ORIGINAL ARTICLE

Use of Electronic Information Resources and Services by PG Science Students in Raja MahendraPratap Library of Ch. Charan Singh University, Meerut: A Case Study

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ABSTRACT

A growing number of publications are becoming Web-linked in the current era of information explosion. The majority of social, scientific libraries now see functions and services differently. The world is quickly becoming more computerized. In light of this, the present study is an effort to carry out how frequently instructors and students at Ch. Charan Singh University Meerut use electronic resources. It also deals with the satisfaction among users and challenges in access of resources. Suggestions from users have also been experienced.

KEYWORDS

• Electronic Resources • Users • Challenges • Satisfaction

INTRODUCTION

In contrast to the declining usage of print resources, the introduction of the Internet has resulted in an unprecedented use of electronic resources for research and development in recent years. In actuality, there is no need for a middleman with digital papers. Direct access to data is made from the host computer.

Academic libraries are now multifaceted organisations with a wide range of housekeeping tasks and services that have been created through time. However, their primary goal has remained the same to open up access to authoritative knowledge. As a result, academic libraries, along with their private and governmental equivalents, have long since been accepted as the fundamental

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sources of historical knowledge and recorded knowledge across the world, particularly in the context of higher education.

ELECTRONIC RESOURCES

Information is represented electronically via electronic resources. They come in a variety of formats, including electronic books, digital libraries, online journals, e-learning instructors, and online assessments. These electronic resources have developed into significant and useful informational resources as a result of their good presentation using multimedia capabilities. Full text databases, e-journals, picture collections, multimedia on CD, tape, the internet, web technologies, e-discussions, e-news, data archives, e-mail, and even online chatting are examples of electronic resources that contribute to the collecting of information in libraries. E-resources are practical to utilise and greatly simplify study. Through the use of search engines rather than human library searches, they make it possible to find information more quickly.

E-resources are "Material consisting of data and/ or computer program(s) encoded for reading and manipulation by a computer by the use of a peripheral device directly connected to the computer or remotely via a network such as the Internet (AACR2). The category includes software applications, electronic texts, bibliographic databases, etc."[2]

CATEGORIES OF E-RESOURCES

There are different types of e-resources as mentioned below:

E-journals

E-Books

ELECTRONIC DATABASES

- E-reports
- E-Theses and dissertations
- Institutional repositories

Ch. Charan Singh University (Formerly Meerut University) Library was established in 1968 to serve the academic community of the university in particular and this region of the state in general. It provides 2655.38 sq. meters of floor area spread over four floors. The Library is now known as Raja Mahendra Pratap Library.

COLLECTION

When it comes to purchasing books, our philosophy has been to buy both books that are immediately relevant and books that are helpful for advanced research in the subject at hand. Our goal has been to assemble a well-rounded library of literature to satisfy the needs of both teaching and research. The library also got excellent volumes from Central and State Government, international organisations, and private citizens in addition to purchases made against payment.

The following table gives a total number of various types of reading materials available in the library up to 31.03.2022:

Various types of reading materials	Total Number
Print	
Number of Volumes	161664
Number of Titles	114879
Bound Volumes of Journals	31800
Number of Ph.D. Theses	14650
Current Foreign Journals	82
Current Indian Journals	106
Magazines	42
Newspaper	17
Electronic	
UGC Infonet Online e-journals	more than 8000
e-journals	312
e-theses	2175
e-books	67000

SERVICES

Some of the important services provided by the library are:

- Reference Service
- Circulation Service
- Reprographic Service
- Loan to Departmental Libraries
- Internet Service
- Online access to e-journals

REVIEW OF LITERATURE

Khaisar (2016) talked about how researchers at the University of Mysore used electronic information sources. The response rate for

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this study, which employed a random sample approach, was 83%. 180 questionnaires were distributed. Online information resources are now often available in university libraries. The survey found that most users of the university subscribed online services expressed satisfaction with them.

Priyadarshini, Jankiraman and Subramaniam (2015): A study was undertaken by Priyadarshini, Jankiraman, and Subramaniam (2015) at the Agricultural College and Research Institute in Madurai to determine user awareness of the utilisation of electronic resources. The results showed that most users were aware of the existence of online resources, and that the library's subscribed electronic resources were well utilised. According to the survey, 93.3% of faculty members and 80.6% of postgraduate students utilise free online resources that may be found by utilising search engines, yet 70% of Ph.D. students prefer to use online publications. The study's results also showed that the respondents made extensive use of digital materials made accessible through CeRA, ebooks, Springer Link, CABI, Wiley and Black, and resources to which the library has subscribed.

Amughoro, Faith Ashihedu Okite & Others (2014): The study was carried out by Amughoro, Faith Ashihedu Okite, and others in 2014 under the heading "The use of electronic information resources for academic research by postgraduate students at Delhi State University, Abraka, Nigeria." The use of Electronic Information Resources (EIR) for academic research by 150 postgraduate students at Delta State University, Abraka S, Nigeria, was examined in this study using a structured questionnaire. Interviews were also done with a few students and chosen employees of the university. The study examined whether postgraduate students had access to EIR, whether they were computer-literate so that they could access EIR, how much they knew and understood about EIR, how EIR was currently being used at their institution, and how frequently they used these resources for academic research.

SIGNIFICANCE OF THE STUDY

A growing number of publications are becoming Web-linked in the current era of information explosion. The majority of social scientific libraries now see functions and services differently. The world is quickly becoming more computerized. In light of this, the researcher made the decision to carry out this study in order to gauge how frequently instructors and students at Ch. Charan Singh University in Meerut use electronic resources.

AIMS OF THE RESEARCH

The following are the primary goals of the current study:

- To determine if users are aware of e-resources.
- To research the availability and degree of satisfaction with e-resources.
- To identify the challenges and issues users have while using e-resources.
- To offer appropriate suggestions for enhancing facilities and services connected to the usage of information resources and services.

METHODOLOGY

The targeted population for the present study is the PG students of faculty of Science, Chaudhary Charan Singh University, Meerut. Keeping in view the above objectives in Mind a structure questionnaire was prepared to collect data from the uses (Post Graduate students of faculty of Science) of e-resources of faculty of science, Chaudhary Charan Singh University, Meerut.

Random Sampling technique within the departments of faculty of Science has been chosen for the collection of data. Total 165 questionnaires were distributed among the Post Graduate students and completely filled 152 questionnaire were returned back by users.

The collected data is analyzed on the basis of statistical methods.

Faculty of Science Department in Ch. Charan Singh University

Name of Faculty	No. of Respondent	Percentage
Physics	11	7.09
Chemistry	10	6.45
Home Science	15	9.67
Horticulture	19	12.25

Name of Faculty	No. of Respondent	Percentage
Genetics & Plant Breeding	15	9.67
Botany	20	12.90
Biotechnology	18	11.61
Zoology	12	7.74
Toxicology	23	14.83
Microbiology	12	7.74
Total	**155**	**100%**

Table indicates that the highest response received from the students of Toxicology which recorded 23 (14.83%), followed by department of Botany whose PG students responded 20 (12.90%) questionnaires. Students of Horticulture and Biotechnology also took interest in the present study by providing 19 (12.25%) and 18 (11.61%) responses respectively. However, Students of Chemistry and Physics took least interest in responding the survey which recorded 10 (6.45%) and 11 (7.09%) respectively.
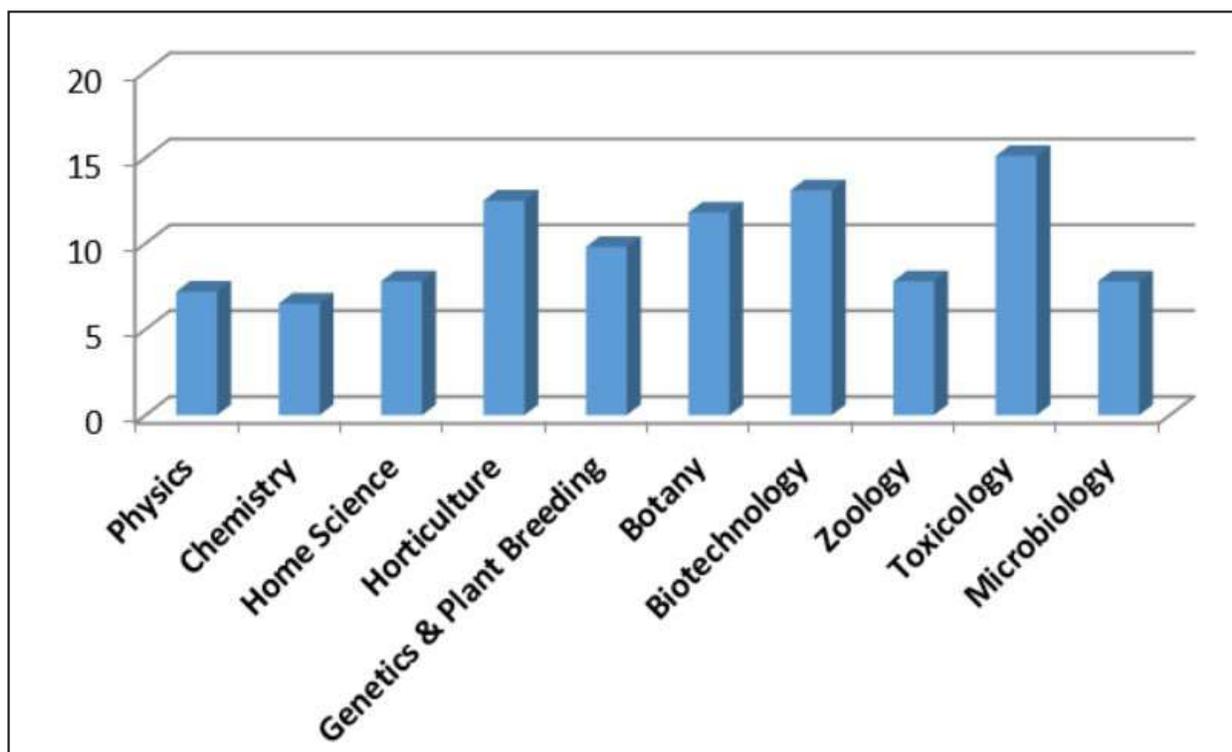
Data Analysis and Interpretation

Table 1: Frequency of Library Visit

S. No.	Frequency	Post Graduate	Percentage
1.	Daily	16	10.5%
2.	Twice a week	25	16.4%
3.	Weekly	61	40.13%
4.	fortnightly	04	2.63.%
5.	Monthly	34	22.36%

Table 1 shows that majority of Post Graduate student of faculty of science 61 (40.13%) visit library on weekly basis, followed by 34 (20.36%) once a month, 25(16.44%) twice a

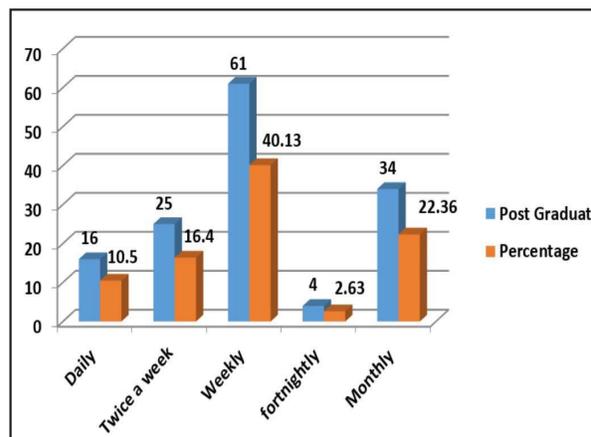week. Only 16(10.5%) Post graduate students visit library daily.

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Table 2: Purpose of Visit Library

Frequency	Response	Percentage
To Study	139	91.4
To borrow and return the book	106	69.7
To Read Newspaper	93	61.1
To Read General Books	120	78.9
To subject Books	44	28.9
To complete Class Room assignment	107	68.4
To use internet Lab	64	42.1
To consult Research Materials	25	16.4
Any other please specify	-	-
Total	698	

Table 2 reveals the purpose of visit to library, collected data shows thatmaximum number of library users of PG Science i.e. 139 (19.4%) visit the library for study purpose., followed by 107 (83.5%) borrow return the books, 120 (78.9%) to subject books, 107 (68.4%) to complete class room assignment, 106 (69.7%) to borrow and return the book, 93 (61.1%) to read newspaper, 64(42.1%) to use internet lab, 25(16.4%) to consult research materials.
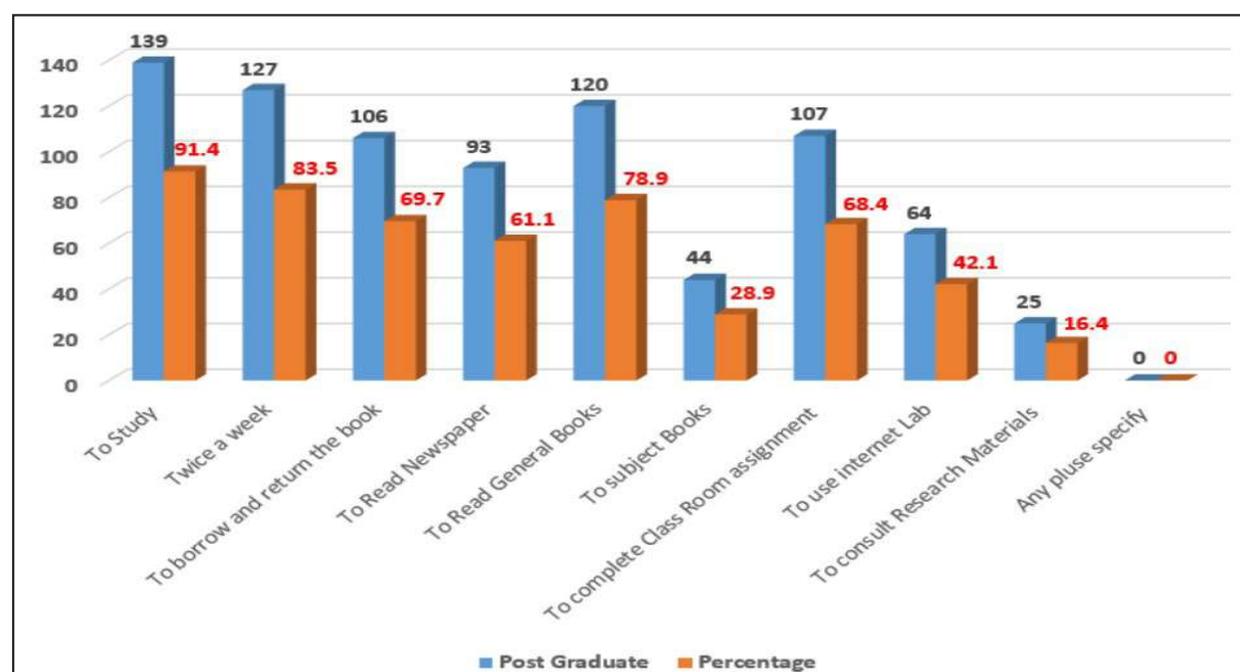

Table 3: How Much time do you spend in the library per day

Frequency	Post Graduate	Percentage
1-2 hrs	70	46.5%
2-4 hrs	56	36.8%
4-6 hrs	13	8.5%
6-8 hrs	2	1.3%

Collected data provides the information about the time spent in library, it shows that maximum PG students 70 (46.5%) spare one to two hours in library to pursue their studies, followed by 56 (36.8%) students remain in library for 2 to 4 hours. There are 13 (8.5%) students who avail the library facilities for about 4 to 6 hours per day, whereas 2 (1.3%) students spent 6 to 8 hours per day in library for study.
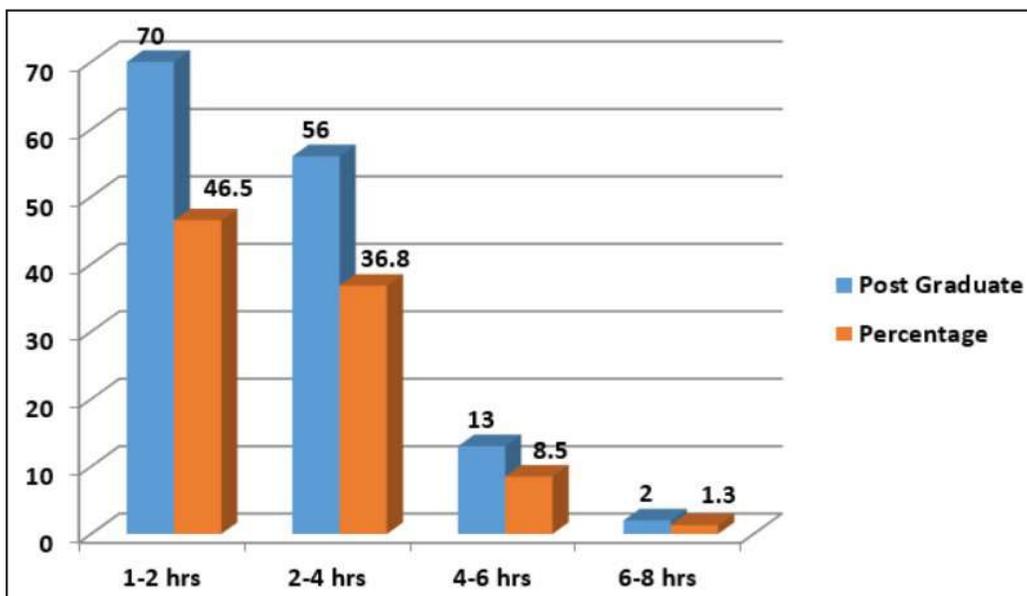
Table 4: Documents used by Students

Frequency	Post Graduate	Percentage
General Books	150	98.6%
Textbooks	148	97.3%
Reference Books	58	38.1%
Thesis & Dissertations	43	28.2%
Bound Periodicals	13	8.5%
Journals (Print)	46	30.21%
Magazines	126	82.8%
Newspapers	120	78.9%
E-Journals	40	26.3%
CD-ROM Data Bases	20	13.1%

Frequency	Post Graduate	Percentage
Online Data Bases	94	61.8%
Internet Access	12	7.8%

Table 4 shows the documents used by the students, it has been noticed that almost all students nearly 98% PG students visit the library to get general books and textbooks, On an average 80% students come to library to read magazines and newspapers. 61.8% students are making use of online databases, whereas 26.3% are accessing e-jounals in library. Only 8.5% students ask bound volume of journals available in library. Theses and dissertations have also been used by the students which recorded 28%.
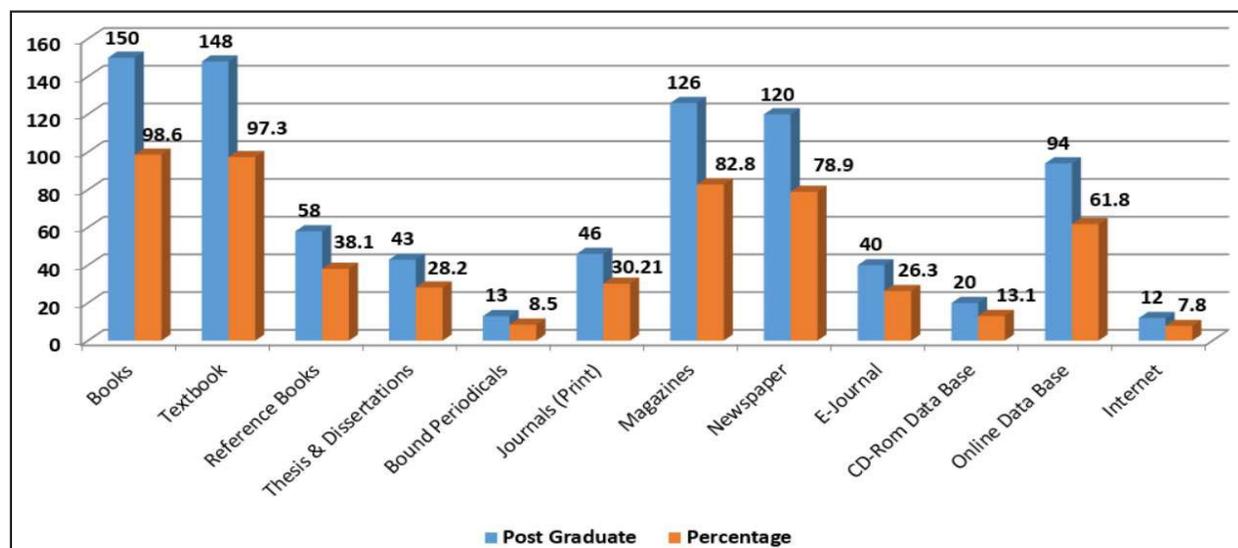
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Table 5: Helpfulness of Library staff:

Frequency	Response	Percentage
Most helpful	32	21.1%
Helpful	92	61.5%
Undecided	14	9.2%
Least Helpful	7	4.6

Table 5 provides the information about helpfulness of library staff towards students. Data shows that 92 (61.5%) PG students are of the opinion that library staff is helpful to them. 32 (21.1%) students believe that library staff is most helpful in providing library services to students. However there are few students 14 (9.2%) are neutral about their feelings towards library staff. Only 7 (4.6%) students are not satisfied with the attitude of library staff and have the feeling that library staff is least helpful.
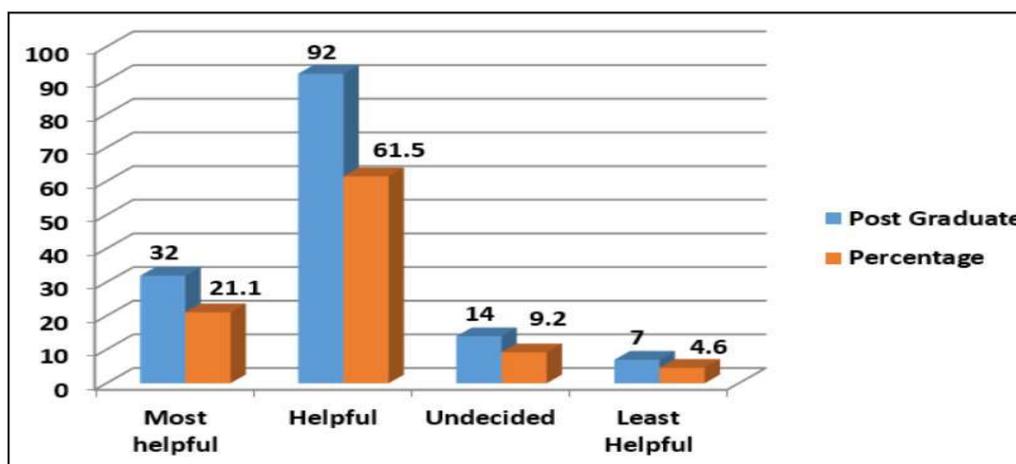

Table 6: Most preferred document

Frequency	Response	Percentage
Print form	98	64.4%
Non-print form	54	35.5%

Table 6 shows the choice of documents among PG students in the faculty of Science. It shows that even during the present scenario of information technology revolution and availability of digital contents, students are still prefer print form of documents in library which is recorded 98 (64.4%), 54 (35.5%) students are making use of non-print sources of documents for their studies.
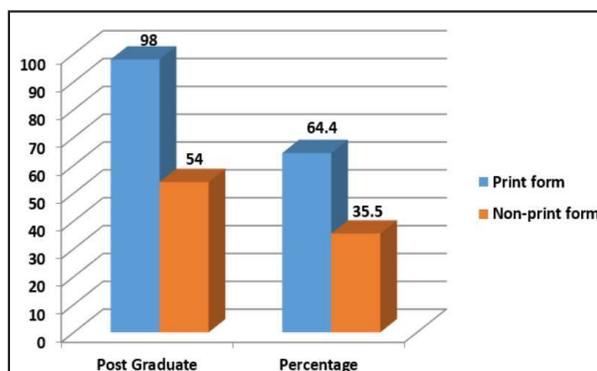

Table 7: Awareness about the e-information resources and services

Frequency	Response	Percentage
Yes	86	57.8%
No	66	43.4%

Table 7 shows the awareness of electronic information resources among P.G. students. Collected data in the present study reveals that 86 (57.8%) students are aware about e-resources, whereas 66 (43.04%) students are still not aware about electronic information resources provided by the library.
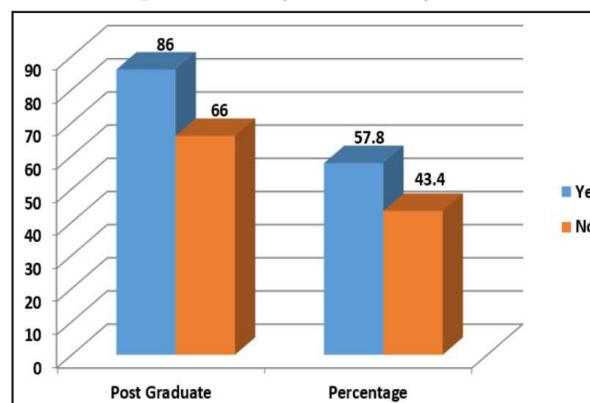
Table 8: Reactionson using E-Resources

Frequency	Post Graduate	Percentage
Time saving	56	36.8%
Easy to use	67	44.7%
Difficult to use	09	5.9%
More Information	14	9.2%
Less Information	6	3.9%

Table 8 Shows the reactions received from students regarding use of e-resources. Maximum number of students 67 (44.7%) are using e-resources as they feel it is easy to use. 56 (36.8%) students are making use of these resources as it is time saving. Only few students 9 (5.9%) have different opinion and they feel it is difficult to use e-resources.
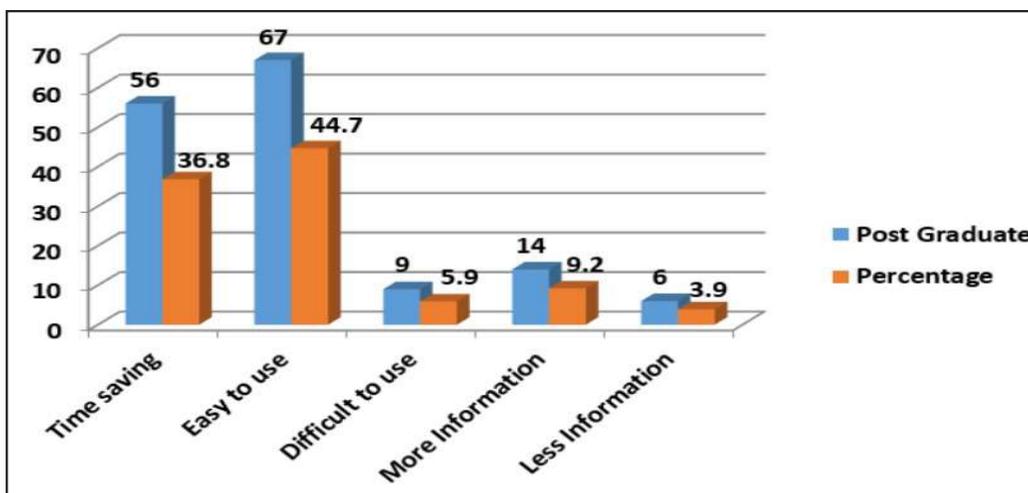

Table 9: Most used Resources

Frequency	Post Graduate	Percentage
Web Resources	99	65.1%
E-book	21	13.8%
E-Journals	09	5.9%
Only Database	10	6.5%
Search Engines	13	8.5%

Table 9 depicts that maximum students 99 (65.1%) prefer to use web resources, followed by 21 (13.8%) use e-books. E-journals and databases are used by 9 (5.9%) and 10 (6.5%) respectively. 13 (8.5%) students are making use of search engines to Resources that students mostly access e-resources 99 (65.1%) e-books 21 (13.8%), search engines 13 (8.5%), online data base 10 (6.5%) and e-journals 9 (5.9%)
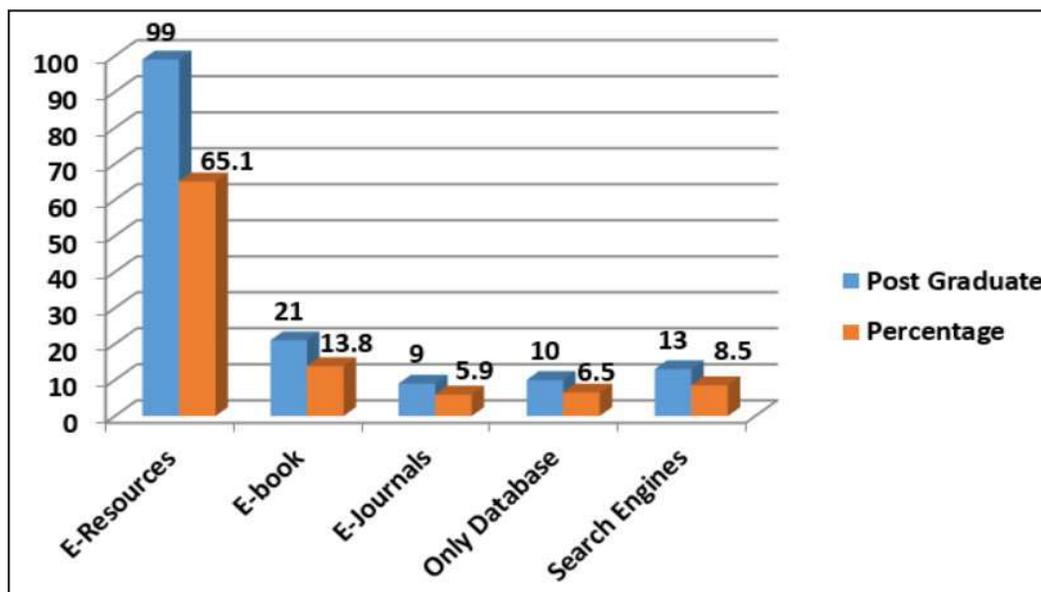
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Table 10 : Most used location of e-resources

Frequency	Post Graduate	Percentage
At university Library	101	66.4%
At Home	42	27.6%
Other place in university	09	5.9%
Any other please specify	-	-

Table 10 depicts that maximum number of students use e-resources in the university library e-resource centre which is recorded 101 (66.40%), followed by 42 (27.60%) at their respective home places and minimum students 9 (5.90%) prefer other places in university campus to avail the facility to access e-resources. None of the student prefer any other place apart from the above mentioned locations for accessing e-resources.
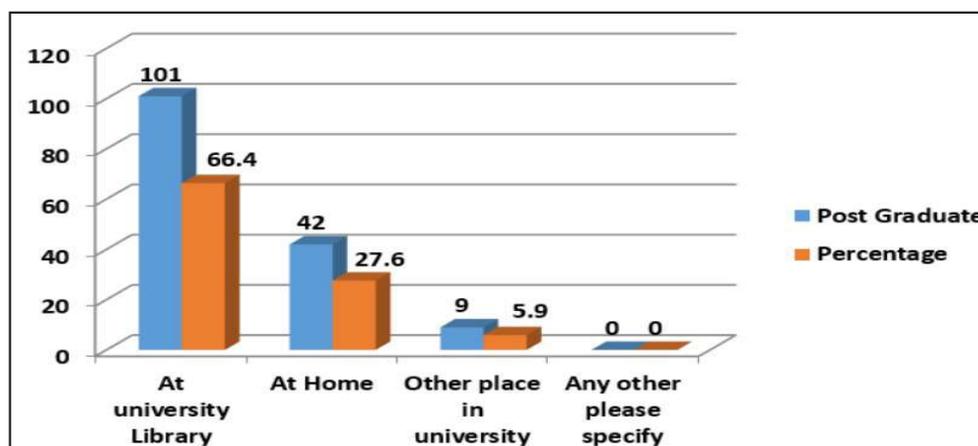

Table 11: Method of learning to use of E-resources

Frequency	Post Graduate	Percentage
Training form University Library	51	33.5%
Self efforts	63	41.4%
Guidance from colleagues and friends	31	20.3%
External sources	7	4.6%
Any other places specify	-	-

Table 11 showing the methods of learning, it has been observed that maximum number of PG students 63 (41.40%) have learnt the use of e-resources by their own efforts, which is a good sign and shows the learning culture of the students. 51 (33.50%) students got training from central library staff regarding how to use e-resources effectively. PG students have also been involved in acquiring guidance from their colleagues and friends to learn the use of e-resources, which is also a quite good number i.e. 31 (20.30%). Only few students 7 (4.60%) have learnt from external sources as well.
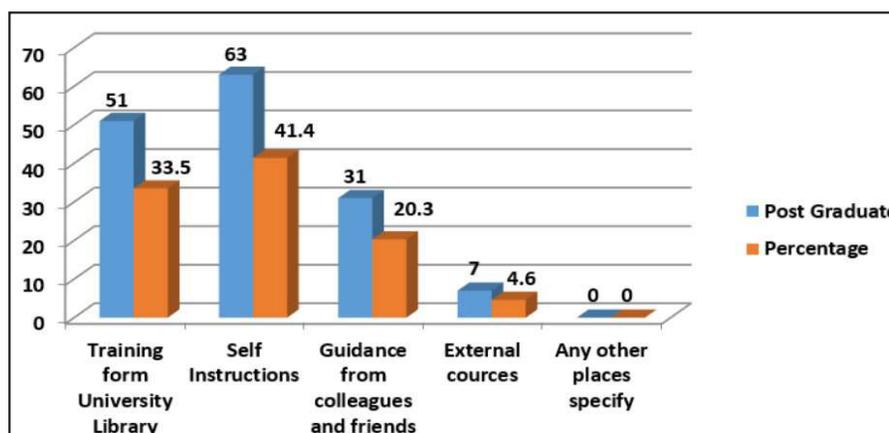
Table 12: Most preferred format for text articles

Frequency	Post Graduate	Percentage
PDF	95	62.5%
HTML	40	26.3%
Hard Copy	14	9.2%
Any other please specify	3	1.9%

Table 12 represents the format of likeness. As usual pdf has been the most favourate format for text articles among students and has occupied the first rank of choice which is recorded 95 (62.5%), followed by HTML 40 (26.30%). Hard copy is still in demand by the learners and it has been liked by 14 (9.20%) students. Only few students 3 (1.90%) have preferred other formats as well.
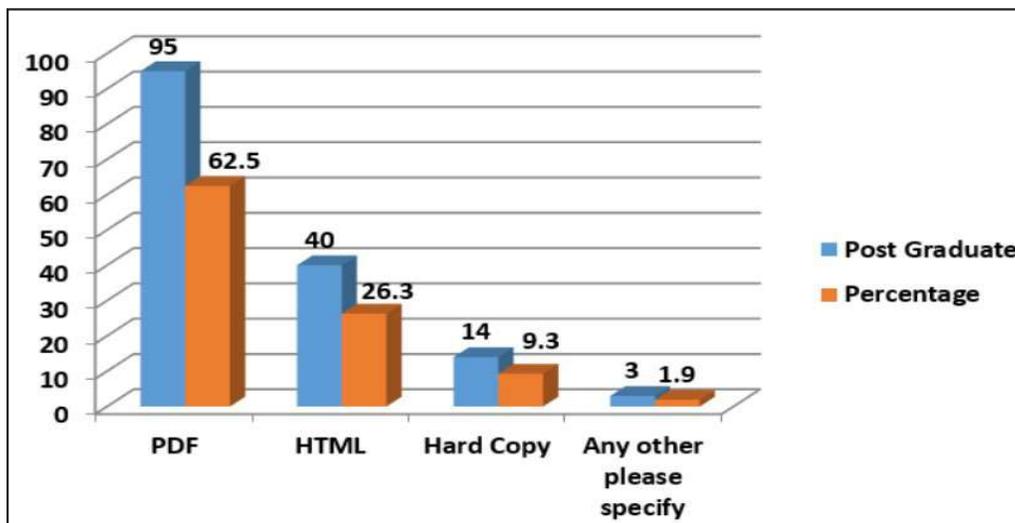

Table 13: Problem encountered while using the e-researches

Frequency	Post Graduate	Percentage
Slow access speed	74	48.6%
Difficulty in finding relevant	36	23.6%
Privacy problem	39	25.6%
Any other please specify	03	1.9%

Table 13 shows the problems faced by students while using e-resources. Slow access speed has always been a barrier in flow of information dissemination. 39 (25.60%) students noticed the privacy problem in access of information due to certain reasons. Reliable and relevant information have also been a problem which is noticed by 36 (23.60%). Some other problems were also recorded by 3 (1.90%) students.
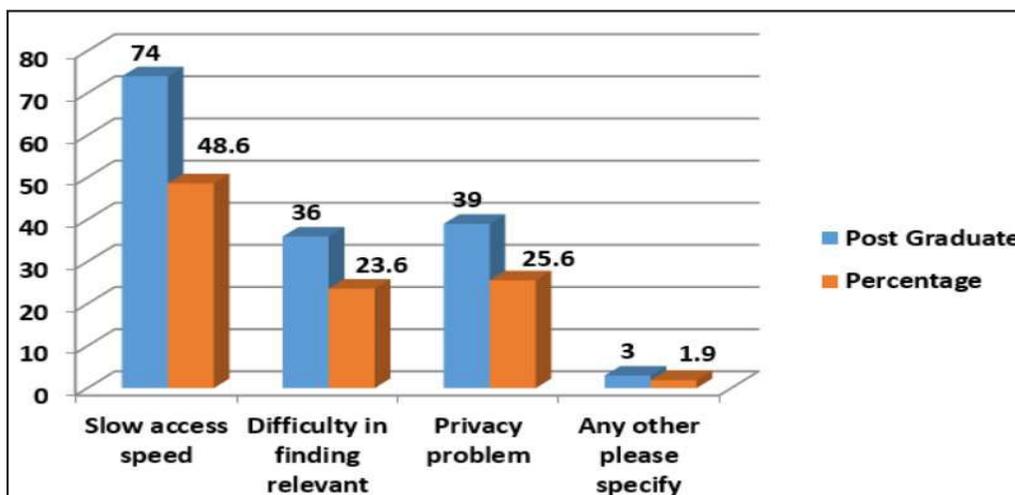
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Table 14: Key constraints that prevent effective use for E-Resources

Frequency	Post Graduate	Percentage
Lack of training to users inadequate infrastructure	67	44%
Lack of subscription of more foreign journal	46	30.2%
Lack of expertise help & support	35	23%
Any other please specify	-	-

Table 14 reveals key constraints that prevent effective use of resources. The present study presents the lack of training to users and inadequate infrastructural facilities has been the key constraint among students which is recorded 67 (44%). No library can subscribe all the resources published through the globe due to financial constraints. Therefore less number of foreign journals on subscription is another important key constraint among students which recorded 46 (30.20%). Students have also complaint the lack of expertise help and support from staff that reduces the effective use of learning resources.
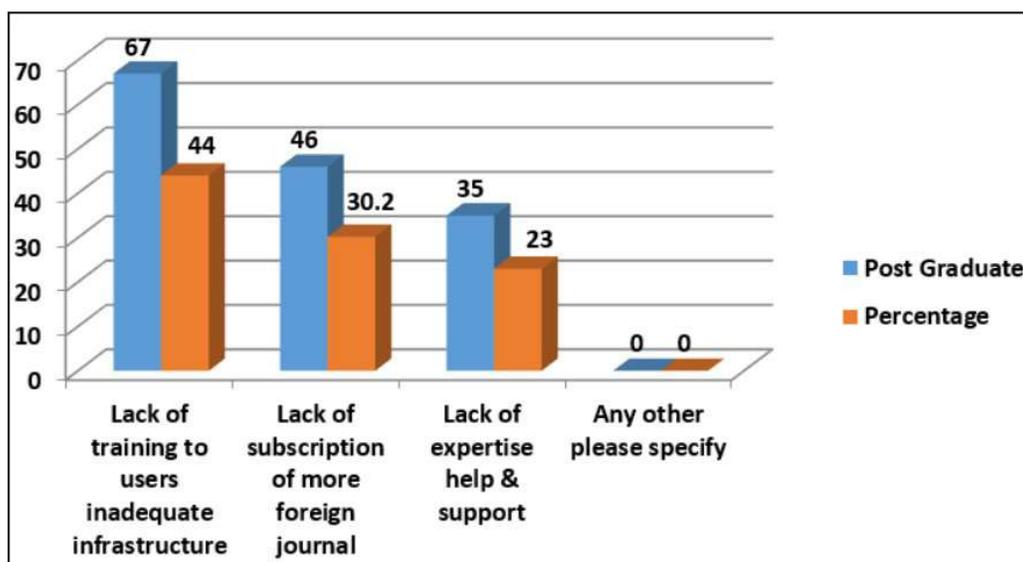
FINDINGS

1. Majority of the respondent frequently visit the library followed by 40.13% weekly, 22.36%, Monthly, 16.44%, twice a week, 10.5%, daily and 2.63% fortnightly.

2. Most of the respondents visit library to study, followed by for borrowing and return of book, few visit to read newspaper and to use internet. Consulting the research materials, has also been the purpose of visiting library.

3. Majority of the respondents spend 1-2 hours in the library, whereas 36.8% students spend 2-4 hours in library.

4. Maximum students like to have books from library, followed by magazines and newspapers. Very few are interested in reference sources.

5. Print Journals are the most favoured periodical among students, Thesis & dissertation are the second choice. Least number of students like bound journals.

6. Most students like the support and help of library staff, few feel that the staff is not helpful and some others denied to comment.

7. 65% students prefer print material, whereas only 35% like non print material.

8. More than 50% respondent are aware of e-information resources and services, and only 43% are unaware.

9. Highest number of respondent use Google, and few of them prefer Yahoo and rediffmail.

10. PDF format is the best choice among respondents, followed by HTML and least like Hard copy.

11. Slow internet speed is a major problem in information access, privacy and relevant information are some other key constraints.

12. Lack of training, insufficient infrastructure and inadequate number of foreign publications are some of the problems among respondents.

SUGGESTIONS

- Electronic information resources should be made available as per demand of the stakeholders.
- Qualitative electronic information resources be increased.
- Setting up of more terminals and printers for the users for their effective use
- Internet facility should be provided at different places.
- The speed of internet access should be increased and internet connection should be given to each computer system in the campus to avoid rush at one place.

CONCLUSION

The study sought to examine the use of electronic information resources and service by P.G. Science student in Raja MahendraPratap Library of C.C.S. University, Meerut (India).

Most of the objectives of the study are satisfactory and majority of the usersare satisfied with the adequacy of various types of information resources available information services provided by the library of C.C.S. University.In fact, information is the key source and valuable input for overall development of a person, society of nation. Hence, every person, society nation is striving. This results in information explosion which is being handled. With the help of information technology with the present study it is also found that information technology plays a dominant role in the field of library and information centre.

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