



THE AGA KHAN UNIVERSITY

eCommons@AKU

Libraries

6-2021

Information seeking behavior of undergraduate students of the University of Karachi, Pakistan

Humera Ilhaq

Aga Khan University, humera.jamshed@aku.edu

Khushbakht Tousif

University of Karachi, Pakistan

Follow this and additional works at: <https://ecommons.aku.edu/libraries>



Part of the [Information Literacy Commons](#)

Recommended Citation

Ilhaq, H., Tousif, K. (2021). Information seeking behavior of undergraduate students of the University of Karachi, Pakistan. *Library Philosophy and Practice (e-journal)*.

Available at: <https://ecommons.aku.edu/libraries/55>

Information seeking behavior of undergraduate students of the University of Karachi, Pakistan

Humera Ilhaq

Faculty of Health Sciences Library
Aga Khan University
Stadium Road, Karachi 74800, Pakistan
humera.jamshed@aku.edu

Khushbakht Tousif

Dr. Mahmud Husain Library
University of Karachi
University Road, Karachi, Pakistan
uok.khushbakht@gmail.com

ABSTRACT

Every person needs information to fulfill their personal, professional, educational, teaching and learning need of information. People have different information seeking behavior to acquire, organize, use and disseminate information. The aim of this study is to identify information seeking behavior, information sources and to know their searching preferences and determine behaviors of undergraduate students in information searching at University of Karachi, Pakistan.

In this study quantitative approach was applied. A survey method was used. A structured questionnaire was developed as a data collection tool. In the questionnaire two types of questions; (closed-ended and multiple choice questions) were developed. Sample size was consist of (n= 208) undergraduate students at University of Karachi, Pakistan. Simple Random Sampling method was applied to select participants. Researchers collected data from participants by describing questions personally to get accurate and maximum response rate. Survey response rate was 94%. Collected data was analyzed by using Statistical Package for Social Sciences (SPSS). This study will fill the gap within existing knowledge because very less current studies have been conducted so far about information seeking behavior of undergraduate students especially in respect of Karachi, Pakistan. This study will be helpful to libraries to develop and improve resources and services as per need of their students. Teachers will be able to identify students' needs and their pattern of information.

KEY WORDS: Information Seeking Behavior, undergraduate students, University of Karachi, Karachi, Pakistan

INTRODUCTION

In this information age, every person needs information to fulfill their personal, professional and educational need. From small piece of information to scholarly information every person's life is depend on information. Whether this information require for knowing rate of grocery, timing of trains, name of physician or studying on any topics and scholarly information on "Artificial Intelligence". "Information is an assemblage of data in a comprehensible form capable of communication and use" (Feather, 1997) existing around us in different types, sources, and format. As per Kuhlthau's 1991 model when people feel lack of knowledge, their need for information arises (Kundu, 2017). Thus, people want to fulfill that knowledge gap by getting information easily, accurately, and quickly to become well informed and to use that information appropriately. Require information can be about any problem, difficulty, for exploration of topic, for teaching and learning caused due to insufficient of knowledge. To overcome lack of knowledge different behavior, method, channels and sources are used by people. The process of seeking information is called "information seeking behavior".

"Information seeking behavior is the complex patterns of actions and interactions which people engage in when seeking information of whatever kind and for whatever purpose" (Feather, 1997). Information seeking behavior depends on qualification or educational level of people. Qualified people need scholarly information in a scholarly form whereas unqualified people need basic information understandable in simple words. According to Leckie's 1996 model professionals' Information seeking behavior depends on work role and their assigned tasks (Kundu, 2017). On the other hand, scientists seek information from colleagues, by using journals, books, abstracting services, and attending conferences (Ellis, 1997). Kundu

(2017) mentioned that Kuhlthau's model identified process of information seeking consist of identification of need, searching, selecting, filtering, extracting and presentation of information. To follow this process knowledge of sources, accessibility of materials, filtering of accurate information, extracting the required information, presenting quality and appropriating information are essentials as a part of information seeking behavior.

In educational environment there are six level of education; preschool, primary, middle, high, intermediate, and university. From pre-school to middle school student acquire educational information by reading story books, course books and general books. High school to intermediate student's information seeking revolve around on different sources, and type of information. However, University graduate and undergraduate students get information by reading books, journals, articles, databases, and visiting websites and using different channels and media of information. "Library is a collection of materials organized for use" (McGarry, 1997). In addition, library is a central point where students get knowledge, share ideas, collaborate with each other and brings innovations. Student understands that library will be helpful in seeking information because of their collection, services, and programs. Also for the availability of skillful and experience staff. Baro, Onyenania & Osaheni (2010) identify that student consider library as a main source of information. Wong & Webb (2011) revealed that students who gets benefit from library resources/services gets high grades in academic courses. They further demonstrate that library plays an important role in student learning and their academic success. Therefore, libraries should be aware about information seeking behavior of users by conducting user studies and providing libraries resources/services according to the need of users.

Pakistan is lies in the north-east of the South Asian subcontinent. It is the site of several ancient cultures population of and intertwined with the history of the broader Indian subcontinent. It is one of the most densely populated countries in the world. Karachi is the largest city in Sindh province of Pakistan. It has the campus of the country's main university, several prestigious colleges, and scientific research institutions (Malik & Gankovsky, 2006). University of Karachi is the biggest university of province of Sindh and recognized as a premier center of learning & research in subcontinent as well as in the Third World. <http://uok.edu.pk/icisct/index.html>. The university was established in 1951 as a Federal University. Later on in 1962, it got the status of university of Sindh. Initially, the university started teaching and research from two faculties, Arts and Science with fifty students. Currently, university has fifty-four departments, nineteen Research Centers and Institutes under six faculties. University had fourth position in the "General University" category and eight position in "Overall Top 10 Higher Education Institutions" at the 5th ranking of Pakistani Higher Education Institutions 2015. Subsequently, 239th position in Asia University Rankings. According to 2018 statistics, there were 41, 000 enrolment of regular students with higher female enrollment than male students. In the year of 2019 female students got top positions in all faculties of the university. (The news 29/12/2019). We can see university as the mix pot of diversity due to variety of students who belongs to different culture, traditions and societies. They come to university to get education from different districts, cities and from different countries of the world. Hence, information seeking behavior of university of Karachi can be different because of their family background, culture, education, facilities and resources.

Undergraduate studies is the four-year program offers by University of Karachi in different disciplines like Arts, Science, Education, Finance, Law, Management and others. Student after completion of their intermediate education from college get admission into undergraduate program in University of Karachi. However, there is a major difference of teaching, learning and examination system between colleges and universities of Karachi. In colleges, students depend on their prescribed textbooks for studying. Also,

student does not use college libraries' services and resources for their educational purpose and information seeking due to lack of libraries in colleges. When students get admission in the University of Karachi, they face challenges to identify information need, finding information resources and using library and its services.

Objectives

- To find out purpose of information seeking of undergraduate students.
- To discover information resources needs by undergraduate students.
- To identify information channels uses by undergraduate students.
- To know preferable format of information resources of undergraduate students.

Research Questions

1. What is the purpose of information seeking of undergraduate students?
2. What are the information resources used by undergraduate students?
3. Which information channel used by undergraduate students?
4. What is preferable format of information resources of the undergraduate students?

Statement of Problem

Information seeking is a skill for getting and using information. This skill cannot be learnt within a short period of time but it needs education, training, learning, and lots of practice as well as development. Those people who have good skills get their require information effectively and efficiently. But for others; seeking information is confusing, frustrating, hesitating, and uncertainty as a result fail to success. Therefore, proper information seeking skills play a vital role in the academic activities of undergraduate students for the fulfillment of educational requirement demand by a university.

University of Karachi has different method and procedure of teaching and learning unlike school and colleges. During studies in universities, students need to study and consult different books and reading material to accomplish their syllabus. Students are assigned different assignment and projects. Students have to look into vast variety of informational and educational material to complete their assignments and projects. Unfortunately, on the basis of their previous education and learning from school to college; students do not have appropriate skills, knowledge and experience of information seeking. Thus, they face different challenges to identify information need, and information resources. Moreover, student faces difficulty in using library collection and its services.

In this study, purpose of information need; information resources as well as information seeking behavior of undergraduate students at University of Karachi identified.

Scope & Limitation

This study identified the information seeking behavior of undergraduate students studying at University of Karachi, Pakistan. Students of other program i.e. M. Phil & PhD are not included in this study.

Significance

This study will fill the gap within existing knowledge because fewer researches are conducted so far about information seeking behavior of undergraduate students especially in perspective of Pakistan. Additionally, no study about information seeking behavior of University of Karachi's students have been

conducted yet. This study will be helpful for the student to know method and procedure to seek information. Further, it will be helpful to know information sources, media and channels related to their subject and topic. Teachers can be able to identify students' needs and their pattern of information. Thus, on this information teacher will guide students about their designated project and assignment. Moreover, libraries will be able to know information need of students. In addition, libraries may improve and enhance their collection, services and programs.

LITERATURE REVIEW

Although, previously several studies have been conducted so far on the various aspects and on different user groups to know information seeking behavior. Currently, the value of study of information seeking behavior is significant due to transformation of education system, technological advancement and psychological impact. Below are the reviews of some studies on information seeking behavior related to students:

Khan & Khan (2020) investigated the information seeking behavior of research students at university of Peshawar, Pakistan. Objectives of the study includes to identify information need, sources, resources, barrier of information seeking as well as factors motivating the use of libraries and quality of research. Quantitative approach applied on the study. Survey method was used among 300 research students of the university. Results show that researchers need information to identify research problem, getting current information, writing research proposal, article and thesis. In addition, researchers use internet and databases to acquire information. Researchers use library resources and services for their research study. Whereas, study reported internet connectivity, ICT facilities and unavailability of study rooms in libraries as a barrier of information seeking. Motivating factors includes information sources and e-databases to visit library.

Howlader & Islam (2019) in their study "Information-seeking behavior of undergraduate students: A developing country perspective" at Dhaka University, Bangladesh through a questionnaire among 339 participants finds that undergraduate student needs information regarding their academic. They use social media as information source. Consequently, get help from friends and but does not visit library frequently due to being unaware about library information sources and resources. Thus, this result to dissatisfaction with library services. They further identify that students have poor ICT, OPAC & searching skills and face slow internet speed and shortage of computers are barriers of information seeking behavior at library.

El-Maamiry (2017) in his study about information seeking behavior of students in terms of electronic resources at University of Dubai found out that students use electronic resources in accordance with instructor's guidelines and follow tips from colleagues. Author emphasizes academics to educate students to increase their knowledge about information searching behavior. In addition, advanced technology and electronic resources are emerging as an information literacy barrier. Moreover, student prefers their own convenient time and place for information searching rather than using library space.

Komissarov & Murray (2016) conducted study of "Factors that influence undergraduate information-seeking behavior and opportunities for student success" at University of Wisconsin. Researches collected data from 542 participants through electronic survey and reveals that undergraduate student starts information seeking with Google, full-text articles are their popular source, and give preference to

electronic format. Researchers determine by valuing attribute sources; relevant subject, full text and physical availability of sources. Students conduct library research on-campus but frequency of library visit is once per week thus hesitant to seek assistance from library staff. Researchers identify ten variables that influence information seeking behavior. Researchers further suggested that library staff and instructors' guidance can potentially influence information seeking behavior of students.

Chaura (2015) explored the information seeking behavior of final year students of Mzuzu University in Malawi by mixed method approach and using survey method. He received responses from 243 students belonging to five faculties of the university. He identified that majority of students start information seeking by using internet. He further found out that student gives preference to search engine and OPAC as a retrieval tool and applies keyword search, phrase search on internet. He also compares the ISP model of Kuhlthau with students' feelings and emotions during the searching process and found out that students' feelings and emotions did not conform the ISP model of Kuhlthau.

Baro, Onyenania & Osaheni (2010) conducted study of Information seeking behavior of undergraduate students in the humanities in three universities in Nigeria. In this study; questionnaire, interview and observation method applied among 259 participants. Researcher finds that students need information for academic related activities and consider library as a main source of information. Researchers compare information seeking behavior with David Ellis model of six search strategies and demonstrates lectures or colleagues (starting), library collection (browsing), references at the end of books (chaining), card catalogue (differentiating, monitoring and extracting). Researchers recommend integrate Information literacy program into curriculum. Further, use of marketing tool to describe library services/collection and provision of ICT facilities. Moreover, study emphasizes allocation of funds to purchase books and journals.

Barrett (2005) conducted the exploratory study on "The Information-Seeking Habits of Graduate Student Researchers in the Humanities". In her study she used qualitative approach. She conducted in-depth interviews of ten students (three MA & three PhD). These students were from English, History, Philosophy, Classics, and Music departments. She identified that undergraduate and graduate students use online journals, OPAC, internet & website as an electronic information tool. She found out that they follow advice and guidance from instructors. Much used information resources are databases, indexes, browsing library shelves, bookstores, and citations in books and papers. Information retrieval pattern of student researchers were constant reading, scanning library book selves, book store, and chasing citation and initiate research projects in haphazard ways.

Fidel, Davies & Doughlass.. et.al (1999) in their study " A visit to the information Mall: Web searching behavior of high school students" used a qualitative approach by using interview, observation, discussion and think aloud method among eight high school students at West Seattle High School, Seattle. Researchers point out that student feels internet as easy and quick way of information searching. Student follows their and others' past experiences while searching. However they perform focus, swift and flexible searching. But due to slow speed of internet and inaccessibility of expected results they get frustrated. In addition, student enjoys web searching because of variety of formats and graphic information. Research suggested that website could be improved by shorter URLs and increasing speed of internet. On the other hand, students face difficulty to describe search strategies to others. Researchers reveal that students, teachers and librarians need training for searching technique.

Above literature shows that undergraduate student needs information for their educational and study purpose to fulfill their assignment, presentation, class discussion, class activities, examination, workshops, and preparation of research proposals. Initially, students start information seeking with internet and

search engine. They recognize useable information sources to online journals, full-text articles, databases, and indexes. Most students prefer electronic format other than print format. However, student have poor ICT, OPAC searching and literature searching skills. Students expect that library help them to acquire required information. Therefore, library should enhance their collection and services as per students' need. Additionally, library should conduct information literacy training and courses to teach and learn information searching skills to students.

RESEARCH DESIGN

Research Approach

Quantitative approach was applied to conduct this study as outcome of quantitative approach make generalization possible into overall population (Daniel, 2016). In addition, findings of quantitative approach presents in figures and numbers such as statistics, mathematical and percentage. Quantitative data collects in numbers. Consequently, number presents a clear and comprehensive picture without discrepancies.

Method of research

In this study survey method was applied in order to identify information seeking behavior of undergraduate students of University of Karachi, Pakistan. "A survey design provides a quantitative or numeric description of trends, attitudes, or opinion of a population by studying a sample of that population" (Creswell, 2014, p. 155). Moreover, survey method is adopted because it is efficient and cost effective as well as provides a wide scope of data collection within a short period of time.

Data Collection Tool

To achieve objectives of the study, a structured questionnaire was developed as a data collection tool. The questionnaire was consisted of eleven questions in which ten questions were close-ended and multiple choice questions (MCQs). In the beginning of the questionnaire, a note for participants was presented for describing purpose of the study, confidentiality of the information and anonymity of the participants.

The questionnaire was divided into two parts. First part was illustrated the questions related to demographic information about the undergraduate students. Second part was illustrated questions related to information seeking behavior of undergraduate students such as purpose of information seeking, information sources, information media and channels. In addition, there was some questions related to library services and collection. In the end of the questionnaire, one open-ended question was asked about any suggestion or recommendation.

Sampling

Participants/Population: Participants of the study were the undergraduate students of the University of Karachi, Pakistan who are studying in the different departments of different faculties of the university.

Sample Size: The sample size of the study was consisted of 220 participants. Questionnaire were distributed to 220 participants whereas received questionnaires were 215. In which 7 questionnaire were filled incorrectly and incomplete. So, corrected questionnaire were received 208 out of 220.

Sampling Technique: Simple Random sample technique was applied. This technique is “considered as a fair way of selecting a sample from a given population since every member is given equal opportunities of being selected” (Sharma, 2017, p. 750). By following this technique, undergraduate students selected randomly for the study.

DATA COLLECTION

Before starting data collection of questionnaire to students, a pilot study was conducted between ten students. The error was notified and corrected in the questionnaire. Data collection was started in the month of February 2020 but in the beginning of March 2020 it was discontinued due to closure of University of Karachi to control of spreading Corona Virus (COVID-19). Then, data collection was begun again in the month of September 2020 when University of Karachi was re-opened. Researchers of the study personally visited every participant in the different section of Dr. Mahmud Husain Library with the permission of In-charge of the Library Section. Researchers described each question of the questionnaire to participants, and, then participant personally filled the questionnaire. Researchers also visited different faculties of the university and repeat the same process to get maximum and accurate response rate from the participants. As a result, the response rate was 94% of the study. Data collection was completed in the month of October 2020.

DATA ANALYSIS

The filled-in questionnaires were reviewed and checked by researcher for the accuracy of the data. Completed and comprehensive data forms were accepted for data analyzing. Accepted forms were given the serial number. Researchers entered the data from the questionnaires into the SPSS. Then, researchers were analyzed entered data by using (SPSS).

RESULTS

Demographic Information of the Participants

Table-1 shows the demographic information of the participants i.e. undergraduate students. There were 208 participants from the 7 faculties of the University of Karachi. 103 (50%) participants belonged to Arts & Social Sciences, 86 (41%) belonged to Faculty of Sciences whereas 8% from various other Faculties.

Participants' years of study consisted of four years from year I to year IV. Majority of year-III students participated in the study; 94 (45%). In addition year-II, 52 (25%); year-IV, 46 (22%), and year-I, 16 (8%). 63 (30%) were Male participants as well as 145 (70%) were Female. Four type of age group participated in which 16-20, 40 (19%); 21-25, 147 (70%); 26-30, 21 (10%); 31-35, 0 (0%).

Table-1: Demographics Information of Undergraduates (N=208)

Variables	Description	Frequency	%
Name of Faculty	Faculty of Arts & Social Sciences	103	50
	Faculty of Education	4	2
	Faculty of Islamic Studies	6	3
	Faculty of Law	4	2
	Faculty of Management & Administrative Sciences	3	1
	Faculty of Pharmacy	2	1
	Faculty of Science	86	41
Year of Study	Year- I	16	8
	Year – II	52	25
	Year – III	94	45
	Year – IV	46	22
Gender	Male	63	30
	Female	145	70
Age	16-20	40	19%
	21-25	147	70%
	26-30	21	10
	31-35	0	0

Purpose of Information seeking

In the survey respondents were asked for what purposes they often needed information. Table-2 highlighted the purpose of information of the undergraduates. It clearly pointed out that majority of students 130 (62.5%) required information for self-study. Apart from this, 68 (32%) for assignments; 54 (25.9%) for presentation; 24 (11.5%) and 112 (5.7%) for other purposes needed information. Table-2: Purpose of Information of the respondents and gender

(N=208, multiple response)

Purpose of Information Need	Female	%	Male	%	Total	%
Self-study	84	40.3	46	22.1	130	62.5
Presentation	30	14.4	24	11.5	54	25.9
Assignments	47	22.5	21	10	68	32.6
Reports	17	8.1	7	3.3	24	11.5
Others	7	3.3	5	2.4	12	5.7

Preferred format for Information

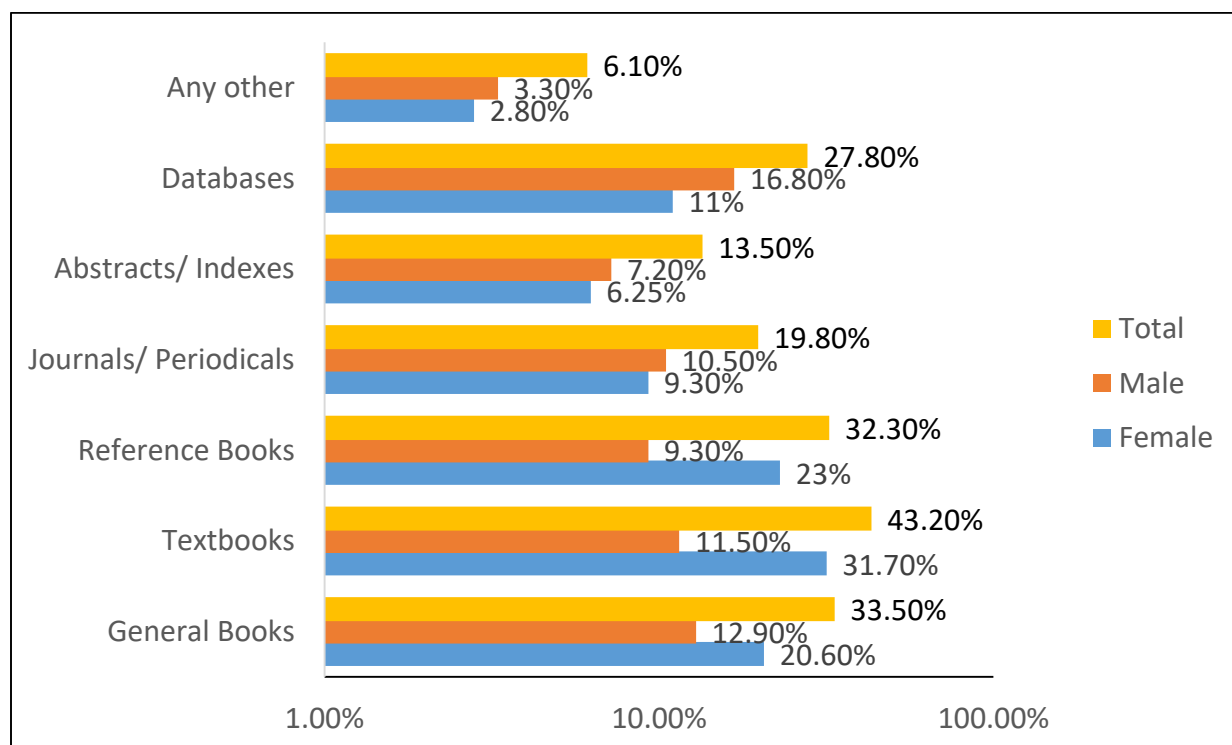
Respondents were asked about their preference of the format while seeking information. In Table-3, results of the question reveals that majority of the students prefer print and electronic both formats that indicate undergraduate students focus on purposeful authentic and reliable information. However, print sources were preferred higher than electronic sources.

Table-3: Preferred format of the respondents

Preferred Format	Mean	Median	Mode	SD	SV	Confidence Level
Both Sources	2.264	3	3	0.935	0.875	0.129
Print Sources	1.897	2	1	0.796	0.634	0.109
Electronic Sources	1.740	2	2	0.592	0.350	0.081

Sources of Information in case of information need

The question asked in the questionnaire about which source undergraduate students utilize in case of information need. Results distinguished on gender basis in Chart-4. Interestingly, it was revealed that female students heavily used textbooks with frequency of 66 (31.7%) whereas male students heavily depended on databases with frequency, 35 (16.8%). Other sources used by female were reference book, 48 (23%), general book 43 (20.6%), databases 23 (11%), journals/periodical 19 (9.3%), abstracts/indexes 13 (6.25%) and any other 6 (2.8%) respectively. On the other hand, information sources used by male were general books 27 (12.9%), textbooks 24 (11.5%), journal/periodicals 22 (10.5%), reference books 19 (9.3%) and any other 7 (3.3%). Total results offered usage of Textbooks with high frequency 90 (43.2%) followed by general books 70 (33.5%) and reference books 67 (32.3%). Chart-4: Sources of information and gender (N=208, multiple response)



Frequently used information channels

To know which information channels were used frequently, eight channels were mentioned in the questionnaire. Respondents were asked to rank their answers in order. Table-5 shows the result of the frequently used information channels. Result is arranged as per rank in order. Frequently used channel was Internet with rank-1 (Mean 5.99), followed by online consultancy with rank-2 (Mean 5.84), mass media with rank-3 (Mean 5.34), colleagues with rank-4 (Mean 4.83), social media with rank-5 (Mean 4.21), teacher with rank-6 (Mean 3.55), library with rank-7 (Mean 3.45), record Centre rank-8 (Mean 3.19).

Table-5: Use of Information Channels

Information Channels Used	Standard Deviation	Mean	Rank
Internet	2.14	5.99	1
Online Consultancy	2.04	5.84	2
Mass media	1.94	5.34	3
Colleagues	1.98	4.83	4
Social Media	2.11	4.21	5
Teacher	1.84	3.55	6
Library	1.76	3.45	7
Record Centre	1.23	3.19	8

Type of Library Services

Library of the University of Karachi offers many services to undergraduate students. List of library services were given to the questionnaire. Students were asked to answer which type of library services they used during study of program. We found that majority of students used Reading Room Service 104 (50%), then, Internet was the heavily used service 62 (29.8%), after that, Book Bank Service 52 (25%), next Reference Service 51 (24.5%), journals/article service 39 (18.7%), Circulation Service and Photocopy Service had same response 28 (13.5%).

Table-6: Type of Library Services and gender (N=208, multiple response)

Type of Library Services	Female	%	Male	%	Total	%
Circulation Services	16	7.69	12	5.76	28	13.5
Reference Service	31	14.9	20	9.61	51	24.5
Photocopy Service	13	6.25	15	7.21	28	13.5
Book Bank	39	18.8	13	6.25	52	25
Reading Room Service	59	28.4	45	21.6	104	50
Journals/Articles Service	24	11.5	15	7.21	39	18.7
Internet Lab	34	16.3	28	13.5	62	29.8

Method of Information Collection from Library

With the objective to know information collection sources of the library, different options of library sources were offered to students in the questionnaire. Table-7 shows information collection sources of library with response frequency and percentages. According to the result, it was found that students mostly collect information from librarian by asking different sources. Table-7 presented results ask for a librarian 127 (61.05%), followed by card catalog 66 (31.73), browsing shelf 55 (26.44%) and subject bibliography 31 (14.91%).

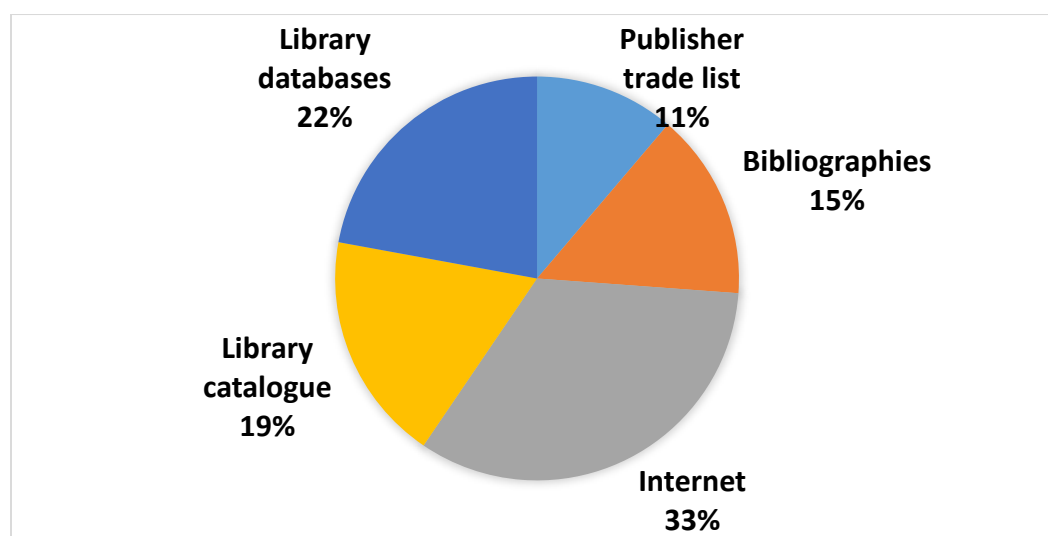
Table-7: Information Collection from Library and gender (N=208, multiple response)

Information Collection	Female	%	Male	%	Total	%
Browsing Shelf	34	16.34	21	10.09	55	26.44
Ask for a Librarian	81	38.94	46	22.11	127	61.05
Subject Bibliography	17	8.17	14	6.73	31	14.91
Card catalog	37	17.78	29	13.94	66	31.73

Finding of existence of any source

During the academic activities, students needed to do different assignments, presentations, report writings, group discussion and speeches. Students use different type of material to find existence of different source. Therefore, students were asked which information source they use to find existence of any source. Response of student is present in Chart-8 in which internet is mostly used source to find existence of any source with frequency 107 (51.43%), whereas library databases 71 (34.13%), library catalogue 59 (28.36%), Bibliographies 48 (23.07%) and publisher trade list 36 (17.3%).

Chart-8: Finding of existence of any source



Finding of existence of any source

Searching Skills

Respondents were asked to rate their searching skills to get information electronically. Table-9 indicated, interestingly, female 61 (29.3%) rated their searching skills as medium and 54 (25.96%) as high searching skills, 16 (7.69%) low and 14 (6.73%) low searching skills. On the other hand, Male rated 23 (11.05%) high searching skills and 22 (10.57%) medium searching skills, 12 (5.76%) very high and 4 (1.92%) low searching skills.

Table-9: Searching Skills of respondents and gender (N=208)

Rating of Searching Skills	Female	%	Male	%	Total	%
Low	16	7.69	4	1.92	20	9.61
Medium	61	29.3	22	10.57	83	39.87
High	54	25.96	23	11.05	77	37.01
Very High	14	6.73	12	5.76	26	12.49
None	1	0.48	1	0.48	2	0.96

Searching Technique

Table-10 presents the answer that, have students previously learnt any searching techniques? According to the results, majority of students learnt title searching technique 55 (26.44%), key word searching technique 50 (24.03%), and field searching 45 (21.62%), direct URL 38 (18.26%) respectively. Crucially, 37 (17.78%) did not learn any technique.

Table-10: Searching Technique of respondents (N=208, multiple response)

Searching Skills	Female	%	Male	%	Total	%
Key Words Searching	31	14.9	19	9.13	50	24.03
Phrase searching	14	6.73	5	2.4	19	9.13
Field Searching	35	16.82	10	4.8	45	21.62
Title Searching	29	13.94	26	12.5	55	26.44
Domain Searching	5	2.4	8	3.84	13	6.24
Direct URL	24	11.53	14	6.73	38	18.26
None	28	13.46	9	4.32	37	17.78

Searching Skills Training/Course

In the end of the questionnaire, there was a question that have students attended any course/training/workshop to learn any searching skill? Results found that only 21% students have attended any course/training/workshop whereas 79% students did not attend any searching skill course/training/workshop (Table-11).

Table-11: Course/training/workshop attended by respondents and gender (N=208)

Course/training/ workshop	Female	%	Male	%	Total	%
Yes	30	14	14	7	44	21
No	115	55	49	24	164	79

DISCUSSIONS

The objectives of the study was to explore information seeking behaviors of the undergraduate students at the University of Karachi. Four research questions were framed in order to achieve objectives of the study. These includes purpose of information seeking, usage of information sources, preference of information format and identification of information channels. Data was collected through the survey by a random selection from the undergraduate students studying in the different departments of the faculties of the university. The sample size of the survey was limited. Findings evident that purpose of information seeking of undergraduate students is utilize it for self-study related to their curriculum as well as for completing their assignments and preparation for exams. This result is relevant to the fact that during studies at the university, students have limited time due to semester system and they need to focus on assignments, presentations, class discussion, class lectures, report writings being conducted related to curriculum. This result is also pertinent to the Baro (2010) that emphasized that undergraduate students need information for their academics, assignments, and examination. Consequently, it is significant that undergraduate students preferred to get information from printed and electronic both format. It is relevant to the fact that aim of students to get pertinent information regardless of format. In addition, if they finds information they compromise on format. In regard to sources of information, majority of students use textbooks, general books and reference books to acquire information. It is in line with the result of Howlader (2019) that highlighted that students mostly depends on class lectures and textbooks for obtaining information. It is important to know that compared to other information channels internet is heavily used channel to get information among other channels. It is relevant to the fact that majority of student depends on internet to get information. It is relevant to the study of Chaura (2015) that found that students heavily relied on Internet. It is interesting to know that reading room of library is mostly used by undergraduate students because the library is a essential place where students can sit and study for extended periods of time. Also students use library as a meeting and networking place. Besides this, students have group discussion and collaboration work there. Additionally, majority of students use 'Ask a Librarian' service of library to collect information. It is relevant to the fact that library keeps its collection in closed access and students are limited to browse shelf themselves. Students ask librarian to provide sources related to their query. Internet and library databases are the easy and simple way to find existence of any source for undergraduate students of the university. It is in line with the fact Baro (2010) that reveal that student uses internet and databases to find information. Higher Education Commission of Pakistan offers many databases to public and private sectors of Pakistani university libraries. HEC digital library play a vital role in finding information for students, faculty, scholars and researchers. However, students have medium searching skills to find information. Most of the students know only "title" searching and "key word" searching technique and does not give importance to other searching technique. 79% students did not attend any training, workshop and course to learn searching technique because they don't give importance to searching technique as well as don't want to spend money to pay fees for the courses and training.

CONCLUSION

The aim of this study was to explore the information seeking behaviors of undergraduate students at University of Karachi, Pakistan. There were four objectives of the study. These include finding out the purpose of information seeking, information resources needs, information channels and preferable format of information resources of undergraduate students. Data was collected from 208 participants using a survey method. Questionnaire was used as a data collection tool to get responses on questions. Finding showed that during undergraduate studies students remain engaged in getting information by adopting different methods, procedures and systems. Students needed information for self-study. In addition, most students get information from textbooks advised by faculty. Students wanted easy and quick information, therefore, they used the internet as a first preferable source of finding information. Most students visited the library to collaborate and network with each other which indicates that the library has its significant value due to being a space for reading and discussion. Students believe they have high searching skills although they did not attend any proper searching skill course or training. However, it is expected that students will give importance to improving searching skills in the future because teaching and learning methods are being changed from physical to online. This study will be helpful for students, teachers, administrators to know the method and procedure of information seeking. Students would improve their information seeking skills, teachers would know the understanding of students regarding information and its sources. Administrators would improve their facilities and resources. Libraries would evaluate the application of library resources and would improve library service. Further research can be done to know the impact of Information Communication Technology on information seeking behavior on students. Subsequently, future research can be conducted to research information seeking behavior of students and professionals belonging to specific disciplines such as students of Science, Engineer, and Economics.

REFERENCES

- Baro, Emmanuel E., Osaheni, Oni and Onyenania, George O. 2010. Information seeking behaviour of undergraduate students in the humanities in three universities in Nigeria. *South African Journal of Libraries and Information Science*, Vol. 76, no. 2: 109-117.
- Barrett, Andy. 2005. The information-seeking habits of graduate student researchers in the Humanities. *The Journal of Academic Librarianship*, Vol. 31, no. 4: 324–331.
- Chaura, Maloto G. 2015. Information behaviour of final year students of Mzuzu University in Malawi. *Library Philosophy and Practice (e-journal)*. Spring 4-27-2015. Available at: <https://digitalcommons.unl.edu/libphilprac/1249/>
- Creswell, J. W. 2014. *Research design: Qualitative, quantitative, and mixed methods approaches*. Los Angeles: Sage publications.
- Ellis, David. 1997. Information seeking behavior, In: J. Feather, P. Sturges, eds. *International Encyclopedia of Information and Library Science*. London: Routledge: 216-217.
- El-Maamiry, A. A. 2017. The information-seeking behaviour of students: A case of university of Dubai. *Global Journal of Computer Science and Technology*, Vol. XVII, no.1:1-6.
- Eyisi, Daniel. 2016. The usefulness of qualitative and quantitative approaches and methods in researching problem-solving ability in science education curriculum. *Journal of Education and Practice*, Vol. 7, no.15: 91-100.

Fidel, Raya, Davies, Rachel K., and Doughlass, Mary H.. .. et.al. 1999. A Visit to the information mall: Web searching behavior of high school students. *Journal of the American Society for Information Science*, Vol.50, no.1: 24–37.

Halepoto, Mtiaz Essa. 2020. *The Nation*. August 4. Available at: <https://nation.com.pk/04-Aug-2020/literacy-rate>.

Higher Education Commission, Pakistan. 2020. Higher Education Commission, Pakistan. November 15. Available at: <https://www.hec.gov.pk/english/universities/Pages/University-Ranking.aspx>.

Khan, Asad, and Amjid Khan. 2020. Information seeking behavior of postgraduate students in the University Of Peshawar, Pakistan. *Library Philosophy and Practice*, Fall 10-6-2020:1-17. Available at: <https://digitalcommons.unl.edu/libphilprac/4380/>.

Komissarov, Sloan & Murray, James. 2016.. Factors that Influence undergraduate information-seeking behavior and opportunities for student success. *The Journal of Academic Librarianship*, Vol. 24, no. 7: 423-429.

Kundu, Dipak Kumar. 2017. Models of information seeking behaviour: A comparative study. *International Journal of Library and Information Studies*, Vol. 7, no.4: 393-405.

McGarry, Kevin. 1997. Library, In: J. Feather and P. Sturges, eds. *International Encyclopedia of Information and Library science*. New York: Routledge: 254-256.

Sharma, Gaganpreet. 2017. Pros and cons of different sampling techniques. *International Journal of Applied Research*, Vol. 3, no. 7: 749-752.

Stoney, Milly. 2006. Physical geography. In H. Malik, Y. V. Gnkovsky, eds. *The Encyclopedia of Pakistan*. Karachi: Oxford University Press: 315-320.

Wong, Shun Han Rebekah, and T. D. Webb. 2011. Uncovering meaningful correlation between student academic performance and library material usage. *College and Research Libraries*, Vol. 72, no. 4: 361-370.