# Use Pattern and Seeking Behaviour of Students in National Institute of Technology, Jalandhar, India

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**ABSTRACT**

Determining use patterns and information seeking behaviour of users is consequential to enhance library collections, facilities, and services. This paper tends to investigate information seeking behaviour and use pattern of students on quality of procured information in National Institute of Technology, Jalandhar, India. Survey research method is adopted for the study. Analysis of data is done through percentage count. It is found that 70 per cent are aware about the e-journals and databases. The result indicated that both print and electronic e-journals are highly preferred by students but access them in other places then departmental library and 32.22 per cent respondents spent time more than hours for internet access. The study will be useful for the academic librarians in improving the shortcomings of their institutes and will procure the required e-journals for their Institutes.

**Keywords:** Information seeking behaviour; Use pattern; Information needs; E-journals; National Institute of Technology

## 1. INTRODUCTION

For the development and survival of human beings, information is momentous. Any society's progress mainly depends on right information at required time. Today's existing environment with plenty of information sources, diverse retrieving information methods, no longer used content may provoke anxiety and belief in inadequacy of information among information users. The significant aspect of research and academics is information. In developing countries, researchers for scholarly information now depend mainly on internet and various library consortia[1]. Several models have been developed in the procedure of seeking and searching for information in academic or professional environments. The models have not delineated on how users identify, what or how much information is enough to accomplish their objectives[2]. Imperative information should be used properly and provided after ascertaining information needs and seeking behaviour of users[3].

'Information needs (need for information) is a factual situation in which there exists an inseparable inter connection with 'information' and 'need'; information originates and generated because there exists a need or an interest[4-5]. Information seeking behaviour can be described as an individual's manner of gathering and sourcing information for personal use, knowledge updating and development[6]. The person has distinctive information needs which keeps on changing and not receptive to generalisation[7]. Although, information need is distinguished by the information seeking behaviour of the person. Broadly, information seeking behaviour is an individual's requirement of resolute information which is searched, evaluated and used by him to satisfy his/her urge to know and updating of knowledge[8].

Focus of librarians in today's digital world should be on providing more and updated electronic resources and secondly, technology based training programmes for user's as well as for librarians to enhance their skills. The information needs and information seeking behaviour of students of NIT, Jalandhar, includes graduates, postgraduates and researcher. They have peculiar information need established on their job like other specialised profession. Engineers have pronounced role in uplifting technology and inducing social change.

## 2. LITERATURE REVIEW

In off a metropolis, Nigeria[9] women artisan's information needs, their seeking behaviour and sources through which they obtain information were explored. The study also identified barriers to accessing information. It was found that they often need the information on raw materials (55.7 per cent) followed by financial matters (53.8 per cent). Information were often obtained by women artisan from the association of their occupation (69.5 per cent) followed by radio and television stations (55.2 per cent). Naushad & Faizul[10] undertakes the study at Central Science Library, University of Delhi to examine the extent to which research scholars were aware and use e-journals. The result revealed that respondents (60 per cent) was using e-journals weekly and majority users consult printed journals than e-journals for the purpose of research. Another study[11] on information seeking behaviour was conducted in Nigeria of humanities undergraduate students

of three universities. The result revealed that respondents (65.2 per cent) browse the library collections to retrieve relevant information materials and (55.6 per cent) used lecturers and colleagues as starting point to obtain academic information. A survey carried out at Manchester University and research chemists at the University of Sheffield on physicists[12] to analyse the patterns of information seeking through the interviews. The study identified similarities and differences between the two groups. The results were analysed and compared with the findings of the previous study of the social scientists. While reviewing literature, it is observed that few studies were conducted on NIT library users. Thus, the previous studies instigated researchers to study seeking behaviour and use-pattern of users of NIT library, Jalandhar which will help the library professional to provide services according to needs of users.

## 3. OBJECTIVES

The study which lacks objectives is incomplete. The objectives formulated on basis of research question are as follows:

(i) To determine the awareness among users for using e-journals
(ii) To discover the satisfaction level of users while accessing electronic journals
(iii) To identify the purpose for using e-journals
(iv) To ascertain training requirement for user for accessing e-journals.

## 4. SCOPE AND METHODOLOGY

The research setting is National Institute of Technology, Jalandhar, India. For the study, survey research is used. A structured questionnaire is prepared to collect primary data. It consists of 14 questions. The population for study consists of library members of the Institute. Questionnaires are distributed among 100 students in the library of National Institute of Technology, Jalandhar out of which 90 filled questionnaires was selected for analysis. The authors adopted random sampling technique to select participants from each stratum. Percentage method is used for analysing the data.

## 5. DATA ANALYSIS AND FINDINGS

In research process, analysis of data is momentous. Notable results can be drawn through analysis of raw data, which leads to conclusions.

### 5.1 Gender Information on the Respondents

The analysis of data regarding the gender characteristics of the respondents that took part in the survey shows that out of the 90 respondents, 66 per cent indicated as male students, while 34 per cent indicated as female students.

### 5.2 Category of Course

The analysis of data regarding categories of class course of respondents undertaken shown in Table 1 which indicated that 67.78 per cent are from MTech, 23.33 per cent are BTech while only 8.89 per cent are Research scholars.

**Table 1. Demographic profile of the respondents**

| | Variables | Frequency | Percentage |
|---|---|---|---|
| Category of Course | BTech | 21 | 23.33 |
| | MTech | 61 | 67.78 |
| | PhD | 8 | 8.89 |
| Preference of format | Electronic | 25 | 27.78 |
| | Print | 10 | 11.11 |
| | Both | 55 | 61.11 |
| Access area | Central library | 28 | 31.11 |
| | Departmental library | 17 | 18.89 |
| | Other places | 45 | 50 |
| File format preferred | HTML | 5 | 5.56 |
| | PDF | 65 | 72.22 |
| | No preference | 20 | 22.22 |
| Preferred use pattern for saving file | Printout | 20 | 22.22 |
| | Download | 63 | 70 |
| | In mail | 7 | 7.78 |

The study revealed that students with the highest rating 70 per cent are aware about the e-journals and databases followed by 30 per cent who are not aware about available resources in library.

The preference of format was asked by the respondents to enhance the usability of library resources, thus, helps in procuring desired resource format. The result indicated in Table 2 that both print and electronic e-journals are highly preferred by students may be due to printed journals authenticity, accuracy whereas electronic journals are provide current information, easy to use, and saves time. This reveals that 27.78 per cent respondents use electronic journals to retrieve information materials probably due to their inability to search right information at right time from printed journals.

Provision of internet connectivity is significant for accessing e-journals by library. The respondents were asked the area where they access e-journals. It is interesting to note that user's prefer to access through other places 50 per cent as compared to central library 31.11 per cent and departmental library 18.89 per cent. This is due to lack of infrastructure facilities and poor internet connectivity.

The respondents were asked about preference of file format for using the electronic journals. It is evident from analysis that 72.22 per cent respondents prefer to use 'PDF' format followed by 22.22 per cent 'No preference' for using e-journals.

The respondents were asked to indicate the preference for saving the file while accessing the electronic journals. The analysis of data is as shown in Table 1. The result revealed that 70 per cent of users prefer to download the file so that it can be again used as and whenever required as compared to 22.22 per cent respondent who takes the print out of the required file. A few number of respondents 7.78 per cent sent the file in mail.

### 5.2.1 Time Spent for Internet Access

Higher education is significantly affected by information technology, even the process of teaching, learning and research.

The users were asked the frequency of time spent on Internet.

It is evident from the Table 2 that 32.22 per cent respondents <2 h spent time for internet access followed by 24.44 per cent for 2h - 3h . It is observed that only 8.89 per cent users spent 4 h - 5 h for accessing internet.

**Table 2. Time spent for internet access**

| Time spent (hour) | Response received | Percentage |
|---|---|---|
| <2 | 29 | 32.22 |
| 2-3 | 22 | 24.44 |
| 3-4 | 14 | 15.56 |
| 4-5 | 8 | 8.89 |
| >5 | 17 | 18.89 |

### 5.2.2 Frequency of using E-journals

Majority of libraries provide information services and facilities to their users for optimum usage of their resources by using information technology. The users were asked on the frequency of using e-journals, analysis is depicted in Table 3. It is found that 32.22 per cent use e-journals 'As & when required' followed by 30 per cent on 'Daily' basis. The result indicated that only 4.45 per cent respondent's uses e-journals 'Once in fortnight' and 6.67 per cent 'Once a week'.

**Table 3. Frequency of using e-journals**

| Frequency of usage | Response received | Percentage |
|---|---|---|
| Daily | 27 | 30 |
| Thrice a week | 13 | 14.44 |
| Twice a week | 11 | 12.22 |
| Once a week | 6 | 6.67 |
| Once in fortnight | 4 | 4.45 |
| As & when required | 29 | 32.22 |

### 5.2.3 Retrieving Information from E-journals Available in Library

The respondents were asked about their efforts involved in retrieving information from available electronic resources in library. The result of analysis depicts that 55.55 per cent respondents find information from e-journals 'To some extent' followed by 20 per cent 'With difficulty'. It is noted that only 15.56 per cent find information 'Easily' followed by 3.33 per cent 'Very easily'. The findings depicted that students are still not aware of using e-journals. Thus, need is required for enhancing their skills in using e-journals.

**Table 4. Retrieving information from e-journals available in library**

| Retrieving information | Response received | Percentage |
|---|---|---|
| Very easily | 3 | 3.33 |
| Easily | 14 | 15.56 |
| To some extent | 50 | 55.55 |
| With difficulty | 18 | 20 |
| Not at all | 5 | 5.56 |

### 5.2.5 Satisfaction Level of Accessing E-journals

Table 5 shows the analysis of data on the responses to the level of satisfaction of users of accessing e-journals. It is found that 32.22 per cent users were satisfied with accessing of e-journals provided by their institute library as against 44.44 per cent who indicated their average satisfaction. It is revealed that 6.67 per cent were highly satisfied as compared to 16.67 per cent students who indicated their non-satisfaction.

Overall, it is noted that the more than half of the users were averagely satisfied of accessing e-journals. It might be due to inability to retrieve the information from available e-journals in their institute library. Further more, it is discovered that none respondent reported 'Neutral' about the query asked.

**Table 5. Satisfaction level of accessing e-journals**

| Satisfaction level | Response received | Percentage |
|---|---|---|
| Highly satisfied | 6 | 6.67 |
| Satisfied | 29 | 32.22 |
| Neutral | 0 | 0 |
| Average | 40 | 44.44 |
| Not satisfied | 15 | 16.67 |

### 5.2.6 Preferred Linking Facility for using E-journals

The institute through their web pages or websites facilitate the users with their resources and services and users can retrieve information even about library and institute anytime, anywhere at great speed. The NIT library in Jalandhar did not have website but web page of library integrated with their Institute website.

Respondents were questioned to highlight linking facility for using e-journals to know which were most preferred than other mentioned (Table 6). It is observed that 46.67 per cent users were accessing e-journals from the library websites/ webpages. It is also noted that 23.33 per cent users are accessing the search engines whereas 7.78 per cent of users are searching the e-journal websites. 11.11 per cent respondents didn't respond.

**Table 6. Preferred linking facility for using e-journals**

| Linking facility | Response received | Percentage |
|---|---|---|
| Library website | 42 | 46.67 |
| Search engine | 21 | 23.33 |
| E-journal website | 7 | 7.78 |
| Publisher website | 10 | 11.11 |
| No Response | 10 | 11.11 |

### 5.2.7 Purpose of using E-journals

Table 7 reveals the purposes for which the e-journal usage of the Institute library was accessed. Total responses received are 121 from 90 respondents as respondents gave multiple answers. It is indicated that majority of the users

(72.22 per cent) accessed for 'research work', followed by studying course work (24.44 per cent); update subject knowledge (17.78 per cent) and least is used for any other purposes (7.78 per cent). It is observed that a majority of the users were accessing the e-journals to get to retrieve latest information, which might be helpful for their research work.

**Table 7. Purpose of using e-journals**

| Purpose | Response received* | Percentage |
|---|---|---|
| Writing paper | 11 | 12.22 |
| Studying coursework | 22 | 24.44 |
| Update subject knowledge | 16 | 17.78 |
| Research work | 65 | 72.22 |
| Any other work | 7 | 7.78 |

*Multiple answers by respondents

### 5.2.8 Work Standard Impact without E-journals

Students were asked to indicate whether the standard of their work would suffer without e-journals. The result reveals that majority of the users 45.56 per cent 'Strongly agree' followed by 'Agree' 33.33 per cent as against the respondents 5.55 per cent 'Disagree' and 6.67 per cent 'Don't know'. It is observed that impact of e-journals is high and wanted for their information needs otherwise the research of their work would suffer.

**Table 8. Work standard impact without e-journals**

| Standard impact | Response received | Percentage |
|---|---|---|
| Strongly agree | 41 | 45.56 |
| Agree | 30 | 33.33 |
| Strongly disagree | 8 | 8.89 |
| Disagree | 5 | 5.55 |
| Don't know | 6 | 6.67 |

### 5.2.9 Problems Faced while using E-journals

Table 9 lists the problems encountered by the users in accessing the e-journals. It is noted that respondents highlighted their major faced problem than mentioning multiple problems. It is evident that majority of the students 27.78 per cent indicated that 'Needed e-journals not found', and 24.45 per cent students who mentioned 'No problem encountered', followed by 'Properly not able to use e-journals' 13.33 per cent ; 'Needed journals not available or in use' 8.88 per cent; 'Not sufficiently familiar with e-journals' 8.89 per cent. It is noted that 3.33 per cent respondents found e-journals as 'Difficult to read from screen' and 1.11 per cent felt that 'e-journal is difficult to use'.

It is observed from the analysis that more than half of the students had problems in accessing the e-journals.

**Table 9. Problems faced while using E-journals**

| Problems | Response received | Percentage |
|---|---|---|
| Not sufficiently familiar with e-journals | 8 | 8.89 |
| Needed journals not found | 25 | 27.78 |
| Properly not able to use e-journals | 12 | 13.33 |
| E-journal is difficult to use | 1 | 1.11 |
| Doubts about materials permanence | 5 | 5.56 |
| Needed journal not available or in use | 8 | 8.89 |
| Difficult to read from screen | 3 | 3.33 |
| Technical problems | 6 | 6.67 |
| No problem faced | 22 | 24.44 |

### 5.2.10 Training for using E-journals

Table 10 indicates the kind of training needed with the use of e-journals. It is revealed that 33.34 per cent of the users indicated that there is need 'Information retrieval training', followed by 'Presentation of different journals' 23.34 per cent. The respondents 14.44 per cent each indicated 'Information about contents'; 'Information technology training'; 'No training required' are mentioned for training.

It is to conclude that the training of users with regard to use of e-journals is required for optimising the use of available e-journals in library.

**Table 10. Training for using E-journals**

| Training | Response received | Percentage |
|---|---|---|
| Presentation of different journals | 21 | 23.34 |
| Information retrieval training | 30 | 33.34 |
| Information about contents | 13 | 14.44 |
| Information technology training | 13 | 14.44 |
| No training required | 13 | 14.44 |

## 6. FINDINGS AND SUGGESTIONS

It is found that 70 per cent respondents are aware about the e-journals and databases. The result indicated that both print and electronic e-journals are highly preferred by students. The study indicated that purpose of using e-journals among students is for their research work. Students also indicated that they are averagely satisfied with available e-journals and wanted more required journals. When asked about any training required students indicated that they desire to have information retrieval training.

While conducting survey, users suggested few required immediate changes. Some notable suggestions are:
(a) Need of Information retrieval training for students
(b) Need of orientation programs by the library staff to make users aware about the available e-journals and train them for effective and exhaustive use of e-journals
(c) Make provision for access of e-journals from hostels also
(d) Required e-journals should be procured more and provide even from consortia's
(e) The marketing of library services are highly recommended
(f) The library professional should willingly provide assistance to students in need and
(g) Infrastructure facilities should be enhanced to accommodate students and faculty for accessing the e-resources.

## 7. CONCLUSIONS

Numbers of facets influence the information needs, seeking behaviour and use pattern, which becomes prerequisite to determine the substantial needs of information users. The collection of efficacious resources of library is significant in accomplishing its goals and meeting needs of their users[13]. Procuring effective and useful resources keeping in mind the demands and requirement of users will satisfy library's users and increase their frequency of visits in library. The study reveals that students are aware about the e-journals available and both print and electronic journals are preferred by users. Provision of effectual internet connectivity within the library and outside will further improve the usage of library resources. It is noted that e-journals are used for the research work but unable to retrieve it properly. Thus, library staff support and guidance is truly needed. Trained staff can guide them as per needs and make them familiar with new techniques and tools which helps them to cater their information needs.

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