

# Information Seeking Behaviour of Graduate Students and Faculty Members in Engineering Colleges of Chennai District, Tamilnadu, India

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**Abstract:** This study inspects the utilization of collection of resources and services at Library of eight Engineering Colleges (Affiliated to Anna University, Chennai) in Chennai District of Tamilnadu. To determine the information-seeking behaviour of the undergraduate and faculty users, 200 questionnaires were distributed during the January 2019 to March 2019. Out of 200, 172 filled questionnaires were returned by users. On the basis of that the present study focuses on utilization of resources, meaning of the library, purpose of visit of library, hours spent in library, preferred resources, searching criteria, and so on. Overall, this study reflects that the users are satisfied with the functioning of library.

**Keywords :** Information-seeking behavior, library resources, Lovely Professional University, reader survey, user awareness

## I. INTRODUCTION

Now we live in the age of knowledge and information explosion. The explosion took place in two ways, i.e. (i) number of resources and (ii) formats. It is difficult to find out the desired information from the abundance of information. The information seeking behavior is mainly concerned with who needs what kind of information and for what reasons, how information is found, evaluated and how these can be identified and satisfied. Wilson (2000) defines the term information seeking behaviour as the totality of human behaviour in relation to sources and channels of information, including both active and passive information seeking and information use. Information seeking behavior is a broad term, which involves a set of actions that an individual takes to express information needs, seeking information, evaluate and select information and finally uses this information to satisfy his/her information needs. The way of information gathering may vary from person to person. The variation may depend on one's educational qualification, age, gender, need, availability of information, preference among different formats and so on. The present study is intended to explore information seeking behavior of Engineering students.

## II. REVIEW OF LITERATURE

The information-seeking behavior of the social sciences faculty at Kuwait University has been conducted by **Laila Marouf and Mumtaz A. Anwar** [1]. The analysis was done by collecting the data through questionnaire distributed among 77 faculty members. It was predicted that respondents depend on the books and journals on the great extent for teaching and research purposes. It was observed that level of satisfaction with informal sources is slightly higher than formal sources. The satisfaction survey for improving the services at the University of Bolonga has been conducted by **Citti and colleagues** [2]. They have conducted two surveys, one in the year 2007, which was based on interviewer-assisted administration and in 2010, which was online. The purpose of conducting the same survey in 2010 was to judge the strategies adopted in 2007. The both the approaches were followed by the authors, that is, quantitative and qualitative.

**Shajarul Islam Khan** [3] investigated the use of e-journals by the students in the department of botany of Aligarh Muslim University. The aspects covered were purpose of visiting the library, services provided by the library, level of satisfaction of users, and so forth. The major purpose for conducting the survey was to know the challenges faced by the users. The review on the patterns of information-seeking behavior of graduate students has been done by **Amy Catalano** [4] on the articles published from 1997 to 2013. A systematic search of databases was done for analyzing the different criteria and issues in information-seeking behavior by the graduate students. The study revealed that the information-seeking pattern depends on the disciplines and the manner in which the students are guided by the faculty advisors. As pattern seen was totally different from the doctoral to those of master's program.

**H. Singh** [5] studied the information-seeking pattern of users of Dr. B. R. Ambedkar NIT Central Library. He targeted all the users including faculty members, research scholars, postgraduate, and undergraduate students. He studied the behavior in context to the use of resources, purpose of visiting the library, time spent by the user of library, facilities provided, use of internet services, and so on.

The information-seeking behavior of students in university libraries have been analysed

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**S. Panwar** [6]. He concluded that to understand the information-seeking pattern is not an easy task because every user is different in demanding the information from the library professional and the content of information provide by library professional depends on the understanding and the availability of resources.

**Singh and Kataria** [7] investigated the use of e-resources in the library of Banasthali University. They found majority research scholars got the awareness of e-journals from library professionals. On the other hand, majority of faculty members got the awareness from the other faculty of the university and maximum research scholar, and faculty members are compatible with the facilities provide by the library for accessing the e-resources.

**Aragudige Nagaraja et al.**, (2011) "Whether big deals are really big for engineering college libraries?: Or is there any need for better model?"; It is clearly observed from the above findings that the major information access pattern of the users of libraries is from e- resources rather than printed resources.

**Shiv Kumar et al.**, (2013) "User perception and use of OPAC: a comparison of three universities in the Punjab region of India", indicates that Information access pattern of users of libraries by using Online Public Access Catalogue[8].

**Jeyaprakash and Nirmala P J** (2014), "Information seeking behavior of engineering college faculties and arts college faculties: a comparative study", investigates that the Information seeking behavior of two Engineering colleges and two Arts colleges. This study aims to look at the knowledge seeking behavior of faculties between Arts and engineering college resources and the study concentrated on the usage of Library resources among the colleges[9].

**Lakshmi Sankari R et al.**, "A study of information seeking behaviour of users of Vinayaka Mission's Kirupananda Variyar Engineering College Library in Salem", reveals that users are satisfied with resources in library and services, but they are in orientation programme/ user education to access online information. Eventhough document delivery service is being provided on demand, the researchers pointed out that it would be worthwhile if the library could provide them with indexing, abstracting and interlibrary loan service as well. User education about library using must and should be carried out as a seminar or workshop training[10].

**Valerie K. Tucci**, "Assessing Information-Seeking Behavior of Computer Science and Engineering Faculty" suggested that Changes included replacing print journals with online-only versions of the journals, developing new interlibrary loan and acquisition policies and processes and subscribing to a major engineering and computer science resource, but even more important is initiating a dialogue with faculty via the focus groups[11].

### III. AREA STUDY

Chennai district, formerly known as Madras district or "**Madarasapattinam**", is a district in the state of Tamil Nadu, in India. It is the smallest of all the districts in the state, but has the highest population density. The district is a city district which means that it does not have a district headquarters. Chennai district covers an area of 426 km<sup>2</sup> located on the Eastern Coastal Plains of India. It is situated on the north eastern corner of Tamil Nadu along the Coramandel Coast, a region bounded by the Bay of Bengal and is surrounded inland by the districts

of Tiruvallur and Kanchipuram. It lies between 12°59' and 13°9' of the northern latitude and 80°12' and 80°19' of the eastern longitude at an average altitude of 6 metres above sea level on a 'sandy shelving breaker swept' beach.

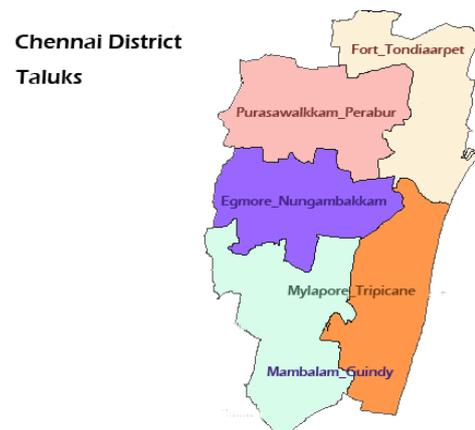


Fig:1 Map of Chennai District

### IV. OBJECTIVES OF THE STUDY

This study was designed and carried out to achieve the following objectives:

1. To determine the awareness and uses of library resources by the users.
2. To know the purpose and frequency of users regarding library visit
3. To find out kinds of information sources used by the students and Faculty Members.
4. To reveal user's opinion regarding usefulness and adequacy of information sources and services.
5. To find out the barriers in using library resources and services.
6. To determine the user satisfaction with information and services facilities provided in the college of engineering

### V. METHODOLOGY

This study used questionnaire-based survey method, as many similar studies conducted earlier, have also used this method for data collection. This method is also preferred as it was less time consuming and economical for a scattered population. The questionnaires were personally distributed to the students and Faculty of Engineering Colleges in Chennai District. A questionnaire was constructed based on previous studies and distributed among 150 engineering faculty members and 52 faculty members and 120 Students responded in the 8 Engineering Colleges (Central Institute of Plastics Engineering and Technology, Jawahar Engineering College, Jawahar School of Architecture Planning and Design, Loyola-ICAM College of Engineering and Technology, Measi Academy of Architecture, Meenakshi College of Engineering, Meenakshi Sundararajan Engineering College and National Institute of Technical Faculty Training and Research) affiliated to Anna University, Chennai.

The researchers distributed 200 questionnaires to the randomly selected sample. In that 172 filled in questionnaires were received from the Faculty Members as well as students.

**VI. DATA ANALYSIS AND INTERPRETATIONS**

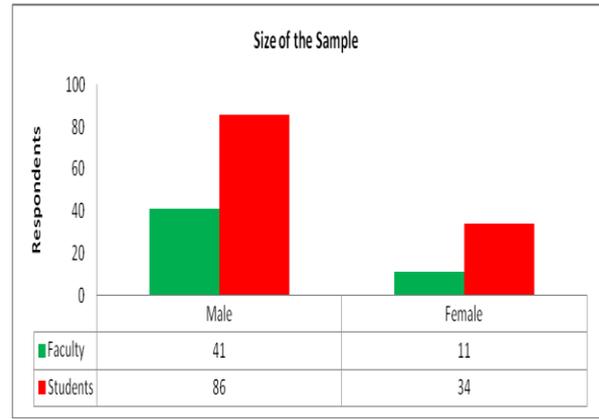
The data collected by various research methods were examined and interpreted here in tables and figures.

**A. The Sample**

There are large numbers of users and they range from students to Faculty. A sample from all categories of users was taken to find out their opinion about the information seeking behavior and services provided by the library. The table below gives the categories of users and the size of sample of the study. The table 1 shows that 52(30.23%) of the total population under study consists of Faculty and 120(69.77%) students. The size of the sample has chosen for the study.

**Table 1: Size of the Sample received from the Respondents**

Status	No. of Respondents		Total	Percentage
	Male	Female		
Faculty	41	11	52	30.23
Students	86	34	120	69.77
Total	127	45	172	100.00
Percentage	73.84	24.42	100.00	



**Figure 1: Size of the Sample / Respondents**

**B. Frequency of Visit to the Library**

In order to assess the frequency of Faculty and students to visit the library, the time gap has classified into four categories as shown in Table 2. A good majority of users i.e. 51(29.65%) of users are visiting the library 2-3 times in a week, followed by users are visiting the library daily i.e. 43(25.00%). The result shows that the majority of the Faculty and students are visiting the library 2-3 times in a week.

**Table 2: Frequency of Visit to the Library**

Frequency	Faculty Members		%	Students		%	Total (N=172)	%
	Male	Female		Male	Female			
Daily	13	3	30.77	21	6	22.5	43	25.00
2-3 Times in a Week	14	5	36.54	28	4	26.67	51	29.65
Weekly	10	2	23.08	16	10	21.67	38	22.09
Monthly	4	1	9.62	21	14	29.17	40	23.26
Total	41	11		86	34		172	100

**C. Purpose of visit to the Library**

The table 3 shows that the maximum percentage of users both Faculty and students are visit to the library for study purpose while Faculty and students were go to the library for read newspapers and magazines. This table further reveals that

114(66.28%) respondent use the library to read the journals, followed by 52(30.23%) users for borrow books in the library, further followed by 35(20.35%) for to collect Course Materials.

**Table 3: Purpose of Visit to the Library**

Purpose	Faculty Members		%	Students		%	Total	%
	Male	Female		Male	Female			
To Study	34	8	80.77	54	14	56.67	110	63.95
To Borrow Books	21	2	44.23	21	8	24.17	52	30.23
To Collect Course Materials	14	1	28.85	14	6	16.67	35	20.35
Books Shelves Browsing	18	4	42.31	16	8	20.00	46	26.74
To Read Journals	32	7	75.00	47	28	62.50	114	66.28

\*Multiple answers were permitted

**D. User's Awareness of Library Resources and Services**

To know the awareness of library resources and services Faculty and students were asked about the awareness of the services. Table 4 shows that 64(37.02%) of respondent are aware of issue/return of the books i.e. 32(63.46%) Faculty and 32(26.66%) students .While majority of the

respondents like 85(49.12%) were aware of reference service. The table also indicates that 80 (46.51%) were aware of books and journals in available in the library. The small numbers of users were aware of indexing service, abstracting service, translation service and CAS.

**Table 4: User's Awareness of Library Resources and Services**

Services	Faculty Members		%	Students		%	Total	%
	Male	Female		Male	Female			
Circulation Service	21	11	61.54	26	6	26.66	64	37.02
Reference Service	39	8	90.38	33	5	31.67	85	49.12
Books and Journals	35	3	73.08	39	3	35.00	80	46.51
Seminar/Conference Proceedings	10	3	25	10	4	11.67	27	15.70
Indexing Service	8	7	28.85	3	0	2.5	18	10.47
Abstracting Service	7	3	19.23	7	4	9.17	12	06.97
Translation Service	3	6	19.31	2	2	3.33	13	7.56
Bibliography Service	5	6	21.15	1	4	4.17	16	9.30
Newspaper Service	14	5	36.54	1	3	3.33	23	13.57
Inter Library Loan	8	4	23.08	8	0	06.66	20	11.67
CAS	1	5	11.54	0	0	0	6	3.49
SDI	0	6	11.54	0	0	0	6	3.49

\*Multiple answers were permitted

15(8.72%) manual/hand books, 4(2.33%) indexing/abstracting journals proceedings of conferences/seminars similarly. This table also depicts that 1(0.58%) used standards, 22(12.79%) used technical report and 5(2.91%) used bibliographies as a primary and secondary sources of information.

**E. Use and Awareness of Formal Sources of Information**

Table 5 shows that 99(57.56%) most respondents are used journals as a formal sources of information whereas 126(73.25%) of respondents used text books, 20(11.63%) thesis/dissertation, 39(22.68%) yearbooks, 42(24.42%) dictionary, 34(19.77%) encyclopedia,

**Table 5: Use and Awareness of formal Sources of Information**

Services	Faculty Members		%	Students		%	Total	%
	Male	Female		Male	Female			
Text Books	33	6	75.00	66	21	72.05	126	73.25
Journals	22	3	48.08	56	18	61.66	99	57.56
Year Books	10	1	21.15	24	4	23.33	39	22.68
Thesis /Dissertation	8	1	17.31	8	3	9.17	20	11.63
Dictionaries	16	4	38.46	19	3	18.33	42	24.42
Conference Proc. /Seminars	6	3	17.30	8	2	8.33	19	11.05
Manual/Handbooks	2	1	5.77	9	3	10.00	15	8.72
Encyclopedias	8	4	23.08	17	5	18.33	34	19.77
Technical Reports	11	3	26.92	6	2	6.57	22	12.79
Patents	0	0	0	0	0	0	0	0
Standards	0	0	0	0	1	0.83	1	0.58
Indexing	1	2	5.77	0	1	0.83	4	2.33
Bibliographies	1	2	5.77	0	2	1.67	5	2.91

\*Multiple answers were permitted

**F. Use and Awareness of Informal Sources of Information**

The table 6. Shows that 83(47.70%) users are use and awareness of personal collection of information like college library whereas 132(75.86%) users are use and awareness of informal sources of information like attains the international as well as national seminar/conferences, workshop etc. The

table also deals with the use and awareness of informal information sources such as 70(40.23%) Scanning of abstracting & indexing Journals, 105(60.34%) Telephones, 113(64.94%) discussion with colleagues and low percentage of informal sources of information like visiting exhibitions, conversation, scanning literature etc.

**Table 6: Use awariness of informal Sources of Information**

Information Sources	Faculty Members		%	Students		%	Total	%
	Male	Female		Male	Female			
Discussion with Colleagues	38	10	92.31	46	19	54.17	113	64.94

Scanning of Abstracting & Indexing Journals I	39	8	90.38	16	7	19.17	70	40.23
Attend Seminar/Conference/ Workshops	28	7	67.31	69	28	80.83	132	75.86
Through Reprint Papers	21	8	55.77	14	12	21.67	55	31.61
Through Mobile Phone Query	18	3	40.38	56	28	70.00	105	60.34
Personal Collection	12	4	30.77	38	29	55.83	83	47.70

\*Multiple answers were permitted

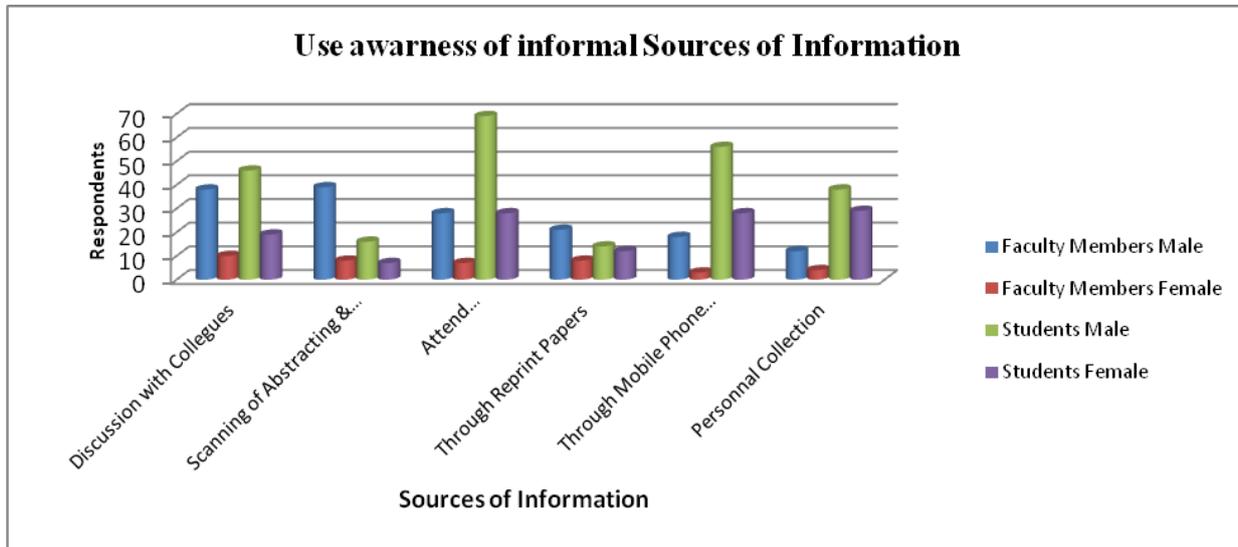


Figure 2: Use awareness of informal Sources of Information

**G. Use and Awareness of Electronic Information Resources**

The table 7.I reveals 152(87.36%) of electronic information resources used by the Faculty Members and students uses Internet Based sources. 61(35.06%) of Faculty Members and Students are used E-Thesis, 129(74.14%) of Faculty Members and students are to get awareness and use. The table

also deals with 85(48.85%) online databases used by users as followed by 129(74.14%)CD-ROM databases used by the Faculty and students.

Table 7: Use and Awareness of Electronic Information Resources

Information Sources	Faculty Members		%	Students		%	Total	%
	Male	Female		Male	Female			
Internet Based Resources	38	9	90.38	73	32	87.50	152	87.36
E-Journals	36	10	88.46	51	18	57.50	115	66.09
E-Thesis	26	8	65.38	18	9	22.50	61	35.06
e-mail	29	9	73.08	65	24	74.17	127	72.99
Online Database	23	8	59.62	35	19	45.00	85	48.85
CD-ROM	21	7	53.85	68	33	84.17	129	74.14

\*Multiple answers were permitted

**I. Information seeking through journals\periodicals**

The table 8 shows that the majority of respondents i.e. 159(92.44%) who were seeking Information through journals\ periodicals subscribed by the library as well as personal. The table also shows that 154(89.53%) respondents who are seeking information through journals\periodicals by Xerox copy of subject related information from library. This was the best way to information seeking through open access

journals as well as to present research paper in seminar\ conference\symposia etc. i.e. 53(30.81%) similarly. The least number of respondents who were seeking information through personal communication, journals subscription, retrospective searching of indexing/abstracting periodicals, Inter Library Loan etc.

**Table 8: Information Seeking Through Journals/Periodicals**

Details	Faculty Members		%	Students		%	Total	%
	Male	Female		Male	Female			
Library Subscriptions	37	8	86.54	81	33	95.00	159	92.44
Personal Subscriptions	31	7	73.08	79	31	91.67	148	86.05
Journal Articles Xerox from Library	39	8	90.38	75	32	89.17	154	89.53
E-Journals Subscriptions	40	10	96.15	81	29	91.67	160	93.02
Open Access Journals	29	10	75.00	68	30	81.67	137	79.65
Inter Library Loan	12	2	26.92	12	11	19.17	37	21.51
Document Delivery Service	6	2	15.38	14	8	18.33	30	17.44
To present paper in Conference/Workshop/Seminar	32	14	88.46	3	4	5.83	53	30.81
Browsing Back Volumes	11	13	46.15	4	2	5.00	30	17.44
Retrospective Searching of Indexing/Abstracting Indexing	1	1	3.85	1	1	1.67	4	2.33
Others	0	0	0.00	0	0	0.00	0	0.00

\*Multiple answers were permitted

**J.Barriers of Information Seeking Behavior**

The table 9 shows 158(91.86%) Faculty Members and students who was facing problems of information seeking due to lack of time for searching, while 118(68.60%) users have lack of access in reading materials to the library. In this table also deals with the 151(87.79%) users felt to lack of access the seeking of information whereas 88(51.16%) users say due

to lack of knowledge for information seeking behaviour. The very low percentage of users were facing the problems of information seeking behavior such as lack of organizational information, lack of knowledge for uses of the library resource and services and lack of support from library staffs.

**Table 9: Barriers of Information Seek**

Details	Faculty Members		%	Students		%	Total	%
	Male	Female		Male	Female			
Lack of Time for Searching	39	10	94.23	80	29	90.83	158	91.86
Lack of access to all Information	36	9	86.54	76	30	88.33	151	87.79
Lack of reading materials	28	7	67.31	64	19	69.17	118	68.60
Lack of Knowledge Information	33	10	82.69	33	12	37.50	88	51.16
Lack of Organisation Information	37	9	88.46	71	31	85.00	148	86.05
Lack of Knowledge for uses of the Library Resources and Services	26	8	65.38	58	29	72.50	121	70.35
Lack of Support from Library Staff	38	10	92.31	69	31	83.33	148	86.05

\*Multiple answers were permitted

**K. Purpose of seeking information**

The table 10 indicates that the purpose of information seeking i.e. 135(77.59%) Faculty and students who was the most preferred response to solve immediate practical problem. It followed by the reasons that include seeking information for keeping up-to-date and To write an article and research paper.

Satisfaction with overall functions of the library The table 11 shows that maximum percentage of users has rated the library as 'good', that is 100(58.14%), while 19(11.05%) of users have rated the library as 'fair' and 41(23.84%) as 'excellent'. Further followed by, 12(6.988%) users who have rated overall function of the library as 'poor' category.

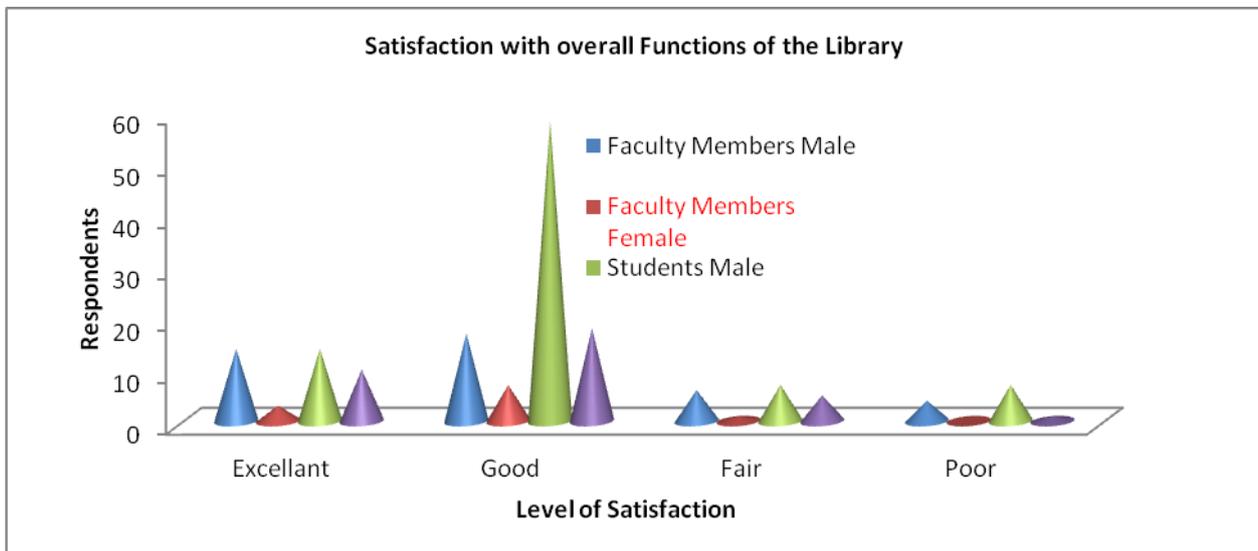
**Table 10: Purpose of Seeking Information**

Purpose	Faculty Members		%	Students		%	Total	%
	Male	Female		Male	Female			
For Carrier Development	33	6	75.00	21	9	25.00	69	39.66
To Solve immediate Practical Problem	39	9	92.31	59	28	72.50	135	77.59
To keep up to date	21	5	50.00	64	29	77.50	119	68.39
To write an article and research paper	38	10	92.31	19	14	27.50	81	46.55

\*Multiple answers were permitted

**Table 11: Satisfaction with overall Functions of the Library**

Satisfaction	Faculty Members		%	Students		%	Total	%
	Male	Female		Male	Female			
Excellent	14	3	32.69	14	10	20.00	41	23.84
Good	17	7	46.15	58	18	63.33	100	58.14
Fair	6	1	13.46	7	5	10.00	19	11.05
Poor	4	0	7.69	7	1	6.67	12	6.98
Total	41	11	100.00	86	34	100.00	172	100.00



**Figure 3: Satisfaction with overall Functions of the Library**

**VI. FINDINGS AND CONCLUSION**

The analysis and interpretation of data is revealed that characteristics of the information need and information seeking behaviour of the Faculty and students. The findings evolved out of this study provide sufficient scope of the study of the two groups, while students are using libraries more whereas the reverse affects for Faculty whose understanding of Electronic Information Services (EIS) and IT very widely as observed. The present study revealed that the Faculty and students visit the library to borrow books. However, it was observed that the majority of the Faculty and students are visiting library daily. It is recorded that maximum percentage of users both Faculty and students are visit to the library for study while Faculty and students go to the library to read newspapers and magazines. The Faculty and scholars visit the library generally for reference sources and specific information depending upon their needs. Hence, the purpose of users visit to the library largely depends on the free time available to them to know the development in their respective fields. It has been found that majority of respondents used

journals as formal sources of information while most of the respondents used text books as a second preference. It has also found that majority of users used central library after that attaining seminar, conference, symposia, workshop national as well as international that comes under the informal information sources. Most respondents prefer “internet services/resources”. Other electronic information resources mentioned were electronic mail and e-journals for use and awareness of e-information resources respectively. Library catalogues services were the most important for current contents\development services. The majority of users used information through library subscription as well as personal subscriptions of journals\periodicals and most preferred response to solve immediate practical problem. It has been noticed that majority of the users were facing a problem for lack of time for searching of information. It is found that the satisfaction with overall functions of the library is good as well as fair as most of the users gave response in this regard.

This study is an effort to fill a gap in understanding the information needs and information-seeking behavior of Faculty and Students of college of engineering, King Saud University. The engineering college user's information needs are diverse and they rely heavily on books and older material, so the lack of availability of required material in libraries is a major problem in information seeking. Information professionals can analyze the findings of the study and design, develop, and introduce new library and information services for Information management and technology institute. Library and information science professionals, especially in Kingdom of Saudi Arabia, should conduct further studies on user information needs to provide more suitable resources and services to different user groups

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