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INFORMATION NEEDS AND SEEKING BEHAVIOUR OF FACULTY MEMBERS AND GRADUATE STUDENTS IN A PUBLIC UNIVERSITY, BANGLADESH

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| Abstract

The study aims to explore the information needs and seeking behavior of users at the University of Chittagong Library, with a particular focus on faculty members and graduate students. The study used a quantitative research methodology. A set of questionnaires was used to gather information regarding the information needs of library users, their preferred information-seeking behaviors, and their overall satisfaction with the library's offerings. The descriptive findings were investigated using a variety of descriptive statistics, and Mann-Whitney and Kruskal-Wallis tests were used to see whether there were any statistically significant variations in the patrons' demographic data regarding the frequency of library visits. Findings indicate that faculty members and graduate students have a wide range of information needs, including access to academic journals, research materials, and specialized databases. Based on the analysis of the data; the "Asymp. Sig (2-tailed)" is reported as 0.719, indicating that there is no significant difference in library visit frequency between females and males. On the basis of the user response academic journal is the mostly used sources while research paper and journals is the mostly used sources. Regarding sources and standards of information for research purposes activity academic standard is the most considered standard. The findings can inform future developments and improvements in library services, aiming to enhance user experiences.

| Keywords

Information needs, Information Seeking Behaviour, University Library users, University of Chittagong, Bangladesh

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1. Introduction

Information has become one of the most essential components in our daily life. Today, libraries must have knowledge of user information-seeking patterns in order to tailor resources to meet their demands (Humbhi & Tareen, 2022). Information-seeking behavior is a comprehensive word that describes how and why people require, seek out, and utilize information in a variety of circumstances. A more particular and dynamic process of psychological, linguistic, and interpersonal activity is information-seeking (Ahmad et al., 2023; Case, 2002). The information seeker's quest is continually motivated by numerous factors and occurs in a variety of circumstances in order to satisfy their information wants (Howlader & Islam, 2019). Access to information and information-seeking behavior has greatly benefited from the advancement of information and communication technology. Therefore, those who work in libraries and information

science must constantly be aware of the information-seeking criteria, the information needs of users, the designing and development of new information systems based on those needs, and the planning of already-existing systems and services (Haque et al., 2016). A person has an information need when they are in need of information to quench their thirst for knowledge. To carry out every task, a person needs information (Shailendra and Prakash, 2008, Hossain et al., 2017). Basically, Academic libraries serve as important information hubs and help university students acquire skills for continuous development. In order to find trustworthy sources of data relevant to their research, they must enhance their skills in information management and their utilization of information tools and resources (Kadir et al., 2018) .

The University of Chittagong Library plays a vital role in supporting the academic endeavors of faculty members and graduate students by providing access to a wide range of resources and services. Understanding the information needs, seeking behavior, and satisfaction level of library users is crucial for delivering effective and tailored library services that meet their requirements. This case study aims to investigate the information needs, seeking behavior, and satisfaction level of faculty members and graduate students at the University of Chittagong Library.

Information-seeking behavior is a dynamic process influenced by various factors, such as the individual's discipline, research interests, and familiarity with library resources. Users employ different strategies, ranging from traditional methods like browsing physical collections and consulting librarians to utilizing digital resources and online databases. Understanding these behaviors provides insights into how users navigate the library's resources and services, enabling the library to optimize its offerings accordingly.

The objectives of this case study are to identify the information needs, investigate the information-seeking behaviors of faculty members and graduate students at the University of Chittagong Library. By examining these aspects, the study aims to provide valuable insights that can inform evidence-based improvements in library services, resources, and facilities, ultimately enhancing the overall user experience and supporting the academic pursuits of the university's academic community.

2. Literature Review

Understanding the information needs and seeking behavior level of university library users is crucial for libraries to provide effective and tailored services that meet the diverse requirements of their users. This literature review explores key concepts, theories, and findings from previous studies, shedding light on factors that shape the user experience within academic libraries. Haque *at al* (2016) made an effort to look into the information needs and information seeking behaviour of users while taking into account full-time faculty members and research scholars of three university libraries. They did this in order to determine various seeking behaviour as well as the degree to which the university library is able to meet the information needs of various categories of agriculturists.

2.1 Information Needs

University library users have diverse information needs that encompass a wide range of academic disciplines and research areas. Previous research has highlighted the importance of access to scholarly journals, books, research materials, and specialized databases in meeting the information needs of university students and faculty members. The term "Information Needs" is the result of combining the words "Information" and "Needs." American information scientist Robert S. Taylor introduced the idea of information needs in his paper titled "The Process of Asking Questions" that was published in American Documentation (K. Singh et al., 2015). "Information needs" are those that result from a strong desire to learn and solve problems in order to close knowledge gaps and improve cognitive functions in relation to academic and curriculum programs, career and other developmental programs (Halder et al., 2010). Information needs of information searchers are like variables that change over time, claimed by Nwobasi

et. al. (2013). A similar definition of an information requirement is a knowledge gap that needs to be filled in order to make a decision or resolve a problem. These needs can vary based on users' academic disciplines, research interests, and specific study or research requirements. The information needs and information-seeking behaviors of social science researchers at an Indian college in Uttrakhand were studied by Kumar (A. Kumar, 2013). To find out the answers to questions about library collections, effectiveness, material organization, library services, use of the internet, search engines, information resources, need for data, the goal of information, etc., a survey of research scholars was conducted. Babariya et al., (2014) looked at LIS professionals in different Indian states to learn about their attitudes and behaviors when looking for information online. According to the author, librarians should have a comprehensive awareness of the demands and information-seeking habits of their users. Without a clear understanding of the needs, it is challenging to meet their demands and create a suitable information system. Habiba *at al.* (2021) also investigated and examined the information-seeking behavior of faculty members of a public university while they perform research activities.

2.2 Information-Seeking Behavior

The phrase "information behavior" was first used in the late 1990s, but its origins can be found in the phrase "information needs and uses" that first appeared in the 1960s (Khan & Shafique, 2011). "Information-seeking behavior" is widely understood to refer to the active or intentional behaviors pupils engage in when studying (Halder et al., 2010) . Information-seeking behavior plays a critical role in how university library users interact with library resources and services. The information seeker is still the most crucial element in the information seeking process, as their primary traits influence their preferred search tactics and overall success (Malliari et al., 2011). To gather, compile, utilize, and spread information, people have a variety of information-seeking behaviors. Actually, the manner in which people seek information is influenced by their qualifications or degree of education. Unqualified people need fundamental information that can be understood in simple terms, whereas qualified people need material that is scholarly and presented in a scholarly manner (Ilhaq & Tousif, 2021; Kundu, 2017). Users employ various strategies and approaches to search for information, including browsing physical collections, utilizing online resources and databases, consulting with librarians, and collaborating with peers. Wilson (Wilson, 2000) defined information-seeking behavior as the actions a person may take to determine his own information needs, search for that information, and use it. A person starts looking for information when they believe their present level of knowledge falls short of what is required to solve a particular issue. When the perception vanishes, the process is over (Singh, 2003) . Howlader and Islam (2019) developed a new model plan on information seeking behaviour based wilson (1999) and Kuhlthau (1994) model and focused on the discussed elements and designed the questionnaire to examine the elements from the viewpoint of a developing country. Shathi (2017) conducted a study to present insights of information needs and information seeking behavior of faculty members. These insights might be used to improve library services, particularly in developing library education programs that would address faculty demands. In a Private University Library, Kadir et al. (2018) looked into the information requirements of the users and their information-seeking habits. The study measured users' information demands with information sources used, categories of knowledge, users' awareness, and users' training to assess students' searching behavior. In order to inform the creation of specialized library services, Haines et al. (2010) looked into the information-seeking habits of basic science researchers. Although the fundamental science researchers had a favorable opinion of the library, they came to the conclusion that neither its resources nor services were essential to their job. Library materials must be available via departmental websites for researchers to utilize them to the fullest extent possible

3. Objectives

1. To identify the specific information needs of faculty members and graduate students at the University of Chittagong Library.
2. To determine whether there were any statistically significant differences between male and female regarding the frequency of library visit.
3. To investigate the information-seeking behaviors employed by faculty members and graduate students when accessing library resources and services.
4. To provide insights to improve the library services and resources in order to better meet the information needs of users at the University of Chittagong.

4. Methods and Materials

For the purpose of gathering data, a set of structured questionnaires was distributed using Google form and personally handed among faculty members, researchers, and students from the university's 9 faculties. 240 questionnaires were distributed among 240 in total, and 209 of them were returned, the response rate is 87.08%. The gathered information was examined using Google response statistics, downloading spreadsheet and then MS-Excel to provide descriptions of frequencies, percentages, means, and rankings, among other results. Both a four-point and a five-point scale were used in the questionnaire.

SPSS Version 25 software was used to code and tabulate the quantitative data from the survey replies for analysis. After analyzing the descriptive findings (i.e., frequency percentages and numbers), Mann-Whitney and Kruskal-Wallis tests were run to determine whether there were any statistically significant variations in the demographic gender data regarding the frequency of library usage. The following null hypothesis was also tested at the $p < 0.05$ level of significance in this paper, i.e.:

$H0_1$. There is no significant differences between respondents' demographic gender variables regarding library use.

5. Data analysis, Result and Discussion

The data in Table 1 displays the respondent's gender in frequency. A total of 209 people responded, with 201 (53.6%) of them being female and 97 (46.4%) being male. The data shows the user category. Out of the total count, 25 (12%) were faculty members, 152 (72%) were students and 32 (15.3%) were researchers. The designation of responders is shown in the statistics. Out of the total, the largest portion were from Honor's students 91 (43.5%), followed by Master's students 52 (24.9%), M.Phil/Ph.D. researchers 39 (18.7%), Assistant Professors 8 (3.8%), Professors 6 (2.9%), while the lowest portion were from Associate Professors4 (1.9%).

The data shows the responders from the 9 faculties of the Arts and humanities 29 (13.9%), Science 22 (10.5%), Business administration 22 (10.5%), Social science 20 (9.6%), Law 23 (11%), Biological science 22 (10.5%), Engineering 25 (12%), Education 23 (11%), and Marine science & fisheries 23 (11%) are listed together with research scholars and students.

Table 1. Demographic information of the respondents

Gender	Frequency	Percent
Female	112	53.6%
Male	97	46.4%
Total	209	100
User Category		

Faculty	25	12.0%
Student	152	72.7%
Researcher	32	15.3%
Total	209	100
Designation		
Professor	6	2.9
Associate Professor	4	1.9
Assistant Professor	8	3.8
Lecturer	9	4.3
MPhil/PhD Researcher	39	18.7
Master's Student	52	24.9
Hon's Student	91	43.5
Total	209	100
Faculties		
Arts and Humanities	29	13.9%
Science	22	10.5%
Business Administration	22	10.5%
Social Science	20	9.6%
Law	23	11.0%
Biological Science	22	10.5%
Engineering	25	12.0%
Education	23	11.0%
Marine Science and Fisheries	23	11.0%
Total	209	100
Age group		
Under 20 years	3	1.4%
20-29 years	161	77.0%
30-39 years	32	15.3%
40-49 years	8	3.8%
50-59 years	5	2.4%
Total	209	100

5.1. Library use frequency by the respondents

The statistics indicate the degree of discrepancy between the observed data and the normal distribution. The p-values represent the probability of observing such a discrepancy or more extreme under the assumption of normality. In both cases, the p-values are reported as 0.000, which suggests strong evidence against the null hypothesis of normality (Table 2).

Table 2. Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Gender	Statistic	df	Sig.	Statistic	df	Sig.
Frequency	Female	.200	112	.000	.857	112	.000
	Male	.223	97	.000	.874	97	.000

a. Lilliefors Significance Correction

The Mann-Whitney U test is used to compare the library use frequency (considering daily=6, twice a week=5, weekly=4, fortnightly=3, monthly=2 and occasionally=1) between female and male respondents. The test statistics and p-values are reported for the test. The "Mann-Whitney U" represents the sum of ranks for female group (5279.500). The "Wilcoxon W" column indicates the sum of ranks for male group (10032.500). The "Z" column provides the test statistic, which is calculated as the standard normal deviate (Z=-.359) based on the U statistic. The Z-score measures the distance between the observed U statistic and the expected value under the null hypothesis, considering the sample sizes. The "Asymp. Sig (2-tailed)" column represents the p-value associated with the test statistic. In this case, the p-value is reported as 0.719, indicating that there is no significant difference in library use frequency between females (mean rank= 106.36) and males (103.43) (Table 3). Hence, the null hypothesis $H0_1$ is rejected in terms of frequency of library use by respondents' gender.

Table 3. Library Use frequency of respondents

	Gender	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig (2-tailed)
Frequency	Female	112	106.36	11912.50	5279.500	10032.500	-.359	.719
	Male	97	103.43	10032.50				
	Total	209						

5.2 Types of information resources for academic work

Faculty members, research scholars and graduate & under-graduate students were asked what types of information resources they typically require for your academic work (Figure 1). On the basis of their response academic journal is the mostly used sources for them (157, 75.15% and rank 1). The 2nd highest of the respondents use the text books (140, 67%), followed by e-book/journal (123, 58.9%), Research database (117, 56%), Periodicals (91, 43.5%), Archival resources (71, 34%) respectively.

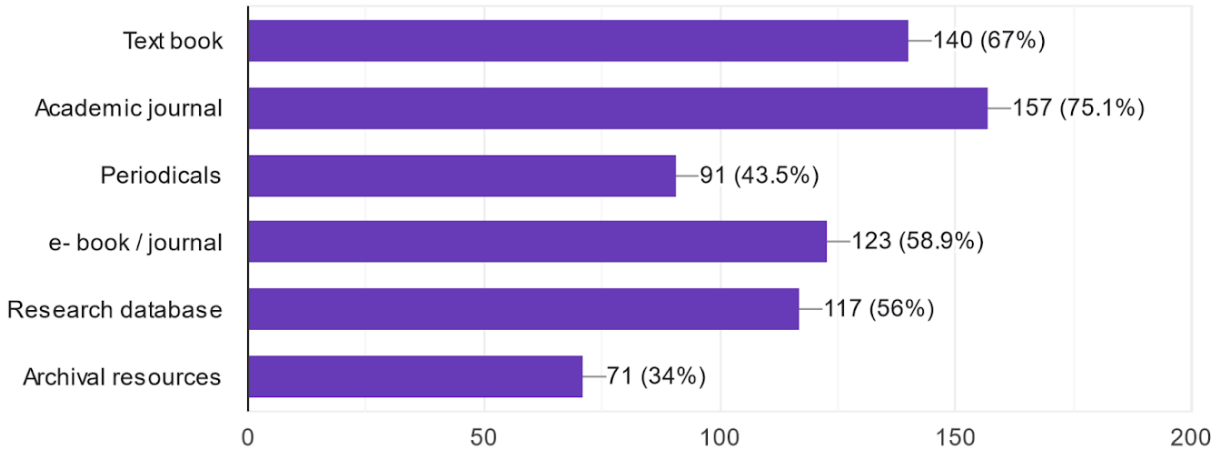

Figure 1. Types of information resources for academic work

5.3 Topics or subject do they often seek information on

Faculty members, research scholars and graduate & under-graduate students were asked what types of information resources they often seek information on (Figure 2). On the basis of their response research paper and journals is the mostly used sources for them (152, 72.7% and rank 1). The 2nd highest of the respondents seek reference materials (127, 60.8%), followed by major or core subjects (125, 59.8%), academic writing (109, 52.2%), career and professional development (100, 47.8%), literature search (78, 37.3%), historical documents and archives (54, 25.8%), language learning (45, 21.5%) and national and international political news (3, 15.8%) respectively.

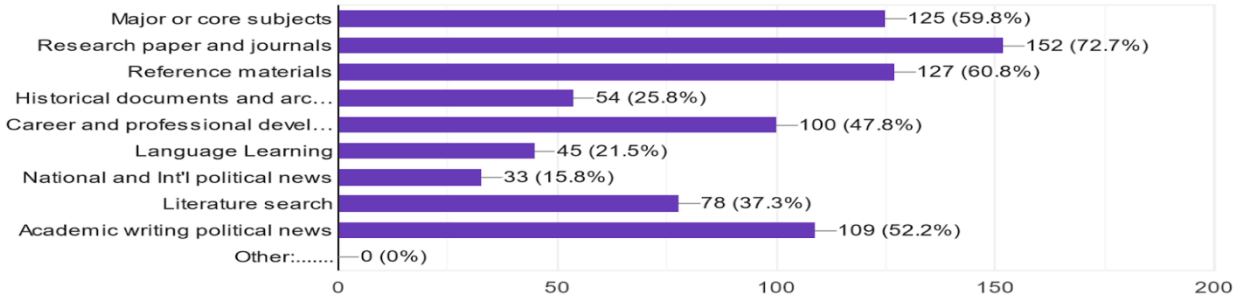

Figure 2: Topics or subject do they often seek information on

5.4 Purpose of information seeking and library use

Users were asked to rank five reasons for seeking information and using libraries in order to determine the information seeking behavior they had acquired. Table 4 shows the order in which respondents searched for information in the library, with reading books or articles ranking first among 206 respondents, research ranking second among 202, gaining new knowledge ranking third among 191, preparing lectures or presentations ranking fourth among 205, and improving one's own competences ranking fifth among 188 respondents.

Table-4: Purpose of information seeking in the library

Purpose	Always	Frequently	Sometimes	Seldom	*N*	*Rank*
Read books/articles	47	77	54	28	206	1
Research	47	69	53	33	202	2
Achieve new knowledge	4	18	106	63	191	3
Prepare Lectures / Presentation	11	19	69	72	171	4
Improve personal competencies	9	34	91	54	188	5

5.5 Frequency of information use

The respondents were asked to provide data on the ranking and frequency of use information during seeking library resources. The table-5 shows that the textbooks, journal articles, and e-journals are highly valued and frequently used by the respondents followed by reference sources and online database. Daily newspapers, rare collections, and archival resources are used less frequently compared to the other sources.

Table 5: Frequency of information use

Purpose	Always (5)	Frequently (4)	Sometimes (3)	Seldom (2)	Never (1)	*N*	*Rank*
Text Book	44	38	76	45	4	207	1
Journal article	61	68	50	24	3	206	2
E-journal	64	66	61	11	3	205	3
Reference sources	44	57	79	23	1	204	4
Online database	38	43	69	40	10	200	5
Daily newspaper	67	56	48	16	11	198	6
Rare collection	27	23	52	75	19	196	7
Archival resources	13	23	66	75	18	195	8

5.6 Format of information

To find out the format of information they prefer in the time of searching and using information by the users, they were asked to indicate their preference for the information format which they generally use to solve their day-to-day needs while using the library. The table 6 compares the preference levels for different formats of information sources: Electronic, Print, Audio-visual, and Microfilm. It also includes a category for respondents who prefer both Printed and Electronic formats. The table indicates the count or percentage of respondents falling into three preference levels: less preferred, preferred, and most preferred. The numbers in each category indicate the count or percentage of respondents who expressed their preference for a particular format. Out of 207 respondents, 135 and 30 chose Electronic as their most preferred and preferred format, out of 202, 49 and 70 chose print as their most preferred and preferred format, among 201, 96 and 79 respondents chose both print and electronic as the most preferred and preferred format respectively. Table deficits that audio-visual (less preferred by 128) and microfilm (less preferred by 130) format are the less preferred format the respondents.

Table 6: Information format searched by respondents

Format	Less preferred (1)	Preferred (2)	Most preferred (3)	*N (out of 209)*
Electronic	42	30	135	207
Print	83	70	49	202
Audio-visual	128	49	16	193
Microfilm	130	51	03	184
Printed and Electronic both	26	79	96	201

5.7 Strategies to find information

The respondents were asked what strategies they utilize to find the information in the library (Figure 3). On the basis of their response research OPAC is the most considered strategy for them (180, 86.5% and rank 1). The 2nd highest of the respondents considered searching physical collection (127, 61.1%), followed by catalogue search (126, 60.6%), reference materials (123, 59.1%), consultation with library professionals (103, 49.5%), and collaborate with peers (23, 11.1%) respectively.

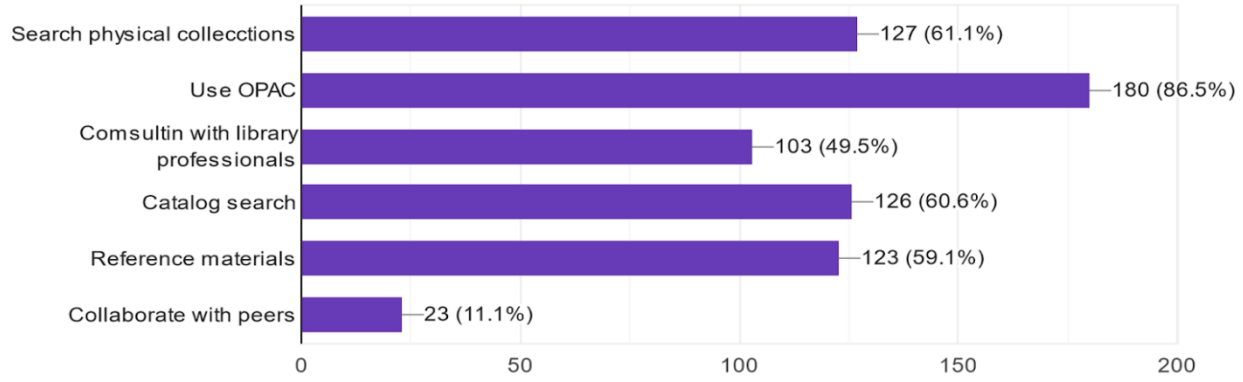

Figure 3: Strategies to find information

5.8 Sources and standard of information for research

The respondents were asked what sources and standards they consider to find the information in the library for research purpose activity (Figure 4). On the basis of their response academic standard is the most considered standard for them (158, 77.8% and rank 1). The 2nd highest of the respondents considered relevance (131, 64.5%), followed by multiple source (114, 56.2%), authority and credibility (99, 48.8%), availability (80, 39.4%), peer reviewed source (71, 35%) respectively.

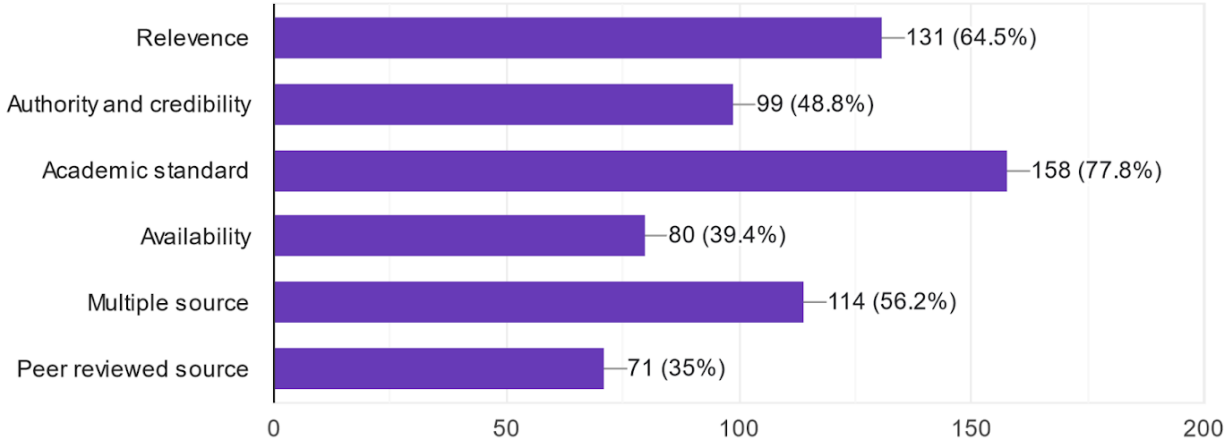

Figure 4: Sources and standard of information for research

The study highlights the information needs and information-seeking behaviors of faculty members, graduate students, and undergraduate students at the University of Chittagong encounter when looking for information. Based on the findings from the Mann-Whitney U test, which compared the library use frequency between female and male respondents, we did not find a significant difference in library visit frequency between the two genders ($p = 0.719$). This suggests that both female and male users of the University of Chittagong Library have similar patterns of library usage.

The study revealed that academic journals are the most often used sources by the CU users, while textbooks are used by respondents in the second-highest percentage followed by electronic books and journals, research databases, periodicals, and archival resources. Research papers and journals were in top place as the users' most often utilized sources based on the response. Following major or core subjects, academic writing, career and professional development, literature search, historical records and archives, language acquisition, and national and international political news and reference resources respectively, are sought for by respondents in that order.

6. Conclusion

Understanding the information needs and seeking behavior of library users is crucial for the University of Chittagong Library to effectively meet the diverse requirements of its users. While gender may not have a significant impact on library use, other factors such as academic program, course requirements, and individual study habits are likely to play a more influential role in shaping library utilization. Basically, library services, resources, and facilities meet the specific requirements of its users. The library can enhance the overall learning and research experience, contributing to the success and academic growth of the university's students, faculty, and staff.

Conflicts of Interest: The author declares no conflict of interest.

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