



# A study of Information Seeking Behaviour of research scholars of Science and Arts faculty in Bangalore University, Bangalore

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**Abstract :** Information plays a significant role in teaching, learning and research. It is an essential resource for all the professionals to work effectively in their respective fields. Information is a basic input for business firms, government departments, public enterprises, and non-profit organisations. To acquire, understand and use of relevant information involves a critical process of collection, organization, evaluation and dissemination. It also calls for adequate awareness of the domain knowledge, skills of access, credibility of sources, authenticity and timeliness etc. This study makes a sincere effort to collect the data from the research scholars regarding their perception, method of accessing and using the information.

**IndexTerms - Information; Information seeking; Research scholars; Bangalore University.**

## I. INTRODUCTION

Proliferation of information is rampant. The incessant research in all the fields of activity at all levels generate abundant information. Thus, produced information is processed and packaged in numerous media. Gutenberg printing technique in the 15th century revolutionise scholarship. This has enabled scholarships to move beyond institutions and organisations. In the past, a book was the sole carrier of information. The printing technique eased the tedious task of copying and enabled the multiplications of knowledge and information and its movement across space and time. Many other forms and formats of information carriers were developed adding further complications to locate and select relevant information. The library is a social organisation committed to serve the user community with the right information to the right user at the right time. This is what is advocated by the Five Laws of Library Science. The excessive increase in information in different formats resulted in difficulties to retrieve relevant information. This necessitated the development of discovery tools and techniques for bibliographic control of published knowledge. This paved the way for the compilation of bibliographies, catalogues, indexes and abstracts. Hence the publication of the plethora of reference works. Electronic information, the Internet and digital technology ushered in a new era in the publication industry and resulted in virtual libraries. In the process of providing efficient and effective services, libraries evaluate their services from time to time. Numerous studies have been done internationally. COVID-19 resulted in drastic changes in the library and information services as libraries had to rely totally on Information and Communication Technology (ICT). The totality of the perception of library and information approach has changes. This study is an humble attempt to investigate how the information demands of research scholars in the field of Arts and Science at Bangalore University access various types of information sources in both print and electronic form for their research and publication purpose.

## II. LITERATURE REVIEW

Numerous case study, survey, project, thesis and dissertation studies were conducted by developing and developed countries on user perceptions, information needs, information seeking behaviour, purpose of use, frequency of use, types and nature of needed information, use of the internet as well as awareness and accessing various types of traditional and electronic sources of information. Some of these studies are reviewed and presented.

(Chopra 2018) points out that information is most essential for preparing for examinations, assignments, updated knowledge and skills, it quite interesting that 38.44% respondents are still preferring the print form of information sources, while 53% of them preferred to use both print and electronic information sources. Of the participants, 58.18% consult online resources for current developments. Lack of time, scattered information, out-dated information irrelevant materials and information overload were identified as barriers in information seeking. (Donkor and Nwagwu 2019) analyzed the creation, generation, organizing, preservation and dissemination of information by professionals from six (6) selected universities in Ghana in order to investigate personal information accessing and seeking behavior. A similar study conducted by Viji and Balasubramanian (2019) found that the internet was most to accessed information. The parent library was used most by 58.52% respondents, 20.88% accessed the central library, 11.24% used the department library, while 8.43% accessed their 'personal collection' for gathering information. Most of the respondents agreed that libraries need to improve accessing and awareness facilities. Puttaswamy and Jayaprakash (2019) found that ICT tools is essential for seeking, acquiring, preserving and dissemination information by anyone, anytime. Study results show that most of respondents visit the library on a daily basis for entertainment (37.50%), education (25.00%), and sports (21.25%). Of the respondents 31.25% spend below one hour in the library, 31.25% visit the library to get current information, followed by 25.00% to get current information, and 18.75% to get bibliometric information. Of the participants 31.25% most used reference, book reservation, current awareness and internet services. Most of them feel good about their libraries.

DeLuca (2020) studied user perception on awareness and use of government and non-government Freedom of Information Act (FOIA) library resources which has declassified document repositories for discovery. It is important for researchers, journalists and citizens to use FOIA libraries, electronic reading room to search for documents concerning government activities and operations that are released under the FOIA on the web. Sharma and Kumar (2019) assessed information seeking behavior among the lawyers in Kurukshetra University, Bhagat Phool Singh Women University, Maharishi Dayanand University and Chaudhary Devi Lal University in Haryana state and found that the academic lawyers were more dependent on the departmental libraries for identifying e-resources and legal databases. Speed of the internet and accessing relevant information were major problems. Basera, Bhardwaj, and Huria (2019) investigated farm women opinion leaders in the hill regions of Kumaon and Garhwal division in Uttarakhand. Funding show that agriculture is the primary occupation for all, the majority of the respondents had medium socio-economic status and that local sources of information were more frequently utilized by them. Vanitha and Balasubramanian (2020) stated that currently not only adequate technological ability and problem solving skills, but also live active cooperation, effective communication, interaction and presentation along with business/professional ethics and inter-personal relationship and responsibility properly provide suitable opportunities to every student to properly utilize the technological knowledge. Coder (2020) revealed that frequency of use of print, level of satisfaction information available on various diagnoses, perceived reliability of the information, obstacles acquiring information, anticipated information uses, and fluctuation of information needs. Omonigho and Olufemi (2019) investigated student attitudes towards information seeking behaviour of technological universities at Akure in Nigeria. It studied the factors that militate against the effective utilization of health information, and found that 63.40% respondents seeking information on physical fitness, 75.10% of them used newspapers as commonest source of health information, 84.40% and 63.70% of them felt that the high cost of accessing health information for personal use and uncooperative attitude of library personnel was identified as major hindrance in accessing health information in the library.

Saha and Jena (2020) study revealed the information needs and seeking behaviour perception among the nurses in hospitals of Bhubaneswar, Odisha. The study revealed that most of the respondents expressed they most prepared online health information than the print form and health reports, diseases records and treatment manuals and guides are most used by them and Shuhidan et al. (2020) information overload, inability to obtain, evaluate the information, recognising appropriate information seeking information is impact on effective make use of relevant information for their academic use, in other hand Kaur (2020) the Indian farming peoples are looking for different types of agriculture information to improve their source of income and informative knowledge about agriculture and harvesting tools and techniques and every farmer wants new information to utilize their farming sources.

### III. SCOPE OF THE STUDY

The present study has examined information seeking behaviour among 430 Arts and 260 Science disciplines research scholars of Bangalore University while accessing different kinds of information resources, accessing information from the internet and problems while accessing information resources. No comparative study between Arts v/s Science disciplines has been done yet at this university. Therefore, this study had been restricted to Arts and Science department research scholars of Bangalore University.

### IV. OBJECTIVES OF STUDY

The objectives of the study are:

- a) To understand the information awareness learning channels/methods used by the Arts and Science research scholars of Bangalore university
- b) To find needs of information seeking by the male and female research scholars of the Bangalore University.
- c) To examine the purpose of information seeking by the research scholars of Bangalore University.
- d) To analyze the types of reading materials that meets the information needs and requirements of research scholars.
- e) To understand the use of and purpose of using the internet by the researcher of Bangalore university.

To analyze the problems faced while accessing the internet among the researchers of Arts and Science disciplines.

### V. METHODOLOGY

In this study, the relevant data was collected from 430 Arts and 260 Science disciplines research scholars from the university. Hence the sample size was 690.

**5.1 Nature of data:** Primary data have been collected from Arts and Science disciplines research scholars of the Bangalore University.

**5.2 Data collection method:** a structured questionnaire was framed in such a way that it is made in a simple manner to enable the researchers to express their views and opinions as they feel freely and frankly and starting random sampling method was used as the tool to collect data. The data collection pertaining for this study involves both.

#### 5.3 Primary and Secondary data

The primary data were collected by a structured questionnaire distribution to the selected Arts and Science post-graduate (PG) departments of Bangalore University. The secondary data were pooled from the published forms of reading materials i.e., books, journals, periodicals, reports, theses and dissertations and monographs in both print as well as electronic form.

## VI. . DATA ANALYSIS

The study was carried out by two major disciplines i.e., Arts and Science department research scholars of Bangalore University. The demographic information related to these respondents is shown in Tables 1 to 8. **SHODHGANGA USAGE**

### 6.1 Gender

Table-1 shows that the majority (76.65%) were male respondents.

TABLE-1: DEMOGRAPHY INFORMATION OF THE RESPONDENTS

Demography information		(n=690)	
		Freq.	%
Gender	Male	522	75.65
	Female	168	24.35
Discipline	Arts	430	62.32
	Science	260	37.68

**Disciplines:** Table-1 also reflects that the most (62.32%) respondents belong to arts discipline. It clearly noticed that the highest (75.65%) male research scholars and (62.32%) researchers from arts disciplines were involved in this study.

### 6.2 Learning Channels

From Table 2 and Fig. 1 reflects that respondents were aware and used resources due to training provided by staff/workshop/short course organized or conduct by their library or other academic organizations (47.50%), help of their friends and professional colleagues (30.4%), online learning instruction methods (27.40%), reading books, journal articles (17.80)%, and someone at the terminal (12.80)% and by trail error (17.50%).

TABLE-2: INFORMATION AWARENESS LEARNING CHANNELS/METHODS USED BY THE RESPONDENTS

Learn channels/Methods	Discipline		Total (n=690)
	Arts n=430	Science n=260	
Training provided by the library staff/workshop/short course	207 (48.1%)	121 (46.5%)	328 (47.5%)
Online instruction	127 (29.5%)	62 (23.8%)	189 (27.4%)
Through friends/colleagues	135 (31.4%)	75 (28.8%)	210 (30.4%)
Someone at terminal	49 (11.4%)	39 (15.0%)	88 (12.8%)
By reading books, journal articles etc	67 (15.6%)	56 (21.5%)	123 (17.8%)
Self by trial and error method	64 (14.9%)	57 (21.3%)	121 (17.5%)

*(Respondents are permitted to tick more than one answer)*

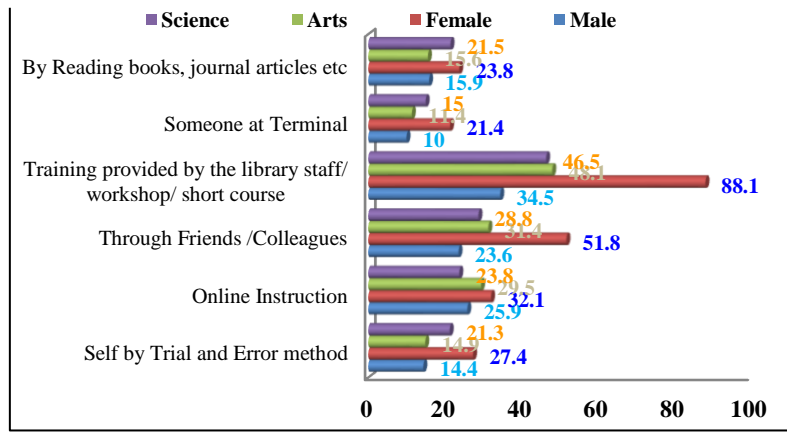


FIG. 1: LEARNING CHANNELS/METHODS

6.3 INFORMATION NEEDS

It is observed from Table 3 that the highest number of Arts (55.10%) and Science (45.40%), research scholars needed information on employment. This was reflected by respectively 49.60% male and 57.10% female respondents of the total sample, 43.30% with 33.70% male and 73.2% female respondents needed journals articles research information. Information related to conference proceedings to write articles was needed by 42.2% of the total respondents which included 30.50% Arts and 66.90% Science researchers.

TABLE-3: DISTRIBUTION OF NEEDS OF INFORMATION SEEKING BY THE RESPONDENTS

Information needs	Gender		Discipline		Total (n=690)
	Male n=522	Female n=168	Arts n=430	Science n=260	
Information on employment	259 (49.6%)	96 (57.1%)	237 (55.1%)	118 (45.4%)	355 (51.4%)
Information on course study	126 (24.1%)	84 (50.0%)	98 (22.8%)	112 (43.1%)	210 (30.4%)
Information on competitive exams	113 (21.6%)	85 (50.6%)	129 (30.0%)	69 (26.5%)	198 (28.7%)
For updating knowledge	119 (22.8%)	99 (58.9%)	137 (31.9%)	81 (31.2%)	218 (31.6%)
Information on entertainment	86 (16.5%)	69 (41.1%)	101 (23.5%)	54 (20.8%)	155 (22.5%)
Information on conference Proceedings	177 (33.9%)	128 (76.2%)	131 (30.5%)	174 (66.9%)	305 (42.2%)
Information of journals articles	176 (33.7%)	123 (73.2%)	127 (29.5%)	172 (66.2%)	299 (43.3%)

(Respondents are permitted to tick more than one answer)

6.4 Purpose of Information Seeking

From Table 4 it can be seen, that the highest (56.20%) of the total respondents including 312 Arts and 76 Science researchers were seeking information for the purpose of writing their theses and dissertations, while 41.40% of the total respondents with 192 male and 94 female Arts and Science researchers seeking information for writing papers to journals, conferences and seminars, prepare reports, article for edited book or other online diaries and blogs. Other purpose were updating their subject and research aspects knowledge (41.40%) and for preparing for examinations (35.80%).



TABLE-4: DISTRIBUTION OF PURPOSE OF INFORMATION SEEKING BY THE RESPONDENTS

Purpose of Information Seeking	Gender		Discipline		Total (n=690)
	Male n=522	Female n=168	Arts n=430	Science n=260	
For preparing theses	277 (53.1%)	111 (66.1%)	312 (72.6%)	76 (29.2%)	388 (56.2%)
For updating knowledge	192 (36.8%)	94 (56.0%)	171 (39.8%)	115 (44.2%)	286 (41.4%)
For writing assignment	74 (14.2%)	47 (28.0%)	88 (20.5%)	33 (12.7%)	121 (17.5%)
For writing papers	218 (41.8%)	106 (63.1%)	141 (32.8%)	183 (70.4%)	324 (47.0%)
Preparing for competitive exams	166 (31.8%)	81 (48.2%)	158 (36.5%)	89 (34.2%)	247 (35.8%)
For entertainment	21 (4.0%)	8 (4.8%)	25 (5.8%)	3 (1.2%)	28 (4.1%)

## 6.5 Reading material

Table-5 demonstrates the forms of reading materials which meet the information needs and requirements of research scholars. It is identified that the majority (84.49%) of the total respondents (49.27%) Arts and (35.21%) from Science fulfilled their information needs with the use the various reading materials such as textbooks, e-databases, e-books, e-journals, conference papers, projects, CD-ROMS and encyclopaedias.

Table-5: Forms of reading materials meet information requirements of the respondents

Disciplines	Respondents (n=690)				Total
	Arts	%	Science	%	
Yes	340	49.27	243	35.21	583 (84.49%)
No	90	13.04	17	2.46	107 (15.50%)
%	430	63.31	260	37.68	690 (100.0%)

## 6.6 Types of Reading Material

Table-6 presents the information sources used by researcher for their information needs. Most respondents (68.40%) consisting of 211 Science and 188 Arts researcher used e-journals to fulfilment of their academic needs. This is followed by (55.10%) of who were 277 male and 94 female researchers using subject orientated textbooks and (48.20%) using conference proceedings working papers.

Table-6: Types of reading materials meet the information needs of the respondents

Sources	Gender		Discipline		Total (n=583)
	Male n=447	Female n=136	Arts n=340	Science n=243	
Textbooks	227 (50.9%)	94 (69.1%)	192 (56.5%)	129 (53.1%)	321 (55.1%)
E-databases	114 (25.5%)	77 (56.6%)	57 (16.8%)	134 (55.1%)	191 (32.8%)
E-books	89 (19.9%)	39 (28.7%)	40 (11.8%)	88 (36.2%)	128 (22%)
E-journals	297 (66.4%)	102 (75.0%)	188 (55.3%)	211 (86.8%)	399 (68.4%)

Conference papers	196 (43.8%)	85 (62.5%)	115 (33.8%)	166 (68.3%)	281 (48.2%)
Projects	79 (17.7%)	47 (34.6%)	46 (13.5%)	80 (32.9%)	126 (21.6%)
CD-ROMS	63 (14.1%)	35 (25.7%)	29 (8.5%)	69 (28.4%)	98 (16.8%)
Encyclopaedias	29 (6.5%)	24 (17.6%)	11 (3.2%)	42 (17.3%)	53 (9.1%)

(Respondents are permitted to tick more than one answer)

## 6.7 Internet Usage

Table 7 interestingly reveals that all (100.00%) respondents are using the internet to accessed various source of electronic information. The internet was mostly (68.34%) used for academic, research and extension work, to access ejournals/technical reports (78.11%), access tutorials and coursework (61.34%), correspondence/e-mail (78.16%), interaction with discussion forums (69.34%), downloading software, source, files, documents (58.76%), keen abreast with the latest developments about academics (88.32%), search scholarly literature (53.02%), further (61.43%) of them are use of internet to online submission of their research papers (6.43%), library OPAC/Web OPAC (60.94%) and for recreation purpose (42.14%).

TABLE-7: USE OF INTERNET BY THE RESPONDENTS

Use of internet		(n=690)			
		Yes	%	No	%
Disciplines	Arts	430	75.65%	00	0.00
	Science	260	24.35%	00	0.00
Total		690	100.0	00	0.00

## 6.8 Problems Experienced

Table-8 presents whether the researchers are facing any information related problems while seeking information for academic and general purpose. Most (46.20%) of the total respondents with 178 Arts and 143 Science researchers felt that information sources were dated or not available (33.20%). Other problems experienced were the non-cooperation of library staff (24.30%), not knowing how to use the library (23.60%) and in particular not knowing how to use the library catalogue (20.60%) and lack of knowledge in using the library. These problematic issues impacted on the effective use of library resources, services and facilities.

TABLE-8: PROBLEMS FACED BY THE RESPONDENTS WHILE ACCESSING INTERNET

Problems of information seek	Gender		Discipline		Total (n=690)
	Male n=522	Female n=168	Arts n=430	Science n=260	
Material is not available	131 (25.1%)	98 (58.3%)	112 (26.0%)	117 (45.0%)	229 (33.2%)
Non-Cooperation library staff	99 (19.0%)	69 (41.1%)	88 (20.5%)	80 (30.8%)	168 (24.3%)
Lack of time	63 (12.1%)	26 (15.5%)	41 (9.5%)	58 (22.3%)	89 (12.9%)
Do not know how to use the catalogue	93 (17.8%)	70 (41.7%)	96 (22.3%)	67 (25.8%)	163 (23.6%)
Lack of knowledge in using the library	88 (16.9%)	54 (32.1%)	77 (17.9%)	65 (25.0%)	142 (20.6%)
Information scattered in too many sources	68 (13.0%)	23 (13.7%)	55 (12.8%)	36 (13.8%)	91 (13.2%)
Information is too vast	48	16	51	13	64

	(9.2%)	(9.5%)	(11.9%)	(5.0%)	(9.3%)
Old editions of information sources	219 (42.0%)	102 (60.7%)	178 (41.4%)	143 (55.0%)	321 (46.2%)

(Respondents are permitted to tick more than one answer)

## 6.9 User Satisfaction

Table-9 data presents that that (78.60%) of all respondents consisting of 304 arts and 304 science researchers opined that their university library provided satisfactory in their information needs. There is no significant difference in meeting of information requirements between the respondents of Male and Female as indicated by as the chi-square value is not significant at 0.05 per cent level with one degree of freedom. There is a significant difference in meeting information requirements by their university library between the Arts and Science respondents as indicated by chi-square value which is significant at 0.05 per cent level with one degree of freedom. That means more Science discipline respondents opined that the library meets their information requirements compared to the Arts respondents.

TABLE-9: LEVEL OF USER SATISFACTION ON INFORMATION PROVIDED BY UNIVERSITY LIBRARY

Reply	Gender		Discipline		Total (n=690)
	Male n=522	Female n=168	Arts n=430	Science n=260	
Yes	403 (77.2%)	139 (82.7%)	304 (70.7%)	238 (91.5%)	542 (78.6%)
No	119 (22.8%)	29 (17.3%)	126 (29.3%)	22 (8.5%)	148 (21.4%)
<b>Total</b>	<b>522 (100%)</b>	<b>168 (100%)</b>	<b>430 (100%)</b>	<b>260 (100%)</b>	<b>690 (100%)</b>
$\chi^2 = 0.944$ $p = 0.331^@$ df= 1 TV = 3.84 Not Significant			$\chi^2 = 14.113$ $p = 0.000^{***}$ df= 1 TV = 3.84 Sig. at 0.05 Level		

Note: \* - Significant, @ - Not Significant

## VII. FINDING AND CONCLUSION

Libraries and information centres can be considered as the user centric depository centres for reservoirs of knowledge, as they collect information in different forms. Their collections and services consist of, books, journals, magazines, newspapers, periodicals, back volumes, reports, theses and dissertations and advance services of institutional repositories, Web OPAC, online portals, virtual tour, virtual class/orientations, open access portal/directories, online transactions and reservation, career information services, content management services, frequently ask question service, use of social networks and integrated in libraries, electronic new alert servers through e-mail or bulletin board services are impact on increase effective make use of library resources, services, facilities. Hence, the study made an attempt to understand the research perception on awareness and use of libraries by research communities in Bangalore university library. The following major findings can be presented.

- It has highlighted that the most (47.50%) respondents were aware of and use of electronic resources by training provided by the library staff/workshop/short course organized or conducted by their library or other academic organization.
- It is revealed that the majority (51.40%) of respondents from 55.1% arts and 45.4% science research scholars needed information on employment.
- The majority (56.20%) of the total respondent consisting of 312 Arts and 76 Science researchers are seeking information for the purpose of writing their theses and dissertations.
- It is identified that 84.49% of the total respondents consisting of (49.27%) Arts and (35.21%) Science researchers felt that their information needs are fulfilled by various reading materials such as textbooks, e-databases, e-books, e-journals, conference papers, projects, CD-ROMS and encyclopaedias.
- All (100.00%) of the respondents are using the internet to access various sources of electronic information.
- The majority (46.20%) of the total respondents consisting of 178 Arts and 143 Science researchers felt that dated information sources is the main problem faced while seeking information in the library.
- It is revealed that 78.6% of the total respondents from 304 Arts and 238 Science researchers were opined that their university library meets their information needs and requirements.



On the other hand, problems experienced were low computers speed available electronic resources may not adequate, copy protected electronic contents, in-consistency of document formats, lack of availability of computers to access online resources, lack of knowledge in search and retrieve, lack of skilled library professionals to assists, lack of internet connectivity, slow downloading and lack of time to retrieve huge files of information. Problematic issues have impacted on effective seeking and utilization of various forms of resources available in open access and subscription mode.

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