
Electronic Information Resources: Access and Usage by Research Scholars of 'UPE' Universities of Karnataka State

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Abstract

The Electronic Information Resources (EIRs) available in the Universities' libraries play a dominant role. The present study examines the use of EIRs & Services by research scholars of science and technology (S&T) discipline of University with Potential for Excellence (UPE) status/awarded Universities of Karnataka State i.e. University of Mysore, Mysore (UMM) and Karnatak University, Dharwad (KUD). The main objectives of this study are to determine the awareness and usage of EIRs; impact of EIRs; problems faced by users. The study reveals that majority of the respondents i.e. 190 (96.44%) respondents are aware of EIRs and using the same for research purpose. About 171 (90.00%) respondents use e-articles/e-reprint etc, however, incompatible user interface to library website, lack of computer terminals and poor network connectivity/ slow download speed are indicated as hindrances to the use of EIRs.

Keywords

Electronic Resources; UGC-INFONET; E-book; e-journals; e-databases

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1.INTRODUCTION

Use of Information Communication Technology (ICT) applications during the past few decades have brought radical changes in the way information is gathered, store, organized, accessed, retrieved and consumed. The application of computers in information processing has brought several products and services to the scene (Mostofa). By using these computer applications many Library and Information Institutions are trying to meet information needs of their users. Electronic resources provide access to information that might be restricted to the user because of geographical location or due to financial implications. However E-resources also provide access to current/up-to-date information as these are often updated frequently (Dadzie). E-Resources usually consist of e-books, e-Journals, e-articles, e-newspaper, e-thesis, e-dissertation, e-databases and CD-ROMs, which are likely to be the alternative to the print media. The familiarity and use of electronic information resources in the libraries for rapid development is necessary and important (Adeniran, 2013).

2. LITERATURE REVIEW

A number of relevant studies have been conducted on use of electronic information resources by library users. These studies employ different methods for data collection, such as observation, experiments, surveys, interviews and transaction log analysis. Questionnaire surveys are the most widely used research method and members of higher education are the most investigated population (Tenopir, 2003). Asemi & Riyahiniya (2006) elicit the relationships between awareness and usage of digital information resources among students in Isfahan University of Medical Sciences. The results of the study reveal that 70% of students are aware of digital resources, but, only 69% of them are using them; 62% are aware of offline databases. About 70% are aware of online databases. Overall, 87% of students feel that the available data resources meet their information needs. Meanwhile, Users are faced with problems like low speed connectivity and shortage of hardware facilities. Nikam and Pramodini (2007) conducted a study on use of E-Journals and Databases by the Academic Community of University of Mysore. The result reveals that only 4% of the users are fully aware of UGC-INFONET, whereas 61.5% are somewhat aware and 16.5% users are not aware. There are only 50% of the respondents are less satisfied with e-journals/ e-database services of the

library. 99% users have not had an opportunity to attend training/ orientation. Shukla & Mishra (2011) determine the extent to which research scholars of Institute of Technology, Banaras Hindu University are aware and make use of electronic information resources, and the authors also highlight the problems faced by research scholars in accessing e-resources. Results reveal that the Research scholars prefer electronic resources against print resources.76% of the research scholars use e-resources daily. It is found that 88% of the scholars use electronic information resources for their research work. Maan (2012) investigates the use of Electronic Information Resources (EIRs) in Adesh Institute of Engineering and Technology Faridkot, Punjab. The major findings of the study reflect that 88% of the respondents are aware of the EIRs. 43.9% of the respondents use E-resources from library, 24.2% from respective departments and 23.5% from computer centres. Bansode (2013) explores the use of electronic journals by the users of university of Pune. It is found that majority of the users prefer electronic journals than the printed journals and those electronic journals are found to be beneficial to users. Jotwani (2014) investigates the trends in acquisition and usage of electronic information resources at Indian Institutes of Technology (IIT) libraries. The study revealed that IIT libraries spend significantly large proportion of their budgets to acquire electronic information resources. There was a significant increase in the total usage of electronic resources at IIT Kharagpur and it was the largest user of e-resource among IITs in the year 2009, 2010, and 2011.

3. OBJECTIVES

1. To find out the present status of electronic information resources (EIRs), facilities and services provided by the UPE universities' libraries;
2. To know the purpose and frequency of using the EIRs & services available in UPE libraries by research scholars;
3. To study the impact of EIRs on the research work of the users;
4. To find out the obstacles in accessing and using the EIRs & services by the users.
5. To provide suitable suggestions and recommendations to improve the EIRs & services for the benefit of users of UPE universities' libraries.

4.SCOPE, LIMITATIONS AND METHODOLOGY

The present study is limited to the research scholars of science and technology (S&T) discipline of "University with Potential for Excellence (UPE)" awarded Universities of Karnataka state i.e. Karnatak University, Dharwad (KUD) and University of Mysore, Mysore (UMM). A questionnaire survey was conducted to collect the data regarding the use and impact of EIRs. The simple random sampling technique was used in this study. A total of 220 questionnaires were distributed to collect the primary data, out of which 203 questionnaires were returned. On examination of the returned questionnaire 197 were found usable for analysis. The data was analysed using simple percentage.

5. DATA ANALYSIS AND INTERPRETATION

5.1 Distribution of Respdents

Table-1: Distribution of Respondents

University	Questionnaires Distributed	Questionnaires Received	Rate of Percentage
KUD	100	89	89%
UMM	120	108	90%
Total	220	197	89.54%

The above table shows university wise distribution of questionnaire. A total of 220 questionnaires were distributed among the research scholars of UPE university libraries, of which 197 dully filled questionnaires were received back, thus resulting into response rate of 89.54%. The response rate of University of Mysore, Mysore is 90% and the response rate of Karnatak University, Dharwad is 89%.

5.2 Demographic Information of Respondents

Table2:Demographic Information of Respondents

		KUD	UMM	Total
Gender	Male	67 (75.28%)	79 (73.14%)	146 (74.11%)
	Female	22 (24.71%)	29 (26.85%)	51 (25.88%)
	Total	89	108	197
Age Group	23-25	18 (20.22%)	13 (12.04%)	31 (15.74%)
	26-30	62	79	141

		(69.66%)	(73.15%)	(71.57%)
	30-35	09 (10.11%)	16 (14.81%)	25 (12.68%)
	Total	89	108	197

The table 2 deals with personal information of the respondents. It is observed that, out of total 197 respondents surveyed, 146 (74.11%) are male and about 51 (25.88%) are female. It can be inferred from the data presented in the table that the male respondents dominate over female. Out of 197 respondents surveyed, 141 (71.57%) research scholars belong to the age group of between 26 and 30. About 31 (15.74%) respondents between 23 and 25 and only 25 (12.68%) respondents belong to the age group i.e. between 30 and 35. The table reveals that majority of respondents are between the age group of 26 and 30.

5.3 Internet skills

Table 3: Internet Skills

	KUD	UMM	Total
Very Good	62 (69.66%)	74 (68.52%)	136 (69.04%)
Fair	21 (23.60%)	22 (20.37%)	43 (21.83%)
Uncertain	06 (6.74%)	12 (11.11%)	18 (9.14%)
Poor	--	--	--
Very Poor	--	--	--
TOTAL	89 (100.00%)	108 (100.00%)	197 (100.00%)

The respondents were asked to indicate their level of awareness about Internet. The results of the table-3 reveals that, 136 (69.04%) respondents express that they are well acquainted and have a very good knowledge of Internet, about 43 (21.83%) indicated that they have fair knowledge of Internet. However only 18 (9.14%) respondents indicated that they are uncertain.

5.4 Awareness of Electronic Information Resources

Table 6: Use of electronic information resources and services provided by the library

Electronic Information Resources	No of Users		Total (N=190)
	KUD (N=87)	UMM (N=103)	
Online databases (Abstract/Fultext)	63 (72.41%)	88 (85.43%)	151 (79.47%)
E-journals	77 (88.50%)	93 (90.29%)	170 (89.47%)

Table 4: Awareness of EIRs by the research scholars

	KUD	UMM	Total
Yes	87 (97.75%)	103 (95.37%)	190(96.44%)
No	02(2.24%)	05(4.62%)	7(3.55%)
TOTAL	89	108	197

The Table-4 shows the awareness of EIRs among the research scholars. Out of total 197 respondents, 190 (96.44%) respondents are aware of EIRs available in their respective libraries. Whereas, only 7 (3.55%) respondents are not aware of EIRs.

5.5 Level of Awareness of Electronic Information Resources

Table 5: Level of awareness of Electronic Information Resources

Rate awareness	KUD	UMM	Total
Very Good	57 (65.51%)	65 (63.10%)	122 (64.21%)
Fair	26 (29.88%)	29 (28.15%)	55 (28.94%)
Uncertain	04 (4.59%)	09 (8.73%)	13 (6.84%)
Poor	--	--	--
Very Poor	--	--	--
TOTAL	87	103	190

Table-5 depicts the awareness of EIRs among research scholars. The results reveal that majority of the respondents i.e. 122 (64.21%) have very good awareness of EIRs, followed by 55 (28.94%) expressed that they have fair knowledge of Internet and only 13 (6.84%) respondents felt uncertain.

5.6 Use of electronic information resources and services provided by the library

E-books	41 (47.12%)	48 (46.60%)	89 (46.84%)
E-articles/e-reprints	77 (88.50%)	94 (91.26%)	171 (90.00%)
E- theses/ dissertations	36 (41.37%)	42 (40.77%)	78 (41.05%)
Indexes & abstracts	32 (36.78%)	35 (33.98%)	67 (35.26%)
Digitized materials – exam papers, reports, conference papers, newspaper clippings, etc	30 (34.48%)	36 (34.95%)	66 (34.73%)
Online request forms for Interlibrary Loan, Document Delivery, purchase requests, etc.	21 (24.13%)	47 (45.63%)	68 (35.78%)
Web-based library catalogue (OPAC)	38 (43.67%)	51 (49.51%)	89 (46.84%)

The use of various types of EIRs and Services by research scholars has been summarized in the form of table-6. The table-6 shows that 171 (90.00%) respondents use e-articles/e-reprints, followed by 170 (89.47%) e-journals, 151 (79.47%) e-databases, about 89 (46.84%) respondents use e-books and OPAC, about 78 (41.05%) use e-theses/dissertation, 67 (35.26%) use indexes & abstracts and only 66 (34.73%) research scholars use digitized materials i.e. exam papers, reports, conference papers, newspaper clippings, etc.

5.7 Awareness of Electronic Databases (Fultext/ Abstract)

Table 7: Awareness of Electronic Databases (Fultext/ Abstract)

Internet skills	KUD	UMM	Total
Very Good	45 (51.72%)	64 (62.14%)	109 (57.37%)
Fair	28 (32.18%)	32 (31.07%)	60 (31.58%)
Uncertain	12 (13.79%)	07 (6.80%)	19 (10.00%)
Poor	02 (2.30%)	00 (0.00)	02 (1.05%)
Very Poor	00 (0.00)	00 (0.00)	00 (0.00)
TOTAL	87 (100.00%)	103 (100.00%)	190 (100.00%)

The above table depicts the awareness of e-databases among research scholars. It is evident that about 109 (57.37%) respondents have a very good awareness of e-databases, followed by 60 (31.58%) respondents expressed that they have fair amount of knowledge on e- databases, 19 (10.00%) respondents felt uncertain about the awareness of e-databases and only 02 (1.05%) respondents expressed that their awareness regarding e-databases is poor.

5.8 Aware of UGC-Infonet Library Consortium

Table 8: Aware of UGC-Infonet Library Consortium

	KUD	UMM	Total
Yes	76 (87.36%)	93 (90.29%)	169 (88.95%)
No	11 (12.64%)	10 (9.71%)	21 (11.05%)
TOTAL	87 (100.00%)	103 (100.00%)	190 (100.00%)

Table-8 indicates that, 169 (88.95%) respondents are aware of UGC-INFONET consortium and 21 (11.05%) are not aware of this. Therefore, it can be inferred that majority of the respondents make use of UGC-INFONET consortium.

5.9 Problems in accessing and using Electronic Resources

Table 9: Problems in accessing and using Electronic Resources

Problems	KUD	UMM	Total N=190
Lack of computer terminals	34(39.08%)	39(37.86%)	73(38.42%)
Incompatible user interface to library website	33 (37.93%)	47 (45.63%)	80 (42.11%)
Lack of relevant information sources	22 (25.29%)	31(30.10%)	53 (27.89%)
Inadequate coverage in the areas of interest	16 (18.39%)	22 (21.36%)	38 (20.00%)
Difficulty in finding relevant information	9 (10.34%)	13 (12.62%)	22 (11.58%)
Limited access to back issues/ Poor archive access	29 (33.33%)	33 (32.04%)	62 (32.63%)
Poor network connectivity/ slow download speed	31 (35.63%)	42 (40.78%)	73 (38.42%)
Non-cooperation from the Library staff.	27 (31.03%)	17 (16.50%)	44 (23.16%)

There are various problems associated with the access and use of EIRs by users. The respondents were asked to indicate the problem they encountered while accessing and using EIRs, as shown in the above table. Majority of the respondents i.e. 80 (42.11%) agreed that incompatible user interface to library website is a major problem, whereas, 73 (38.42%) indicated lack of computer terminals and poor network connectivity/ slow download speed, followed by 62 (32.63%) indicated that limited access to back issues/ poor archive access, 53 (27.89%) respondents indicated that they faced problem due to lack of relevant information sources, about 44 (23.16%) respondents indicated that they face problem due to the fact that library staff are not cooperative in facilitating easy access to EIRs. Only 22 (11.58%) respondents face problem due to difficulty in finding relevant information.

5.10 Need of training, orientation or guidance to access and use Electronic Information Resources

Table 10: Need of Training

	KUD	UMM	Total
Yes	64 (73.56%)	67 (65.05%)	131 (68.95%)
No	23 (26.44%)	36 (34.95%)	59 (31.05%)
TOTAL	87 (100.00%)	103 (100.00%)	190 (100.00%)

The table shows that 131 (68.95%) respondents need training, whereas, about 59 (31.05%) respondents feel that they don't need training to access and use electronic information resources.

5.11 Training mode

Table 11: Mode of Training

Training mode	KUD N=64	UMM N=67	Total N=131
Workshop with hands-on experience	30 (46.88%)	24 (35.82%)	54 (28.42%)
Online tutorial	31 (48.44%)	29 (43.28%)	60 (31.58%)
Self-help guide/handout	39 (60.94%)	47 (70.15%)	86 (45.26%)
One-on-one	23	14	37

demonstrations	(35.94%)	(20.90%)	(19.47%)
Provision of list of resources and how to use each	19 (29.69%)	22 (32.84%)	41 (21.58%)
Support when needed	53 (82.81%)	49 (73.13%)	102 (53.68%)

The research scholars were asked to give their opinion about the need for training to access and use electronic information resources. The data presented in table reveals that, majority of respondents i.e. 102 (53.68%) need support of the library staff, followed by 86 (45.26%) respondents need self-help guide/handout, 60 (31.58%) research scholars wish for online tutorial and only 41 (21.58%) respondents felt the need for the provision of list of e-resources and how to use each.

6. FINDINGS

Based on the analysis of data, the major findings of the study are as follow

- Majority of the respondents i.e. 67 (34.01%) visit the library twice a week
- About 69.54% of the research scholars visit the library to get required information.
- Majority of the respondents i.e. 190 (96.44%) are aware about EIRs and using the same for research purpose.
- Around 121 (63.68%) respondents use EIRs every day.
- Majority of the respondents i.e.167 (87.89%) use EIRs for writing research prepare and 158 (83.16%) respondents use Laptop to browse, access, view, download or store EIRs.
- Majority of the respondents, i.e.109 (57.37%) have a very good knowledge of e-database.
- About 169 (88.95%) of research scholars are aware of UGC-Infonet consortium
- Majority of the research scholars, i.e.72 (42.60%) opined that UGC-Infonet digital library consortium is very good.
- About 162 (85.26%) respondents access e-journals from publisher's website.

7. DISCUSSION AND CONCLUSION

The findings of the study reveal that even though the respondents are aware of electronic information resources available in the university libraries; the use

of different types of EIRs is low. It is also discovered that, only half of the respondents have a very good awareness about e-databases. Different factors that militate against effective utilization of electronic information resources by research scholars are discovered during the course of the study. Based on the findings of this study, it is concluded that, since electronic information resources have tremendous impact on the research activities of the research scholars, the universities' libraries should provide more EIRs facilities to update the research scholars. Since the computer skills alone are not adequate for effective and efficient use of EIRs, organized training programs are needed to familiarize the clientele with the EIRs.

8. RECOMMENDATIONS

This study reveals that the uses of electronic information resources are very common among the research scholars of UPE Universities in Karnataka. It is also found that, majority of the research scholars are dependent on e-resources to get required information and for their research activities. Based on the findings of the study, the following recommendations are made for the effective utilization of electronic information resources.

- The universities libraries should increase the speed of internet for quick access to the available e-resources,
- There is a need of more funds for subscription to more electronic primary and secondary information sources,
- The universities should recruit well qualified IT experts to solve the problems of networking and hardware,
- Libraries should arrange various user orientation and training programmes for research scholars for the better use of available electronic information resources,

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