Effective use of E-Resources by faculty members in Engineering College Libraries of Thanjayur District: A Case Study

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Abstract - This paper aims to present the results of a survey conducted to determine the Effective use of E-resources by faculty members in Engineering College Libraries of Thanjavur District. The paper examines the result from a questionnaire-based survey conducted at the four colleges in Thanjavur district. The data received from the respondents through the questionnaires were analyzed. Thus, the study clearly highlighted the Effective Use of E-resources by faculty members in Engineering College Libraries of Thanjavur District. Engineering College and the research community on the usage of E Resources of engineering colleges. The results of this study will be useful for faculty member of thanjayur district colleges and also to other faculties around the state and country. Engineering College
Keywords: Faculty Members, Research Scholars, Information Search, E-Resources

I. INTRODUCTION

In the traditional libraries, users have to spend much more time for searching a small piece of information and for that they have to depend mainly on the library professionals or library staff. But in the age of information communication computers are being used for day-to-day housekeeping activity of the library, which saves the time of the end users, and library professionals. The role of library has changed drastically and it is continuously changing with the Technology development. This facilitates the effective use of E-resources in engineering college Libraries. The E Resource concept and the role of library is improving with new invention and technology.

The vide variety of E-resources in public domain and commercial information sources are available on the internet. Such sources include full text databases, table of content of journals, discussion forum, CD, data archives, Software, Library catalogs and so on. Electronic resources are revolutioning in information seeking behavior of faculty members of Engineering College.

In this paper, an attempt has been made to show the Effective use of electronic resources in engineering college Libraries. Engineering College with existing facilities and options provided to faculty members to read E Resources in engineering colleges Moreover, this paper also provides suggestions and recommendations to improve the use of electronic resources and services for the benefit of users.

II. OBJECTIVES OF THE STUDY

The main objective of the presented study are to assess the below points through questionnaire method.
1. To understand the availability of separate Internet Browsing Centre in Engineering Colleges
2. To understand recommending authority of E-Resources to subscribe.
3. To understand the requirement of periodical evaluative study on the use of E Resources.
4. To know the Internet centers of engineering colleges are maintaining log book.
5. To know the Frequency of Access of Electronic resources.
6. To understand if the Library staff needs training for handling E-Resources Subscription.
7. To understand the problems faced by the faculty in accessing E-Resources.
8. To understand the Problems faced by institutions/libraries in providing internet browsing modes.
9. To understand if the Browsing facility is adequate in your Institution.
10. To know the other tie-up executed for accessing other institution E-Resources nearby.

III. REVIEW OF LITERATURE

There have been a number of studies that discussed the impact of e-resources use in the universities worldwide.

Ray and Day (1998) on the other hand, conducted their study to determine the level of use of electronic resources and how students feel about various issues surrounding electronic resources. The findings of their study are that 91 per cent of respondents acknowledged access to a networked computer via university, and also that more internet access is from work place than from home. The most popular electronic resources used were CD-ROM and the internet. Only 37.5 per cent of the sample population used electronic journals as an information tool.

Alison *et al.* (2012) analysis indicated that contextual and environmental factors have an influence one-resource usage. Factors such as students and faculty's personal characteristics influenced their use of the Internet. However,

there were other factors that affect usage of e-resources, such as poor searching skills and limited number of resources available to users. Slowness of access to Internet information mainly caused by low and width was one of the main causes of poor use of Internet resources. It was interesting to explore how these and other factors influenced the usage in the Ugandan setting.

Jaiswal (2011) described electronic resources and stated these are very important resources of information for modern community in the world because e-resources have become more preferred source of information among researchers in modern time. Modern library preferred E-resources for access them globally. Author further discussed library service in contact of E-resources, where there has-been rapid change in their development, types, need, evolution systems, and organization and many other challenges having faced.

Jose (2014) found that more than 9.42% respondents use different e- resources when necessary, 46.92% occasionally and rest of them (43.66%) very often. Online databases (35.10 %) and UGC Info- net (25.34 %) are the major sources of e resources .DOAJ Directory of Open Access Journals comes in third position (15.58 %) and WWW Sources (14.73 %) in fourth place. Masilamani *et al.* (2016) studied

Iqbal *et al.* (2014) found several forms and types of electronic resources which are available on the internet. Some of the popular ones that are gaining ground are the electronic journals, standards, technical specifications, reports, patents, full-text articles, trade reports, and hosts of other document sources.

IV. SCOPE OF THE STUDY

A. Study Area

This study is an attempt to ascertain the Effective use of E-resources in Engineering College Libraries in Thanjayur District Engineering Colleges The scope of the study is covers to the following four colleges, namely As Salam College of Engineering and Technology (ASC), Thanjavur; P.R. Engineering College, Thanjavur; Anjalai Ammal Mahalingam Engineering College (AAMEC), Thanjavur; K.S.K. College of Engineering & Technology (KSK), Thanjavur. The surveyed research scholars are only faculty members from the engineering stream.

V. METHODOLOGY

This study uses the survey method. In order to collect the necessary data for this study a well structured questionnaire was designed and used for data collection. The questionnaire was designed in English language. The questions in the questionnaires are designed for the Engineering college faculties to understand the effective use of E resources in Engineering college libraries of Thanjayur district. Therefore, the Total number of circulated questionnaires to faculty members is 120 in that 110 faculty members are submitted filled questionnaires from the selected the four engineering college libraries   From this 110 answered questionnaires (degree of accuracy/margin error: 0.025 and confidence: 92 per cent) were received and suitable sampling method has been used Then the collected data was tabulated and analyzed accordingly. The results of the findings were presented in the tables using percentage.

VI. ANALYSIS AND INTERPRETATION

The table I Indicates the link between raw data and processed data leads to significant findings and conclusions. Analysis of data is the ultimate step in research process. This process of analysis has to be result oriented. In other words, it must aim at setting objectives and hypotheses. There are four engineering colleges in Thanjavur offering academic programs. All the four institutions have been covered in the study.

TABLE I DISTRIBUTION OF QUESTIONNAIRES

S. No.	Names of Engineering Colleges	No. of Questionnaires Received	No. of Questionnaires Distributed
1	ASC	30	30
2	PRE	30	30
3	AAMEC	25	30
4	KSK	25	30
Total		110	120
Percentage of Questionnaires received out of 120 Questionnaires		92%	

Out of 120 questionnaires distributed to the faculty members working in engineering colleges of Thanjavur District, 110 filled questionnaires were received back with the response rate of 92%

TABLE II USE OF E-RESOURCES IN ENGINEERING COLLEGE LIBRARIES

S. No.	Description	No of (Yes)	Per (%)	No of (No)	Per (%)
1	Internet Browsing Centre for access e-resources	95	86%	15	14%
2	Do you access E-Resources for your teaching and research needs	100	91%	10	9%
3	Availability of E-resources materials for Library Staff to update subject knowledge	84	76%	26	24%
4	Other tie-up executed for accessing other institutions for E-Resources nearby	74	67%	36	33%
	Total Questionnaires received - 110				

The data represent in table II gives a picture of the availability of internet browsing centre in the institution for members of the faculty and the researchers. It is really encouraging to note that 86% of the engineering institutions offer internet browsing facility in the library/institution .Then 91% of Faculty members are accessing E Resources for your teaching and research needs and balance 10% accessing other sources for their knowledge requirement.

76% of faculty members are accepted E resources are available in Library for library staff to update subject knowledge to support faculty members. For Knowledge development 76 % Institutions have created tie-up for accessing other institution E-resources Therefore, other institutions' tie-up will add additional strength to the facul8ty members to access additional E-resources to improve their knowledge.

TABLE Iii RECOMMENDING AUTHORITY OF E-RESOURCES TO SUBSCRIBE

Recommending authority of E-Resources to subscribe	Individual faculty	Nominated committee member	Head of Department	Owner	Total
Total	65	8	25	12	110
Percentage	60%	73%	23%	11%	110/120

The data represent in table III reveals the recommending authority of E-resources of libraries/institutions. As a matter of fact, 73% of institutions are subscribed to E-resources as per the recommendation of the Nominated committee. Further, 60% of individual faculties are recommending online E-resources for their institutions for library

requirement; 23% Head of department are recommending for their department online E-resources. Therefore, it is concluded that all the institutions must create a committee with individual faculty and head of department to collect periodic E-resources requirement for the library/Institution.

TABLE Iv PERIODICAL EVALUATIVE STUDY ON THE USE OF E-RESOURCES

Periodical evaluative study	Yes, periodical evaluation based on feedback	Yes, Occasionally	No, does not conduct evaluative study	Total
Total	85	20	5	110
Percentage	77%	18%	5%	120

The data represent in table IV reveals the response on the periodical evaluative on the use of E-Resources. It is encouraging to learn from the table that 77% of the libraries do conduct survey of their users regarding the use of E-Resources. 18% of institutions conduct occasionally evaluation study and the rest 5% of institutions are not

conducting evaluative study regarding use of E-Resources. It is detected that the quality of services can be evaluated through the feedback from users. Periodical users' study will help the libraries/institutions to modify the strategies to enhance the quality of services.

TABLE V CORRECTIVE STEPS INITIATED BASED ON THE STUDY REPORT

Corrective steps	Additional bandwidth increased	New Computer terminal added	Changed existing service provider due to poor service	Added addition electronic journal and LCDs in Library	Total
Total	55	35	16	4	110
Percentage	50%	32%	15%	3%	110/120

The data represent in table V show that the Corrective steps are initiated based on the study report collected from users; corrective measures are percentage wise shown, 50% additional bandwidth increased; 32% New computer terminal added, 15% Changed existing service provider due

to poor service and 3% Added additional E-Resource and LCDs in Library Therefore, it is concluded that major corrective steps taken are increased in bandwidth and new computer terminal added in the institutions Library to meet the future development.

TABLE VI FREQUENCY OF ACCESS OF ELECTRONIC RESOURCES

Frequency of Access	Daily	Alternate days	Twice weekly	Weekly	Monthly	Total
Total	40	50	10	5	5	110
Percentage	36%	45%	9%	4%	4%	

The data represent in table VI shows the frequency of access of electronic resources. 45% of faculty members have access to E-resources on alternate days, 36% of faculties have access on daily basis, 9% faculties have twice

in a week and 4% faculties are accessing on a monthly basis. Therefore, it is concluded that maximum percentage of faculty member's access on alternate days, then daily.

TABLE VII FACULTY THAT RELY UPON E-RESOURCES FOR THEIR TEACHING AND SEARCH ACTIVITIES

Rely upon E-Resources	100%	75%	50%	25%	Total
Total	25	70	15	0	110
Percentage	25%	77%	14%	0%	110/120

The data represent in table VII shows that 77% of faculty members 75% rely upon e-resources, 25% of faculty members 100% rely upon E-resources and 14% of faculty members 50% rely upon E-resources. Therefore, it is concluded that 77% of faculty members 75% rely upon E-resources for their teaching and search activities and the rest 25% rely on physical resources.

TABLE VIII FACULTIES RELY UPON HARD COPIES OF E-RESOURCES FOR THEIR TEACHING AND RESEARCH ACTIVITIES

Rely upon hard copies of E-Resources	100%	75%	50%	25%	Not at all	Total
Total	40	50	18	0	2	110
Percentage	36%	45%	16%	0%	2%	

The data represent in table VIII shows that 45% of faculty members 75% rely upon hard copies of E-resources, 36% of faculty members 100% rely upon hard copies of E-resources and 16% of faculty members 50% rely upon hard copies of E-resources. Therefore, it is concluded that 45% of faculty members 75% rely upon hard copies of E-resources for their teaching and search activities and the rest 61% rely on other digital sources.

TABLE IX PROBLEMS FACED BY THE FACULTY IN ACCESSING E RESOURCES

Problem in Accessing E Resources	Poor Bandwidth	Poor Budget strength	Less number online resources are subscribed	Not providing latest E-resources collection	Less support staff	Lack of Knowledge of Library staff	Total
Total	40	30	5	15	20	0	110
Percentage	36%	26%	2%	15%	18%	0%	110/120

The data represent in table IX shows the problems faced by faculty members while accessing E-resources. In that, 36% issue due to poor bandwidth, 26% poor budget strength, 18% less support staff, 15% not providing latest E-resource collection and 5% less number of online resources subscribed. Therefore, institutions are recommended to address the issue on priority basis and major issues are poor bandwidth, budget strength, less support staff and not providing latest E resources.

TABLE X PROBLEMS FACED BY INSTITUTION/LIBRARY IN PROVIDING INTERNET BROWSING MODES

Problems faced by institution/library	Less Budget	Lack of network expert	Lack of System engineer	University rule & restriction	Other reasons	Total
Total	40	55	8	5	2	110
Percentage	36%	50%	7%	5%	2%	110/120

The data represent in table X show the problems faced by Institution/Library in providing internet browsing modes. 50% lack network expert, 36% have fewer budgets, 5% have university rules and restrictions, 7% lack system engineer and the other 2% have other reasons. Therefore, it is identified that major issues are lack of network and expert and less budget.

TABLE XI LIST OUT THE ONLINE E-RESOURCES YOU USUALLY ACCESS ON THE NET

Access of online E Resources	Electronic Mail	Externally accessed database	E reference work	Reference Work	Total
Total	65	30	15		110
Percentage	59%	27%	14%	0%	120/110

The data represent in table XI show that 59% of faculty members are using Electronic Mail service, 27% of faculty members access external database through internet and 14% of faculty members are using E-Reference work from external database or Google search. Therefore, maximum members are using Electronic Mail service through internet.

TABLE Xii SINCE HOW LONG YOU HAVE BEEN ACCESSING E-RESOURCES FOR YOUR PROFESSIONAL NEEDS

For professional need accessing E-Resources	1 year	2 years	3 years	5 years	10 years	Total
Total	10	45	35	15	5	110
Percentage	9%	41%	32%	14%	4%	110/120

The data represent in table XII shows that 41% of faculty members are accessing E-resources from the past 2 years, 32% of faculty members are accessing E-resources for the past 3 years, 14% of faculty members are accessing e resources from the past 5 years and 4% of faculty members are accessing E-resources from the past 10 years. Therefore it is concluded that recent time more number of faculty members is using E resources for their professional needs.

TABLE Xiii DO YOU NEED ORIENTATION AND TRAINING FOR EFFECTIVELY MAKING USE OF THE FACILITY AND ALSO TO ACCESS ON-LINE E-RESOURCES

Orientation and training for effectively making use of the facility	Periodically training is required from time to time	Training is needed to a little extent	Technical staff should always be there to assists me	Any other, Please mention	Total
Total	65	35	10	0	110
Percentage	50%	38%	9%	0%	110/120

The data represent in table XIII shows that 50% of faculties require training for effectively making use of the facility and also to access online E-resources, 38% of faculty replied training is required to a little extent and the rest 9% of faculty members remarked technical staff should always be there to assist. Therefore, it is recommended to provide periodic training to faculty members for effective utilization of E-resources.

TABLE Xiv COMPETENCY OF LIBRARY STAFF TO ACCESSING ONLINE E-RESOURCES

Competency of Library staff	Yes, Highly competent	Yes, moderately competent	No, lacks competency	TOTAL
Total	85	20	5	110
Percentage	77%	18%	4%	110/120

The data represent in table XIV show that 77% of library staff is highly competent. Therefore, it is recommend that highly competent and trained library staff should come forward to give training to other library staff. For that they need to permit other small library staff to work in big libraries for specific period to gain knowledge.

TABLE Xv INTERESTED IN BUYING E-RESOURCES OR PHYSICAL RESOURCES FOR LIBRARY

Interest of buying Resources	Interested in E-resources	Interested in Physical resources	Total
Total	80	30	110
Percentage	73%	27%	

The data represent in table XV shows that 73% of faculty members are interested in buying E-resources and the rest 27% of faculties are interested in physical resources. Therefore, it is concluded that maximum faculty members are interested in E-resources.

VII. FINDINGS

From the above study. We found the below points as a major findings of the study Majority of institution have internet browsing centre in the institution for faculty members and researchers to access E Resources. Majority of faculty members are accessing E Resource for their teaching and research needs and More E-Resources are available to update their knowledge Major Institutions have tie with other institution for Knowledge development for accessing other institution E-resources. This will support faculty to update their subject knowledge wider. Major institutions are conducting user survey of their users regarding use of E-Resource, based on the feedback received from users, corrective steps are initiated like increase of bandwidth etc.On the Other hand problem faced by faculty members while accessing E Resources are, issue due to poor bandwidth, poor connection of internet browsing nodes, Lack of network expert and poor budget allocation

VIII. CONCLUSION

The present study yielded various interesting results with respect to Effective Use of E-resources in Engineering College Libraries in Thanjavur District To access Electronic resources all the facilities must be maintained with correct norms and conditions through rigorous analysis of the data, researchers under study. It is found that all the above Engineering colleges in Thanjavur district have adequate collection of E Resources for their users. Final, objective of

the study is achieved by fulfilling all the below points. All the facilities and materials required for faculty members are available in the Libraries of engineering colleges in Thanjavur District. Maximum amount of Library resources are available in online form in Engineering College Libraries for faculty members with internet centre or browsing table which is more convenient for all the user community and most of the faculty members are browsing E-resources on a daily basis. In the present research, an attempt is made to cover the faculty members working in these engineering institutions. The Total number of answers of the respondents who have returned duly filled-in questionnaires is 110 out of 120, which accounts for 92% among the respondents. In the current education era, library is considered as one of the important resource centers. With the use of effective tools pertaining to information and technology, library is playing an effective role and integral component for any high quality research institution irrespective of any specialization. The present study found that the Effective Use of E-resources in Engineering College Libraries of Thanjavur District Colleges in Tamil Nadu.

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