Information Seeking Behavior of Postgraduate Engineering Students: A Study

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ABSTRACT: *Information seeking behavior is an important aspect of learning the attitude of students. An attempt has been made in this study to understand the information seeking behavior of postgraduate engineering students of PES Institute of Technology. The primary data for this study has been collected through an online survey of 130 students belonging to various disciplines of postgraduate engineering departments. The study reveals the frequency of library visit, the purpose of visiting the library, types of facilities, services and resources availed by the students.*

The paper also deals with a strategy for searching the documents sources, user's opinion, and user satisfaction with print and e-resources. This study shows that most of the students are satisfied with library facilities. Based on the findings, the paper gives recommendations to improve collections which might help other institutions which offer PG programs, and also help in promoting the various subscribed resources.

1. Introduction

Information seeking behaviour is an area of active interest between information users and information scientists (Siddiqui, 2011). The information seeking behaviour is mainly concerned with who needs, what kind of information, what reason, and how information is found evaluated and used, and how these needs can be identified and satisfied. The study of the information

seeking behaviour of scientist can be dated back to the late 1940s. Since that time, a large number of studies have been carried out on innumerable aspects of the information seeking behaviour of scientists. (Mahajan, 2011)

The use of information is therefore complex that there cannot be a simple system to manage the task of effective retrieval without assessing the specific requirements. Information seeking is a matter more or less related to the sense-making in which the individual chooses an item of information that best fits his needs and purposes (Reddy, S., & Karisiddappa, 1997).

About PES Institute of Technology
Peoples Education Society Institute of Technology (PESIT), started in 1988, is a premier Institution with a vision to create a professionally superior and ethically strong global workforce. It is a constituent Institution of "Peoples Education Society" and is a brand by itself, providing the best quality of technical, R & D and management education. PESIT offers graduate studies in 08 disciplines, 13 postgraduate courses, and Ph.D. programs. PESIT has sprawling campus spread over an area of 26 acres in the west of Bangalore metropolitan city. PESIT has MOUs with reputed International Universities and provides academic and technical collaboration facilities for Masters and Ph.D. aspirants.

There has been information explosion from many years and it continues to increase. (Hilbert, 2012) There have been several changes in information seeking behavior with the advent of technology and usage of information and communication technology services in institutions. This has to lead to a complex situation and it has become difficult for an institution library to understand the way information is sought.

2. Information Seeking Behaviour

The phrase information seeking behaviour has been well-defined by different authors.

According to (Krikelas, 1983) information seeking behaviour denotes to "any activity of an individual that is undertaken to identify a message that satisfies a perceived need".

As King defined information seeking behaviour as "a manner in which a user conducts himself in relation to a given information environment. It is therefore regarded as essentially a process of interaction between the user and the rest of the information system".

(Mick, 1980) has observed that "information producing and information seeking behaviour are closely linked and are the reasons why most information systems are not better accepted as they fail to provide linkage between the two activities."

3. Objectives of the Study

This study attempts to achieve the following objectives:

• To identify what strategy, they used for searching the information.

• To find out the information sources and services that exist to satisfy the information needs of the students.

• To ascertain the information requirements of the students.

• To identify some of the factors influencing information seeking behaviour of students.

• To analyze the existing pattern of information seeking behaviour of students.

4. Scope

The scope of this study is limited to the analysis of information seeking behaviour of postgraduate engineering students studying in various disciplines of PES Institute of Technology, Bangalore.

5. Methodology

In order to find out the information seeking behaviour of postgraduate engineering students, the survey method has been

followed for the collection of data required. A questionnaire was designed keeping in view the objectives of the study and it was distributed among 130 postgraduate engineering students belonging to various disciplines of PES Institute of Technology. The students have briefed the objectives of the study. Out of 130 students, 112 shared their view which amounts to 86.15%.

6. Data Analysis and Findings

A general overview of the responses from the students is presented in the study.

6.1 Age wise Distribution of Respondents

Sl. No	Age	No. of Respondents	%
1	22-24	98	87%
2	25-30	14	13%

Table 1. Age of the respondents

Table - 1 shows the age wise respondents. The majority of the age group 22-24 (87%) followed by 25-30 (13%). It reveals that more than 80 percent of the respondents are in the age group of 22-24.

6.2 Library Visits
The respondents were asked about the frequency of their visits. The responses were spread into daily, weekly, monthly, bi-weekly and occasionally. These have been populated in Table 2.

Sl. No	Frequency	No. of Respondents	%
1	Daily	16	14%
2	Twice in a week	36	32%
3	Once in a week	24	22%
4	Once in fifteen days	25	22%
5	Occasionally	11	10%

Table 2. Frequency of library visit

More than 32% (36 respondents) said that they visit the library twice a week. 22% said they visit once a week and another 22% said they visit once in fifteen days. It is interesting to know that 14% visit the library daily. 10% of them informed that they happen to visit library rarely.

6.3 Reasons to Visit Library
This section highlights the various reasons why one visits a library.

The answers were carefully crafted by analyzing the questions the reference desk receives regularly. In the earlier days users used to visit the library with the main motto of either issuing books, returning or referring the books, journals. The situation has changed drastically and the reasons ranged from borrowing books to using internet for various reasons.

It is observed from the above table that most of the students visit the library to borrow books while a limited number of students consults periodicals. A small number of students watch NPTEL videos in the library.
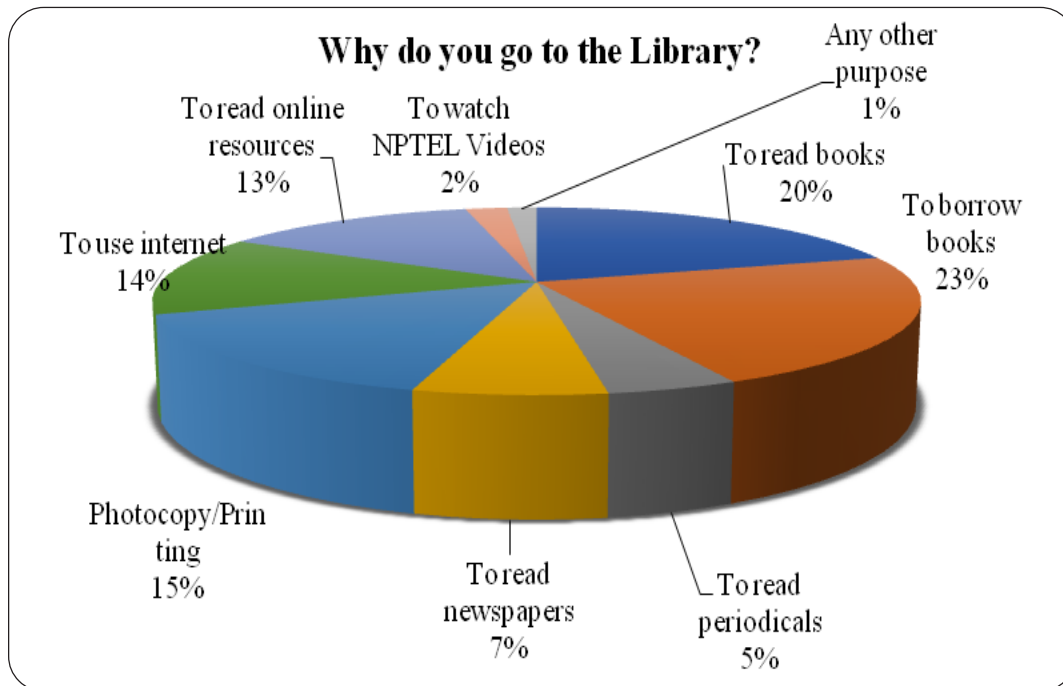
Table 3. Purpose of visit to the library

6.4 Time Spent in Library, the Respondents were asked about their Time Spent in the Institutions

Sl. No	How do you spend most of your time in the Library?	% Respondents
1	Reading books	42%
2	Reading journals	17%
3	Internet/E-mail	19%
4	On-line resources	18%
5	Other Purposes	4%

Table 4. How do you spend most of your time in the library

Table 5 denotes the engineering students spend most of their time in the books reading and least is for online resources and other purposes. University is Wi-Fi enabled and students can access the e-resources anywhere in the campus, a student who does not use the laptop will visit the library to browse e-resources.

6.5 Time for Studying in the Library

Sl. No	When do you usually use the library for study?	No. of Respondents
1	Morning (8 - 12)	24
2	Afternoon (12 - 4)	61
3	Evening (4 - 7)	27

Table 5. When do you usually use the library for study?

The survey revealed that maximum 55% number of student's opted afternoon to visit the library for various activities such as to reading, borrowing, browsing, and photocopy. The next preference of students to visit library was at evening times (4 PM - 9 PM); morning time students visiting remained at (24%).

It is interesting to note that most of the students visiting the library, according to the survey, was during afternoon times. This is obvious because many of students would find free time only at afternoons since the afternoon programs of study would prescribe maximum theory session in the mornings. The structure of the timetable also would be such that morning hours being fresh would be best utilized for classroom activities. Majority of the students who visited the library during afternoon session would stay for reading and a few would go back to other practical sessions structured in afternoons. Students visit the library at afternoon may find it very conducive time for activities like photocopying, taking prints off excerpts of text and reference books, to browse the internet and, read the newspaper.

It is also interesting to note that beyond the college time, in the evening the percentage of students remaining at the library has been at 24%. This reflects students who are serious in studies prefer staying beyond regular hours and study. It can be inferred that possibly they would find a congenial environment for study and remain back and study in the college. Serious students naturally would use the library for reading since it is quiet and reading resources are readily available.

6.6 Meeting their Information needs in the Library

Sl. No	Where do you go to meet your informational needs? Please list your 1st, 2nd, and 3rd choices.	% Respondents
1	Library OPAC	13%
2	Library Staff	24%
3	Faculty	16%
4	Friends	23%
5	Google (or other web search site)	24%

Table 6. Where do you go to meet your information needs?

Table 6 shows that most of the postgraduate engineering students prefer their first choice as "Google" and 2nd choice as friends and 3rd choice is library staff, thereafter faculty (16%) and library OPAC (13%).

6.7 Utilization of Library Services
There are many ways one can interact with the library staff and a small study leads us to analyze the information seeking behavior.

Sl. No	How do you seek reference help from the Library?	% of Respondents
1	Go to the Information Services Desk in the Library	30%
2	E-mail to Librarian	30%
3	Contact Librarian	16%
4	Library Staff	24%

Table 7. Utilization of Library Services

Table 7 reveals that most of the respondents will receive the reference support from the library information desk (30%) followed by sending email to the librarian (30%). few students will contact directly to the librarian and (24%) will get the help from library staff at the reference counter.

6.8 Usage of Library Resources and Services

Sl. No	Description	1 to 10	11 to 20	20 to 50	50 Plus
1	How many articles have you requested through email in the year?	65%	19%	10%	6%
2	How many Text books have you borrowed in the year?	70%	25%	8%	1%
3	How many Reference books have you read in the library in the year?	85%	12%	3%	0%
4	How many online journals have you read in the library in the year?	81%	14%	3%	2%

Table 8. Shows the resources being used by postgraduate engineering students during the year, according to the above table most of the students borrowed the reference books (85%) and next to read online journals used (81%), textbooks borrowed (70%) and the least is articles requested through email i.e. (65%)

6.9 Frequently used Journals in the Library

Sl. No	Which of the journal do you read frequently?	No. of Respondents
1	IEEE	51
2	Science Direct	28
3	Springer	19
4	Taylor and Francis	11
5	None	3

Table 9. Frequently used journals

Table 9 depicts that a maximum number of students use IEEE journals as their top priority as (45%), Science Direct has used as their second priority (25%), Springer (17%), Taylor & Francis is used (10%) and 3% will not use any journals.

6.10 Students Satisfaction towards getting Journal Articles from the Library

Sl. No	How satisfied are you with obtaining journal articles electronically through the Library?	No. of Respondents
1	Very satisfied	27
2	Satisfied	60
3	Somewhat satisfied	17
4	Not satisfied	2
5	Not used	6

Table 10. Satisfaction about getting articles from the library

Based on the above table (93%) of the postgraduate engineering students are satisfied for obtaining journal articles electronically through the library by sending email requests to the librarian.

6.11 Training on use of Library and its Resources

Sl. No	What type of training in Library resources use do you prefer?	No. of Respondents
1	Training classes	20
2	One-on-one consultation with Information users	20
3	Online tutorials	37
4	Information booklets	33
5	Not required	2

Table 11. Training on use of library resources

Table 11 reveals that most of the students prefer to have online tutorials to know about use of library resources (33%), followed by (29%) students feel that one-on-one consultation with librarian, (18%) students felt that training classes, information booklets required and (2%) say that training is not required.

7. Suggestions

The most important aspect is that there should be proper training for creating awareness and use of existing sources in the respective fields. In order to update and generate knowledge of students, scientific and professional seminars, conferences, workshops, and exhibitions need to be conducted. Use of different search strategies should be used and training should be provided for awareness of the use of these search strategies. Internet and database service have become important tools for information sources and services, the future dependence on the Internet and the databases will increase and these services cannot be ignored. For the improvement of the Internet and database service, a greater number of computers should be added. It is necessary to update the collection of books and periodicals and also essential to maintain the library with good ambiance and user-friendly, to play an important role in extending efficient library services.

8. Conclusion

With the growth of the information overflow, each one needs the information of increasing variety of level, frequency, volume, and usage. Information needs and users have contributed extensively to the research discourse on information seeking behaviour. Attempts have been made to relate specific variables to particular pieces of information seeking behavioural patterns. A sizable number of articles have also been presented which are devoted to in-depth analysis of behavioral components of information uses.

The information environment is very complex. In order to retrieve the desired information for users, the information intermediary has to adopt interalia certain behavioral strategies to make the system effective. Information seeking behaviour is one such approach that identifies the basic requirements of the users. While studying information seeking behaviour, it is essential to know its various categories and methods so that the real picture of the user's perception is visualized. It is also important to analyze the factors that motivate information seeking. However, if the library and information system is to work effectively, it is information seeking behaviour, which is required to adopt on a priority basis to make the system successful.

This study also provides an overview of the usage of library resources and services and helps strengthen the library collection and work towards satisfying the users better.

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