

Utilization of E-Journals and Databases by Research Scholars of Universities in Karnataka: A Study

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ABSTRACT

The present survey explores the use of e-journals and databases by the research scholars of universities in Karnataka. The study was carried to examine the factors affecting the optimum utilization of e-journals and databases. The study mainly focused on source of awareness, availability of electronic journals and databases, purpose, benefits, experience of use of e-journals and databases, preferred search techniques, degree of satisfaction with the use of e-journals and databases, preferred version of information resources and problems faced while accessing and using e-journals and databases by the research scholars. For this purpose the researchers prepared a well structured questionnaire as a tool for data collection and the collected questionnaire has been analyzed and presented in the form of tables. It is clear from the study that the research scholars are aware and use of e-journals and databases for their academic and research activities. The article concluded with summarizes the results highlighting the major findings and suggestions.

Keywords: E-Journals, E-Databases, Electronic Resources, E- Information Resources, University Libraries.

Introduction

The society is moving in different directions and fascinated by developments through accessing information from varied sources. It has consequently imposed greater demand on libraries in their transformation and to sustain onslaughts and impact of information and communication technology, the electronic information resources particularly e-journals, e-books, e-databases, etc serve as the life blood for the academic, research and extension activities for any type of institution and organization (Okello- Obura & Magara, 2008). In the digital era higher educational institutions like universities have played a significant role in shaping the future of tomorrow's societies and these e-journals and databases have distinct advantages over the print media. In the present situation higher education is bound to opt for the unavoidable shift from the culture of print to digital technology. Large number of scholarly journals and databases are available in electronic format to cater the needs of academicians. This affects the teaching, learning and research but also the whole of higher

education. The University libraries in Karnataka are largely committed towards subscription and utilization of e-journals and databases by the academicians.

Literature Review

Various studies have been carried out on the use of electronic journals and databases by the students, faculty and research scholars of institutions of higher learning.

Kiran and Kumbar (2012) investigated and found that the large number of subscribed and open sources electronic information resources are available in the engineering discipline. Their study mainly focused on the use of different types of electronic information resources by the faculty, experience of using e-resources, problems faced, preferred search engines and search methods and skills required for better utilization of electronic information resources. It is clear from the study that majority of faculty use electronic information resources for their academic and research activities. **Ali and Nisha** (2011) examined the extent to which research scholars at Central Science Library, University of Delhi, India were aware and made use of e-journals. The results showed that more than 60% of users were using e-journals weekly for the purpose of research. Print journals were consulted by the majority of users compared with e-journals. Using keyword was the most popular search method for searching e-journals among research scholars, whereas the date of publication was the least desired. **Madhusudhan** (2008) showed that there is an ever increasing demand for subscriptions of more e-journal titles. There appears to be some need for academics to be provided with training in using e-journals. Majority of the respondents strongly attest to the fact that they need proper training/orientation for searching e-journals. **Vasishta** (2013) noted that promotion is the decisive factor in the effective use of sophisticated services such as electronic journals. He argued that, since electronic journal are developing as a new information platform, their promotion requires more than just notification. **Ajebomogun** (2007) posits that, while electronic journals have become essential tools for learning, research, teaching and consultancy, most of scholars and researchers are not fully utilizing them.

Objectives of the Study

The main objectives of the study are:

- To know the availability and usage of e-journals and databases in university libraries of Karnataka.
- To know the purpose and benefits of use of e-journals and databases by the research scholars.
- To find out the frequency of use of e-journals and databases by the research scholars.
- To find out the experience of use of e-journals and databases by the research scholars.
- To find out the preferred search techniques and preferred version of information resources used by the research scholars .
- To know the degree of satisfaction and problems faced while accessing and using e-journals and databases .
- To suggest the possible and feasible ways of optimum use of e-journals and databases in universities of Karnataka.

Scope, Limitations and Methodology

The investigator started the study by searching literature available through primary and secondary information resources. The study covers research scholars of six Universities in Karnataka namely, University of Mysore, Mysore., Karnatak University, Dharwad., Bangalore University, Bangalore., Gulbarga University, Gulbarga., Mangalore University, Mangalore and Kuvempu University, Shivamoga. The questionnaire method was used for the present study to collect the necessary primary data, keeping in view the objectives of the study. Total 729 questionnaires were randomly distributed among the research scholar and 597 filled-up questionnaires were received back. The rate of response is 81.89%. In addition to questionnaire method, interview schedule and observation method were also used to collect required information as a supplement to the questionnaire method. The data collected has been analyzed and interpreted using simple percentage techniques.

Data Analysis

The data collected by using different methods were analyzed, interpreted and presented in the following tables.

Gender Wise Distribution

The gender wise distribution of research scholars has been summarized in the form of Table-1.

Table- 1: Gender Wise Distribution

Gender	Number (N=597)	Percentage
Male	387	64.82
Female	210	35.17
Total	597	100.00

The Table-1 shows that of the 597 research scholars, 387 (64.82%) are 'Male' and the remaining 210 (35.17%) are 'Female'.

Age Wise Distribution

The age wise distribution of research scholars has been summarized in the form of Table-2.

Table-2: Age Wise Distribution

Age (in years)	Number (N=597)	Percentage
21- 25	176	29.48
26-30	267	44.72
31-35	83	13.90
36-40	36	06.03
41-45	19	03.18
46-50	11	01.84
51-55	04	00.67
Above 55	01	00.17
Total	597	100.00

The age-wise distribution of the research scholars is shown in Table-2. The age group varies between 21 years to Above 55 years of age. Of the research scholar surveyed 267 (44.72%) come under the age-group of '26-30 years', 176 (29.48%) belongs to '21-25 years', 83 (13.90%) come under '31-35 years', 36 (06.03%) fall under '36-40 years', 19 (03.18%) come under '41-45 years', 11 (01.84%) belongs to '46-50 years', 04 (00.67%) research scholars fall under '51-55 years' of age-group. The remaining 01 (00.17%) research scholar fall under 'Above 55 years' of age group.

Research Experience Wise Distribution

The research experience wise distribution of research scholars has been summarized in the form of Table-3.

Table-3: Research Experience Wise Distribution

Research Experience	Number (N=597)	Percentage
1-2 Years	131	21.94
3-4 Years	346	57.96
5-6 Years	118	19.77
7 and Above Years	02	00.34
Total	597	100.00

The research experience ranges from 01 year to above 07 years. Of the research scholars surveyed 346 (57.96%) research scholars have research experience of '03-04 years', followed by 131 (21.94%) have experience of '01-02 years', 118 (19.77%) have '05-06 years' of experience in doing research and 02 (00.34%) of research scholars have research experience of '7 years and above'.

Access and Use of E-Journals and Databases

The access and use of e-journals and databases by the research scholars has been summarized in the Table-4.

Table-4: Access and Use of E-Journals and Databases

Access and Use of E-Journals and Databases	Number (N=597)	Percentage
Yes	526	88.10
No	71	11.89
Total	597	100.00

It is observed from the Table-4 that 526 (88.10%) of research scholars opine as yes they access and use e-journals and databases and 71 (11.89%) of research scholars opine as no they don't use e-journals and databases.

Purpose of Use of E-Journals and Databases

The purpose of use of e-journals and databases by the research scholars has been summarized in the form of Table-5.

Table-5: Purpose of Use of E-Journals and Databases

Purpose of Use of E-Journals and Databases	Number (N=526)	Percentage
Research work	511	97.15
Teaching	104	19.77
Career Development	369	70.15
Current/Up to date information	469	89.16
Finding current/old literature	438	83.27
Preparing Seminar/Conference papers	366	69.58
Writing articles	510	96.96
Preparation of research proposals	206	39.16
Project work	386	73.38
Updating current knowledge	511	97.15
Others	31	05.89
Note: Because of multiple choice options the percentage is exceeded to more than 100%.		

The Table-5 depicts the purpose of use of e-journals and databases by the research scholars. About 511 (97.15%) of research scholars use e-journals and databases for research work, followed by 511 (97.15%) for updating current knowledge, 510 (96.96%) for writing articles, 469 (89.16%) current/up to date information, 438 (83.27%) finding current/old literature, 386 (73.38%) project work, 369 (70.15%) career development, 366 (69.58%) preparing for seminar/conference papers, 206 (39.16%) preparation of research proposals, 104 (19.77%) for teaching and 31 (05.89%) for other purpose like for basic scientific and technical information, for collecting general information and to access audio/visual materials etc.

Benefits of Use of E-Journals and Databases

The benefits that the research scholars get due to accessing and using e-journals and databases has been summarized and presented in the form of Table-6.

Table-6: Benefits of Use of E-Journals and Databases

Benefits	Number (N=526)	Percentage
Time saving	481	91.44
Better source of information	436	82.89
Improvement in the quality of academic work	298	56.65
Access to up-to-date information	362	68.82
Others	21	03.99
Note: Because of multiple choice options the percentage is exceeded to more than 100%.		

It is identified from the Table-6 that 481 (91.44%) research scholars have largely benefited because it saves time, followed by 436 (82.89%) better source of information, 362 (68.82%)

access to up to date information, 298 (56.65%) improvement in the quality of academic work and 21 (03.99%) for other benefits like information available in various formats as per the need, easily portability of electronic resources and 24X7 access to electronic resources.

Frequency of Use of E-Journals and Databases

The frequency of use of e-journals and databases by the research scholars has been summarized in the table-7.

Table-7: Frequency of Use of E-Journals and Databases

Frequency	Number (N=526)	Percentage
Daily	114	21.67
Weekly	106	20.15
Fortnightly	104	19.77
Monthly	69	13.12
Occasionally	133	25.28

The Table-7 shows that 114 (21.67%) of research scholars use e-journals and databases 'Daily', followed by 106 (20.15%) of research scholars use e-journals and databases 'Weekly', 104 (19.77%) use e-journals and databases 'Fortnightly', 133 (25.28%) use e-journals and databases 'Occasionally' and 69 (13.12%) of research scholars use e-journals and databases 'Monthly'.

Experience of Use of E-Journals and Databases

The experience of use of e-journals and databases by research scholars has been summarized in the Table-8.

Table-8: Experience of Use of E-Journals and Databases

Experience	Number (N=526)	Percentage
Less than 1 year	21	03.99
1-3 year	134	25.48
3-5 year	123	23.38
More than 5 year	248	47.15

The Table-8 depicts that 248 (47.15%) research scholars use e-journals and databases from 'More than 5 years', followed by 134 (25.48%) research scholars have experience of '1-3 years'. About 123 (23.38%) research scholars have experience of '3-5 years' and 21 (03.99%) research scholars have 'Less than 1 years' of experience of use of e-journals and databases.

Preferred Search Techniques for Searching E-Journals and Databases

The preferred search techniques used by the research scholars for searching and accessing pinpointed relevant e-journals and databases has been summarized in the form of Table-9.

Table-9: Preferred Search Techniques for Searching E-Journals and Databases

Preferred Search Technique	Number (N=526)	Percentage
Keyword	504	95.82
Author	501	95.25
Title	368	69.96
Journal name	271	51.52
ISSN	132	25.10
Others	26	04.94
Note: Because of multiple choice options the percentage is exceeded to more than 100%.		

The Table-9 depicts that 504 (95.82%) of research scholars prefer keyword field search technique for searching e-journals and databases, followed by 501 (95.25%) prefer author field search, 368 (69.96%) prefer title field search, 271 (51.52%) prefer journal name search, 132 (25.10%) prefer ISSN search and 26 (04.94%) research scholar prefer search in fields like Publisher, Subject, Abstract etc.

Degree of Satisfaction with the Use of E-Journals and Databases

The degree of satisfaction obtained by the research scholars with the use of e-journals and databases are summarized in the table-10.

Table-10: Degree of Satisfaction with the Use of E-Journals and Databases

Degree of Satisfaction	Frequency (N=526)	Percentage
Extremely satisfied	124	23.57
Satisfied	167	31.75
Moderately satisfied	97	18.44
Slightly satisfied	112	21.29
Not at all satisfied	26	04.94

The Table-10 depicts that 167 (31.75%) of research scholars are satisfied with the use of e-journals and databases, followed by 124 (23.57%) of research scholars are extremely satisfied, 112 (21.29%) of research scholars are slightly satisfied, 97 (18.44%) of research scholars are moderately satisfied and 26 (04.94%) of research scholars are not at all satisfied with the use of e-journals and databases.

Preferred Version of Information Resources

The preferred version of information resources used by the research scholars to fulfill their information needs has been summarized in the form of Table-11.

Table-11: Preferred Version of Information Resources

Preferred Version	Number (N=526)	Percentage
Print versions	87	16.54
Electronic versions	128	24.33
Both print and electronic version	311	59.13

The Table-11 depicts that 311 (59.13%) of research scholars prefer ‘Both print and electronic version’ of information resources, followed by 128 (24.33%) of research scholars prefer ‘Electronic version’ of information resources and 87 (16.54%) of research scholar prefer ‘Print version’ of information resources.

Problems Faced While Accessing and Using E-Journals and Databases

The research scholars face several problems while accessing and using the e-journals and databases. The problems faced while accessing and using the e-journals and databases are illustrated in Table-12.

It is clear from the study that 207 (39.35%) of research scholars face problems while accessing and using e-journals and databases and 319 (60.64%) of research scholars opine as they do not face any problems while accessing and using e-journals and databases. The type of problem faced has been depicted in table 12.

Table-12: Problems Faced While Accessing and Using E-Journals and Databases

Problems	Number (N=207)	Percentage
Poor connectivity (Low bandwidth)	172	83.09
Retrieval of irrelevant/ junk information	182	87.92
Frequent power failure	83	40.10
Server down or system problem	94	45.41
Unfamiliar file formats	27	13.04
Change in URL	33	15.94
Change of the content/ information	21	10.14
Non availability of latest software	43	20.77
Unorganized information content	89	43.00
Lack of assistance from library staff	132	63.77
Using electronic resources often detracts from doing work	74	35.75
Lack of IT knowledge to effectively utilize the service/ e-resources	121	58.45
Others	08	03.86
Note: Because of multiple choice options the percentage is exceeded to more than 100%.		

The Table-12 depicts that 182 (87.92%) of research scholars face problem of retrieval of irrelevant/ junk information while using e-journals and databases, followed by 172 (83.09%) poor internet connectivity while using e-journals and databases, 132 (63.77%) Lack of assistance from library staff, 121 (58,45%) Lack of IT knowledge to effectively utilize the service/ e-resources, 94 (45.41%) Server down or System problem, 89 (43.00%) unorganized information content, 74 (35.75%) using electronic resources often detracts from doing work, 43(20.77%) non availability of latest software to view, read and write accessed information, 33(15.94%) Change in URL, 27 (13.04%) Unfamiliar file formats, 21 (10.14%) change of the content/ information, 08 (03.86%) of research scholars face problem due to other reasons like lack of IT knowledge, lack of time, change of the content, information search related problems etc.

Findings and Suggestions

In the present study the authors have provided a useful summary of use of e- journals and databases by research scholars of Universities in Karnataka. The major findings of the study and suggestions to improve the access and usage of e-journals and databases have been summarized below:

Findings:

- 526 (88.10%) of research scholars opine as yes they access and use e-journals and databases.
- 511 (97.15%) of research scholars use e-journals and databases for research work.
- 481 (91.44%) research scholars have largely benefited with the use of e-journals and databases because it saves time and 436 (82.89%) of research scholars opine as better source of information.
- 114 (21.67%) of research scholars use e-journals and databases daily, and (47.15%) of research scholars are using e-journals and databases from more than 5 years.
- 504 (95.82%) of research scholars prefer keyword field search technique for searching e-journals and databases and 501 (95.25%) prefer author field search.
- 167 (31.75%) of research scholars are satisfied with the use of e-journals and databases.
- 311 (59.13%) of research scholars prefer both print and electronic version of information resources.
- 207 (39.35%) of research scholars face problems while accessing and using e-journals and databases and 182 (87.92%) of research scholars face problem of retrieval of irrelevant/ junk information while using e-journals and databases.

Suggestions:

- Identifying the non-users of e-journals and databases and proper steps should be taken to convert them into potential users.
- The speed of the Internet should be increased to speed up information search and retrieval process.
- The research scholars should further improve their information searching skills to make better use of largely available e-journals and databases.
- The institute should organize seminars, workshops and orientation programmes for research scholar at regular interval of time to keep them in phase with latest technologies.
- The library should procure both print and electronic version of information resources till the users are capable of using electronic resources.
- The library should provide off campus access to the available electronic information resources i.e. e-journals and databases. This kind of services can be given by setting up an EZproxy server in the library.

Conclusion

Emergence of internet has revolutionised modes of accessing and dissemination of information. E-resources particularly e-journals and databases are important source of information. This study provides insight into the use of e-journals and databases by the

research scholars belonging to universities in Karnataka. The comprehensive information was obtained through a well-structured questionnaire, informal interview and observation methods, which involved several aspects of e-journals and databases usage. The overall attitude towards the use of e-journals and databases among research scholars is positive. This was apparent in the high proportion of users, the high frequency of use and high importance accorded to e-journals and databases. The research scholars prefer both print and electronic format of information resources. Thus, the library should continue to provide electronic as well as print version of information resources. This survey has served as a benchmark for the use of e-journals and databases by research scholars of Universities in Karnataka. It is hoped that the results of this study enable the University libraries to evaluate and realign resources and services according to users' requirements effectively. The librarians have important role in assisting the library users to make the best use of e-journals and databases to maximum extent.

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