Indian Journal of Information Sources and Services
ISSN: 2231-6094 (P) Vol.9 No.1, 2019, pp.30-34

DOI: https://doi.org/10.51983/ijiss.2019.9.1.600

Impact of Using Electronic Information Resources among the Faculty Members of Engineering Colleges in Erode District, Tamil Nadu

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(Received 17 December 2018; Revised 18 January 2019; Accepted 2 February 2019; Available online 5 February 2019)

Abstract **- This article presents the study about the impact and utilization of electronic information resources among the faculty members of Engineering Colleges in Erode District, Tamil Nadu. Survey method questionnaire tool were used together the data for this study. Out of 670 questionnaires were distributed, 452(67.5%) faculty members are responded. E-resources support teaching, learning and research activities of the present user community especially the faculty members. Generally the availability of e-resources is good for Engineering Colleges. Majority of the respondents use the e-resources for educational and research purpose. In this study we found from the analysis that most of the users are not get more training programs and enough facility for the use of e-resources.**
Keywords: **E-Resources, Online Databases, Information and Communication Technology, Faculty Members, Engineering Colleges**

I. INTRODUCTION

Electronic Information Resources are becoming the important source of research and development. (Ramasamy, K. 2017) Now a days the information are more updated and can be accessed in anywhere across the geographical boundaries. The internet increases the easy access of information to a huge amount of data and it saves lot of money and time of the user. (Jeyaraj W.J. 2017) The information sources are helps to know more information with the help of chance to consult several experts. In 1980s personal computers came in practice the digital resources through library while which helped in the online public accessing catalogue(OPAC) and its replace the card cataloguing system. (Pratheepan, T., 2012) The maximum +number of libraries is developed and many services are available through wireless or remote access to the users outside of the college library. Most of the faculty members have considerable experience with the internet and make use of it for much of their academic work. The knowledge of updated information and communication technology is most important for the users. (Jeyaraj W. J. 2017). The e-resources have many possibilities and opportunities for providing faster and quicker access.

II. REVIEW OF LITERATURE

The survey regarding the usage of electronic information resources has been carried out in many studies.

Mani and Thirumagal (2016) this study was explained the use of e-resources among the Libraries in Self- financing Engineering Colleges of Tirunelveli District, Tamil Nadu. In this study the well-structured questionnaire was distributed to the users and analysis was made from the filled questions through sample percentage method. The study suggested that large number of awareness program will be conducted to the students of the responded colleges.

Singh (2009) examines the search pattern of online journals among the faculty members, research scholars and post–graduate students to collect the required data. The study reveals that the majority of users are aware about the availability of online Journals. It was found that many users faced problem when using online journals and that they were interested in undergoing training on the use of online Journals.

Lohar and Roopashree (2006) studied the use of electronic resources and how the electronic resources are improving the academic career of the faculty and the problems encountered in the use of the electronic resources. The study was based on faculty members only.

Hariharan and Chitra (2006) wrote a research article entitled "Enhancing the Usage of Library Resources at Structural Engineering and Research Centre Library with Particular Reference to E-resources". The SERC library has an excellent collection of literature in the field of civil and structural engineering and related subjects covering large number of books, journals, technical reports, conference proceedings, back volumes, standards, microfilm, theses and CD's collection building both in terms of print and e-resources in one of the prime objectives of the library to meet the growing information demand and also the requirements of the centre.

III. OBJECTIVES OF THE STUDY

1. To know the awareness about E-resources of the users.
2. To study the utilization of the E- resources.
3. To identify the purposes of using E-resources
4. To know the frequency of the users visiting the library.
5. To identify the problems faced by the user while using the E-resources.
6. To ascertain the method of searching the users.
7. To study the level of satisfaction by the library users.

IV. SCOPE AND LIMITATIONS OF THE STUDY

The Engineering College libraries are having different kinds of electronic information resources. In order to know the usage of electronic information resources by the faculty members of these colleges is the present study. There are 16 engineering colleges in erode district of Tamil Nadu. In this college faculty members only have been selected due to usage of e-resources by the colleges**.**

V. METHODOLOGY

In order to the study the usage of Electronic Information Resources by the Faculty Members of Engineering Colleges in Erode District, Tamil Nadu. The researcher has chosen in this college faculty members only. In this analysis 452 samples were collected from the faculty members of engineering colleges and simple random sampling method was used to analyze the collected primary data. The data has been analyzed and interpreted by the following method.

VI. ANALYSIS AND INTERPRETATION

The distribution of questionnaire to the selected engineering college faculty members based on their department and the study is shown in table I.

TABLE I DISTRIBUTION OF QUESTIONNAIRES TO THE FACULTY MEMBERS OF THE SELECTED ENGINEERING COLLEGES IN ERODE DISTRICT

S. No.	Department	No. of Faculties (%)	Cumulative Percentage
1	Civil Engineering	82(18.14)	18.14
2	Mechanical Engineering	78(17.26)	35.40
3	Computer Science Engineering	71(15.71)	51.11
4	Electrical & Electronics Engineering	67(14.82)	65.93
5	Electronics & Communication Engineering	98(21.68)	87.61
6	Electronics & Instrumentation Engineering	56(12.39)	100
Total		452	

Table I shows that the total number of 452 questionnaires was collected from the faculty members of engineering colleges in Erode District. 82 (18.14%) respondents belongs to Civil Engineering Department, 78 (17.26%) respondents belongs to Mechanical Engineering Department, 71 (15.71%) respondents belongs to Computer Science Engineering Department, 67 (14.82%) respondents belongs to Electrical & Electronics Engineering Department, 98 (21.68%) respondents belongs to Electronics & Communication Engineering Department, 56 (12.39%) respondents belongs to Electronics & Instrumentation Engineering Department.

The frequency of electronic information resources by the faculty members of the engineering colleges in erode district and the respondents responses are shown in the Table II.

TABLE II DISTRIBUTION OF QUESTIONNAIRES TO THE FACULTY MEMBERS ACCORDING TO THEIR FREQUENCY OF VISITING THE LIBRARY

S. No.	Frequency of visit to the Library	No. of Respondents						Total
		Civil Engineering	Mechanical Engineering	Computer Science Engineering	Electrical & Electronics Engineering	Electronics & Communication Engineering	Electronics & Instrumentation Engineering	
1	Daily	22 (4.87)	24 (5.31)	16 (3.54)	18 (3.98)	24 (5.31)	11 (2.43)	115 (25.44)
2	Once in two days	18 (3.98)	12 (2.65)	23 (5.09)	13 (2.88)	18 (3.98)	07 (1.55)	91 (20.13)
3	Two days in a week	18 (3.98)	21 (4.65)	18 (3.98)	16 (3.54)	21 (4.65)	14 (3.10)	108 (23.90)
4	Once in a week	11 (2.43)	13 (2.88)	08 (1.77)	10 (2.21)	18 (3.98)	14 (3.10)	74 (16.37)
5	More than one week	13 (2.88)	08 (1.77)	06 (1.33)	10 (2.21)	17 (3.76)	10 (2.21)	64 (14.16)
	Total	82 (18.14)	78 (17.26)	71 (15.71)	67 (14.82)	98 (21.68)	56 (12.39)	452 (100)

According to the frequency to visiting the library by the faculty members is shows in the table -2 that a majority of 115(25.44%) faculty members are visiting the library daily and 91 (20.13%) faculty members are visiting the library once in two days and 108 (23.90%) faculty members are visiting the library two days in a week and 74 (16.37%)

faculty members are visiting the library once in a week and 64 (14.16%) faculty members are visiting the library more than one week for the purpose of using the resources.

The purpose of using electronic information resources by the faculty members of engineering colleges in erode district and the respondents usages is shown in the Table III.

TABLE III PURPOSE OF USING ELECTRONIC INFORMATION RESOURCES

S. No	Purpose	No. of Respondents						Total
		Civil Engineering	Mechanical Engineering	Computer Science Engineering	Electrical & Electronics Engineering	Electronics & Communication Engineering	Electronics & Instrumentation Engineering	
1	For Research work	07 (1.55)	11 (2.43)	19 (4.20)	09 (1.99)	17 (3.76)	06 (1.33)	69 (15.26)
2	For Communication	21 (4.65)	15 (3.32)	11 (2.43)	11 (2.43)	13 (2.88)	09 (1.99)	80 (17.70)
3	For Finding Relevant Information in the area of Specialization	08 (1.77)	10 (2.21)	09 (1.99)	07 (1.55)	14 (3.10)	11 (2.43)	59 (13.05)
4	To Update the Subject Knowledge & General Knowledge	12 (2.65)	13 (2.88)	12 (2.65)	09 (1.99)	18 (3.98)	13 (2.88)	77 (17.04)
5	To gain current & general information	18 (3.98)	16 (3.54)	15 (3.32)	18 (3.98)	21 (4.65)	13 (2.88)	101 (22.35)
6	Teaching Purpose	16 (3.54)	13 (2.88)	05 (1.10)	13 (2.88)	15 (3.32)	04 (0.88)	66 (14.60)
Total		82 (18.14)	78 (17.26)	71 (15.71)	67 (14.82)	98 (21.68)	56 (12.39)	452 (100)

Table III reveals that the purpose of using electronic resources among the faculty members of engineering colleges is 69 (15.26%) faculty members are using the electronic information resources for their research work, 80 (17.70%) faculty members are using for the purpose of communication, 59 (13.05%) faculty members are using for the purpose of finding relevant information in the area of specialization, 77 (17.04%) faculty members are using for the purpose of update the subject knowledge and general knowledge, 101 (22.35%) faculty members are using for the purpose to gain current and general information, 66 (14.60%) faculty members are using only for the purpose of teaching.

The learning to use the electronic resources by the faculty members of engineering colleges in erode district are shown in the Table IV.

TABLE IV LEARNING TO USE THE ELECTRONIC RESOURCES

S. No.	Learning to Use the Electronic Resources	No. of Respondents						Percentage
		Civil Engineering	Mechanical Engineering	Computer Science Engineering	Electrical & Electronics Engineering	Electronics & Communication Engineering	Electronics & Instrumentation Engineering	
1	Trial & Error	17	21	16	14	28	15	111 (24.56)
2	Guidance from the Library Staff	23	18	21	18	31	19	130 (28.76)
3	Courses offered by Institution	16	15	10	14	17	07	79 (17.48)
4	Externals Courses	12	18	14	11	14	11	80 (17.70)
5	Any Others	14	06	10	10	08	04	52 (11.50)
Total		82	78	71	67	98	56	452 (100)

Table IV Shows that the most popular method of acquiring the necessary information skills for the usage of electronic resources by the faculty members. The majority of 130 (28.76%) faculty members are received the guidance from the library staff's about the e-resources, 111 (24.56%) faculty members are learn the e-resources through the self learning like trial and error method, 80 (17.70%) faculty members are learn the e-resources through external courses and 79 (17.48%) faculty members are learn the e-resources through the courses are offered by their institutions and 52(11.50%) faculty members are using for some other sources.

The Awareness and Availability of E- Journal packages are used by the faculty members of engineering colleges in Erode District are shown in Table V.

TABLE V AWARENESS AND AVAILABILITY OF E-JOURNAL PACKAGES

Publishers	Awareness About e-journal packages in percentage	Availability of the packages in percentage	Ranking Based on the Usage
IEEE	100	98	1(96%)
ASME	86	81	7(73%)
ASCE	92	83	6(76%)
ASTM	94	87	4(84%)
J-GATE	96	86	5(81%)
ELSEVIER	98	95	2(93%)
SPRINGER	92	90	3(89%)
MCGRAWHILL-AEL	83	80	8(68%)

Table V shows that the awareness and availability of e-journal packages among the faculty members of engineering colleges in Erode District. All most all the e-journal packages are well known by the faculty members and also the maximum of colleges are having IEEE, ELSEVIER, SPRINGER, etc., e-journal packages. Regarding that the usage of e-resources some of the packages are not much familiarized and used by the faculty members.

The Impact of Electronic Resources Usages by the faculty members of Engineering Colleges in Erode District are shown in the Table VI.

TABLE VI IMPACT OF ELECTRONIC RESOURCES USAGES IN ENGINEERING COLLEGES

S. No.	Category	No. of Respondents	Percentage
1	Access to a Current Update Information	328	72.57%
2	Easy Access to Information	289	63.94%
3	Faster Access to the Information	304	67.26%
4	Access to a Wide Range of Information	274	60.62%

Table VI shows that 328 (72.57%) respondents stated that to access the electronic information resources to current update information. Similarly 304 (67.26%) respondents are expressed that the faster access to the information and data are well in advance. Because its helps the users to save their time. 289 (63.94%) respondents are preferred easy to access the information for their academic and personal development. However, 274 (60.62%) respondents are access to a wide range of information through the e-resources.

The problems faced by the faculty members of engineering college in Erode district and the respondents responses are shown the Table VII.

TABLE VII PROBLEMS FACED WHILE USING THE ELECTRONIC RESOURCES

S. No	Problems Occurred	No. of Respondents N=452						Total
		Civil Engineering	Mechanical Engineering	Computer Science Engineering	Electrical & Electronics Engineering	Electronics & Communication Engineering	Electronics & Instrumentation Engineering	
1	Lack of Hardware Problem	22	18	16	22	28	11	117
2	Lack of Software Problem	36	31	28	38	29	19	181
3	Lack of Training	31	28	16	19	21	18	133
4	Lack of Information on Electronic Resources	18	16	17	24	13	12	100
5	Lack of Operating/ Funds Generating	21	13	11	18	07	11	81
6	Lack of Timings	17	11	04	09	13	13	67

The above table shows that the problems faced by the faculty members while using the electronic information resources among the total number of respondents, majority of 181 faculty members are find it difficult for accessing needed the e-resources due to lack of software problem and 133 faculty members are indicated that lack of training while use the e-resources, 117 faculty members are quoted that the hardware problem, 100 faculty members are inadequate for easy access of e-resources for their activities due to lack of information on electronic resources, 81 faculty members are faced the lack of operating and generating funds for using the electronic information resources and 67 faculty members are having lack of time is the main problem for the usage of electronic resources.

The usage of e-resources by the faculty members and their level of satisfaction are shown in the Table VIII.

TABLE VIII LEVEL OF SATISFACTION BY THE FACULTY MEMBERS FOR THE USAGE OF E-RESOURCES

Statement	Strongly Agree	Agree	Neither Agree/ Non-Agree	Disagree	Strongly Disagree
Library always provides the required e-resources to the users	28%	41%	17%	8%	6%
Library has adequate e-resource access facilities	32%	38%	12%	10%	8%

Table VIII shows that the majority of the faulty members from engineering colleges are satisfied with the availability of electronic resource facilities. But the same time some of the faculty members are find out the difficulties to get the required information from the e-resources facilities for accessing the same.

VII. MAJOR FINDINGS OF THE STUDY

1. Majority of 98 (21.68%) respondents are Electronic and Communication Engineering Department faculty members.
2. Most of 115 (25.44%) respondents are visiting the library daily.
3. The e-resources are being used by the faculty members for the purpose of gain current and general information.
4. Majority of the respondents are getting the guidance from the library staff.
5. Majority of the faculty members are having awareness about e-journals.
6. Maximum number of (181) respondents indicated that the lack of software is the main problem while accessing the electronic resources.
7. Most of the faculty members are agree that the library always provides the required e-resources to the users.

VIII. SUGGESTIONS AND CONCLUSION

Most of the faculty members found that the features and use of electronic information resources to be good. The following suggestions are made to develop the usage of electronic information resources among the faculty members of engineering colleges in erode district. Based on the findings the college library should organize the awareness and training programmes and to conduct seminar, conferences to instruct their users for maximize the electronic information resources usage. Training in hardware and software programs should be incorporated with the core curriculum of all the departments. This may be due to their lack of awareness of those resources and lack of skills in handling the electronic sources. Open Wi-Fi facility with high speed connection needed for the institutions. Because the speed of internet needs to be enhanced the quick access of e-resources. But the majority of the faculty members of engineering colleges in erode district are opined that e-resources are useful for their teaching, learning and research purpose.

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