources

Suggestions for increasing usage of e-Resources in libraries: According to the Administration of 16 libraries, there is a dire need for a user awareness training program and a practical training

program for the proper use of e-Resources. Table-15 and figure-15 show the Suggestions for increasing the usage of e-Resources in libraries.

Table 15: Suggestions for increasing usage of e-Resources in libraries

S.No.	Suggestions for increasing the usage of e-Resources in libraries	Response	%
1	Short-term training programs	16	80.00
2	Awareness programs	12	60.00

3	Existing library staff must be trained to provide timely assistance	1	5.00
4	The latest information regarding e-Resources must be promptly informed	3	15.00
5	For usage, the tracking library maintains COUNTER statistics	18	90.00
6	Printout facility	12	60.00
7	Need to develop licensing policy	18	90.00
8	Publishers should conduct awareness programs	2	10.00
9	Seminars should be conducted to raise awareness about e-Resources	1	5.00
10	Need to develop collection development policy	5	25.00
11	Maintained e-book collection webpages	8	40.00
12	E-Resources will be subscribed through a consortium	9	45.00
13	It is necessary to develop and maintain good e-books catalog records in OPAC	14	70.00
14	E-books may be available at a very nominal price so that copying and piracy can be stopped or minimized	17	85.00

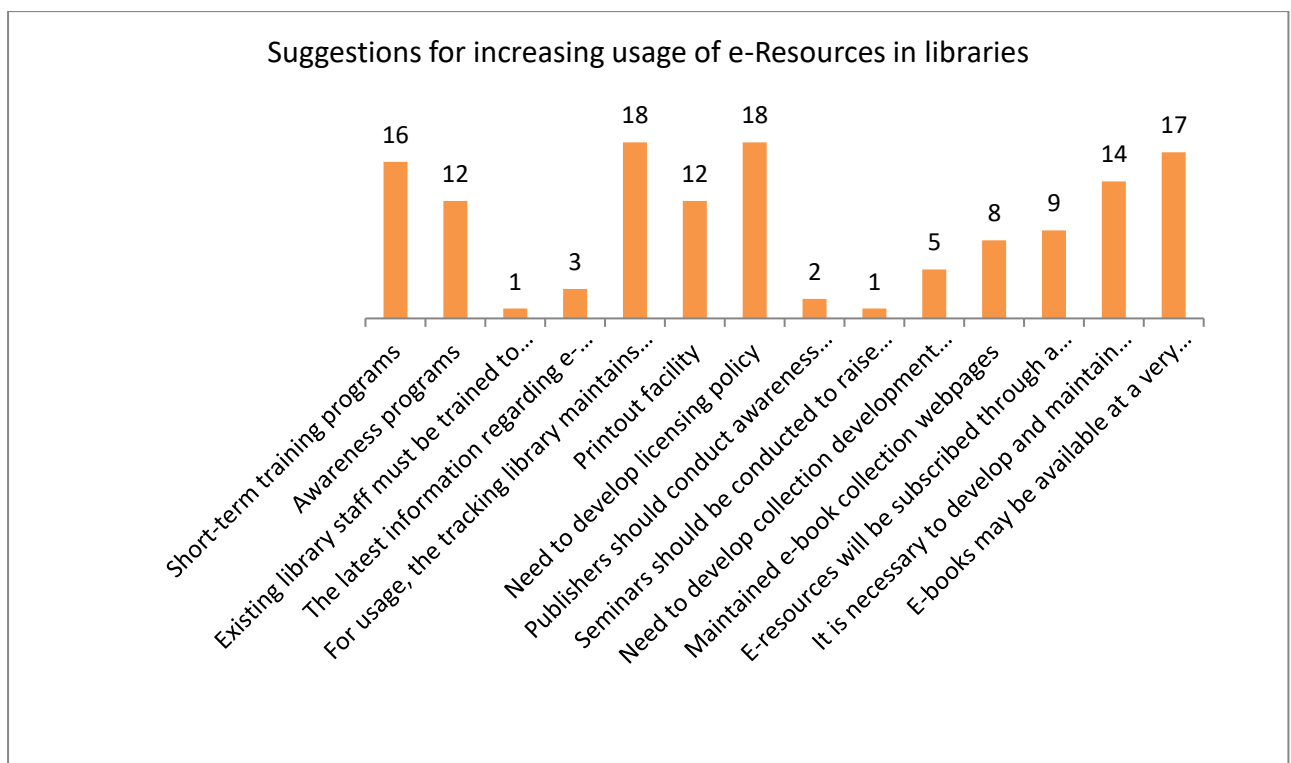


Fig.15: Suggestions for increasing usage of e-Resources in libraries

IT skill is necessary for library personnel: As per the survey conducted on the need for IT skills for library personnel, 17 libraries strongly

recommended it, while 2 libraries said that IT skills in library staff are needed in some areas. Table-16 and Figure-16 show that IT skills are essential for library personnel.

Table 16: IT skills are necessary for library personnel

S.No.	IT skills for library personnel	Response	%
1	Highly Necessary	17	85.00
2	Somewhat necessary	2	10.00
3	Not at all necessary	1	5.00

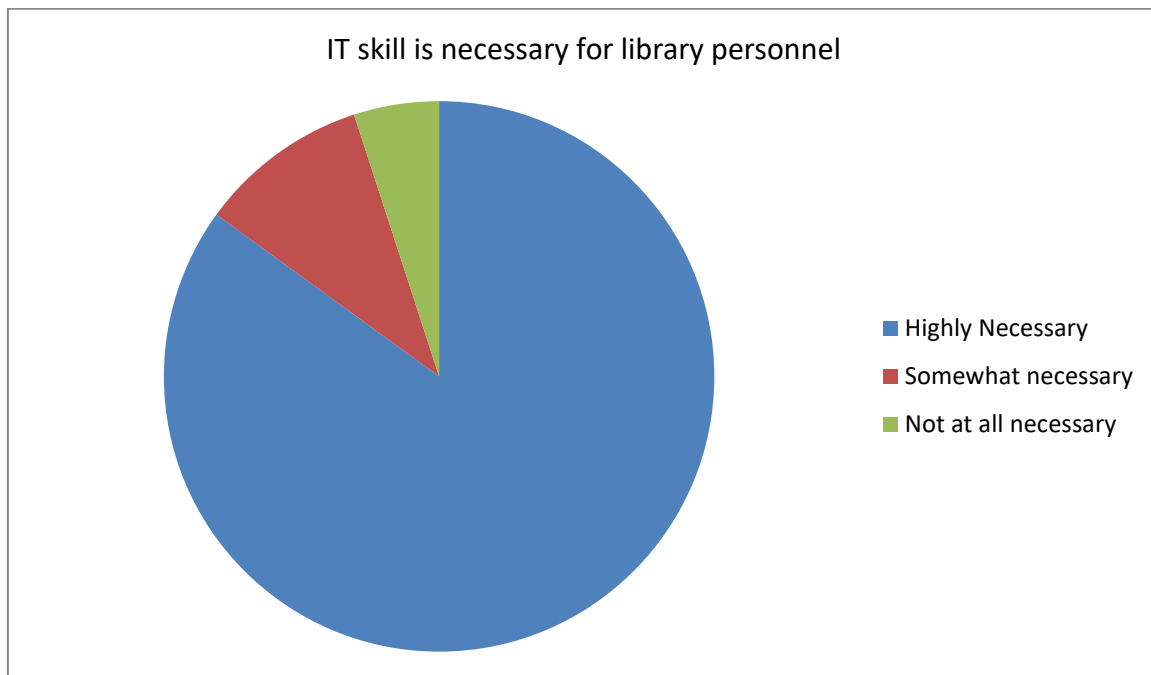


Fig.16: IT skill is necessary for library personnel

From all the above results and discussions received in various categories of libraries, e-Resources are a beneficial resource for the Library in the present situation. The Library also needs to focus on its budget, management, quality, and quantity of e-Resources.

5. Conclusion:

The objective of this research was to assess the availability and usage of e-resources in the libraries of 20 engineering institutes affiliated to Rajasthan Technical University. The results of this study were very encouraging, and it is expected that future research from this study and libraries of various institutes will help in the development and management of e-Resources. The following

conclusions are drawn from the findings of this study

1. Library software for automation and e-Resources management is available in all 20 libraries.
2. Terminals are available in most libraries to access e-Resources per the users' requirement, and computer labs or separate sections are available in all libraries.
3. All libraries provide document printing and scanning facilities to the users.
4. The result of this survey has come that all the libraries have membership and subscription to various e-databases, e-magazines, and e-newspapers.

5. Most libraries have subscriptions to e-books and e-journals that library users can access remotely.
6. All libraries prioritize their academic and research relevance in the subscription selection planning of e-Resources, and the principal and head of the institute have an essential role in this.
7. All libraries inform users of e-Resources through various means, such as orientation programs, user awareness sessions, and hands-on training workshops.

Suggestions: As per the study following tips and recommendations are generated for further studies.

1. Institutional repository software needs to be developed in most libraries; for this, the library staff should know its importance
2. There is a dire need to upgrade the library staff's IT skills; for this, the staff members should be trained on various IT and library automation tools.
3. All library patrons should take care of proper management of IT and network infrastructure as well as internet speed.
4. The need for time-to-time training and workshops for library users for the proper use of e-Resources has been felt in some institutes.
5. A lack of Availability and variety of e-Resources in some libraries has been found in this study, so there is a need for development in it.
6. In some libraries, the budget allocated for e-Resources is not sufficient; it needs to be increased.

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