Utilization of E-Resources by Research Scholars of Science Departments, Karnatak University, Dharwad

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Abstract

This paper discussed different types of electronic resources used by research scholars, the purposes and frequency of using electronic resources and the problems faced by the students while accessing and using the electronic resources in the university. The study was conducted through a structured questionnaire distributed among 100 research Scholars of different science departments, out of which 92 dully filled in questionnaires were received back giving an overall response rate of 92 per cent. The paper concludes that electronic resources have become an integral part of the information needs of research scholars at Karnatak University.

Keywords
e-Resources, Electronic Media, Information Retrieval, User Study

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INTRODUCTION

The article lights on the use of e-resources by research scholar in the different science departments of Karnatak University, Dharwad. The main aim of this study is to determine the utilization of e-resources, users' skills in accessing and searching e-resources, and the purposes and frequency of using electronic resources and to highlight the problems faced by research scholars while accessing e-resources, their opinions on feature of e-resources, and their views on usefulness of e-resources compared to that of traditional print resources.

E-resources are generally in the form of E-Books, E-Journals, E-Theses and Dissertation, OPACs, CD-ROMs, Online databases, Internet resource, e-mail publishing, etc. Nowadays, E-resources became very essential for all the activities such as teaching, learning and research of higher education. Most of the universities in India have been realized the importance of e-resources as a result they are substantially investing a huge amount in the budget to provide access to these resources to support and provide quality education. Karnatak University is not an exception to this and it has conquered an important place by providing quality e-resources to the user community of university with moderately developed infrastructure facilities

NEED FOR THE STUDY

University libraries are the heart of every university as it promotes teaching, learning and research activity. Nowadays libraries are moving from traditional print resources to dynamic and flexible e-resources. In case of Karnatak University Library is showing keen interest to acquire and provide e-resources to their clientele. Understanding the utilization, impact and cost effectiveness of e-resources and services is the smart strategy of every librarian to know how well their initiations influenced the targeted group and purpose. With this concern and to measure, evaluate the impact of e-resources the present study has been taken to know the current state of the use of e-resources and its impact on the research scholars in the different Science departments of the Karnataka University, Dharwad to further enhance the usage of e-resources.

LITERATURE REVIEW

Several related studies on use of e-resources have been carried out by students, research scholars, and teachers of various institutions all over the world. Dr. B. Mini Devi and Vijitha. V. K (2013) Study highlights that Majority of the faculty members use e-journals for their research needs and career information. They preferred UGC-INFONET consortia, J-gate, JSTOR, and ICSSR consortia. To increase the use of e-journals, certain practical methods are suggested.[1] U. S Millawithanachchi (2012) study identified that nine factors which affects on e-resources usage. Among the nine factors postgraduates identified Technology as the most critical factor in using e-resources. Library support, information literacy, computer competency, usefulness, and user attitudes are identified as other critical success factor for using e-resources for their learning activities.[2] A. L Moorthy and Ankur Pant (2012) study discusses the genesis of the DRDO E-Journals consortium its services, budgetary provisions, services offered and effort made by DESIDOC to enhance the use of E- Resources across the organization.[3] Zhang, Ye and Liu (2011) found that electronic resources are used for the purpose of conducting scientific research, teaching, and for self-development.[4] Letchumanan and Tarmizi (2011) study deals with that factor such as easy access reduced physical visits to the library and user-friendly features offer a comfortable platform for the participants to use e-books. However, unreliable services, eye fatigue, lack of manipulability of online features, flaws in the physical design, and insufficient e-book collections cause the participants to feel uncomfortable with the service. Moreover, the role of librarians, publishers and interface designers is perceived to be an important remedy for all the inconvenience incurred.[5] Maldonado, Khan, Moon and Rho (2011) identified that "e-learning motivation" and "social influence" had a positive influence on behavioral intention, while "facilitating condition" had no effect on the use of e-learning portals. Furthermore, use behaviour had a positive influence on e-learning motivation. Also found was the moderating role of "region".[6] Okura-Obura, Constant (2010) identified various problems the users face while utilizing electronic resources. Such As Slow internet connectivity, inadequate networked computer, lack of access to low cost printers in the library, using advanced search strategy of most databases, and lack of awareness of most of the e-resources are significant contributors for the low patronage of users.[7] M, Madhusudhan, (2010.) Study found that use of E-resources by research scholar of Kurukshetra University concluded that E- Resources had become an integral part of the information need of the research scholars. Further he found that E-Resources cab be good substitutes for conventional resources.[8]

OBJECTIVES

1. To identify the awareness of research scholars on E-Resources
2. To find out the frequency of use of E-Resources
3. To know the purpose of the use of E-Resources
4. To find out the problems faced by the research scholars while accessing E-Resources
5. To analyze the dependency of research scholar on E-Resources
6. To identify the place from which the research scholars access E-Resources
7. To know the different types of the E-Resources being provided by the KUD, Library

SCOPE AND LIMITATION OF THE STUDY

In a changed environment the use and impact of e-resources are growing very rapidly so that the present study is restricted to the use of e-resources by the research scholars in different science department of Karnatak University, Dharwad.

IMPORTANCE OF THE STUDY

Every university is investing a lot of money to provide e-resource services to their respective users, so the authors of this article are of the opinion that this kind of study will certainly helps in identifying usage and impact of e-resources. This Study will be also helpful to realize the awareness, usage of e-resources as well as in improving e-resources collection in the university library.

METHODOLOGY

The study is confined to the research scholars of Karnatak University, Dharwad, Karnataka. A survey method was adopted to collect the information regarding the use of e-resources, frequency of use of e-resources, purpose of using e-resources, problems faced by the users while using e-resources. A total of 100 questionnaires were distributed to collect the primary data out of which 92 filled questionnaires were received from respondents. The collected data is systematically presented in the tabular form.

RESULTS AND ANALYSIS

Frequency of visit to the Library

It is general understanding that the frequency of users visit to library depends upon the resources, organization, maintenance and value added services that is provided. Here an attempt has been made to find out the frequency of visit to the library by science Research scholars of Karnatak University. It can be found from Table 1 that majority of respondents i.e. 30 (32.6 %) of them visit library occasionally, 18 (19.5%) twice a week, and 13 (14%) once a week. Only 4 per cent visit the library daily and once a fortnight. It's very desperate to note that 7.6 percent of respondents not at all visit the library.

Table 1: Frequency of visit to Library

Frequency	Bot.	B. Che.	B.T. & M.B.	Che.	Maths.	Phy	Zoo.	Total (%)
Daily	00	00	00	02	01	01	00	04(4.3)
Twice a week	04	00	02	02	05	03	02	18(19.5)
Once a week	00	00	01	09	0 1	02	00	13(14.1)
Once a fortnight	00	00	00	01	00	03	00	04(4.3)
Once a month	02	01	01	07	02	00	03	29(17.3)
occasionally	01	04	07	15	00	02	01	30(32.6)
Not at all	01	01	00	04	00	01	00	07(7.6)

Awareness about Electronic Information Resources

Awareness, skills and facilities are the essential prerequisites for the effective and efficient use of e-resources and therefore research scholars were asked whether they are aware about the e-resources available in the Karnatak University, Library. Table 2 presents the rate of awareness about electronic information resources of research scholars. It is evident that the respondents access e-resources through UGC-Infonet E-Journals Consortium. Out of the 92 respondents, the majority of respondents that is, 46 (50%) have a fair knowledge of electronic information resources and 41 (44.5%) respondents are very good at using e- resources. Only 3 (3.2%) respondents are poor in using e-resources and only one respondent is uncertain about awareness about e-resources. This finding is clear indication that, staff has not given library orientation programme to research scholars. As the majority of respondents are from rural background, even IT training place important role.

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Table 2: Awareness of Electronic Information Resources

Awareness of e-resources	Bot.	B.Che	B.T. & M.B.	Che.	Maths.	Phy.	Zoo.	Total(%)
Very good	00	01	03	22	06	07	02	41(44.5)
Fair	05	05	07	17	03	05	04	46(50)
Uncertain	02	00	00	00	00	00	00	02(2.1)
Poor	02	00	00	01	00	00	00	03(3.2)
Very poor	00	00	00	00	00	00	00	00

Place of accessing E-Resources

The respondents were asked to furnish information regarding the place from which they access E-Resources. Their responses in this regard are presented in table 3. It reveals that majority that is 81 (88%) respondents access information in their respective departments. About 12 (13%) of them are access e- resources through library and computer centre. And only 6 (6.5%) respondents access from hostel. Maximum research scholars prefer to access e-resources from department as the similar facilities are available in their respective department and hence they need not bother to go to library or computer centre. IT facilities are very poor in the hostels as compare to library and departments.

Table 3: Place of accessing E-Resources

Place	Bot.	B. Che.	B.T. & M.B.	Che.	Maths.	Phy.	Zoo.	Total(%)
Library	01	01	01	02	05	02	00	12(13)

Department	05	06	10	40	07	13	00	81(88)
Hostel	0	00	00	00	00	00	06	6(6.52)
Computer Centre	02	00	02	02	04	00	02	12(13)

Purpose of using E-resources

The purpose of using e-resources differs from one user to another. Research scholars were asked about the purpose of using the e-resources. Table 4 indicates that majority 86 (93.4%) of the respondents use e-resources for research work, 75 (85.5%) per cent for finding relevant information in their area of specialization, and 65 (70.6%) per cent for publishing articles/ book, 58 (63%) for getting current information and 57 (61.9%) for updating the knowledge in their respective subjects.

Table 4: Purpose of using E-resources

Purposes	Bot.	B.Che	B.T. & M.B.	Che.	Maths.	Phy.	Zoo.	Total(%)
For Research	07	06	11	37	08	12	5	86(93.4)
For finding relevant Information in the area of specialization	06	06	11	28	08	11	5	75(85.5)
For keeping up to date subject information	06	05	09	21	5	8	3	57(61.9)
For getting current information	06	04	11	20	5	9	3	58(63)
For publishing articles / book	04	06	09	26	5	11	4	65(70.6)

Opinion about E-Resources

Respondents were asked to express their opinion about the different statements related to usage of e-resources. Even though the opinions are many, the important opinions and the responses of the respondents are given in Table 5. The table reveals that the 44 (47.8%) research scholars agree to the statement they can now do better and quality research because of availability of e- resources and 51 (55.4%) respondents agree with some of the research information in needed is available only online. The 34 (36.9%) respondents feel uncertain about the statement; I have to rely on others more when searching electronic information resources. 37 (40.2%) respondents disagree with it's more difficult to find needed information while using electronic information resources, while, 51 (55.4%) respondents agree that, they still prefer to access to print as well as electronic information resources and also 49 (53.2%) respondents agree that more comprehensive information is available through electronic information resources. It clearly indicates that at present and in future e-resources are playing and going to play dominant role in science research.

Table 5: Opinion about E-Resources

Statement	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Total N=92
I can now do better study / research because of availability of electronic information resources.	44 (47.8)	37 (40.2)	5 (5.4%)	3 (3.2%)	3 (3.2%)	92(100)
Some of the research information in need is now only available online	27 (29.34)	51 (55.4)	6 (6.5)	5 (5.4)	3 (3.2)	92(100)
I have to rely on others more when searching electronic information resources	4 (4.3)	21 (22.8)	34 (36.9)	29 (31.5)	4 (4.3)	92(100)
It's more difficult to find needed information while using electronic information resources	4 (4.3)	15 (16.3)	29 (31.5)	37 (40.2)	7 (7.6)	92(100)
I would still prefer access to print as well as electronic information	16 (17.3)	51 (55.4)	17 (18.4)	5 (5.4)	3 (3.2)	92(100)

resources						
More comprehensive information is available	23 (25.0)	49 (53.2)	15 (16.3)	3 (3.2)	2 (2.1)	92(100)

Sources through which e-resources are known

Further research scholars were asked to signify, sources through which they learn to use e- resources. As indicated in Table 6, it is interesting to note that among the research scholars who responded to the study, majority of them 64 (69.5%) learnt through trial and error, followed by 56 (60.8%) of respondents by the advice of friends and 34 (36.9%) from guidance by teachers. Of research scholars 20 (21.7) have learnt skills through by external courses, 12 (13%) by getting the guidance from computer staff / technicians and 10 (10.8%) of respondents opined that by attending courses/training offered by the university library. Only 8 (8.6%) of the scholars have reported that they learnt the skills With the Guidance from library staff

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Table 6: Sources through which e-resources are known

Sources	Bot.	B. Che.	B.T. & M.B.	Che.	Maths.	Phy.	Zoo.	Total (%)
By trial and error	06	04	07	26	07	10	04	64(69.5)
With the Guidance fromlibrary staff	0	0	02	02	02	02	0	8(8.6)
By the advice of friends	06	06	03	23	06	09	03	56(60.8)
By external courses	03	02	02	04	03	05	01	20(21.7)
Guidance from teacher	03	02	05	12	06	06	0	34(36.9)
By attending courses/training offered by the university Library	01	00	02	04	01	02	0	10(10.8)
Getting the guidance from computer staff / technicians	00	00	01	06	04	00	01	12(13)

Search Strategy adopted for use of E-Resources

To make maximum use of the information and to avoid frustration while looking for relevant information, the user should have search skills that include being familiar with search techniques. The use of search techniques and strategies aims at helping the user retrieve relevant and quality information. In the majority of cases research scholars do the searching by journal title that can be clearly identified from table 7 that 63 (68.4%) of scholars prefer journal title as their search strategy, 62 (67.3%) through author, 61 (66.3%) use title of article, 57 (61.9%) by subject, 55 (59.7%) through keyword, 32 (34.7%) to Date of Publication and 30 (32.6%) by abstracts.

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Table 7: Search Strategies adopted for use of E-Resources

Search Strategy	Bot.	B.Che	B.T. & M.B.	Che.	Maths.	Phy.	Zoo.	Total (%)
Author	05	03	06	29	04	11	04	62(67.3)
Keyword	06	06	08	20	03	08	04	55(59.7)
Subject	07	04	08	18	05	11	04	57(61.9)
Date of Publication	04	00	04	12	03	08	01	32(34.7)
Journal title	04	06	06	27	07	10	03	63(68.4)
Title of Article	05	06	07	25	04	09	05	61(66.3)
Abstracts	03	02	03	09	03	09	01	30(32.6)

Mode of Updating Information about the Changes in e- resources

A question was raised to know from the research scholars how they are updating information about the

changes in e-resources. It is noticed from table 8 that the majority 44 (47.8%) get updated information through email or newsletter and through friends, whereas, about 18 (19.5%) respondents get updated information through library Home page and 15 (16.3%) respondents who get updated information though verbal communication by library staff.

Table 8:Mode of Updating Information about the Changes in e- resources

Means of updating	Bot.	B.Che	B.T.& M.B.	Che.	Maths.	Phy.	Zoo.	Total (%)
Verbal communication By library staff	01	01	01	05	03	03	01	15(16.3)
Through email Or newsletter	04	03	05	22	04	05	01	44(47.8)
Through library Home page	02	03	03	04	03	01	02	18(19.5)
Through friends	04	02	05	19	05	07	02	44(47.8)
Do not get updated	01	04	05	07	02	03	02	24(26)

Problems faced while accessing and using e-resources

Table 9 shows the main problems faced by research scholars while accessing and using e- resources. It is revealed from the views of majority of respondents 64 (69.5%) that the most common problem is that of slow access speed, followed by 36 (39%) it takes too long to view/Download pages and 29 (31.5%) find difficulty in finding relevant information. Of the respondents 23 (25%) are of the opinion that they cannot make use of e-resources effectively due to lack of training in use of E-resources and 16 (17.3%) state that too much information is retrieved, only10 (10.8%) respondents who indicated lack of IT skill

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Table 9: Problems faced while accessing and using e-resources

Problems	Bot.	B.Che	B.T. & M.B.	Che.	Maths.	Phy.	Zoo	Total
Slow access speed	06	05	08	30	06	06	03	64(69.5)
It takes too long To view/Download pages	04	04	03	10	06	06	03	36(39.1)
Difficulty in finding relevant information	03	04	03	14	00	04	01	29(31.5)
Too much information is retrieved	01	01	04	07	02	01	00	16(17.3)
Lack of IT Skill	04	00	01	01	02	02	00	10(10.8)
Lack of training in use of E-resources	04	04	00	05	05	04	01	23(25)

Areas of training needed

Respondents were asked if they required training to improve their information retrieval skills. The majority 49 (53.2%) respondents feel that they need training in specific skills and techniques for online searching, whereas, 47 (51%) need training in locating high quality information sources quickly and effectively. About 26 (28.2%) respondents need training in Filtering Effectively for online information and are followed by 21 (22.8%) respondents who need in accessing in-house resources (institutional repositories). The data is presented in table 10.

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Table- 10 Areas of training needed by the respondents

Areas of Training	Bot.	B. Che.	B.T. &M.B.	Che.	Maths.	Phy.	Zoo	Total (%)
In House resources and their access	02	04	00	09	03	03	00	21(22.8)
Specific skills and techniques for online searching	02	04	06	21	06	07	03	49(53.2)
Filtering Effectively for online information	03	01	06	02	07	06	01	26(28.2)

Locating high quality information sources quickly and effectively	06	05	08	15	03	07	03	47(51)

Enhancement in the quality of study, research by using electronic information resources

The research Scholars were asked to give their free and frank opinion about the enhancement in the quality of study after using electronic information resources. Table 11 reveals that 50 (54.3%) of the respondents strongly agree that their quality of study is increased after using electronic information resources, 36 (39%) agree to that point and 2 (2.17%) states that they are disagree about it.

Table-11 Enhancement in the quality of study, research by using electronic information resources

Opinion	Bot.	B. Che.	B.T. & M.B.	Che.	Maths.	Phy.	Zoo.	Total (%)
Strongly Agree	02	03	08	21	05	09	02	50(54.3)
Agree	03	03	03	15	04	04	04	36(39)
Uncertain	01	00	00	00	00	00	00	01(1.08)
Dis-agree	00	00	00	02	00	00	00	2(2.17)
Strongly Dis-agree	01	00	00	00	00	00	00	01(1.08)

CONCLUSION

The present study concludes that the use of e-resources is common in the Karnatak University and majority of the scholars are dependent on e-resources to get the desired and relevant information. But practical use of e-resources is not up-to the mark in comparison to investments made in acquiring these resources; secondly infrastructure and training programs should also be revised as per requirements. It is observed that the availability of e-resources on the campus is not sufficient for all the existing disciplines. It was found while interacting informally with the respondents that they are expecting not only required current e-resources, but also need back issues. Majority of the respondents were using e-resources for research purpose only. Looking into the investment made by the UGC on e-resources the study clearly indicates that usage is very meager. Hence it is suggested that the personnel who are working in the library and other personnel must take minimum interest in creating and awareness about the availability of e-resources, and their value and importance in improving the quality of the research. Then only it is possible for every scholar to make use of e-resources for updating their knowledge and bringing out the quality publications as well as thesis.

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