

Use of Electronic Resources by Post Graduate Students and Research Scholars of the Banaras Hindu University: A Study

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ABSTRACT

The Library is a heart of any higher learning institution or university library. The advancement of the information technology and web technology have brought changes to existing information storage and retrieval system such as Digital library, online database, digital repository, virtual library, etc. Libraries have witnessed of tremendous changes in the recent years in terms of their collection and services. Information explosion and diverse information needs of the users required more comprehensive and in-depth library collection. To cater the diverse information needs of the users libraries are subscribing e-resource and offering online information services. Now day's Electronic resources have become part of any academic and research library. Majority of users are utilising for the various purpose like teaching, research and updating their knowledge etc. To investigate and explore the use of electronic resource this study has been conducted. This paper deals with the basic concept of electronic resources, type of e-resources and findings related to awareness, frequency of use, level of use, place of access, time spent on access, level of satisfaction, device used for access, purpose of use, advantage and barriers of e-resources. Suggestions have been sought by the users are explored and recorded to improve use and access of e-resources.

Keywords: E-resources, E-database, E-journals, E-books etc.

1. INTRODUCTION

Libraries have witnessed of tremendous changes in the recent years in both in their collection and services. In the age of advanced technology and web development have great transform tradition to digital virtual library. The information technology has effected all the field of knowledge not only library and information science. Library and information centres are subscribing information in electronic form for their users. The library system is gradually replacing form of tradition library to digital and electronic library. To cater the information needs library and information centres are offering online information services to their users. Now day's Electronic resources has become part of any academic and research library. Huge amount have been expending by the government, Institutions and universities for subscribing electronic resources. It is the prime duty of the librarian to assess the utilisation of the electronic resources to prove the utility of funds which is expended in the subscription of electronic resources.

1.1 WHAT ARE E-RESOURCES?

E-resource is an electronic information resource which can be access from anywhere, anytime without time and geographical limit. These resources can be access through online or offline. These resources are available, 24 hours a day, 7 days in a week for the library users. These e-resources includes various type of electronic documents like e-books, e-journals, e-databases, scholarly web resource, patents, etc. E-resources have same nature and content like printed document but its present information or contents in the various flavours like image, audio, video, and multimedia formats. These electronic resources are commercial as well as free of cost available for the library users.

1.2 TYPE OF E-RESOURCES: electronic information resources can be categorised in the following types:

- E-Books;
- e-Journals;
- e-Database;
- Institution/digital repository;
- Scholarly web resources:

1.21 Electronic Database

An electronic database is an organised collection of data which can be easily search and retrieved. Database available in the bibliographic as well as full text form which can be accessible through Internet and Intranet. It offers simple and advance search with additional software inside the CDROM or online interface. Database is a major source of information which can be used for the current as well as retrospective search.

1.22 E journals

E-journals are available in the electronic form and can be accessed through internet or intranet without any geographical and time limit. E-journals are very

much convenience, time saving, flexible with simple, advanced searching and browsing facilities.

1.23 E-books

An e-book is an electronic version of books which can be read by computer, laptop, palm top, mobile etc. These books are available in the various file formats like pdf, audio, video, etc. Some of the e-books require e-book readers develop by a particular company.

1.3 Institution/Digital Repository

Institutional repository also knows as digital and e-print archive of the research output created by faculty members, research scholars and students of Institutions or organizations or universities. The creator of information can contribute or upload their publication to access inside the institution as well as outside of the institution without any barriers. It provides facility to simple method for deposit and access of their research publication. It offers the facility for capturing, organize, archive, disseminate and manage digital information resources to any institutions. It has significance benefits for research output of any institution which give visibility by citing the research publication, rapid communication, long term preservation, perpetual access of research output and gives international platform to discuss or present your findings which give more visibility and impact to the institution.

1.4 Scholarly web Resources:

Library does not acquire all the standard sources of information to fulfil the diverse information need of users. The internet is having lots of scholarly, useful, first hand, academic, peer-reviewed and refereed sources like online database, patents, standard, database articles, electronic journals, electronic books, bulletin boards, articles, researcher directories and more.

1.5 CHARACTERISTICS OF E-RESOURCES

- E-resources can be access around the world without any geographical and time limitations.
- It can be subscribed though consortia or publisher or aggregator etc.
- Modification, alteration and updation can be made easily with in fraction of second
- E-resources are available in the various files and formats that can be available very fast as they are uploaded on the server which save time, money, place and environment,
- Some of electronic information resources available in electronic only and offers multimedia information which is not possible in the print format
- E-resources can be search, browse , access, copy, download quickly and customize according to your requirements
- Linking feature facilitates link with in the documents as well as outside of the documents.

- Many users can use electronic resources simultaneously
- Monitoring the usages of electronic information resources is possible in some extent.

2. METHODOLOGY

A wide variety of research methods are available for the research like scientific, historical, case study, survey, etc. Survey method has been adopted for the study. The questionnaire was used as data collection tool. The structure questionnaire was designed to elicit the behaviour of PG students and research scholars the Banaras Hindu University, Varanasi. Total 500 questionnaires were distributed among the PG students and research scholars for sample collection in person out of this a total of 455 users have responded. Some of the users were not aware about the electronic resources so that only 427 responded were found suitable for the data analysis. After collection of the data the tabulation, classification and coding were done for the data analysis

3. LITERATURE REVIEW

Sharma, (2009) depict that most of users are aware about availability of e-resources and its use. It also highlights the preferences and importance of online resources among the teachers and research scholars. Mostofa, (2013) explored the Use and Impact of E-Resources in the Selected Private Universities in Bangladesh. The study highlighted the frequency, types of electronic resources and purposes of use. It also explored the problems faced while accessing of it. Habiba & Chowdhury, (2012) stated the purpose of using e-resources, benefits, subject coverage status, overall user satisfactions and problems that are faced by DUL users. Thornto, (2000) depicts the use of electronic resources in the collection developments. It highlighted the role of consortia for development of e-resources. Ibrahim (2004) highlighted the use of electronic resources by user of UAEU Libraries with special reference to faculty members. This study proved that the frequency of use of electronic resources was low due to many reasons like lack of time because most of the faculty focus on teaching, lack of awareness etc. Agboola,(2012) explored the use of electronic resources in Agricultural University Libraries. He found that electronic resources eliminate the boundary of time and place and used for the research. Egberongbe (2011) revealed that majority of users are aware and use electronic resources, it also found that impact of use of electronic resources on the academic productivity of teachers are more. It also explores the problems faced by users while using electronic resources in the University of Lagos Library. Yuan & Kraan (2012) investigated the open education resource used for the educators' worldwide which are available on the internet. It also discussed that a number of established models and communities in the open educational content movement. They suggested parallel research studies to support communities, validate processes and enable the sharing of best practice and inform future developments. Crispen., Blessing & Bindura (2012) found that lecturers attended the Electronic Information Resources Skills Training programme and that they used at least one or more electronic information resources use for find information, teaching and/or research. Tenopir & Washington. (2003) found that

usage patterns have changed with the advent of electronic resources and virtual reference services are needed to accompany this shift, as are better ways to count and report virtual library use.

4. DATA ANALYSIS AND INTERPRETATION

Based on collected data, the tabulation and graph were generated for the analysis and interpretation. The analysis and interpretation draw the border meaning of research finding.

Table 1: Response of the questionnaire

Users	Distribute of questionnaire	No. of users respondent questionnaire	% of users respondent questionnaire
P G	300	259	86.33
PhD	200	168	84
TOTAL	500	427	85.4

Above table shows that 500 questionnaires have been distributed among the P G and PhD students. 85.4% users have been given response of questionnaire where as 86.33% questionnaires have been filled by the P G students and 84% questionnaires have been filled by the research scholar of Banaras Hindu University.

Table 2: Awareness about e-resources:

User awareness	PG students	Research scholars	Total	Response %
Yes	256	168	427	93.84
No	23	05	28	6.15
		Total =	455	

Above table reflects the awareness about e-resources. 93.84 % users of the library are aware about the e-resources whereas 6.15 % users don't have knowledge about it.

Table 3: Awareness of e-resources by users

Users	P.G N=259	PhD N=168	Total/percentage
Internet	111	76	187 (43.79 %)
Newspapers	47	29	76 (17.79%)
Friends	90	54	144 (33.72%)
library staff	11	9	20 (4.68%)

The above table reflects that Users of the BHU library are well aware of the e-resources and most of them (43.79%) use Internet as a prominent source of

awareness where as 33.72% get aware to their friends while 17.79% students are aware about newspaper and 4.68% users are aware with the help of library staff.

Table 4: Type of e-resources used

Users	P.G N= 259	PhD N=168	Total N=427	Percentage
e-books	87	56	143	33.48
e-database	42	42	84	19.67
e-journals	50	40	90	21.07
Internet information resources	80	30	110	25.76

The above table represents that 33.48% users use e-books, followed by 25.76 % Internet information resources whereas 21.07% users use e-journals, while only 19.67% users go for e-database because most of the database don't include full text information.

Table 5: Time spend on e-resources access in a day

Users	P.G N=259	PhD n=168	Total/percentage
Less than one hour	152	92	244(57.14)
Two to four hour	64	48	112(26.22)
Less than two hour	30	20	50(11.70)
Four to six hour	13	08	21(4.91)

Data analysis reveals that 57.14% users spend time less than one hour to access e-resources, 26.22% use it two to four hours in a day while 11.70% use less than two hours. Very few users (4.91%) spend time four to six hours. Hence, we conclude that users are accessing e-resources as per their requirement.

Table 6: Level of e-resources accessed by users

Users	PG students N=259	PhD N=168	Total 427	Percentage
Table content	78	42	120	28.10
Abstract	44	40	84	19.67
Full text	105	62	167	39.11
Citation	32	24	56	13.11

Studying the user's behaviour regarding the level of access, it is noticed that 39.11% of them access full text e-resources, 28.10% access table of content, and only

13.11% access citation. It shows that users have more interest to use e-resources in full text level, while 19.67% user's use up to abstract level.

Table 7: File format preferred for reading e-resources

Users	PG n=259	PhD N=168	Total N=427	Response percentage (%)
.pdf	142	146	288	67.44
.html	46	23	69	16.15
.doc	71	43	114	26.67

The above table highlights that 67.44% users prefer .pdf file format, 26.67% .doc, and 16.15% .html file format. Majority of the users are comfortable with .pdf because its look like print documents.

Table 8: Satisfaction level of e-resources

Users	P.G N=259	PhD N=168	TOTAL N=427	Percentage
Very much dissatisfied	18	6	24	5.62
Not satisfied	46	21	67	15.69
Natural	90	58	148	34.66
Satisfied	93	67	160	37.47
Very much satisfied	12	16	28	6.55

Study of user's satisfaction level reveals that 37.47% are satisfied, 34.66% are natural, whereas 15.69% users are not satisfied, while 6.55% are very much satisfied and 5.62% users are very much dissatisfied.

Table 9: Source used for access of e-resources

Users	P.G N=259	PhD 168	TOTAL 427
University website	64	47	111(25.99)
Publisher website	28	25	53(12.41)
UGC info-net website	82	38	120(28.10)
Search engine	85	58	143(33.48)

Above table highlights that 33.48% users make use of search engine as most prominent sources of access to e-resources followed by 28.10% UGC-Info-net website whereas 25.99% users access it from university website. While only 12.41% users opt for university website due to the availability of links of the e-resources at library website/portal.

Table 10: Place to access of e-resources

Users	P.G N=259	P.HD N=168	TOTAL
Library	56	45	101(23.65)
Department	57	31	88(20.60)
Campus	70	44	114(26.69)
Hostel	76	48	124(29.03)

It is observed from the above table that 29.03% users access e-resources from hostel while 26.69% users access it from campus, 23.65% from library and very less (20.60%) from the department which shows that department does not have adequate infrastructure for accessing it. Another reason is that department always engage student in the classroom so that they don't have time to access it.

Table 11: Device used for access of e-resources

Users	P.G N=259	PhD N=168	TOTAL 427
Desktop	79	42	121(28.33)
Mobile	47	35	82(19.20)
Laptop	96	68	164(38.40)
i-pad	37	23	60(14.05)

Through data analysis, it came to notice that 38.40% users are using Laptop, 28.33% Desktop, 19.20% Mobile, 14.05% are using I-pad. Because of online publishing P G students and research scholars utilised various devices for access of e-resources.

Table 12: Purposes to use e-resources

Users	P G students	Research scholars	Total/percentage
Teaching and research	93	67	160(37.47)
Education and study	86	48	134(31.38)
Updating knowledge	80	53	133(31.14)

The above table represents that electronic resources are used for the various purposes. Majority of users (37.47%) are frequently using e-resources for teaching and research purpose, whereas 31.38% users are using for education and study purpose, and 31.14% users are using for updating knowledge.

Table 13: Advantages of e-resources

Users	PG students N=259	Research scholars N=168	Total/percent- age 427
Convenience	68	33	101(23.65)
Effective and expedite commu- nication	59	31	90(21.07)
Time and space save	62	34	96(22.48)
Searching and browsing facili- ties	45	38	83(19.43)
Cross reference linking	25	32	57(13.34)

Because of their dynamic features like easy searching, copying, downloading, multi user accessibility, round the clock access without any geographical limitations etc. the utility of the e-resources are better than print resources. 23.65% users felt that e-resources are convenient to access, 22.48% users said that these save time and space where as 21.07% users felt that effectiveness and expedite is one of the advantage. While 19.43% users are agree that searching and browsing is a giant advantage of e-resources. 13.34% users felt that cross referencing is also an advantage of e-resources out of many advantages.

Table 14: Barriers to use of e-resources

Users	PG	PhD	TOTAL	Percentage
Internet speeds	73	67	140	32.78
Inadequate e-resources	97	61	151	35.36
Inadequate infrastructure	86	40	133	31.14
Others			3	0.70

The above table shows that the barriers to use e-resources. The researchers have investigated that 35.36% users are facing barriers related to inadequate e-resources where as 32.78% said that internet speed is a barriers to access information while 31.14% highlighted that inadequate infrastructure is another barriers of it. Few 0.70% users highlighted other barriers.

5. CONCLUSION:

The study reveals that 93.84 % users of the library are aware about the e-resources and most of them aware through Internet. Majority of the users (33.48%) utilise e-books, followed by 25.76 % Internet information resources whereas 21.07%

users use e-journals, while only 19.67% users go for e-database because most of the database don't include full text information. Majority of the users (57.14%) spend time less than one hour to access e-resources. It is also noticed that most of users access full text e-resources followed by table of content which shows that users have more interest to use e-resources in full text level comfortable with .pdf because its look like print documents. The study also highlighted that 37.47% are satisfied and 5.62% users are very much dissatisfy. Majority of users make use of search engine as most prominent sources of access to e-resources followed by UGC-Info-net website whereas 25.99% users access it from university website. It is also observed from the data that 29.03% users access e-resources from hostel followed by campus while 23.65% from library and majority of them used Laptops for access of e-resources.

Electronic resources are used for the various purposes. Majority of users (37.47%) are frequently using e-resources for teaching and research purpose, whereas 31.38% users are using for education and study purpose, and 31.14% users are using for updating knowledge. Majority of users felt that e-resources are convenient to access, save time and space because of their dynamic features like easy searching, copying, downloading, multi user accessibility, round the clock access without any geographical limitations etc. the utility of the e-resources are better than print resources. This study also explored the barriers to use e-resources and found that 35.36% users are facing barriers related to inadequate e-resources where as 32.78% said that internet speed is a barriers to access information while 31.14% highlighted that inadequate infrastructure is another barriers of it. In view of the above finding we come to conclude that Library should subscribe more electronic resources like e-books, journals, online databases etc to have complete spectrum of knowledge and provide as many resources online as possible. In terms of the users the infrastructures should be made to meet out the electronic information requirement. The bandwidth of the system should be increased for better access of electronic information.

5.1 SUGGESTIONS

Suggestions are very important to improve the quality and services of those libraries as well as universities, which provide facilities to access e-resources. In this reference there are following suggestions have been given by the PG students and research scholars of Banaras Hindu University.

- Subscribe more electronic resources and databases for users requirements
- The User training programme/workshop should be organised for how to use e-resource
- Digitised library resources and development e-resource library.
- Communicate to student through mobile related to library services
- Adequate infrastructure should be development like computer lab, or improved existing computer lab, enhance bandwidth, made Wi-Fi campus etc.

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