

USE OF ELECTRONIC RESOURCES BY RESEARCH SCHOLARS: A CASE STUDY OF UTKAL UNIVERSITY

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Abstract *In the changing information environment, e-journals are claiming its importance in the research activities. The launch of UGC-Infonet E-Journal consortium in 2004 has changed the entire situation and enriched the resource base of Indian university libraries. The present study is designed to find out the necessity and evaluate the use of e-resources by the science research scholars of Utkal University, Bhubaneswar, Odisha. It also highlights the present scenario in electronic information resources supporting the research programme in Utkal University. The questionnaire method has been adopted to collect information from both fulltime and part time research scholars working in various departments in science. The present study became imperative and required for the libraries concerned in facilitating the need-based information resources to supporting the research work.*

Keyword: *E-resources, Utkal University, Study and Research, Internet.*

INTRODUCTION

Worldwide libraries have been exploring new technologies for providing better and faster access to vast information resources and efficient information services to their users. Information Technology has offered better solutions to achieve greater level of efficiency, productivity and excellence services in libraries. Information Technology is also fulfills the 4th law of Dr.S.R.Ranganathan "Save the time of Reader". The application and accessibility of information technology facilitates the free flow of information, creative expression and effective management. The major developments taking place in library and information centers, today electronic information resources have acquired a major portion of library collection. The value and use of information resources, particularly e-resources and the issues relating to the use of e-resources by users. Electronic learning materials have increasingly become the focus of research and development of any institution in the recent years. The term 'e-library' refers to information accessed through electronic sources like Internet. Unlike traditional libraries, e-libraries are not limited by location or time. Libraries have changed with the emergence and application of information technology (IT). The study also aims to know the use of CD-ROM, online databases, online journals, Internet, e-mail and search engines, and also methods of learning digital resources by science research scholars of Utkal University, Bhubaneswar.

OBJECTIVES OF THE STUDY

- To discover how frequently research scholars visit the library;

- To discover the purpose of visits to the library;
- Evaluating the effectiveness of the existing library facilities and services;
- Use of electronic information resources through Internet in the WWW system towards supporting research work;
- To discover levels of satisfaction with existing information sources;
- To provide suggestions for development of library resources.

REVIEW OF RELATED LITERATURE

Madhusudan (2010) in his article titled "Use of electronic resources by Research scholars of Kurukshetra University" concluded that electronic resources had become an integral part of information needs of research scholars there. Further, he found that e-resources can be good substitute for conventional resources, if the access is fast, and more computer terminals are installed to provide fast access to e-resources. Gowda and Shivalingaiah (2009) conducted a study under title "Attitude of Research Scholars towards Electronic Information Resources: A Survey of University Libraries in Karnataka" to examine the preference of research scholars towards print and electronic resources and effectiveness of usage of e-resources among users. Nearly 58.12% respondents indicated their preference towards print resources over electronic resources. The preferences of users depended upon the nature of resources available in libraries, while usage of electronic resources depended upon the type of IT infrastructure available in libraries. Another study conducted by Kaur and Verma (2009) on

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use of electronic information sources in Thapar University shows that maximum number of user accessing E-resources for their purpose. The impact of E-resources is visible from the decrease in number of printed journals in comparison to increase in number of electronic journals. Kumar and Shukla (2009) in their study titled "Use of Internet among the research scholars of the faculty of science, University of Allahabad: A case study" it shows that a majority of the research scholars mainly use the Internet for research purpose and the least number of research scholars use the Internet for entertainment purposes. E-journals are the most preferred resources used by all the research scholars. It is followed by the use of e-articles. All the research scholars browse the desired information from the Internet by using the search engine and Google is the must favorite search engine. It has been showed that only 38.33% respondents fully satisfied with the Internet services, 31.67% partially satisfied and 30% least satisfied.

SCOPE OF THE STUDY

The university libraries play a significant role in supplementing and complementing the research facilities, dissemination of information from the point and electronics media in various e-resources. Thus the present study confined to Utkal University, as a case study in general subject fields of science.

METHODOLOGY

In the present study the questionnaire method has been adopted to collect information from the respondents. A well structured questionnaire covering all the facets of the topic has been prepared and distributed to science research scholars of various science departments of Utkal University.

DATA ANALYSIS

Table 1: Distribution of scholars by full Time/part time

Scholars	Research Scholars	
	Regular	Part Time
Utkal University	28	08
Respondent Scholars	25	08

The two categories of scholars has taken for obtaining the result of the present study. There are 28 scholars regularly working in the major disciplines of science in the Utkal University. The response from the Table No.1 shows that the questionnaire has been distributed to 28(41%), out of total no of 28 regular scholars, 25(38%) responded to the questionnaire. It reveals from the table that all most all the disciplines of the respondents responded to the questionnaire, except 3 unwilling to respond. Regarding the response of Part- time scholars there are 8 Part time scholars distributed

the questionnaire accordingly, and all the Part-time scholars responded.

Table 2: Distribution of Scholars in Discipline Wise

Sl.No.	User in Discipline wise	percentage
1.	Botany	07(21%)
2.	Chemistry	06(18%)
3.	Geology	04(12%)
4.	Life Science	-
5.	Mathematics	02(7%)
6.	Physics	07(21%)
7.	Zoology	07(21%)
		33(100%)

The Table 2 shows that the distribution of scholars in discipline wise. There are seven major disciplines have been chosen from the pure science subject presently imparting teaching. The subjects include Botany, Chemistry, Geology, Life science, Mathematics, Physics and Zoology. The response from Utkal University 21% from Botany, Physics and Zoology followed by 18%, Chemistry & Geology 12%and Mathematics7%.

Table 3: Distribution of Scholars Gender wise Response

Gender	No. of respondents	Percentage
Male	14	42%
Female	19	58%
Total	33	100%

42% respondents were male, whereas 58%were female.

Table 4: Year-wise Distribution of Research Scholars

Year	Research Scholar	percentage
2006	01	3%
2007	21	64%
2008	06	18%
2009	Nil	Nil
2010	05	15%
2011	Nil	Nil
Total	33	100%

The table 4 shows that the research scholars vary from years of registration from 2006 to 2011, which means all the scholars are taking a minimum average period of 5 years .In utkal University maximum 21(64%) scholars are in 2007, followed by 06(18%), 05(15%), and 1(3%) in the year 2008, 2010 and 2006 respectively.

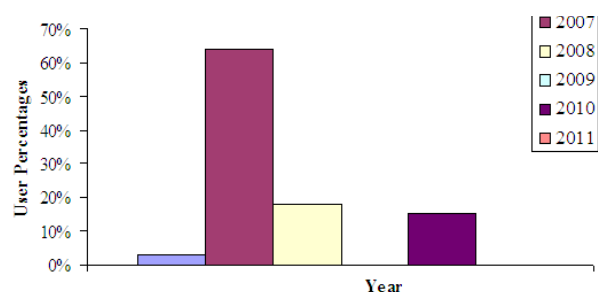


Figure 1: Year-wise Distribution of Research Scholars

Table 5: Library Use by the Research scholars

Use of Library	Responses	Percentage
Daily	19	58%
Once in a week	08	24%
Fortnightly	03	9%
Once in a month	01	3%
Rarely	02	6%
Total	33	100%



Figure 2: Library Use by the Research scholars

The above table indicates that 19(58%) research scholars used the library daily, 08(24%) once in a week, 03(9%) in fortnightly, 01(3%) once in a month and lastly 02(6%) rarely.

Table 6: Time Spent by the Research Scholars in the Library

Time Spent	Responses	Percentage
Less than One hour	02	6%
One hour	13	40%
Two to three hours	16	48%
More than three hours	02	6%
Total	33	100%

From the table 6, it has been revealed that 02(6%) research scholars spend less than one hour time in the library. The

scholars who spend one hour in the library 13(40%), 16 (48%) scholars spend two to three hours in the library, whereas 02(6%) research scholars spend more than three hours in the library.

Table 7: Satisfaction of Existing Functioning of the Library

Scholars	Satisfaction	
	Yes	No
Respondent Scholars	26(79%)	07(21%)

The Table No.7 shows that out of total response 26(79%) was positive; remaining 07(21%) research scholars are not satisfied with the existing functioning of the library.

Table 8: Frequency of use of online Information

Use of Online Information	Responses	Percentage
Daily	28	85%
Weekly	02	6%
Fortnightly	Nil	Nil
Occasionally	01	3%
Rarely	02	6%
Total	33	100%

The response shows from the above table No.8 that maximum respondents use online information daily. 28 (85%) scholars responded for daily use of online information, 02(6%) weekly, 01(3%) occasionally and 02(6%) rarely.

Table 9: Availability of E-Resources in the Library

SL. No.	E-Resources available in the Library	Response	Percentage
1.	E-books	19	22%
2.	E-Journals	33	38%
3.	ETD	09	10%
4.	Online Database	27	31%
5.	WWW	30	34%
6.	Internet	33	38%
7.	Intranet	07	8%
8.	OPAC/Web-OPAC	Nil	Nil
9.	Digital Library	Nil	Nil
10.	Digital Copies	12	14%
11.	E-DDS	NIL	NIL
12.	CD-ROM Databases	09	10%
13.	Network based Information Services	06	7%
14.	E-Newspapers	23	26%

From the above Table No. 9 shows E-books are used by 19 (22%), E-journals 33(38%), ETD 09(10%), Onlinedatabase 27(31%), WWW 0(34%), Internet 33(38%), Intranet 07(8%), OPAC (NIL), Digital Library (NIL), Digital copies 12(14%), E-DDS (NIL), CD-ROM Databases 09(10%), Network based Information services 06(7%), E-Newspapers 23(26%).

Table 10: Use of Electronic Information Resources

Electronic Information Resources	Response	Percentage
Adequate	15	45%
Not Adequate	18	55%

From the table No.10, the users are asked about how much they used electronic information resources available in the libraries, two options adequate and not adequate were given where 15(45%) users are using adequately and 18(55%) users are not adequately using the electronic Information resources.

Table No: 11 Access of information through Network/ Consortia

Sl.No	Types of Network/ Consortia	Respondent's Access
1	OCLC	Nil
2	FORSA	Nil
3	HELINET	Nil
4	CURL	Nil
5	AARLIN	Nil
6	Ohio Link	Nil
7	Janet	Nil
8	M25-Consortium	Nil
9	UGC-INFLIBNET	85(97%)
10	DELNET	Nil
11	CSIR	65(74%)
12	ERNET	13(15%)
13	ADINET	Nil
14	CALIBNET	Nil
15	NICNET	Nil
16	INDEST	Nil

The opinions from the respondents were also sought in regard to access of information through Networks and Consortia by the research scholars. As many as 16 different national and international library Networks and Consortia cited in the questionnaire, it is found from the Table No.11 the respondents mostly access few Network and consortia i.e. UGC-INFLIBNET 85(97%), CSIR65(74%) and ERNET13(15%).

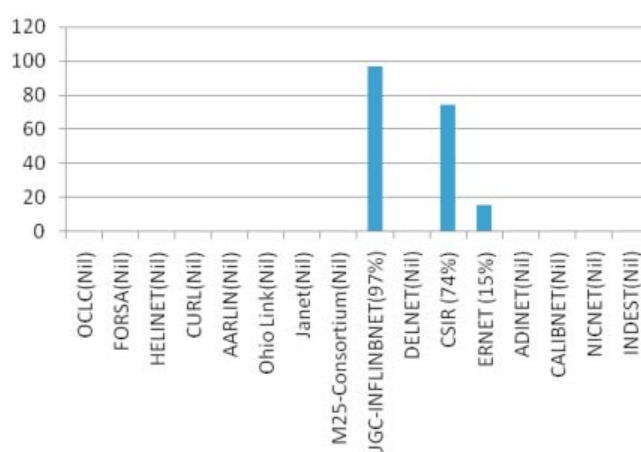


Figure 3: Access of information through Network/Consortia

From the analysis of the table it is found that the research scholars only access the Indian national Network and consortia and no one is having access to either any of the international consortia and regional library consortia. The reason being library provides any facility to their research scholars or access to international library network or consortia in their libraries.

Table 12: Purpose of Use of E-Resources

Purposes	Responses	Percentage
Communication	15	17%
Search up – to-date Knowledge	32	36%
Quick Access	11	12%
Database Search	20	23%
Total	76	100%

The research scholars are using E-resources for getting relevant information. The purposes of using the E-resources are communication, search up-to-date knowledge, quick access and database search. From the above Table No.12 it has been found that for communication purpose the response of research scholars is 15(17%), 32(36%) research scholars are using the E-resources for Up-to-date knowledge, for quick access 11(12%) and 20(23%) research scholars are using E-resources for database search.

The findings of the satisfaction of existing library resources extended to the research scholars, are not satisfied with the Digital library, OPAC/Web-OPAC, Networked based Information and CD-ROM services. Among the level of satisfaction most users are partially satisfied with CD-ROM Database, E-Books, E-Journals, and Online databases.

SUGGESTIONS

- Now a day the library has shifted their function of the library hours 24× 7 to utilize their resources maximum.

Table 13: User Satisfaction level on E-Resources

SL.No.	E-Resources	Satisfaction			Total (%)
		Satisfied	Partially Satisfied	Not Satisfied	
1.	E-books	23 (26%)	42 (48%)	23 (26%)	88(100%)
2.	E-Journals	58 (66%)	24 (27%)	06 (7%)	88(100%)
3.	Online Databases	46 (52%)	31 (35%)	11 (13%)	88(100%)
4.	WWW	66 (75%)	20 (23%)	02 (2%)	88(100%)
5.	Internet	71 (81%)	13 (15%)	04 (5%)	88(100%)
6.	University Web site	65 (74%)	13 (15%)	10 (11%)	88(100%)
7.	OPAC/Web-OPAC	Nil	Nil	Nil	Nil
8.	Digital Library	Nil	Nil	Nil	Nil
9.	CD-ROM Databases	06 (7%)	58 (66%)	26 (30%)	88(100%)
10.	Network based Information	11 (13%)	18 (20%)	59 (67%)	88(100%)

It is suggested if the library should remain opened 24×7 the research scholar would have been use the web resources to support their research activity and spend more time in the library.

- It is suggested that the library should conduct of library week; special lecture programme by the library can also create awereness among the users to know about the facilities and services provided by the libraries.
- It is observed, that the library should create their Online Public Access Catalogue and increase further reference tools and develop content lists which are more dependent tools by research scholars particularly at the age of information society.
- The library should take appropriate measures providing facilities to the research scholar particularly research cubicles, documentation works, digital library services, A/V facilities, bibliography services, indexing and abstracting services. More stress should be given by library on digital library collection.
- Orientation programmes to scholar be given by introducing various kinds of resources of documents and electronic information resources useful to their research study.
- The library should give much attention in making availability and building the collection on electronic information resources on ETD.By joining diffenent national international library consortia which is

providing ETD facilities, digital library information resources , network based information services,CD-ROM database service, digital copies and more particularly E-DDS.

- There should be complete campus Networking. Problems related to slow connectivity should be overcome by upgrading the bandwidth.
- The library should organize training program for the library professionals so that they are able to assist users and they can work with comfort in the Technical Environment.
- Special training programs should be organized for scholars for the maximum use of e-resources so that users can adequately trace relevant information.

CONCLUSION

University is the knowledge based organization whose functions are largely confined to teaching and research. Library is the part of the research culture of a university. In the changing information environment electronic era, ICT and its electronic information resources are claiming its importance in the research activities. It was evident from the study that the science discilpline researchers of Utkal University are more conversant with the use of the electronic resources.A university library therefore, inevitably becomes an intellectual arena, and a place for the bounds of knowledge

is being perpetually extended. It acts as a meeting place of enquiring minds –those of authors and readers. Since in a University even teaching is a part of research and research is unthinkable without a complete library, the latter occupies a place of significance in any university. Therefore, the library can enhance a university's reputation by providing access to world class information resources and services and can help to stimulate research by promoting collections and services widely. The libraries attached to the universities have to deal with the needs of the researchers in the various disciplines. It is the responsibility of the university library to provide the information requirements of the researchers from time to time.

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