Awareness and Usage of E-books Among Students of Panjab University, Chandigarh

Seema Sood, Neeraj Kumar Singh*, Suman Sumi and Deepika Tewari

A.C. Joshi Library, Panjab University, Chandigarh- 160 014, India
*E-mail: neerajkumar78ster@gmail.com

ABSTRACT

The advancement of digital technologies has an impact on how information is disseminated and made accessible in the academic world. The use of digital resources has grown significantly, with e-books becoming a valuable educational resource. Panjab University library is spending a huge amount of money in terms of subscribing to a number of e resources to fulfill the information demand of faculty and students. PU library started subscribing to e-books from the year 2008 and presently a diverse collection of e-books from reputed publishers are available for the users. Since no such study has been conducted to examine the use and awareness of e-books, to determine level of relevance of e-books, subscribed by Panjab University, it is therefore imperative to investigate how Panjab University students use and are aware of their subscription to e-books. A total of 400 questionnaires were distributed using a simple random sampling method and 202 responses were received. This paper also explores the usage, relevance and the difficulties encountered while accessing e-books. For this purpose, an online survey was conducted amongst post graduate students and research scholars of Panjab University. Majority of the respondents 73 (66.4 %) are accessing e-books through University Library website. 72 (62.6 %) of respondents express that friends and teachers helped them to know about availability of e-books in the library. Respondents encountered problems i.e. difficulties to login the sites, low speed of internet and restrictions in downloading etc. while accessing e-books. This study offers some useful and practical suggestions that can help libraries to enrich their e-book collections. The findings of the study will be helpful in developing e-book collection while keeping user needs in mind to enhance overall digital learning experience.

Keywords: Information and communication technology; Panjab university; E-resources; E-books, Usage patterns; Digital collection

1. INTRODUCTION

E-resources have a long history that dates back to the internet's inception and the digital revolution. The foundation for the electronic dissemination of literature and scholarly materials was laid in the early 1970s by projects like Project Gutenberg, which started digitising texts that were in the public domain. However, with the rise of online databases, digital libraries, and electronic journals, e-resources really took off in the late 1990s and early 2000s. Information and communication technology has become indispensable in all aspects of our lives. Technological advancement and development has increased the popularity and interest for e-resources. The rapid development of innovation has persuaded and compelled the publishers to shift publication from print media to electronic media. Users are increasingly inclined to use e-resources which include e-journals, online databases, electronic reference materials, and e-books etc. E-books are an important type of e- resource that satisfies the need for development of high-quality education in the twenty-first century. E-books are gaining popularity due to their characteristics which include anywhere 24/7 access, search functionality, copying and pasting, space optimisation, portability, and environmental friendliness etc. Due to multiple benefits, e-books now have the potential to improve library usage by enabling remote access and availability.

There are numerous free e-book platforms that offer access to a wealth of literature and educational materials. Project Gutenberg remains one of the most prominent sources of free e-books, providing access to thousands of public domain texts across various genres. Another noteworthy platform is Open Library, which offers access to millions of e-books, including contemporary titles and out-of-print works. To access to free e-books some of the popular websites are: Project Gutenberg: https://www.gutenberg.org/; Open Library: https://openlibrary.org/, National Digital Library of India (NDLI): https://ndl.iitkgp.ac.in/ pdfdrive.net, PDF Search Engine, Directory of Open Access Books (doabooks.org), HathiTrust Digital Library – Millions of books online, etc.

1.1 PANJAB UNIVERSITY

The Panjab University is renowned for its expertise in academics and research in social sciences, science and technology, humanities, performing arts etc. With its Chandigarh campus and close to 200 colleges affiliated

throughout Punjab and Chandigarh, Panjab University has distinguished itself in meeting a variety of societal needs. The university's main campus in Chandigarh is home to approximate 74 teaching departments/ Institutes/centers and 4 Chairs. The National Assessment and Accreditation Council (NAAC) has bestowed upon Panjab University the coveted A++ grade with an impressive score of 3.68.

1.2 Panjab University Library

The Panjab University Library named as A.C. Joshi Library is located centrally having 5 storeyed building with seating capacity of approximately thousand readers. The Panjab University Library has approximately 8 lakh volumes in its collection, including a renowned collection of 1492 manuscripts. It also subscribes to 15 e-resources and 266 current periodicals, including print and online journals, 13 databases covering a variety of subject areas through e-Sodh Sindhu consortium of INFLIBNET and offers links on its website to over 15000+ core and peer-reviewed online journals. The university's E-Library Service is available to registered users i.e. researchers, staff and students, to access e-journals, e-books, and databases etc. The library also provides mobile e-library app which is a multi-format, content delivery app.

1.3 E-Books in Panjab University Library

Panjab University is renowned for its academic excellence. Since the procurement of printed learning material was not sufficient to meet the users' changing information needs and their information seeking behavior and in order to adapt to electronic revolution the library embraced digital transformation and started subscribing e-resources: e-journals, e-databases and further augmented e-collection by procuring e-books in the year 2008. Presently, the library subscribes to a diverse collection of e-books i.e: Cambridge University Press, Karger (Chemistry), Ebscohost, Oxford University Press, Oxford (Law), Pearson (Engineering and management), Sage E-Vidya Collection, Springer (Computer Science), Thomson Reuters Proview (Law) and Wiley (Chemistry) etc.

2. LITERATURE REVIEW

Chaputula and Kapondera[1] conducted a study to investigate the collection development trends of print books and e-books in academic libraries of 53 higher education institutions in Malawi. According to the study's findings that academic libraries in Malawi are maintaining a hybrid collection by procuring both print as well as e-books that has been driven by collection development decisions and practices, book availability, and budgetary constraints. The study also observed that DDA and EBA cost-effective e-books models are being offered by the publishers. In addition to meeting the requirements of their users, these models would relieve financial burden.

Vidyarani and Harish[2] studied to know about usage of e-books by scientists working in research institutes in India in order to understand the purchase and usage of e-books and e-resources, usage, and difficulties faced by scientists. A majority of scientists access e-books purchased by their institute. According to the study, the majority of JNCAR scientists access e-books that their research institute has purchased, while JNCAR scientists access e-books through a consortium model while RRI scientists access e-books from other libraries. It is revealed from the study that scientists are dissatisfied with the institutes' e-book collections. The institute libraries ought to think about getting e-book subscriptions that meet the requirements and needs of scientists conducting research.

Jbeen[3], *et al.* conducted a study for measurement of awareness, usage and perspective of Pakistani University students towards e-books and the differences based on discipline and degree level. Students became knowledgeable of the e-book collection available to them through their library portals. Undergraduate students seem to be greater users of e-books than the graduate students. One of the reason of higher level of awareness as identified is that selected universities provide their library users with efficient information literacy training. E-books were frequently used for research projects by graduate students. Science students used e-books more frequently and were more aware of them than students of other disciplines.

Mohammed Tukur and Kannan[4] studied to investigate the type, utilisation, and issues encountered when accessing information resources and services in Agriculture University Libraries in Nigeria (FUAM, MOUA, and FUAA). According to the study, the libraries at Agriculture University have all kinds of information sources available to its patrons in print and non-print formats. The Agriculture University Libraries' respondents said that slow internet, technological issues, and unstable power supplies are obstacles to their ability to easily access and use information resources. The Study concluded that the respondents needed some training to use the electronic resources.

Kuldeep Singh[5] studied the awareness, purpose, kinds of e-resources, level of satisfaction of e-resources by the students of Punjabi University Library. Study revealed that majority of the respondents are familiar with e-resources .E-journals related to their subject are not fully accessible or not subscribed by university. The difficulties encountered by respondents while accessing e-resources are slow speed of Internet, problem in finding relevant information and unsuitable infrastructure. At the end, the study suggested that the orientation programs to create awareness about subscribed e-resources and the infrastructure should be organised by library staff.

Nageswara Rao K.[6], *et al.* conducted a study to determine the reading behaviour and find out the gaps in perceptions and experiences in accessing e-books from the library. It was reported that users preferred reading e-books on their laptops and took printouts of the relevant portions for their study. The main reason for lower usage of e-books is lack of awareness. In order to raise awareness of the availability, Central

Library has been employing multiple communication channels. Users have opined that e-books have a bright and hopeful future, and they will grow in popularity over time. Libraries must hold awareness-raising for effective utilisation of e-books.

3. OBJECTIVES OF THE STUDY

The main objectives of study are:

- To determine level of awareness and usage regarding availability of e-books.
- To determine level of relevance for e-books.
- To explore the difficulties that users faced while accessing e-books.
- To identify student's suggestions/recommendations to improve the library's e-book selection and enhance its relevance for them.

4. METHODOLOGY

Keeping in view the objectives of the study an online questionnaire was prepared in Google forms to collect the data from the post graduate students and research scholars of Panjab University, Chandigarh. Questionnaire was distributed by sending a link of online questionnaire on users' email account and also through instant messaging service (whatsapp) in order to know awareness and usage of e-books subscribed by the Panjab University, Chandigarh. Total number of PG and Research scholars are more than 9000. Surveying every single person who is registered uses the university library proved impractical. For calculating the sample size, formula given by Yamane (1967) was used. According to Yamane[7], table of sample size calculation with ±5 % precision level and 95 % confidence level, 398 sample size is appropriate number which can represent population of more than 50,000 users. A total of 400 questionnaires were distributed using a simple random sampling method and 202 responses were received.

5. DATA ANALYSIS AND INTERPRETATION

5.1 Distribution of Responses on the Basis of Gender and Category-wise

Figure 1 shows that 134(66 %) of respondents belong to female category and 68(34 %) of the respondents are from male category. There is no transgender category. The study indicates that number of female respondents is high in comparison to male respondents. The majority of the respondents 144(71.3 %) were postgraduate students, while 58(28.7 %) of the respondents were research scholars.

5.2 Awareness of the Availability of E-books Package in the University Library

The awareness regarding availability and different packages of e-books i.e. Cambridge, Oxford e-books, Wiley, Sage, EBSCO Host and Karger etc. subscribed by University library was indicated as per figure 2. It depicts that 103(51 %) of the respondents highlighted that they were aware of the availability of e-books. However, 99(49 %) said they were unaware regarding availability of e-books. Respondents' awareness of e-books package in University Library is more for CUP followed by OUP etc. Respondents are least aware of e-books packages from Thomson Reuters followed by Karger etc.

5.3 Methods of Accessing E-books

Figure 3 displays the various methods used by respondents for accessing e-books. Majority of them, 73(66.4 %) access e-books through University Library website. 23(20.9 %) respondents' access e-books directly through Publisher's website. 20(18.2%) respondents are getting benefit of the e-books through remote access also. Only a few respondents i.e. 6(5.5%), access e-books through other sources such as PDF drive, Libgen, Google, and online apps etc. It shows that the library website is the most preferred source for the users for accessing e-books i.e. ¾ of the total responses.
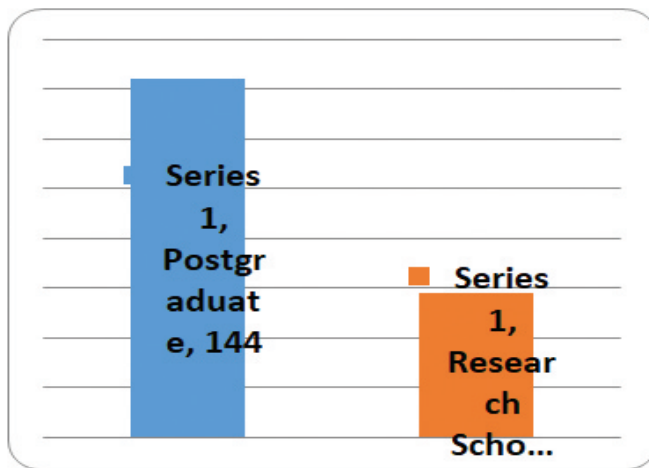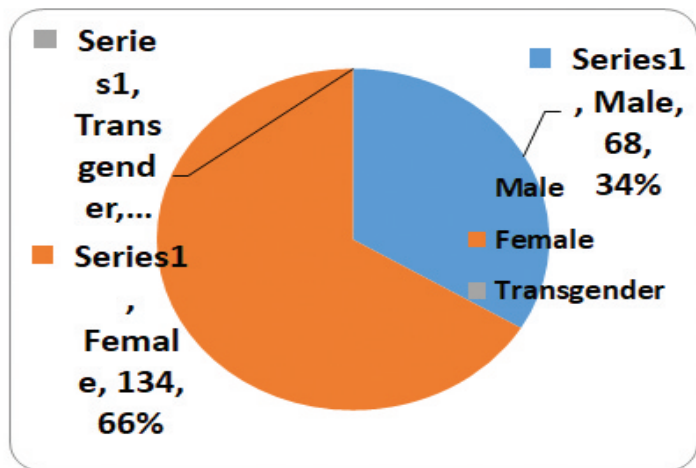
5.4 Level of Usage of E-Books

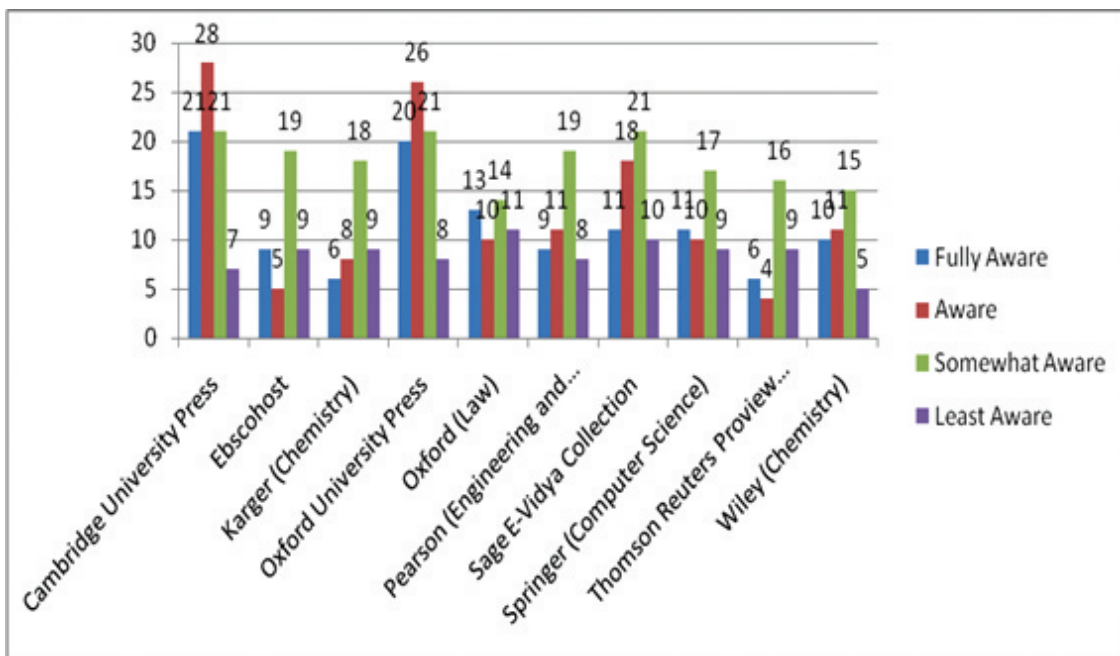**Figure 1. Responses on the basis of gender and category-wise.**

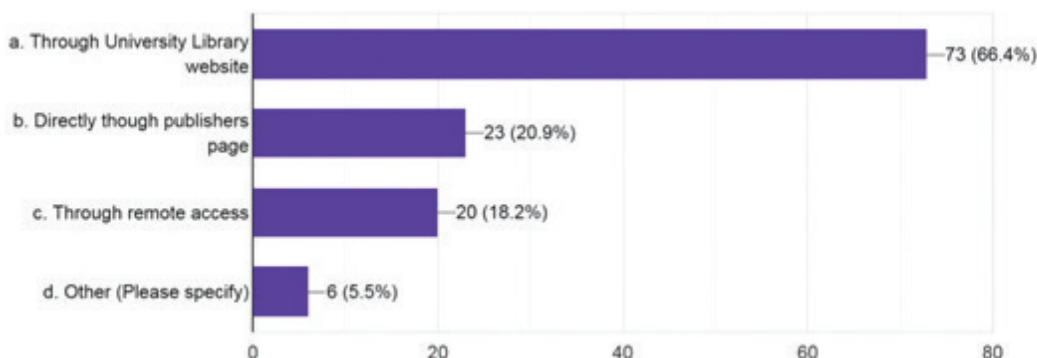**Figure 2. Awareness of the availability of e-books package.**

Figure 3. Methods of accessing e-books.

Figure 4 depicts that the University Library's e-book package of CUP and OUP are the most frequently (75.3 %) and (73.6 %) respectively used package by respondents followed by (60 %) Sage, (48.7 %) Wiley (Chemistry), (47.2 %) Springer, (46.6 %) Karger, (44.4 %) Oxford (Law) , (37.7 %) Thomson Reuters Proview (Law).

5.5 Source of Getting Information about Availability of E-Books in the Library

It is clearly indicated from the figure 5 that majority 72(62.6 %) of respondents became aware about e-books through their friends and teachers. Library website was the second preferred choice as 55(47.8 %) of respondents commented that they got the information regarding the e-books through Library website. 28(24.3 %) of respondents informed that while discussion with library staff they came to know about the availability of e-books. Only 13(11.3 %) respondents got information by orientation programs and 10(8.7 %) respondents reported that their source of getting information was library social media page 7(6.1 %) students mentioned that they received

information through other social networking channels, email from the university library etc.

5.6 Purpose of Using E-books

Figure 6 depicts that respondents were asked to mention the purpose of using e-books. 81(72.3 %) opined that they use e-books due to their 24/7 accessibility, 68(60.7 %) as they can be freely accessed through library. The next reason to use e-books is the convenience 60(53.6 %), 46(41.1 %) availability of wide range of titles. Features such as search functionality, highlighting and note-taking are one of the reasons for using e-books 31(27.7 %).

The 3 (2.7 %) students who marked "other" option provided some other reasons for using e-books: i.e. remotely accessed; no need to visit the library, accessible from the Internet, etc.

5.7 Relevance of E-Books According to the Syllabus

The graph in the figure 7 reveals that most of the respondents i.e. 95.2 % and 92 % preferred e-book packages of Cambridge University Press and Oxford University Press in comparison of other packages.
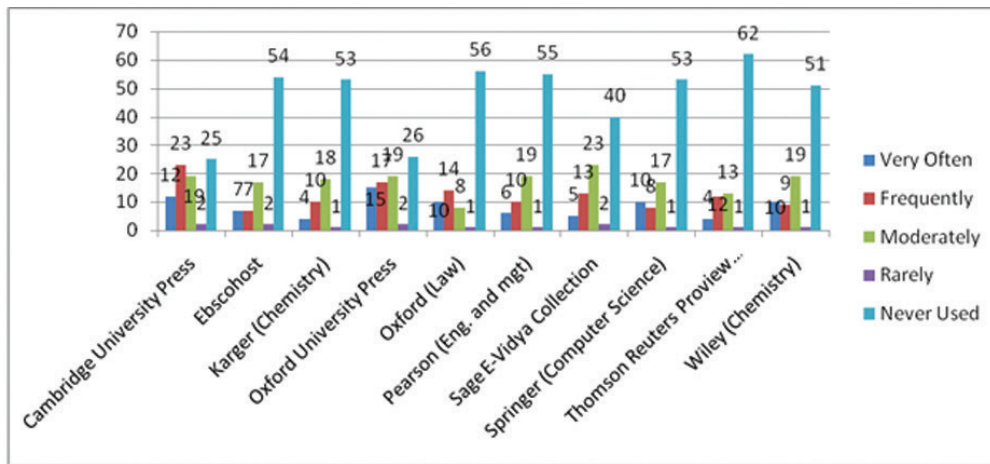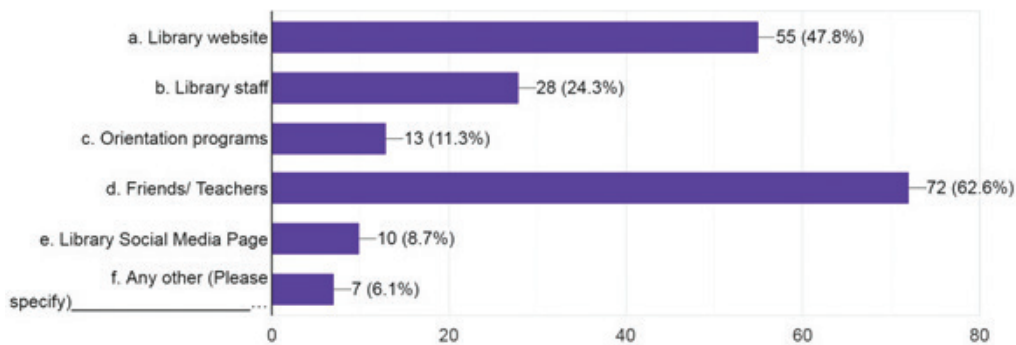
Figure 4. Level of usage of e-books.

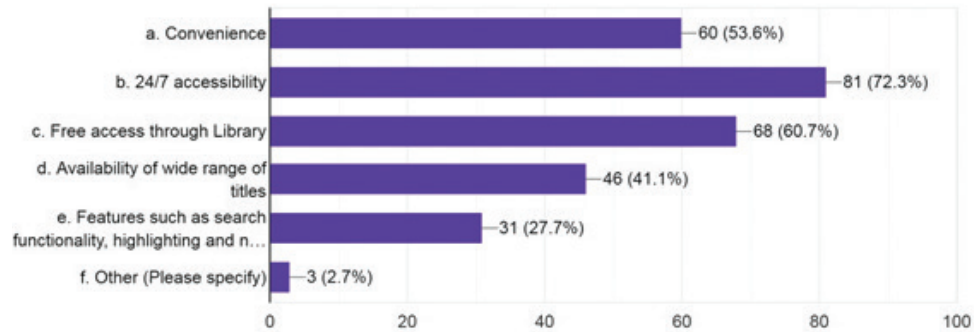**Figure 5. Source of getting information.**

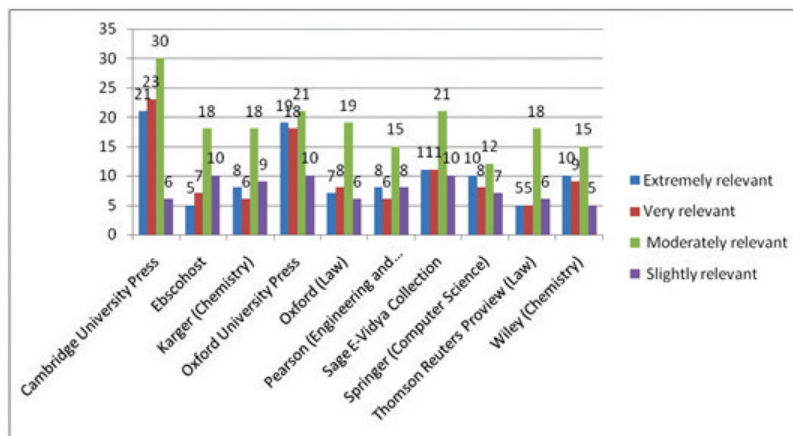**Figure 6. Purpose of using e-books.**

Figure 7. Relevance of e-books.

(80.3 %) use Sage E-Vidya Collection, (71.4 %) Ebscohost, (66.1 %) Karger, (65.6 %) Oxford, (62.7 %) Pearson (61.6 %), Springer, (60.9 %) Wiley, and (59.6 %) Thomson Reuter's e-book packages respectively to fulfil their academic needs. The study revealed that majority of the respondents under study is utilising various e-book packages.

5.8 Type of Problems Faced in Accessing E-books

The respondents encounter some problems while accessing e-books. 60 % of the respondents do not face any issue when they access e-books and 40 % of respondents encounter some problems while accessing e-books.

It is clear from figure 5.8 that the major problem faced by the respondents is that 34(54 %) find difficulty to login the sites, followed by 32(50.8 %) due to low speed of internet, 27(42.9 %) restrictions in downloading. 24(38.1 %) opine that there are a variety of e-book formats and e-content is insufficient. 22(34.9 %) are of the view that e-books as difficult to read and browse. 20(31.7 %) of the respondents are not comfortable with the hyperlinks. Athens login credentials and internet connectivity in hilly states/remote areas are also the problems which are faced by the respondents.
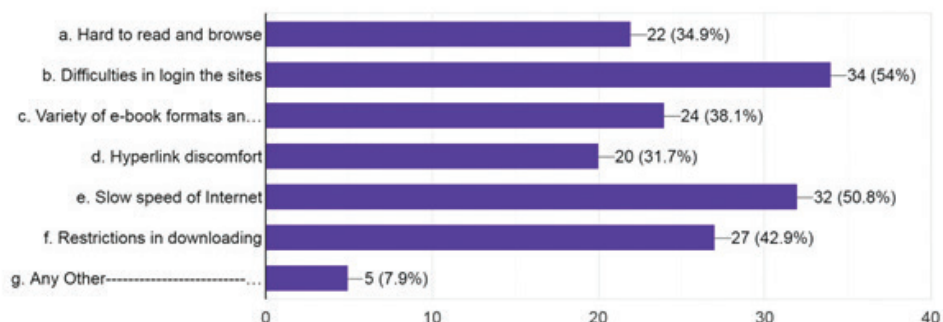
Additionally, they recommended a variety of e-books from various academic fields to be added in the library's collection, including works on Cultural Studies, Communication theory, Mathematics, History, Existentialism, Mountaineering, Phenomenology, Ethnography, Atomic habits, Biography, Novels, Indigenous, Religion etc.

6. FINDINGS OF THE STUDY

The findings show that e-books have become a significant part of respondents' lives. These results support the idea that e-book usage has undoubtedly contributed in satisfying users' informational needs, especially given that respondents are likely to continue using e-books in the future. The ease of e-books is enormously emphasised, as the content is easy to be previewed and search within content. Majority of the respondents 73(66.4 %) are accessing e-books through University Library website. Cambridge and Oxford e-books package are more utilised by respondents. 72(62.6 %) of respondents express that friends and teachers helped them to know about availability of e-books in the library. 24/7 anywhere search ability is the prime factor for utilising the e-books followed by other features. Respondents encountered problems i.e. difficulties to login the sites, low speed of internet and restrictions in downloading etc. while accessing e-books. The study shows that library professionals are not

Figure 8. Type of problems faced in accessing e-books.

5.9 Websites Preferred for Downloading E-Books for Reading

Respondents were asked "Which websites are preferred by them for downloading e-books for reading"? According to the study the respondents used e Academia, z-library, National digital library of India, IGNOU, JSTOR, Libgen, Kobo, Amazon kindle, E-books.com, ePathshala, Open library and Scribd, Arc.org for downloading e-books.

5.10 Recommendations for E-Books

To suggest/recommend e-books for the library, respondents were asked to give their comments regarding the inclusion of multiple publishers and titles in the library collection. The respondents provided an overwhelmingly positive response. They recommended more publishers' e-books i.e. Routledge, Tata McGraw Hill, Penguin etc. Reference e-books, e-books related to Government documents, Readers digest, General Study and syllabus related e-books should also be included.

actively involved in the promotion of subscribed online books through library notification and library orientation.

7. SUGGESTIONS/RECOMMENDATIONS FOR PURCHASING E-BOOKS FROM RESPONDENTS

The respondents provided numerous ideas of e-books for inclusion in the collection. The following are the recommendations made by some of the responders:

• The respondents suggested that the scholars should be asked regarding their demands for e-books through departmental libraries and the recommendation should be sent to the main Library, user should get update on their e-books sourcing recommendation.

• University library can add more e-books relating to various subjects and there should be a portal where demand for e-books can be raised.

• They recommended more publisher's e-books i.e. Routledge, Tata McGraw Hill, Penguin etc.

- Respondents preferred printed books as they can easily walk through while reading books and they don't have to sit at one place.

- Respondents love printed books because they like the "feel of paper".

- E-books are better for reading smaller proportion, but print is better for reading the whole book.

- Some of the library users are not comfortable with the idea of dropping print books as e-books strain their eyes.

8. CONCLUSION

This study demonstrates that the e-books are significant and helpful in today's technological age, for the students and it is quite obvious that demand for e- books will rise in future especially in academic libraries. Librarians should adopt best practices in acquiring, maintaining and promoting e-books to foster their integration and use in library collection. Vendors should offer more flexible purchasing models, since these will facilitate the acquisition of these resources in library collection. University Library should organize number of users awareness programme, special lecture and talks to make their users aware about e books and simultaneously advertise e-books through social media platforms including library blogs, Twitter, Facebook, and YouTube, etc. In this survey, users highlighted that reading e-books on computer displays strains their eyes to resolve such issues library can offer different types of e-reader. This study also reveals that e-books are frequently used by students and majority of students were aware about the e-books subscribed by their libraries as it was also found in the study conducted by Jbeen[3], *et al.*

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CONTRIBUTORS

Ms Seema Sood has obtained MPhil (Library Science), MLIS (Library and Info. Sci) and MA (Economics). She is currently working as an Assistant Librarian in A.C. Joshi Library, Panjab University, Chandigarh. Her research interest includes: Collection management, Scientometrics/bibliometrics, ICT applications in libraries, User perception and its related areas.
Her contributions to the work include abstract, introduction, literature review, methodology.

Dr Neeraj Kumar Singh obtained MSc (Chemistry), MLISc and PhD He has been awarded prestigious Commonwealth Professional Fellowship UK in 2012 and 2017. Presently working as a Deputy Librarian in A.C. Joshi Library, Panjab University, Chandigarh. His area of interest includes: RFID, Scientometrics, Research data management, Subject portals, etc. His contribution in the present study includes, Overall research design, writing-review & conclusion, editing and supervision.

Dr Suman Sumi has obtained a PhD And MLISc Currently she is working as an Assistant Librarian in A.C. Joshi Library, Panjab University, Chandigarh. Her area of interest includes: E-resources, Public library services, Research support services, ICT applications in libraries etc.
Her contributions to the work include drafting questionnaire and collecting data for the study.

Ms Deepika Tewari has obtained MA (Hindi), BEd and MLISc She is currently working as Library Assistant in A.C. Joshi Library, Panjab University, Chandigarh. Her research interest includes: Scientometrics/ bibliometrics, Collection development, ICT in libraries and its related areas.
Her contribution to the work includes data analysis and interpretation.