

# User Perception on E-resources at University Libraries in India: A Case Study of SRM University

인도 대학도서관에서 전자자료에 대한 이용자 지각 연구:  
SRM 대학교 사례를 중심으로

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## ABSTRACT

The researcher conducts the survey through questioner method and analyzed the data in detail about E-resources available at SRM University library. The objectives of the study are to find out the awareness of use and purposes and their level of satisfaction of users. Further the researcher identifies the barrier and the ways and means of improvement of the use of E-resources. A total of 1,205 respondent was participating in this survey.

Keywords: Perception, User study, Indian academic libraries, SRM university

## 초 록

이 논문은 인도의 대학도서관에서 전자자료에 대한 이용자의 지각을 연구하였다. SRM 대학교 도서관을 사례로 하여 전자자료에 대한 이용자의 지각과 이용자 만족도를 조사하였다. 1,724명의 직원과 연구자들에게 설문지를 배포하여 수거된 1,205건의 설문지를 분석하여 연구를 수행하였으며 조사결과를 토대로 전자자료 이용과 관련한 장애물과 이용을 개선하기 위한 방안을 모색하였다.

키워드: 이용자 지각, 이용자 연구, 인도 대학도서관, SRM 대학교

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•논문접수: 2015년 12월 8일 •최초심사: 2015년 12월 8일 •게재확정: 2015년 12월 18일

•한국도서관·정보학회지 46(4), 641-654, 2015. [http://dx.doi.org/10.16981/kliss.46.201512.641]

## I . Introduction

The quality of education is greatly linked with libraries and the information centers which decide the quality of teaching and learning process in an academic institution. In the Modern era of 21<sup>st</sup> century library is a repository of resources that create a fundamental change in education. For best quality of teaching and learning process the library resources is playing vital role in the academic institutions in particularly those who are doing research. Providing adequate e-resource facilities to empower and enrich the higher education system in the best academic needs. The E-resources are more important to cater needs of the users in terms of supporting the teaching, learning and research activities. Apart from the regular collection of information resources such as books, reports, proceedings, research reports, magazines, journals etc., now a days it is highly important to build the collection of e-resource. Users can access the e-resource either by local or remote locations. E-resources can become an excellent way in the process of collection building, digitizing and providing information to the user in easy way. Collection building of the electronics resources in the library is not an issue now-a-days. E-resources are becoming increasingly important to libraries of all types & sizes. Now, the Information and Communication Technology is growing in such a way that it is not possible for traditional library system to provide information at a speed comparable to E-resources. But creating awareness among the user community regarding the E-resources available in the library is the most important task.

The librarians working in academic institutions should have a passion to know the information needs of the user community. Understanding the user needs will help to upgrade the library resources and implement new services. To identify the user needs, one of the main tools that can be used to evaluate and assess the library resources and services is the user survey. This study was undertaken to examine the user perception and usage pattern of the E-resources at SRM University Library situated in the main campus. The university subscribes 12 packages of online resources and the annual budget is to the tune of INR 1.50 Crore (USD 2.50 lac).

## II. Scope of the Paper

This paper aims to examine the user perception on E-resources subscribed by the SRM University library, India. The study has been confined to the faculty members and research scholars only.

## III. About SRM University

SRM University is one of the top ranking universities in India with 33,044 students and 2358 faculty across all the campuses (Chennai, Trichy, Hariyana and Sikkim). It offers a wide range of undergraduate, postgraduate and doctoral programs in Engineering, Management, Medicine and Health sciences, and Science and Humanities. The University has a state-of-the-art Library and builds the print and online resources based on the needs of the academic fraternity. They constantly build on to the strong foundation of commitment and contribution. Recent achievements of the University are:

- Ranked India's No.1 University (Factual Rank) by India Today (2015).
- “A” Grade awarded by NAAC in the year 2013.
- No: 1 Private University by Deccan Chronicle Ranking (2012).

The University library has good number of collection with 130000 volumes of print books, 9863 bound volumes, 892 (PhD) thesis and dissertations and 276 periodicals. In terms of E-resources, there are 16109 titles of e-books and 4599 online journals, 5000 + Project works and Thesis and dissertations. These E-resources subscribed by the library and can be accessed by users across the campus.

## IV. Review of Related Literature

There are many studies conducted on the user satisfaction or user attitude on the provision and

use of E-resources. However, in this section only a few related ones are reviewed. Satapathy and Rout (2010) assess and evaluate the use of E-resources by the faculty members of C.V.Raman College of Engineering (CVRCE) through survey method. The research suggested to enhance the internet speed for access the E-resources at the maximum level. Khaiser Nikam and Dhruva Kumar (2013) examined the use of E-resources and e-databases at University of Mysore. Most of the respondents have learnt to use e-journals effectively from 'friends/colleagues' and they look for quality controlled scientific and scholarly journals for their research work. Bajpai(2014) analyzed the use of E-resources by the faculty member and research scholars of the IIT, Kanpur, India. All the users are using E-resources and suggested to enhance the services through motivation such as end user training program. The present study has been conducted on the similar lines reviewed in the literature but focused on the user's perception towards the E-resources of SRM University, India.

## V. Objectives

The objectives of the study are as follows:

- To find out the background information about the faculty in SRM University
- To find out the awareness of E-resources availability among the respondents
- To find out the frequency and purposes of using E-Journals by the respondents
- To know their opinion and level satisfaction about the E-resources subscribed
- To identify the barriers, if any, while accessing and using E-resources
- To suggest the ways and means for improvement in the effective use of E-resources as well as subscription

## VI. Methodology

The data are collected through the questionnaire method. Questionnaires were distributed to faculty members (Professors, Associate Professors, and Assistant Professors) and research scholars

to collect their feedback about the usefulness of electronics resources subscribed by the SRM University Central Library. A total no of 1,724(Staff and Research Scholars) questionnaires were distributed, out of which 1,205(69%) questionnaires were received with dully filled in. The received questionnaires were analyzed with simple statistical techniques such as percentage, WAM method, etc.

## VII. Analysis and Discussion

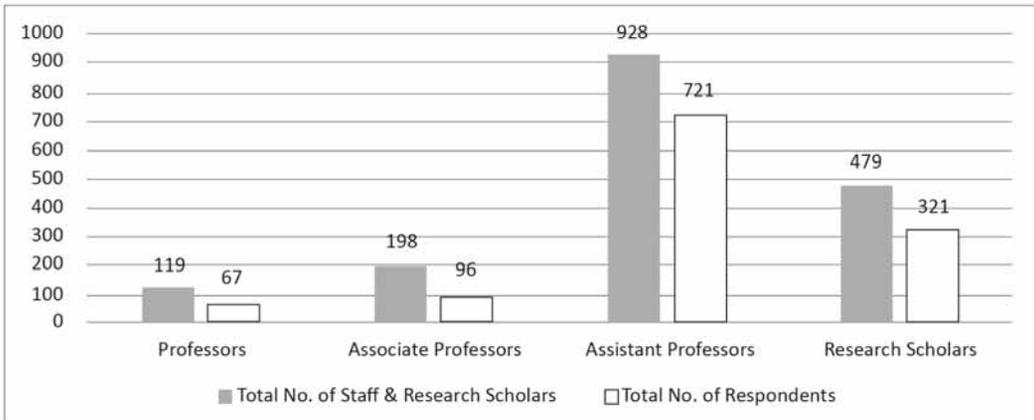
### 1. Background Information of the Respondents

Demographic information of designation, gender and faculty belongs to about the respondents is provided in the table 1 and figures 1-3. Majority of the respondents are Assistant Professors (721) and Ph.DResearch Scholars (321), belonged to faculty of Engineering and Technology. In this study the research scholar means Ph.D program student. While 956 out of 1205 are male respondent and the remaining are Female. A majority of respondents are (973) are from Engineering and Technology disciplines followed by 321 belong to Physical Sciences and 285 of Arts and Humanites.

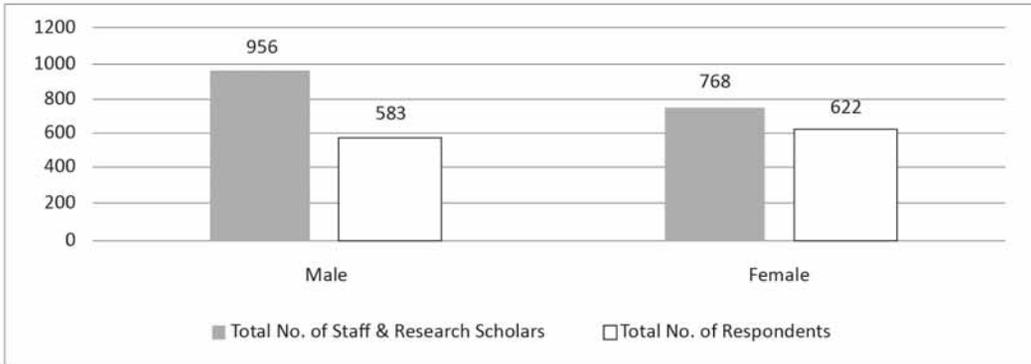
<Table. 1> Background Information of the Respondents

User	Total No. of Staff & Research Scholars	Total No. of Respondents ( <i>n=1205</i> )	%
Designation			
- Professors	119	67	56.30
- Associate Professors	198	96	48.48
- Assistant Professors	928	721	77.69
- Research Scholars	479	321	67.01
Gender			
- Male	956	583	60.98
- Female	768	622	80.99
Back ground Discipline			
- Engineering and Technology	973	702	72.15
- Physical Sciences	321	284	88.47
- Life Sciences	145	121	83.45
- Arts and Humanities	285	98	34.39

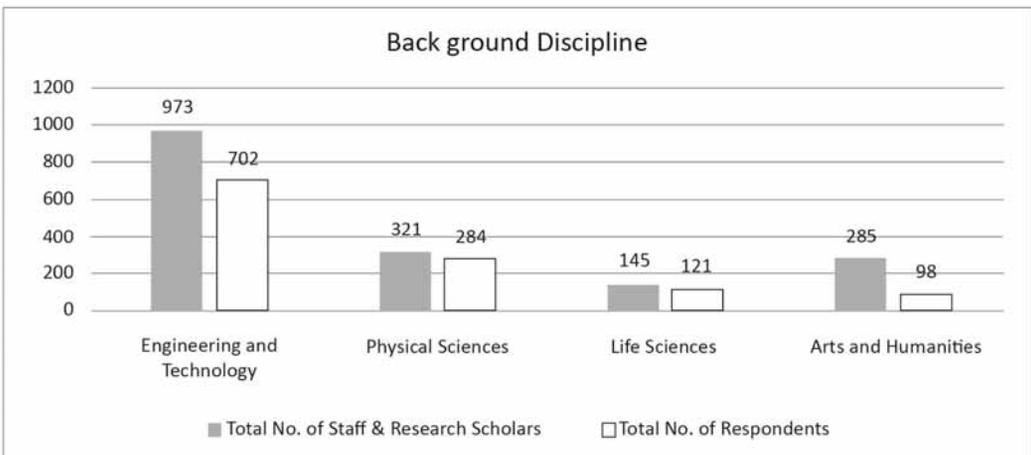
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<Fig. 1> Designation of the respondents



<Fig. 2> Gender of the respondents



<Fig. 3> Discipline of the respondents

## 2. Resources Subscribed by the SRM University

It is observed from the table 2 that 15 packages have been subscribed during the period and out of this, 3 packages have been withdrawn from the subscription due to duplication of Journals on ProQuest and the usage is not up to the level of expectation on ActaCrystallographica and MathSciNet. At present, 12 packages are being subscribed and these resources can be accessed by the members through SRM Library portal.

<Table 2> Online Resources Subscribed

Sl.No.	Name of the Packages	Year
1	Science Direct	2003
2	SCOPUS database	2003
3	ActaCrystallographica Section C & E	2003
4	MathSciNet	2003
5	Pro Quest	2003
6	Springer Link	2004
7	IEL Online	2004
8	American Society of Mechanical Engineering (ASME)	2004
9	American Society of Civil Engineering (ASCE)	2004
10	ACM Digital Library	2004
11	EBSCO Database	2004
12	Nature Online	2010
13	SAE Digital Library	2013
14	LexisNexis	2014
15	CDJ Law Journals	2014

*The value annual subscription is works out a sum of INR 150 lac (\$250,000)*

## 3. Sources of Awareness on E-resources

It is observed from table 3 that highest share of respondents was aware the E-resources through the university website. Interesting to note that about 35% of research scholars came to know about the E-resources through library portal. Almost 20% of Assistant Professors were aware of the E-resources through their colleagues. More than 21% of Associate Professors were aware of the E-resources through workshop / seminar conducted by the library.

〈Table 3〉 Sources of Awareness on E-resources

Source	Professors (n=67)	Associate Professor (n=96)	Assistant Professor (n=721)	Research Scholars (n=321)
New arrival Notice(email)	4 (5.97%)	5 (5.21%)	88 (12.21%)	21 (6.54%)
Library Portal/OPAC	7 (10.45%)	11 (11.46%)	17 (2.36%)	115 (35.83%)
University Website	43 (64.18%)	33 (34.38%)	417 (57.84%)	136 (42.37%)
University Newsletter	5 (7.46%)	8 (8.33%)	49 (6.8%)	3 (0.93%)
Workshop / Seminar by Library	4 (5.97%)	21 (21.88%)	18 (2.5%)	9 (2.8%)
Colleague	4 (5.97%)	18 (18.75%)	132 (18.31%)	37 (11.53%)

#### 4. Purpose of Accessing E-resources

The respondents were asked to give purpose of using E-resources. Various academic purposes for which E-resources were used were elicited from the responses and tabulated in table 4. Majority of the research scholars use the E-resources for their thesis writing followed by research article preparation. The reason why Ph.D research scholars and Asst. Professors using E-resources for thesis writing because Asst. Professors enter the carrier of teaching Master Degree and hence in the process of upgrading their academic qualifications is by way of acquiring Ph.D degree. Therefore in this survey 521 out of 721 Asst. Professor are accessing E-resources for the purpose of thesis writing. Similarly in the case of research scholars perusing Ph.D program. This trend was also followed by Assistant Professors whom additionally using for selecting the research topic.

〈Table 4〉 Purpose of accessing E-resources

Purpose	Professors (n=67)	Associate Professor (n=96)	Assistant Professor (n=721)	Research Scholars (n=321)
Publishing article	62 (92.54%)	64 (66.67%)	251 (34.81%)	135 (42.06%)
Thesis writing	0	8 (8.33%)	521 (73.09%)	306 (95.33%)
Selecting research topic	0	27 (28.13%)	407 (56.45%)	44 (13.71%)
Keeping up-to-date information	63 (94.03%)	32 (33.33%)	139 (19.28%)	23 (7.17%)
To know the latest research areas of interest	55 (82.09%)	22 (22.92%)	70 (9.71%)	15 (4.67%)
Relevant information in the area of specialization	41 (61.19%)	31 (32.29%)	33 (4.58%)	26 (8.1%)

(Multiple choices allowed)

Because their requisite qualification is postgraduate degree at the time of entering into the academic fraternity. Senior level faculty members (Professors) use the E-resources for all the purposes (except thesis writing and selecting research topic) whereas the middle level faculty members (Associate Professor) prefers mostly to article preparation.

### 5. Place of Access to E-resources

Table 5 shows the place of accessing the required E-resources by the faculty members and research scholars. The result, as shown in Table 5, reveals that the senior level faculty members (Professors and Associate Professors) prefers to access the electronic resources at home whereas lower level faculty member (Assistant Professor) prefers to access at their department and research scholars at library. It is interesting to note that senior level faculty members (Professors and Associate Professors) do not like to access the E-resources at the library. Because, they are provided personal computers individually in their respective departments for their use.

<Table 5> Place of access to E-resources

Sl.No.	Place of Access	Professors (n=67)	Associate Professor (n=96)	Assistant Professor (n=721)	Research Scholars (n=321)
1	Library	9 (13.43%)	17 (17.71%)	236 (32.73%)	126 (39.25%)
2	Department	27 (40.30%)	36 (37.50%)	309 (42.86%)	121 (37.69%)
3	Home	31 (46.27%)	43 (44.79%)	176 (24.41%)	74 (23.05%)

### 6. Level of Satisfaction

Table 6 shows the satisfaction level of respondents in terms of relevance of E-resources subscribed by the library. Almost 70% of the respondents regardless of their category were satisfied. Remaining 30% of the respondents were dissatisfied and again they were asked to provide the reasons for poor satisfaction level.

Further statistical technique namely Weighted Arithmetic Mean (WAM) was used to assess the

level of satisfaction among the variables. Based on relative satisfaction level of respondents, scores 1 to 5 were allotted (5 for strongly agree and 1 for strongly disagree). WAM was calculated by using the following formula:

$$\bar{x} = \frac{\sum w \cdot x}{\sum w}$$

Where W is the weight of the items and X is the values of the items. The range of WAM score for all the user categories falls between 3.53 and 3.79. These values are acceptable range of 3.34 - 5.00 which show the strong satisfaction on E-resources.

<Table 6> Level of Satisfaction

User Category	Satisfied			Dissatisfied				Over all Total	WAM
	Very Satisfied	Satisfied	Total	Somewhat satisfied	Dissatisfied	Very dissatisfied	Total		
Professors	13 (19.4%)	35 (52.24%)	48	11 (16.42%)	6 (8.96%)	2 (2.99%)	19	67	3.76
Associate Professors	19 (19.79%)	41 (42.71%)	60	13 (13.54%)	18 (18.75%)	5 (5.21%)	36	96	3.53
Assistant Professors	149 (20.67%)	346 (47.99%)	495	166 (23.02%)	43 (5.96%)	17 (2.36%)	226	721	3.79
Research Scholars	66 (20.56%)	161 (50.16%)	227	58 (18.07%)	27 (8.41%)	9 (2.8%)	94	321	3.77

## 7. Reasons for Poor Satisfaction

The study was further analyzed the reasons for non-satisfaction of the users. Since a sizeable number (375) of respondents (44.48%) under different designations did not satisfy, the respondents were asked to state the reasons for the same. The respondents were allowed to select more than one reason and accordingly the data were presented in Table 7. All the respondents experienced that while browsing E-resources and on clicking the required article it demands to purchase. Majority of respondents feels that they need training about how to search and sometimes the required articles are in the non-subscription list. One third of respondents could not find the required journals.

&lt;Table 7&gt; Reasons for poor satisfaction (multiple responses)

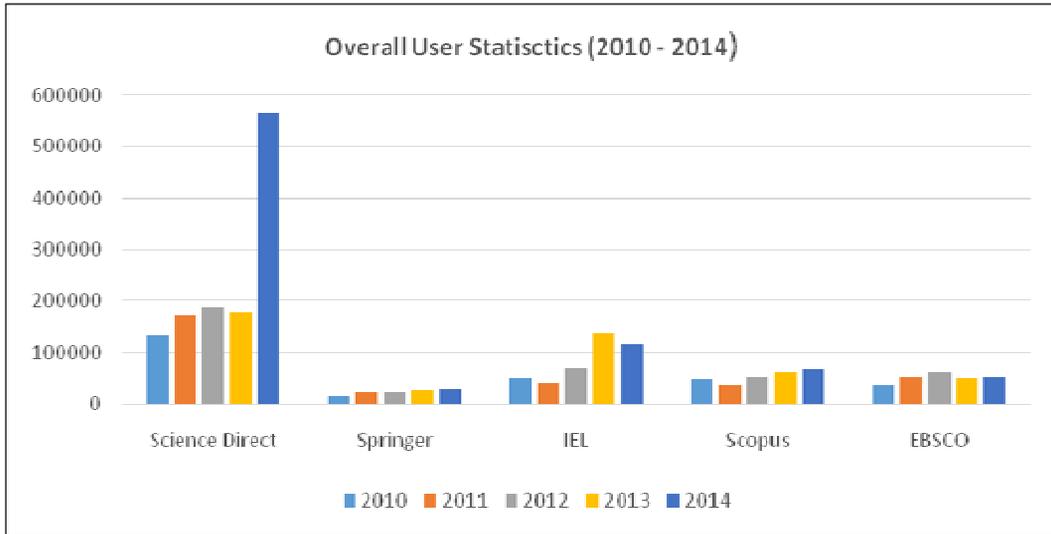
Reasons	Professors (n=19)	Associate Professors (n=36)	Assistant Professors (n=226)	Research Scholars (n=94)	Total (n=375)
On clicking the particular file, it demands for the purchase	19 (100%)	36 (100%)	226 (100%)	94 (100%)	375 (100%)
Articles required are in the non-subscribed list	9 (47.37%)	24 (66.67%)	165 (73%)	35 (37.23%)	233 (62.13%)
Not aware about the search formulations	2 (10.53%)	21 (58.33%)	145 (64.16%)	41 (43.61%)	209 (55.73%)
Difficult to find the required journals	5 (26.31%)	11 (30.55%)	67 (29.65%)	50 (53.19%)	133 (35.47%)
Need user training to search and access	12 (63.16%)	23 (63.88%)	167 (73.89%)	37 (39.36%)	239 (63.73%)

## 8. User Statistics

The user statistics for last 5 years i.e 2010-2014 were analyzed and present in the table8 and figure 4. It is observed from the table that the users are increasing gradually every year. Further it is observed that there was increase in the number of users of Science Direct from 179343 in the year 2013 to 562076 in 2014. The reason for such sudden increase may be attributed that the library has acquired two additional subject collections comprising about 600 journals in the period which naturally enhances the number of users in Science Direct.

&lt;Table 8&gt; Over all User Statistics (2010–2014)

Year	Science Direct	Springer	IEL	Scopus	EBSCO	ASCE	ASME	ACM DigitalLib	Nature
2010	133097	16537	50875	48960	40010	117	168	398	--
2011	171423	21917	40876	40010	53237	664	278	470	--
2012	187953	21917	71334	53237	62838	783	365	235	--
2013	179343	26806	138414	62838	49674	2511	560	699	6042
2014	562076	29460	116289	69856	52368	1854	488	1503	19109



<Fig. 4> User Statistics

### 9. Suggestions Given by the Respondents

- The user may know the subscribed list of E-resources – while searching the publisher site it show complete publication of the publishers.
- End user training program should be conducted at least twice in a year.
- Identify the areas of research and based on that add resources instead of non used/accessed journals.
- The access facility should extend to the home through remote access facility.
- The subscribed list of E-resources should be clubbed with OPAC.

### 10. Recommendations

Based on the findings of the study, the following recommendations are put forward for the consideration of the authorities:

- The library need to develop web based user education program as well as periodical training programs in the use of E-resources and search formulation especially for the Research Scholars and Assistant Professors, since they are at the entry level to the institutions.

- Effort should be made to publicize the availability of E-resources in the respective campus libraries of SRM University.
- It is recommended to remove the restriction of access to the required E-resources by the users.
- The library needs to strengthen the existing collection of E-resources to fulfill the ever growing user expectations and dynamic user needs.
- Based on the user statistics on E-resources and the user satisfaction over the use and availability of E-resources, the performance evaluation reports may be generated and improve the collection of E-resources accordingly.

## VIII. Conclusion

Nowaday's E-Journal plays an important role in disseminating latest information in various fields especially in the 21<sup>st</sup> century. Print will be around for some time yet. But trend towards E-resources is bound to accelerate – however different challenges are: User demand and business models will be the driving forces; Transition stage is the most difficult for both publishers and libraries; Infrastructure for assured long-term preservation of defined digital publications will continue to develop, include some e-journals and services for assured continuing access to e-journals are developing.

The study reveals that majority of respondents are aware and accessing E-resources for their teaching, learning and research activities. The research emphasizes the fact that e-journals play a crucial role in disseminating information among the staff and research scholars on the emerging trends, sequel to rapid technological advancement.

The study further reveals that E-Journals in SRM University play a major role for the faculty members in teaching, learning and research. The digital library of SRM University is well equipped for the users with WiFi and High speed Internet connection. So that the usage of print version of Journals are less when compared to E-Journals. The central Library of SRM University put forth the maximum effort for the users to give exact and current information about the E-resources subscribed or added in the collection now and then.

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