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Information-Seeking Patterns of Undergraduate Students in College Libraries for Sustainable Knowledge Access

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Abstract
The present study focuses on the information seeking behavior of undergraduate students in college libraries and its contribution to sustainable knowledge access. The research adopted a descriptive survey design in which primary data was collected from 367 undergraduate students using a questionnaire. The study focused on the following variables: library usage behavior of students, sources of information used by the respondents, level of awareness about e-library resources, information literacy skills of the respondents, and overall satisfaction with library services. Frequency analysis, mean score analysis, Chi-square test, Spearman correlation and multiple regression analyses were the statistical techniques used in the analysis of the collected data. It is evident from the study results that students regularly use libraries and still rely on print books despite the increased use of digital and internet sources. However, finding information and lack of information literacy skills pose major problems. The correlation analysis showed that there was a statistically significant positive correlation among information literacy, library services satisfaction, and sustainable knowledge access. It was also found by regression analysis that the variables which best predict sustainable knowledge access include library services satisfaction and information literacy skills. The paper demonstrates the importance of college libraries for learning and gaining knowledge throughout one's lifetime. Effective programs for developing information literacy, improved digital infrastructure and user-oriented library services can be used to create collaborative and sustainable knowledge ecosystems at higher education institutions.

Keywords: *Information-Seeking Behavior, Undergraduate Students, College Libraries, Information Literacy, Sustainable Knowledge Access.*

1. Introduction

Information seeking activities in college libraries by undergraduates are becoming more technological, peer-based, and hindered by lack of skills, access, and awareness. College libraries are still key in students' academic work and exams but the technologies, skills, and challenges that students favor influence how sustainably they access knowledge. Literature reviewed has covered many nations and fields of learning and points out heavy dependence on libraries and the new trend towards the open Web.

1.1 Information Needs and Preferred Sources

- Across contexts, academic, exam, and job-related needs dominate students' information seeking. (Howlader, 2019) (Mahesh, 2020)

- Many undergraduates begin research on the freely available web/search engines, even when they recognize academic sources as more credible. (Martin, 2008) (Wijetunge, 2019)
- Generation Z students often rely on social media, AI tools, and online encyclopedias over traditional library collections. (Oyighan, 2025)

1.2 Library Use Patterns and Spaces

- In several settings, most students regularly visit libraries, especially to borrow books and prepare for exams. (Mahesh, 2020) (Howlader, 2019)
- Libraries function as study and social spaces as much as information portals; students use them for individual study, breaks, and socializing. (Scopulas, 2026) (Rozaklis, 2012)

Table 1: Selected Information-Seeking Patterns and Barriers

Pattern / Barrier	Evidence	Papers
Heavy reliance on print texts for exams	Majority preferred print books and text-type material for academic work	Mahesh, 2020
Daily use of digital resources	100% of one Sri Lankan sample accessed digital resources daily	De Silva, 2025
Poor information/search skills	Undergraduates' skills often poor; not aware of library resources	Howlader, 2019
Barriers: connectivity, collections, training	Poor internet, limited journals, inadequate training and facilities hinder library use	De Silva, 2025 Wijetunge, 2019

1.3 Role of Skills, Attitudes, and Instruction

- Information literacy and self-efficacy strongly predict library use and research intentions. (Sani, 2025) (Pfundt, 2024)
- Many students lack formal training in using library resources or the internet and rely on peers instead of librarians. (Wijetunge, 2019) (Basumatary, 2018)
- One-shot library instruction shows little impact on shifting students from web to academic sources, suggesting need for sustained, credit-bearing approaches. (Martin, 2008) (Ozor, 2022)

1.4 Implications for Sustainable Knowledge Access

- Students often sacrifice quality for ease of use, turning to general web search and informal sources. (Martin, 2008) (Seiden, 1997)
- Expanding 24/7 digital access, negotiating database subscriptions, and integrating digital literacy into curricula are recommended to align services with Gen Z habits and support long-term learning. (De Silva, 2025) (Oyighan, 2025)
- Libraries also need to respond to student expectations around data privacy while using search data to improve services. (Gariepy, 2021)

Internationally, undergraduate students search primarily for academic, examination, and career information, beginning from the open Internet while at the same time recognizing libraries as both places and sources of print and digital resources. Poor information skills, inadequate education, and infrastructural limitations hinder sustainable and quality information access. Information literacy enhancement, restructuring of

teaching, improvement of digital and physical infrastructures, and services aligned with students' digital practices are crucial to establishing college libraries as sustainable gateways to trustworthy information.

1.5 Objectives of the Study

- To examine the information-seeking patterns and library usage behaviour of undergraduate students in college libraries.
- To identify the factors influencing sustainable knowledge access among undergraduate students, including information literacy, library satisfaction, and utilization of library resources.
- To investigate the relationship between demographic and academic characteristics of students and their information-seeking behavior in college libraries.

1.6 Hypotheses

H01: There is no significant association between students' demographic and academic characteristics and their information-seeking behavior in college libraries.

H02: There is no significant relationship between information literacy, satisfaction with library services, and sustainable knowledge access among undergraduate students.

H03: Information literacy, library visit frequency, satisfaction with library services, and awareness of e-resources do not significantly predict sustainable knowledge access among undergraduate students.

2. Literature Review

It is important to understand how the information needs of the undergraduate students develop in order to ensure that sustainable access to knowledge is available in the college libraries. Studies have shown that undergraduates usually tend to search for information related to academics and careers and depend mainly on lectures and peers (Howlader, 2019; Martin, 2008; Matas, 2024). Some students show high levels of information needs and information literacy skills, but many are faced with various challenges including lack of knowledge about library resources and poor information literacy skills (Howlader, 2019; Chiedu, 2025; Okwu, 2025). The shift toward digital platforms is evident among Generation Z students, who favor online sources and social media but may lack critical evaluation skills (Martin, 2008; Matas, 2024; Oktaria, 2025). Disciplinary differences also influence resource preferences and usage patterns (Ahmed, 2025; Pandey, 2025). Library interventions such as information literacy programs and embedded librarian support show promise in enhancing students' research abilities and fostering lifelong learning (Chohda, 2025; Dahlen, 2023; Seiden, 1997). Nevertheless, there exist gaps in resources usage, skills development, and equal access. This needs to be dealt with in order to maintain relevance in the libraries for undergraduate education.

2.1 Methods

A thorough literature search was carried out from several scholarly papers in Semantic Scholar, Google Scholar, PubMed, and other similar resources. A total of 8678762 papers were found after extensive searching about the behavior of undergraduates while searching for information in college libraries. Out of them, only 179 were filtered after using different phases of relevancy filtration and deep search techniques, and finally, 50 were chosen for this review.

2.2 Results

2.2.1 Core Information-Seeking Patterns

Undergraduate students predominantly seek academic (assignments/exams) and career-related information (Howlader, 2019; Martin, 2008; Chiedu, 2025). Many rely on class lectures or peers as primary sources rather than library resources (Howlader, 2019; Okwu, 2025), with a significant portion expressing only slight satisfaction with available library services (Howlader, 2019). Print materials remain important for some groups (Chiedu, 2025; Okwu, 2025), but there is a clear trend toward digital resource use especially among Generation Z students who prefer online platforms and social media for both academic and personal needs (Martin, 2008; Matas, 2024; Oktaria, 2025).

2.2.2 Barriers to Effective Library Use

Common barriers include poor awareness of available library resources/services (Howlader, 2019), insufficient training or orientation (Okwu, 2025; Tang, 2017), low digital literacy skills (Wijetunge, 2019), inadequate ICT infrastructure (e.g., slow internet) (Oyighan, 2025; Komissarov, 2016), information overload from digital sources (Lokapur, 2025), cognitive complexity in using advanced search tools (De Silva, 2025), and anxiety related to navigating formal library systems (Opara, 2024; O'Brien, 2005). These factors contribute to underutilization of authoritative academic sources.

2.2.3 Disciplinary & Demographic Differences

Patterns of library use vary by discipline: humanities/social science students tend to engage more with print materials and consult librarians/peers more frequently than those in STEM fields who may favor electronic resources or databases (Ahmed, 2025; Pandey, 2025). Demographic factors such as year of study, gender, cultural values, and institutional context also shape preferences for print versus electronic formats and influence engagement with library services (Alazemi, 2023; Tachie-Donkor, 2023).

2.2.4 Impact of Library Interventions & Information Literacy Programs

Library instruction especially when sustained or embedded within courses can improve information literacy skills, self-efficacy, research intentions, and ultimately student success (Chohda, 2025; Dahlen, 2023; Seiden, 1997). However, one-off sessions have limited impact; ongoing support is more effective at fostering critical thinking and sustainable knowledge access.

2.3 Discussion

Research literature clearly indicates that even though the students at the undergraduate level are highly information-dependent for their educational success, their utilization of library facilities provided by colleges is far from satisfactory because of a number of reasons like the lack of skills, unawareness, infrastructure problems, difficulties in using sophisticated search engines, and changes in preferences towards easy and convenient digital mediums (Howlader, 2019; Martin, 2008; Matas, 2024). Disciplinary differences further complicate the landscape; thus a one-size-fits-all approach to library service provision is ineffective (Ahmed, 2025; Pandey, 2025).

Interventions in libraries, especially those that are continuous or curriculum-based, show positive results in enhancing students' research competencies and confidence; however, there is need for institutional dedication beyond one-time library orientations (Chohda, 2025; Dahlen, 2023). The increased use of digital information among Gen Z shows the importance of providing modernized services by libraries alongside dealing with the existing challenges in terms of teaching digital literacy.

Nonetheless, many challenges still exist in spite of these developments, including the inability of students to evaluate the credibility of sources; inadequate infrastructure (especially in developing nations); fear of the research process that deters students from engaging in research activities; and demographics and cultural factors influencing the access challenges.

3. Research Methodology

The study used descriptive survey design to determine the information searching behavior of undergraduate students in college libraries for sustainable information accessibility. Primary data were gathered using structured questionnaire that was administered to 367 undergraduate students chosen randomly. Data analysis was done by applying descriptive statistical methods (frequency, percentage, mean and standard deviation) and inferential statistical methods such as Chi-square, Spearman correlation coefficient and multiple regression. The reliability of the instrument was determined using Cronbach Alpha.

3.1 Data Analysis and Interpretation

This chapter highlights the analysis and interpretation of the data gathered from 367 undergraduate students on their behavior of seeking information in university libraries and their role in the promotion of sustainable knowledge acquisition. Data was analyzed through the use of descriptive statistics, cross tabulation, chi-square test, mean score test, correlation test, and reliability tests.

3.2 Demographic Profile of Respondents

Table 2: Gender-wise Distribution of Respondents

Gender	Frequency	Percentage
Male	178	48.50
Female	184	50.14
Other	5	1.36
Total	367	100.00

The data reveal that female students (50.14%) slightly outnumber male students (48.50%). The balanced gender distribution ensures adequate representation of both genders in the study.

Table 3: Academic Stream of Respondents

Stream	Frequency	Percentage
Arts	156	42.51
Science	104	28.34
Commerce	73	19.89
Others	34	9.26
Total	367	100.00

Arts students constitute the largest group of respondents (42.51%), followed by Science students (28.34%). This indicates greater participation from humanities disciplines.

3.3 Information-Seeking Behaviour

Table 4: Frequency of Library Visits

Frequency	Frequency	Percentage
Daily	96	26.16
2–3 Times per Week	142	38.69
Once per Week	78	21.25
Rarely	51	13.90
Total	367	100.00

Most students visit the library regularly. Approximately 64.85% visit the library either daily or two to three times per week, indicating active utilization of library resources.

Table 5: Preferred Information Sources

Source	Frequency	Percentage
Printed Books	131	35.69
Internet/Search Engines	98	26.70
E-books	68	18.53
Journals	52	14.17
Social Media	18	4.91
Total	367	100.00

Printed books remain the most preferred source of information among undergraduate students, followed by internet-based resources. This demonstrates the coexistence of traditional and digital information sources.

3.4 Awareness and Utilization of E-Resources

Table 6: Awareness of Library E-Resources

Response	Frequency	Percentage
Yes	286	77.93
No	81	22.07
Total	367	100.00

A large majority of respondents are aware of electronic resources available through the library, indicating successful awareness initiatives.

3.5 Challenges in Information Seeking

Table 7: Challenges Faced by Students

Challenge	Frequency	Percentage
Difficulty Finding Relevant Sources	113	30.79
Lack of Information Literacy Skills	92	25.07
Limited Access to Resources	74	20.16
Poor Internet Connectivity	56	15.26
Lack of Time	32	8.72
Total	367	100.00

The primary challenge encountered by students is locating relevant information resources. Information literacy deficiencies also represent a major barrier to effective information seeking.

3.6 Satisfaction with Library Resources

Table 8: Mean Score Analysis

Indicator	Mean Score
Satisfaction with Library Services	3.87
Sustainable Knowledge Access	4.06

The mean satisfaction score of 3.87 indicates a generally positive perception of library services. The sustainable knowledge access score of 4.06 demonstrates strong agreement that libraries contribute significantly to long-term knowledge accessibility.

Table 9: Reliability Analysis

Cronbach's Alpha was calculated using the Likert-scale items measuring information literacy, satisfaction, and sustainable knowledge access.

Variable Set	Cronbach's Alpha
Information-Seeking Behaviour Scale	0.82

The Cronbach's Alpha value of 0.82 indicates good internal consistency and confirms the reliability of the research instrument.

3.7 Correlation Analysis

Table 10: Spearman Correlation Matrix

Variables	Information Literacy	Satisfaction	Sustainable Access
Information Literacy	1.000	0.531**	0.612**
Satisfaction	0.531**	1.000	0.684**
Sustainable Access	0.612**	0.684**	1.000

$p < 0.01$

The analysis reveals significant positive relationships among information literacy, satisfaction with library services, and sustainable knowledge access. Students with higher information literacy levels tend to report greater satisfaction and improved access to knowledge resources.

3.8 Chi-Square Analysis

Table 11: Hypothesis

H_0: There is no significant association between academic stream and preferred information source.

H_1: There is a significant association between academic stream and preferred information source.

Test	Value
Chi-Square	24.78
Degrees of Freedom	12
p-value	0.016

Since the p-value is less than 0.05, the null hypothesis is rejected. There is a significant association between academic stream and preferred information source.

3.9 Multiple Regression Analysis

Dependent Variable:

- Sustainable Knowledge Access

Independent Variables:

- Information Literacy
- Library Visit Frequency
- Satisfaction with Library Services
- Awareness of E-Resources

Table 12: Regression Results

Predictor	Beta	p-value
Information Literacy	0.352	0.000
Satisfaction	0.421	0.000

Library Visit Frequency	0.193	0.012
E-Resource Awareness	0.174	0.024

$R^2 = 0.58$

The model explains 58% of the variance in sustainable knowledge access. Satisfaction with library services emerged as the strongest predictor, followed by information literacy.

4. Findings

- Female students slightly outnumber male students.
- Arts students form the largest respondent group.
- Most students visit the library regularly.
- Printed books remain the preferred information source.
- Awareness of e-resources is high.
- Difficulty locating relevant information is the major challenge.
- Students exhibit high satisfaction with library services.
- Libraries are perceived as important contributors to sustainable knowledge access.
- Information literacy significantly influences information-seeking behavior.
- Satisfaction with library services is the strongest predictor of sustainable knowledge access.

The research demonstrates that library systems of colleges remain an important element in ensuring that the information needs of the students are satisfied. Through the combination of traditional materials and online sources, as well as through the information literacy programs, the system becomes more sustainable in terms of provision of knowledge.

5. Suggestions

- College libraries should organize regular information literacy and database-searching workshops to enhance students' research skills.
- Library orientation programmes should be conducted periodically to improve awareness and utilization of available resources and services.
- Institutions should strengthen digital infrastructure, including high-speed internet and remote access to e-resources.
- Librarians should provide personalized research support and user education services.
- Libraries should integrate emerging technologies and digital learning tools to meet the evolving information needs of Generation Z students.

6. Conclusion

From the study, it can be concluded that college libraries still have an important role to play as facilitators of learning and sustainable access to knowledge for undergraduate students. While it is true that students are using digital information sources more often, traditional library resources are still important for their searches for information. From the results obtained from the research, it can be seen that information literacy, satisfaction with library services and awareness of e-resources are some of the important factors that affect sustainable access to knowledge. Overcoming issues with information literacy and resource availability will improve the efficiency of college libraries.

7. References

1. Ahmed, M., Mokhtar, W. N. H. W., & Baharuddin, M. F. (2025). Information-Seeking Behaviour and the Use of Electronic Information Resources among Undergraduate Students: A Systematic Literature Review. *Journal of Information and Knowledge Management*. https://doi.org/10.24191/jikm.v15isi2.8253
2. Alazemi, M. (2023). Investigating the Information-seeking Behavior of Undergraduate Students Who Utilize Kuwait Academic Library Database. *International Journal of Advanced Engineering and Management Research*. https://doi.org/10.51505/ijaemr.2023.8204
3. Azeeza, S. E., & Vikram, K. (2022). Information Seeking Behavior and Information Needs of College Library Users in Undergraduate College, Aurangabad. *International Journal of Research in Library Science*. https://doi.org/10.26761/ijrls.8.2.2022.1553
4. Basumatary, K. (2018). Information Seeking Behaviour of Undergraduate Students in Some Select College Libraries of Karbi Anglong and Biswanath Districts of Assam: A Study. *Addaiyan Journal of Arts Humanities and Social Sciences, 1*(1). https://doi.org/10.36099/ajahss.1.1.1
5. De Silva, M., & Somaratna, S. (2025). Information-seeking behaviour of undergraduates: A case study at a private university library in Sri Lanka. *Proceedings of the Annual Research Symposium 2025, University of Colombo, Sri Lanka*. https://doi.org/10.66281/70130/8673
6. Gariepy, L. (2021). *Acceptable and Unacceptable Uses of Academic Library Search Data: An Interpretive Description of Undergraduate Student Perspectives*. https://doi.org/10.18438/eblip29923
7. Howlader, A. I., & Islam, Md. A. (2019). Information-seeking behaviour of undergraduate students: A developing country perspective. *IFLA Journal*, *45*, 140–156. https://doi.org/10.1177/0340035219842312
8. Lokapur, S., & Krishnamurthy, C. (2025). Information Seeking Behavior and ICT Utilization Skills among the Undergraduate Students of law colleges Affiliated to Karnataka State Law University Hubballi: A Study. *Academic Research Journal of Science and Technology (ARJST), 2*(5), 21-30. https://doi.org/10.63300/arjst0205202504
9. Mahesh, G., Lengure, R., & Naidu, S. A. (2020). Investigating Information Seeking Behavior Using the Concept of Sonnenwald's Information Horizons: An Example from a Study of Undergraduate Students in Karnataka. *International Journal of Management*, *11*(12), 3439-3456. https://doi.org/10.34218/ijm.11.12.2020.320
10. Martin, J. (2008). The Information Seeking Behavior of Undergraduate Education Majors: Does Library Instruction Play a Role? *Evidence Based Library and Information Practice*, *3*, 4–17. https://doi.org/10.18438/b8hk7x
11. Mizrachi, D. (2010). Undergraduates' academic information and library behaviors: Preliminary results. *Reference Services Review*, *38*, 571–580. https://doi.org/10.1108/00907321011090737
12. Oyighan, D., Oladokun, B., & Okwu, E. (2025). Information needs and seeking behaviors of Gen Z undergraduate students in Nigerian university libraries. *Journal of Electronic Resources Librarianship*, *37*, 278–291. https://doi.org/10.1080/1941126x.2025.2518892
13. Ozor, A., & Toner, J. (2022). Information Literacy Behavior and Practice: An Assessment of Undergraduate Students at Ada College of Education, Ghana. *Journal of Library Administration*, *62*, 132–151. https://doi.org/10.1080/01930826.2021.2006992
14. Pfundt, A., & Peterson, L. (2024). Self-efficacy and attitudes associate with undergraduates' library research intentions: A theoretically-grounded investigation. *Social Psychology of Education*, *27*, 1883–1899. https://doi.org/10.1007/s11218-023-09884-x
15. Rozaklis, L. (2012). *The Academic Library in the Life of Undergraduate: An Investigation of Undergraduates' Academic Information Behaviors in the Digital Age.*

https://consensus.app/papers/the-academic-library-in-the-life-of-undergraduate-an-rozaklis/7da5b3217aa751b69a0f19c62e49b06a/

16. Sani, M., Sahid, N. Z., & Ismail, M. A. (2025). Information Behavior and Library Resource Use among Generation Z Undergraduates. *International Journal of Research and Innovation in Social Science*, *9*(10), 5756-5771. https://doi.org/10.47772/ijriss.2025.910000472
17. Scoulas JM, De Groote SL, Shotick K, Yu Y (2026), Tracking academic engagement and library use: an eight-week student journaling at two public research universities. *Performance Measurement and Metrics, 27*(2), 177–190. doi: https://doi.org/10.1108/PMM-06-2025-0032
18. Seiden, P., Szymborski, K., & Norelli, B. (1997). *Undergraduate Students in the Digital Library: Information Seeking Behavior in an Heterogeneous Environment*. https://consensus.app/papers/undergraduate-students-in-the-digital-library-seiden-szymborski/f073b3341ea55581a0a224eebf7b64f1/
19. Vijayalaxmi, A., & Tadasad, P. (2025). Information searching habits of under graduate students: A study at PC Jabin science college, Hubballi, Karnataka. *Journal of Library and Information Communication Technology, 14*(1), 89-98. https://doi.org/10.5958/2456-9399.2025.00010.x
20. Wijetunge, P. (2019). Information Seeking Behavior of the Humanities and Social Science Undergraduates: A Case of University of Colombo. *Journal of the University Librarians Association of Sri Lanka*, *22*(1), 1-22. https://doi.org/10.4038/jula.v22i1.7927