

# Usage of Electronic Information Resources in Research and Engineering Environment: A Case Study

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**Abstract** - This paper aims to evaluate the usage of electronic information resources by the faculty members of Karunya University, Coimbatore. The purpose of the study is to fulfill the academic needs of the faculty members and it covers the usage of electronic resources namely Internet, E-Journals, online resources, CD ROM and online resources. A well structured questionnaire was distributed among faculty members to collect the necessary data. It described the problems faced by faculty while using the electronic resources and find out the level of satisfaction about the electronic information sources and services.

**Keywords:** Electronic information resources, E-Journals, CD ROM, online resources.

## I. INTRODUCTION

Today information technologies play a vital role for tremendous changes in the library. The opportunity brought about by electronic information sources has in recent year's exerted pressure on educational institutions and their libraries. The pressure on the institutions is the provision of the necessary infrastructure and the actual access to these sources. Libraries all over the world make available a wide variety of electronic information sources for use by the undergraduates, postgraduates, researchers and staff members in their respective institutions. These electronic resources form an essential part of the reference services provided by the university libraries.

Karunya University established during the academic year 1986-87. Karunya University has completed 30 years of service in the field of engineering and technology. Karunya University is ranked among the top 50 universities in India and 44<sup>th</sup> rank under engineering institutions category. The present paper deals with the usage of electronic resources by the faculty of Karunya University.

## II. OBJECTIVES OF THE STUDY

1. To analyze the different purposes for which the electronic information sources is used by the respondents.
2. To study the use of different types of electronic information sources by the respondents.
3. To know the level of satisfaction on e-resources.
4. To identify the constraints faced by the respondents while using the electronic resources.

5. To Find out the frequency of use of e-resources by the faculty members.

## III. PURPOSE OF THE STUDY

Many faculty members, of course, are highly skilled in computer technology. But some people have limited computer skills and tend to avoid doing anything new and unfamiliar tasks. In this juncture it is very essential to undergo a study on university faculty members and the necessity of using electronic resources in their teaching and learning process. In this connection, the indicators relating to collecting research information, downloading software, online reference sources, E-journal reference, E-documents, subject related websites were taken into consideration to complete this study. The purpose of the study is to fulfill the academic needs of the faculty members and its covers electronic resources, namely Internet, E-Journals, CD-ROM, E-books, online databases.

## IV. METHODOLOGY

The survey was conducted by means of a structured questionnaire circulated among hundred and fifty faculty members working in various departments and schools of Karunya University. Out of 150 questionnaires distributed, 135 were received back. Also among which ten questionnaires were not taken into consideration as it was not completed fully. So, 125 questionnaires were taken into consideration and were analyzed for the purpose of this study.

## V. RELATED STUDIES

Sujatha, H. R., and Mahesh V. Mudhol, M V (2008) the study investigated the use of electronic information sources by the faculty, research scholars and post graduate students in the college of fisheries, Mangalore. Most of the users (88.9%) used electronic information sources for the purpose of project preparation and thesis work. The respondents are using e-mail as a cheaper alternative to telephone calls and a better choice than the postal service in terms of speedy delivery. Also 66.7% of the user used electronic sources for writing research article for publication and 38.3% of the users used for the purpose of preparing for teaching. It is noted that given more importance to use the electronic

information sources especially for research purposes. The findings of the study have provided useful insights for the library management to take necessary steps to strengthen the existing electronic information sources.

Rajesh Singh and Jindal, S C (2009) the analysis focused on Promoting the use of E-resources in teaching, learning and research. The responses to the various statements as given in the feed back for each program demands libraries to function not only as content based facilitator of information, but also as instructor for imparting knowledge and skills of life long learning to the users. The respondents expectations from libraries are very high. They have termed information literacy program as an eye opener and a milestone experience in their learning and research. Such programs also provide a proper platform for direct interaction with the library users

Joteen Singh, R K, et al., (2009) undertook a survey on the use of the electronic information focusing on the internet services by the users of Manipur University Library and examined the utilization, purpose, difficulties and

satisfaction levels of users about the internet based e-resources services provided by the library. Erratic power supply and low speed internet access are general problems related to internet based e-resources limited full text journals availability has been reported

Usage of e-resources by the faculty member of C V Raman College of Engineering Bhuvanagar, has been measured by Sunil Kumar Satpathy and Biswanath Rout (2010) with a view to examine the exposure of faculty members to e-resources. Besides, the main purpose is to highlight the problems encountered by the users and suggesting measures for improvement. The study found that faculty are now a days aware of the electronic information, electronic journals and databases. Improvement in access facilities with maximize speed of internet and subscribe more electronic sources.

## VI. DATA ANALYSIS AND INTERPRETATION

The data collected are here analyzed and presented in the form of tables and figures

TABLE 1 DESIGNATION-WISE DISTRIBUTION OF RESPONDENTS

Designation	No. of Responses	Percentage
Assistant Professor	49	39.20
Assistant Professor(S.G)	42	33.60
Associate professor	21	16.80
Professor	13	10.40
Total	125	100.00

The designation wise distribution of respondents is shown in table 1. 49 (39.20%) of the respondents are Assistant Professors, followed by 42 (33.60%) of the respondents are Assistant professors (S.G), 21(16.80%) are Associate Professors and 13(10.40%) are only professors.

Table 2 shows that the male respondents constitute a larger part of the survey population. 67 (53.60%) as against 58 (46.40%) of their female counterparts.

TABLE 2 SEX-WISE DISTRIBUTION OF FACULTY MEMBERS

Sex	No. of responses	Percentage
Male	67	53.60
Female	58	46.40
Total	125	100.00

TABLE 3 TEACHING EXPERIENCE OF FACULTY MEMBERS

Experience in years	No. of Responses	Percentage
0-5	36	28.80
5-10	35	28.00
11-15	33	26.40
16-20	14	11.20
Above 20	7	5.60
Total	125	100.00

Table 3 reveals that 28% of the faculty members have 5-10 years of experience in teaching and at the same time only 5% of the faculty members have more than 20 years of teaching experience, followed by 28.80% of faculty

members who have less than 5 years of teaching experience, whereas 26.40% of respondents have 11-15 and 11.20% faculty members have 16-20 years of teaching experience respectively.

TABLE 4 FREQUENCY OF USING ELECTRONIC RESOURCES

Frequency of use	No. of respondents	Percentage
Daily	116	92.80
Weekly	08	6.40
Fortnightly	01	0.80
Occasionally	00	00.00
Total	125	100.00

From the above table 4, it has been revealed that 116(92.80%) respondents use the electronic resources daily, 8(6.40%) respondents use the e-resources once in a week.

Maximum respondents use the e-resources daily as compared to other timings.

TABLE 5 PURPOSE OF USING ELECTRONIC RESOURCES

Purpose	No.of Respondents	Percentage
Teaching purposes	70	41.92
Research work	35	20.96
Publishing Article	22	13.17
Finding for relevant information in the area of specialization	19	11.38
For keeping up to date information	21	12.57
Total	167	100.00

\*Multiple answers were taken into consideration

Table 5 shows that the majority(41.92%)of the faculty members use electronic resources for teaching purposes followed by 35 (20.96% ) members of the faculty using e-resources for research purposes whereas 22(13.17%) faculty

members who are using the electronic resources for publishing article and 21(12.57%) faculty to keep up to date their information.

TABLE 6 USE OF ELECTRONIC RESOURCES BY FACULTY MEMBERS

Types of Electronic Resources	No. of Respondents	Percentage
E-Books	15	8.72
E-Journals	25	14.53
Online Databases	22	12.79
Internet	68	39.54
CD ROMs	42	24.42
Total	172	100.00

\* Multiple answers were considered

In Karunya University, the respondents use a variety of electronic information sources. From the table 6, it is clear that, a majority of respondents (39.54%) of the Karunya University browse the internet for teaching as well as research purposes, followed by 42 ( 24.42%) who are using CD-ROMs and 25(14.53%) faculty members using E-Journals. Only 8.72% of the respondents are using E-books. Table 7 shows that majority of the faculty members prefer to use electronic resources because 66 (52.8%) of them are

feel that e-resources are more informative, followed by time saving, ie.63 (50.4%), further followed by easy to use and more useful , ie.57 (45.6%) and 47 (37.6%) respectively. Only 6(4.8%) faculty members think that e-resources are less useful. The results from table 7 reveals that e-resources are preferable one because it is more informative, more useful one and easy to use it.

TABLE 7 REASONS FOR USING E-RESOURCES

Reasons for Using E-Resources	Respondents	Percentage
More Useful	47	37.6
Less Useful	6	4.8
Time Saving	63	50.4
Time Consuming	7	5.6
More Informative	66	52.8
Less Informative	12	9.6
Easy to use	57	45.6
Difficult to Use	13	10.4

TABLE 8 LEVEL OF SATISFACTION ABOUT THE ELECTRONIC INFORMATION SOURCES AND SERVICES

Electronic Information Service	Fully Satisfied	Partially Satisfied	Not Satisfied	Total
Internet	82 (65.6%)	41 (32.8%)	2 (1.6%)	125
Online Journal	78 (62.4%)	36 (28.8%)	11 (8.8%)	125
E-Mail (University Host Mail)	98 (78.4%)	24 (19.2%)	3 (2.4%)	125
CD-ROM	62 (49.6%)	43 (34.4%)	20 (16%)	125
E-Books	63 (50.4%)	40 (32%)	22 (17.6%)	125
Total	383 (61.28%)	184 (29.44%)	58 (9.28%)	625 (100.00)

Table 8 shows that regarding the electronic information services 78.4% of them are fully satisfied about E-mail service and 19.2% of them are partially satisfied. 65.6% of the are satisfied on internet, and 32.8% of them are partially satisfied. In case of Online journal, 62.4% of them are

satisfied and 28.8% of them are partially satisfied, 50.4% of them are satisfied about E-Books and 32% of them are partially satisfied. Regarding CD-ROM 49.6% of them are fully satisfied and 34.4% of them are partially satisfied.

TABLE 9 PROBLEMS FACED WHILE USING ELECTRONIC RESOURCES

Types of Problem	No. of Responses	Percentage
Longtime to download information	27	17.09
Lack of information on electronic resources	21	13.29
Problems with accessing suitable software	13	8.23
Retrieval of irrelevant information	34	21.52
Limitations of online full text journal articles	41	25.95
Slow internet access	22	13.92
Total	158	100.00

As per the obtained data, 25.95% of the users get only limited online full text journal articles, 21.52% of the users get irrelevant information. From the data it has been found that 27(17.09%) respondents expressed that it has been taken long time to download information through internet.

21(13.29%) users admitted that they are getting only limited information in their subject field.

## VII. FINDINGS OF THE STUDY

Major findings of the study are:

1. Majority of the respondents 41.92% use electronic information sources for the purpose of teaching. While 20.96% use it for ongoing research work, 11.38% use electronic sources for the purpose of finding informations relevant to their area of specialization.
2. It is observed that it takes longtime to download the required information , limitations of online full text journal articles, slow internet access, retrieval of irrelevant information are the major problems identified by the respondents.
3. Majority 39.54% of the respondents use Internet and 42(24.42%) use CD-ROM.
4. Maximum(92.80%) number of faculty members are using the electronic resources daily.
5. It is seen that regarding the electronic information service 78.40% of them are fully satisfied about E-mail.

### VIII. SUGGESTIONS

1. It is suggested that the faculty members use the electronic resources to update their knowledge mostly but they are facing lack of quick access, database search. Hence, the faculty members should be encouraged to use of electronic resources inorder to complete their task without any delay.
2. Awareness should be created to use E-books and E-Journals to obtain current information.
3. Relevant information sources and the easy accessibility of information make the faculty members to use electronic resources effectively and efficiently.
4. The University library should introduce user education program to all faculty members.

### IX. CONCLUSION

Based upon this study, the usage of E-Resources are high among faculty and research scholars. But ,if the downloading process should be increased inorder to complete their work at the earliest to save the time.

In the current scenario, electronic information sources are very important sources for teaching and research activities. Faculty members who are using the electronic resources to update their knowledge seeking quick access and database search without any hindrance to their academic activities . So, the way could be found out to increase the speed of the internet access for quick process of downloading the materials. University library should subscribe more electronic resources keeping in view of the users priority and preferences.

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