Evaluation of Accessing Electronic Resources among Faculty Members of R.M.K. Group of Engineering Colleges, Chennai, Tamil Nadu: A Survey Report

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Abstract

As Electronics information resources available online are increasing at an exponential rate, several practices have evolved for the economic and effective delivery of such information to the end users. In this context, consortia-based information services have gathered momentum world over during the last few years. Though, there are several library consortia in India, UGC/AICTE consortia is mainly meant for Engineering colleges and universities controlled by UGC/AICTE. This paper discusses utilization of Electronics information resources by the RMK group of Institutions Chennai which is affiliated to Ann University Chennai, Results show that 100% of the faculties were familiar with the use of electronic information resources using by Google search engine and 97.57 per cent of them used for their research work. 79.58 per cent faculties were accessed from IEEE database and 41.42 per cent of faculty's lack of awareness about e-resource access. They required skills for the access and use of digital information resources.

Keywords-*Electronics resources, UGC/AICTE consortia, internet, search engines, RMK Group of institution libraries*

I. Introduction

The universe of libraries is proving rapid changes due to the advance developments in Information communication Technology and explosion of increase information in engineering and technology. Electronic Resources are some of the most important aspects of a digital library. In information Technology the internet can be used for storage and efficient retrieval in field of engineering technology. Engineering colleges and technology institutions depend for getting information on library for academic and research development purpose. Meeting of information needs and can be made accessible through a computer online and in physical format. Especially, the Internet has profoundly changed the way of publishing journals, books, newspaper, Magazine and all kinds of text are available in electronic format. E-Resources are available in the form of DVD,CD-ROMs, E-Journals, E-Books, Online Database, OPACs which are replacing the print media. E-Resources have provided excellent opportunities to access scholarly information, which were previously beyond the research of libraries due to geographical constraints. E-Resources possess many added features for the facilitation of libraries and its users to getting information accuracy, timely, periodically and Quality.

II. Literature Review

Francis, A.T., (2012)[1] has found that users require skills for the access and use of digital information resources. And 87.14 per cent of them used digital information resources, Information literacy and user education courses with emphasis on

retrieval software, tools and techniques of searching, etc., should be provided to all categories of the users. Adequate practical sessions should be included in such courses. High speed internet, more computer terminals, round the clock service of the libraries and computer centers, web OPAC and other supportive information for inter-library services in the library websites should be provided by the colleges.

Porumbeanu (2009)[2] has discussed the effects of technological innovations on Romanian academic medical libraries, with particular focus given to the impact of electronic resources. The computer literacy levels of Romanian library user, resource preferences of library users, and difficulties connected with the use of electronic information resources are discussed. The author also discusses about the need of user training, available information and promotion of electronic information resources in medical libraries. And the paper concludes that the students, faculty members in medical libraries highly impact, while using the electronic resources.

Joteen Singh (2009)[3] describe a survey as the use of the electronic information focusing on the internet service by the users of Manipur university library. He examined and found that low speed internet access, erratic power supply and lack of required full text journal are problem with regard to use of internet based electronic resources.

Chetan Sharma and Guru Gobind Singh (2009)[4] Majority of the teachers and research scholar are dependent on e-resources to get the desired and relevant information. But practical use of e-resources is not up-to the worth 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 almost sufficient for all the existing disciplines but the infrastructure to use these resources is not adequate and can hinder the ability to meet the requirements of users.

III. R.M.K Group of Engineering Colleges

The RMK Group has established three Engineering colleges at near Chennai. The colleges are position in top rank in results and infrastructure in Tamilnadu. These colleges' details are given below.

III.1. RMK Engineering College

The college was established at 1995 with 7 UG courses and 4 PG courses. The present strength of student and staff about

The Computerized and Automated Air – Conditioned Central Library in an area of 1125 sq.m, the Library has 70188 Volume of Books with 20379 Titles. The Library subscribes 148 national and 478 International Journals 85 magazines and 16 Newspapers. The Library Subscribed E –resources are available as per AICTE/UGC MANDATORY subscribing IEEE, ASME, ASCE, SPRINGER, ELSEVIER, Mc Graw Hill, EBSCO, J - GATE (Engineering and Technology) J- GATE (Management Sciences) and ASTM Digital Library.

III.2. RMD Engineering College

The college was established at 2001 with 5 UG courses and 2 PG courses. The present strength of student and staff about 3860.

The Computerized and Automated Air-Conditioned Central Library of the college has a collection of nearly **48126** books, **11495** titles , e-resources such as e-journal, e-books, NPTEL web and video e-learning courses(as mandatory by AICTE/UGC),4383 CD ROMs and has subscribed to 125 national journal, 45 curriculum related national and international technical magazines. Apart from this, Library has digital resources facility for students and staff, such as AICTE/UGC consortium in IEEE, ASTM, EBSCO, J-GATE (Engineering) J-GATE (MBA), Elsevier Science direct, Springer link and McGraw access engineering e-Books, Delnet(developing library network) New Delhi, and Inventi Publication online journals.

III.3. RMK College of Engineering Technology

The College is located at Puduvoyal, Thiruvallur District, was founded in 2007. In the year 2008, was recognized by Anna University (AU), Chennai. With 5 U.G departments under Anna University. The present strength of the students and faculty about 2130. The College Library Contains 16295 Volumes of books with 3248 titles. The Library also subscribes to 60 National Journals and 25 Magazines. Library has digital resource facility for students and staff, such as AICTE/UGC consortium in IEEE, ASTM, J-GATE (Engineering) , Elsevier Science direct, Springer link and McGraw access engineering E-Books, The Library Services are automated through the Standard Library Software package called " Autolib 5.2 version" The Circulation System is fully Computerized and all the documents are bar-coded .

IV Objective of the Study

- To find out usage of different types e-resources and available services in RMK Group of institution

- To observe the access different type of electronic resources

- To evaluate the purpose and frequency of e-resources usage

- To find out awareness of access e-resources

- To identify the need for training and orientation for the user

- To find out barrier for accessing information from e-resources

V. List of E-Resources are available in RMK Group of Institutions

S.NO	E-Resources
01	ASPP IEEE ONLINE
02	SPRINGER LINK
03	J-GATE (ENGG.)
04	J-GATE (MANAGEMENT)
05	ASTM DIGITAL LIBRARY
06	ELSEVIER SCIENCE DIRECT
07	EBSCO MANAGEMENT
08	MCGRAW HILL ACCESS ENGINEERING
09	DVD/CD ROM
10	ASME
11	ASCE
12	NPTEL VIDEO COURSES

VI. Methodology of Study

In view of the above objectives a structured questionnaire was prepared and distributed to collect data from the users of e-resources (among faculty Members.) Questionnaire contained relevant questions pertaining to the impact and use of e-resource. For this purpose a total questionnaires were distributed among 300 faculties. Out of 300 copies of questionnaires distributed, 289 valid questionnaires were collected which constituted 96.33 % (300/289) of the total response. The collected data were analyzed, tabulated, interpreted and presented with simple percentage calculation below.

VII. Data Analysis and Interpretation

TABLE 1.Distribution of Sample Size to Respondents

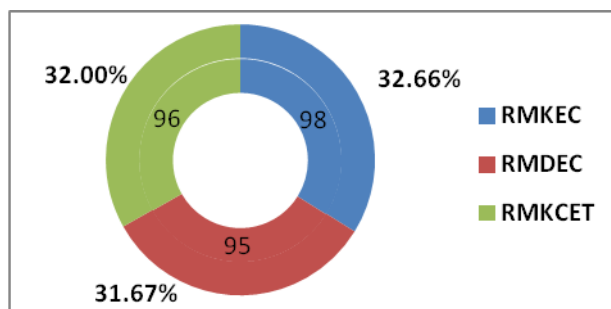|	No of Respondents	Percentage
RMKEC	**98**	**32.66**
RMDEC	95	31.67
RMKCET	96	32.00
Total	289	96.33

Fig. 1

Table 1. Fig 1. Shows that 300 nos. Sample distributed to respondents during the period of this study including 98(33.91%) faculty from RMKEC, 95(32.87%) faculty from RMDEC and 96(33.21%) from RMKCET collected valued sample.. It was noted that RMKEC Faculty participated in the study more than the other two colleges.

TABLE 2. Gender wise Distribution of Respondents

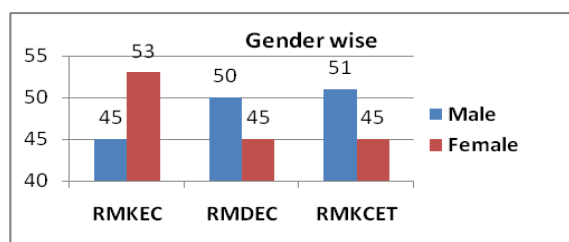| Gender	Institutions			Total %
	RMKEC	RMDEC	RMKCET	
Male	45 (15.57%)	50 (17.30%)	51 (17.64)	146 (50.51%)
Female	53 (18.33%)	45 (15.57%)	45 (15.57%)	143 (49.48%)

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Table 2.&,Figure 2. Shows those 146 (50.41%) male users accessed e-resources while 143(49.48%) female users accessed the same. It is seen that male users accessed e-resources more than female users.

TABLE.3 Distribution for Comparison of Accessing Information from Different Media

Type of format	Institutions			Total %
	RMKEC	RMDEC	RMKCET	
Print	45(15.57)	40(13.84)	53(18.33)	138(47.75)
E-resources	40(13.84)	45(15.57)	40(13.84)	125(43.25)
Both(print/e-resources	95(32.87)	90(31.14)	93(32.17)	278(96.19)
Audio/Video	3(1.38)	5(1.73)	3(1.38)	11(3.80)

Table3.Found that 138(47.75%) respondent accessed information from print resources.125 (43.25%) respondent accessed information from electronic resources, 278(96.19%) respondents accessed both print and e-resources and 11(3.80%) respondent accessed information from Audio/Video materials. It is seen that majority of users access both (print and Electronics) information channel of resources.

TABLE 4. Access Point of E-Resources

Access Point	Institutions and No of Respondent			TOTAL %
	RMKEC	RMDEC	RMKCET	
Central library	76	75	55	206(71.28)
From Department	23	20	30	73(25.25)
In home	05	03	04	12(4.15)
Browsing Centre	01	01	01	03(1.03)

When respondents were asked to indicate the preferred location to access e-resources, It is observed from the study of table-4 shows that 206(71.28%) of the respondents chose the central library, about 73(25.25 %) accessed at the from department, 12(4.15%) accessed at the in home and 03(1.03%) accessed from Browsing Center. it is highlighted that more respondents accessed e-resources from Central library. It is clearly shows that library is suitable place for access e-resources.

TABLE 5. Distribution for Availability and Frequency of Access E-Resources

E-Resources	No of Respondents		
	Always	**Sometimes**	**Never**
IEEE–ASSP online journals	230 (79.58)	59 (20.41)	-
Springer online journals	201 (69.55)	30 (10.38)	58 (20.06)
McGraw Hill – e- book	188 (65.05)	48 (16.60)	53 (18.33)
Elsevier Science direct	225 (77.85)	35 (12.11)	29 (10.03)
EBSCO	45 (15.57)	30 (10.38)	214 (74.04)
J-gate	100 (34.60)	130 (44.98)	59 (20.41)
ASTM digital library	15 (5.19)	10 (3.46)	264 (91.34)
CDs/DVDs	50 (17.30)	108 (37.37)	131 (45.32)
NPTEL Video Courses	45 (15.57)	10 (3.46)	234 (80.96)
ASME	70 (24.22)	30 (10.38)	109 (37.71)
ASCE	90 (31.14)	34 (11.76)	165 (57.09)

Table 5. Found that frequency of accessing different type of e-resources subscribed in the library. It reveals that nearly 230 **(**79.58**%)** respondents always access information from IEEE, 201**(**69.55**%)** respondents from Springer link e-journals, 188**(**65.05**%)** respondents from McGraw Hill access engineering e-books, 225**(**77.85**%)** respondents from Elsevier Science Direct while 100**(**34.60**%)**respondents from j-gate database. This data highlights that IEEE journals play a major role in Engineering and Technology area. Similarly Elsevier Science Direct, Springer link journals, J-gate, McGraw hill and other e-resources, also play a significant contribution in the area of Engineering and management Subject.

TABLE 6. Aware of E-Resources

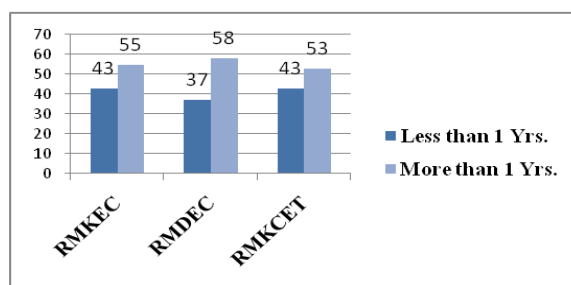| Institution	Less than 1 year	More than one year
RMKEC	43 (14.87)	55 (19.03)
RMDEC	37 (12.80)	58 (20.06)
RMKCE	43 (14.87)	53 (18.33)
TOTAL	123 (42.56)	166 (57.43)

FIG. 3.AWARENESS ABOUT E-RESOURCES

Table 6. Figure 3. Indicates that 43(14.87%), 37(12.80%) and 53(18.33%) respondents have aware about of e-resources at less than one year from RMKEC, RMDEC, and RMKCET respectively. At the same time followed by 55(19.03%), 58(20.06%)&43(14.87%) respondents have more than one year on aware about access e-resources from RMKEC, RMDEC, and RMKCET respectively ,then this study clearly shows that 166(57.43%)   respondents have more experience and very familiar of aware about access e-resources in RMK Group of institution.

TABLE 7. Experience wise Distribution of Respondents Access E-Resources

Institution	1-5 yrs	5-10 yrs	11 yrs& above	Total
RMKEC	35	43	20	98
RMDEC	31	41	23	95
RMKCET	30	42	24	96
Total %	96 (33.21)	126 (43.59)	67 (23.18)	289

Table 7. highlighted that 96(33.21%) respondents have 1-5 years of experience on access e-resources, 126(43.59%) respondents have 5-10 years of experience about e-resources and 67(23.18%) respondents have 11 years and above of experience of access and familiar about e-resources. It is shows that more respondents have 5-10 years of experience access e-resources.

TABLE 8. Designation wise Distribution of Respondent Access E- Resources

Institution	No of Response		
	AP	**ASS.P**	**P**
RMKEC	75 (25.95)	15 (5.19)	8 (2.76)
RMDEC	79 (27.33)	10 (3.46)	6 (2.07)
RMKCET	75 (25.95)	10 (3.46)	6 (2.07)
TOTAL %	229 (79.23)	35 (12.11)	20 (6.92)

(AP: ASST.PROFESSOR, ASS.P: ASSOCIATE PROFESSOR:P PROFESSOR)
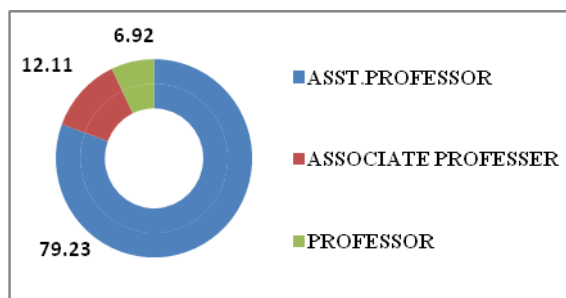**Fig. 4**

Table 8, Fig.4 shows that data designation wise access e-resources, 229(79.23) respondents access e-resources from assistant professor level, 35(12.11) respondents have position level of associate professor and 20(6.92) respondents have position level of professor. It is clearly found that majority of respondents position level of Assistant professor have interest for access and getting information from e-resources as they require relevant information for research.

TABLE 9. Purpose of Conducting Search in E-Resources

Purpose	RMKEC	RMDEC	RMKCET	Total %
Research work	95 (32.87)	93 (32.17)	94 (32.52)	282 (97.57)
Writing paper	93 (32.17)	93 (32.17)	92 (31.83)	278 (96.19)
Teaching	93 (32.17)	92 (31.83)	91 (31.48)	276 (95.50)
Course work	91 (31.48)	91 (31.48)	90 (31.14)	272 (94.11)
Updating subject	90 (31.14)	90 (31.14)	89 (30.79)	263 (91.00)
Other reasons	28 (9.68)	16 (5.53)	19 (6.57)	63 (21.79)

Table 9.Shows that the purpose of accessing e-resources of the respondents answered for research purpose for access e-resource 282(97.57%)respondent access e-resources for their research work,278(96.19%)respondents access for writing paper , 276(95.50%) teaching, 272(94.11%) respondents access for their course work and teaching, 263(91.00%) respondents access for updating subject and 63(21.79%) respondent access for other reason This data shows that majority of respondents access e-resources for their research work, Writing paper and updating their knowledge respectively.

TABLE 10. Use of Search Engine

Purpose	RMKEC	RMDEC	RMKCET	Total %
Google	98 (33.91)	95 (32.87)	96 (33.21)	289 100%
Rediff	45 (15.57)	41 (14.18)	38 (13.14)	124 (42.90)
Yahoo.com	25 (8.65)	15 (5.19)	09 (3.11)	49 (16.95)

Table 10 shows that 289(100%) respondent access information on e-resources by using Google search engine, 124(42.90%)respondent access information on e-resources by using Rediff search engine, and 49(16.95)respondent access e-resources using by yahoo.com. It is clearly shows data that Google search engine is major role to access on e-resources and other information for faculties.

TABLE 11. Respondent Barriers for Accessing E-Resources

Difficulties	RMKEC	RMDEC	RMKCET	Total
Limited Subject is available	15 (5.19)	10 (3.46)	25 (8.65)	40 (13.84)
Package of e-resource do not cover my area of interest	18 (6.22)	09 (3.11)	21 (7.26)	51 (17.64)
No cooperation from library staffs	8 (2.76)	7 (2.42)	5 (1.73)	20 (6.92)
Library Timing is not suitable	-	-	-	
Lack of training	34 (11.76)	23 (66.47)	18 (6.22)	75 (25.95)
Lack of awareness about e-resources	45 (15.57)	37 (12.80)	38 (13.14)	120 (41.52)

Table 11. Indicates the difficulties for accessing e-resources, 40(13.84%) respondent answered e-resources available for their subject was limited, 51(17.64%) respondent felt that Package of e-resource do not cover their area of interest, 20(6.92%) respondent answered no cooperation from library staff, 75(25.95%) respondent opined Lack of Training for accessing e-resources, 120(41.52%) respondent answered Lack of awareness about e-resources. This table shows that majority of the respondent answered lack of training for access e-resources and lack of awareness about e-resources and followed by e-resources available for their subject is limited, Package of e-resource do not cover my area of interest.

TABLE 12. Level of Satisfaction of Service of E-Resources in Library

Level of satisfaction	RMKEC	RMDEC	RMKCET	Total %
Very Satisfied	85(29.41)	83(28.71)	87(30.10)	255(73.69)
Satisfied	05(1.73)	07(2.42)	04(1.38)	16(5.53%)
Average	04(1.38)	03(1.03)	02(0.69)	9(3.11%)
Not Satisfied	02(0.69)	02(0.69)	03(1.03)	7(2.42%)

FIG. 5. Satisfaction of E-Resources Services Provided in Library
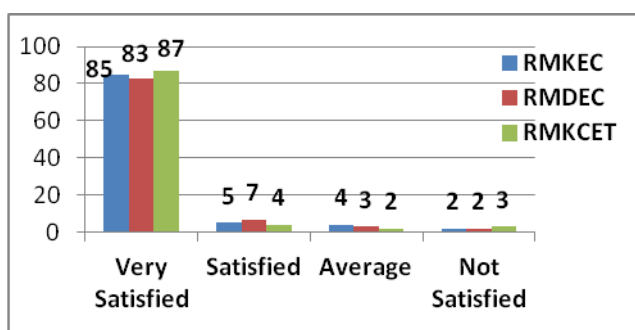

Table 12. and Figure 5. Shows that **255**(73.69%) faculty are very satisfied for providing service of e-resources in RMK Group of engineering colleges libraries, 16(5.53%) answered satisfied, 09(3.11%) responded average satisfaction of e-resources and 7(2.42%) faculty answered not satisfied. It is found that majority of faculty of RMK Group of institution are very satisfied of e-resources.

VIII. Findings and Conclusion

Study shows that the evaluation of accessing electronics information resources is very common among the faculty of R.M.K.Group of engineering college, Chennai. Majority of the respondents are dependent on e-resources to get desired and relevant information for teaching process, knowledge updating and research. This study shows those 278 (90.19%) respondent access e-resources for writing paper article, 276(95.50%) respondent access for their teaching purpose, 263(91.00%) respondent access for their subject update and majority of the respondents opined that they need training for creating awareness about e-resources. It is also observed that majority of the respondents are more awareness and access IEEE online database, Elsevier science direct and Springer link journal. **255**(73.69%) faculty are very satisfied for providing service of e-resources in library, But practically the effectiveness in the usage of some e-resources does not measure up in worth 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 and infrastructure on campus is sufficient for all the existing disciplines but the respondents do not have adequate awareness, Training imparted by experts, publishers, seminars, conferences and workshops for accessing e-resources effectively is needed.. Respondent must be trained for orientation and workshop form subject expert, publisher.

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