

Users' Perceptions of E-books at Jawaharlal Nehru University, New Delhi : A Case Study

Nageswara Rao K.[#], Sunil Kumar[§], and Manorama Tripathi^{#,*}

[#]*Dr B.R. Ambedkar Central Library, Jawaharlal Nehru University, Delhi, India*

[§]*Planning and Development Division, Indira Gandhi National Open University, Delhi, India*

^{*}*E-mail: Manoramatripathi2@yahoo.com*

ABSTRACT

The collection development policies of university libraries are driven by the information seeking behaviour and extent of use of resources by students, researchers and teachers. Libraries have introduced e-books in their collections with rising demand of users for them. However, e-books have not gained the perceived acceptance among users. It is essential to understand the gaps in preferences and experiences of users of e-books in academic libraries so that the collections of e-books can be customised to meet the users' preferences. The purpose of this study is to understand how students, teachers and research scholars access, browse and use e-books in Jawaharlal Nehru University, Delhi, India. The study has identified factors that encourage or discourage the use of e-books in academic libraries. It highlights preferences for the format (electronic/print) while perusing books as textbooks or reference books for research.

Keywords: Print books; Electronic books; University libraries; Accessing; Browsing

1. INTRODUCTION

With stupendous success and popularity of e-journals, university libraries worldwide became enthusiastic and this resulted in the drastic reduction in use and subscription of print journals¹. Following this trend, libraries started including e-books in their collections to enhance their services. However, the implementation of e-books in libraries has not cast the kind of spell that e-journals caused, though the former has most of the inherent features of the latter. The experts² cautioned that transition from print books to e-books would take longer time as compared to the speedy passage from print to e-journals.

This study has used systematic scientific survey to understand the gaps between users' expectations and the actual facilities that e-books provide to support their information seeking activities.

This survey will help in understanding the reading behaviour, preferences and experiences of users for e-books as textbook or reference books; to identify, features which encourage or discourage the circulation of e-books in academic libraries. It will assist in providing enhanced student-centric services and making judicious and optimum use of scarce financial resources of libraries.

The study will serve as a framework for future surveys, which may be conducted to examine the evolution of e-book usage in academic libraries.

2. CONTEXT

Jawaharlal Nehru University (JNU), Delhi is one of the

leading universities in India offering discipline-based research and higher studies. The academic fraternity of the university comprises over 600 faculty members and 8,500 students.

Dr. B.R. Ambedkar Central Library of the University introduced e-resources in 2005 with subscription of e-journals and further expanded e-resources by acquiring e-books in 2012. The Central Library subscribes to over 0.2 million e-books across different disciplines.

3. OBJECTIVES OF THE STUDY

The objectives of the study are as follows.

- To understand the extent of awareness among users about the availability of e-books.
- To know the preferences of users for the format of books (print or electronic), when books are used as textbooks, scholarly publications, leisurely read, general reference, dictionary or encyclopaedia.
- To understand the liking and disliking of users for features of e-books.
- To highlight users' perception about the future of e-books.

Null hypotheses

H₀₁: There is no association between the frequency of visiting the library and the frequency of checking out of print books. In other words, it is not necessary that users who frequently visit library also check out print books.

H₀₂: There is no association between the frequency of visiting the library and the time spent in exploring e-resources.

H₀₃: There is no association between the frequency of browsing library website and time spent in exploring e-resources. In other words, users who frequently browse university's

website need not necessarily be very frequent in browsing e-resources.

H₀₄: There is no difference between man and woman users' spending of time in exploring e-resources.

4. METHOD OF THE STUDY

The study instrumented questionnaire-based survey research approach to understand the reading behaviour and examine the gaps in perceptions and experiences in accessing and using e-books from library. The target population for the study included students enrolled in undergraduate or postgraduate courses, research scholars and faculty members of Jawaharlal Nehru University. The size of the population was over 8.5 thousand students and research associates and six hundred faculty members. It is assumed that three constituents of the population, i.e., students, research associates and teachers, do not differ significantly on scholarly information requirements hence, random sampling approach was adopted for the study. The sample size was 350 for administration of questionnaires.

The authors received 121 filled-in questionnaires from the sample of 350 (32 women (26.4 %) and 89 man (73.6 %). Thus, the response rate was 34.6 percent. When classified by the nature of engagement with university, 58 were research associates, 44 students were at the postgraduate level, 3 students were at the undergraduate level, 3 were faculty members and 2 were research officers. Thus, 84.3 percent of the respondents were either students at postgraduate level or research associates. The authors applied Binominal, Kendall Tau and Pearson Chi-square tests for analysis.

5. LITERATURE REVIEW

There are many important studies^{3,4} that have provided a detailed review of published literature on use and preferences and other important issues of e-books.

5.1 Features of E-books which Attract Users

Features such as accessibility, credibility, coverage, cost, visual and interactive content, portability, and the easy-to-navigate interface attract users and enhance the circulation and usage of e-books⁵. The users also appreciate features of highlighting and adding annotations⁶. The features of adding annotations and sharing enhance users' engagement and leads to a rich learning experience⁷.

5.2 Features of E-books which Distract Users

The higher prices of e-books as well as stringent terms and conditions of use prevent libraries from subscribing to e-books⁸. The restrictions on viewing, printing, downloading, circulating, interlibrary loan, and sharing prevent the use of e-books in libraries. The users are also averse to reading for long on computer screen⁹. E-books are available in different proprietary formats which prevent their free use¹⁰. Besides, libraries deploy firewalls which adversely affect the use of e-books¹¹. The users who are not proficient in using different features of e-books do not actively use them¹².

5.3 Variation in Perception with Discipline

The preferences for the format of books vary with subject areas. The use of e-books is not popular among the nursing faculty¹³. Clinical practitioners use e-books for patient care²; 71 per cent of the medical students perceive that the use of e-books would enhance their productivity, though just 38 percent regularly use them¹⁴. Students in humanities and sciences choose print books over e-books, whereas students registered in professional courses like business, dentistry, engineering, law, library science, medicine and pharmacy are inclined towards e-books⁶.

5.4 Preference of Format for Different Purposes

Experts¹⁵ highlighted that users prefer different formats for different type of documents. They prefer electronic version for reference, edited collections and citation manuals, but want print books for literature and recreational reading. Undergraduate students prefer to read in electronic form¹⁶. Postdoctoral researchers show the highest inclination for e-books followed by the graduate and undergraduate students¹³.

In the Indian context, two studies^{17,18} used questionnaire method and reported users' preferences for print books. Ghosh¹⁹ reported users' preferences for mobile device to access e-books and highlighted barriers in use of e-books and asserted on spreading awareness about e-books.

6. DATA ANALYSIS AND RESULTS

6.1 Awareness about Availability of E-books

Lack of awareness about e-books is the prime factor behind poor usage of e-books, despite best efforts made by libraries for improving circulation of e-books²⁰.

Central Library has been using multiple communication channels to spread awareness about the availability of e-books, perceiving that preferences of users for communication channels may differ. To understand popularity of various communications channels, the users were asked to specify the communication channels from which they learnt about the availability of e-books in the library.

Users have been referring to multiple communication channels. Seventy-three (60.3 %) respondents learn about e-books through the library website and 29 (24 %) get information from library catalogue. Thus, about 70 per cent of the respondents get information about e-books from various one-way technical communication channels. Thirty-two (26.4 %) respondents got information from colleagues and 11 (9.1 %) were informed by teachers. Thus, about 30 per cent users relied on human support, i.e., support from colleagues, teachers, library staff and orientation programmes. Substantial number of users rely on human support for getting information about e-books.

A majority of the users (63.6 %) perceived that the information about arrival of e-books should be made available on the library website. Sixty-one (50.4 %) users wanted that they should be informed individually through e-mails. Olney-Zide and Eiford²¹ reported that one out of three users surveyed did not know that e-books were available in their college library, although 120,000 e-books were already there in the library catalogue. Joo and Choi² claimed that awareness

through popular communication channels would become the catalyst and draw more number of users for e-books.

Libraries do need to undertake sensitisation sessions to educate the users about how to access and make the best use of e-books.

Table 1. Use of communication channels for providing information about e-book collections

Communication Channel	Actual effectiveness	Perceived effectiveness
	Respondents (%)	Respondents (%)
Library website	73 (60.3)	77 (63.6)
Library catalogue	29 (24.0)	31 (25.6)
Colleague	32 (26.4)	25 (20.7)
Teacher	11 (9.1)	38 (31.4)
Information Brochure of library	8 (6.6)	
Orientation Programmes	6 (5.0)	6 (5)
Publisher	2 (1.7)	
Staff of library	3 (2.5)	
e-mail to individual user	Not in operation	61 (50.4)
No. of respondents	121	121

6.2 Preference for Format of Book for Different Academic Purposes

The preferences for electronic or print formats of books differ with the purposes of reading book. Change in preferences with the nature of books is statistically examined with binomial test, as shown in Table 2.

Table 2. Preference for format (print/electronic) of book for different academic purposes

Nature of book	Preferred format			Total	Difference in e-book and print book preference (P < .005)
	e-books	print books	Both		
	No. (%)	No. (%)	No. (%)		
General reference books	12 (12.1)	14 (14.1)	73 (73.7)	99	No difference
Dictionary/ encyclopaedia	21 (24.4)	11 (12.8)	54 (62.8)	86	No difference
Journals	44 (42.7)	10 (9.7)	49 (47.6)	103	e-book preferred
Research monographs	23 (28.4)	7 (8.6)	51 (63.0)	81	e-book preferred
Thesis & dissertation	22 (22.2)	24 (24.2)	53 (53.5)	99	No difference
Fiction	21 (23.6)	36 (40.4)	32 (36.0)	89	No difference
Leisure	7 (9.3)	35 (46.7)	33 (44.0)	75	Print book preferred
Text books	3 (3.2)	39 (41.9)	51 (54.8)	93	Print book preferred

Users preferred electronic version for perusing journals and research monographs, whereas print versions were preferred for textbooks and leisure reading. The use of textbook entails reading most of chapters, page by page, hence reading printed books on screen is tiring. Distinctive features of e-books facilitate their use as reference materials in research. Users prefer electronic format for reading short, specific and non-academic content²². This survey further assessed the extent of usefulness of e-books for different academic purposes, as elaborated in Table 3.

Thirty-six (29.8 %) respondents pointed out that e-books catered to their textbook requirements considerably, thus, e-books were partially successful in meeting textbook requirements. Seventy-seven (63.9 %) respondents said that the e-books supported their research activities.

Students expressed criteria for making choice between print or electronic format of the books that are available in dual formats. Forty-seven (38.8 %) respondents decided to go by the scale of economy and preferred the cheaper option between the print and the e-book. Users prefer the format that is economical, when a title is available in both formats.

The experts²³ reported that students acknowledged good features of both the formats and they were more interested in contents than in format. The respondents were asked whether they would recommend dropping of print copy of the books that were already available in digital format in the library. The majority of respondents refuted the idea and preferred to have print and e-book version of the same title in the library.

E-Books have gradually been gaining popularity as users like their inherent features⁵. Sixty respondents (49.6 %) noted the growing popularity of e-books and felt that e-books would take time in getting acceptance in the academic environment. Only 13 respondents perceived that e-books would be able to replace textbooks. Thirty-six (29.8 %) respondents said that e-books would supplement print books, and both the formats will coexist in libraries. The same was reported by Chrzastowski and Wiley²⁴.

6.3 Features of E-books Liked by Users

Students appreciate the distinctive features of digital and print versions of books²⁵. Kachaluba²⁶, *et al.* reported that students liked features of print books such as browsing, serendipity, image reproduction rights, while they appreciated the features of e-books such as 24X7 availability and searching capabilities. Mizrachi²⁷ reported that factors like anytime-anywhere convenience to access, low cost, concern for ecological sustainability impact the selection and use of e-books. Users were asked to highlight preferred features of e-books and they selected multiple features.

Seventy-five (62.5 %) respondents felt that reading e-books on a computer screen for long hours was tiring. Forty-nine (40.8 %) respondents criticised non-availability of full texts of books of their interest. Respondents criticised non-availability of e-books after the subscription expires.

Table 3. Extent of usefulness of e-books for different academic purposes

Extent of usefulness	As textbooks	As reference source	For assignments and seminars
	Respondents (%)	Respondents (%)	Respondents (%)
Considerably	36 (29.8)	77 (63.6)	65 (53.8)
To some extent	71 (58.7)	37 (30.5)	47 (38.8)
Not at all	5 (4.3)	3 (2.5)	5 (4.1)
Not applicable to me	9 (7.6)	4 (3.3)	4 (3.3)

6.4 Degree of Satisfaction with Strength of Collection of E-books

The questionnaire mentioned a few statements pertaining to the distinct features of e-books, such as easiness, quickness and user-friendliness in information retrieval and the extent of coverage of various disciplines in e-book packages subscribed by the Library, and asked users to express the extent of agreement with these statements on a Likert scale of five points. The weighted mean score of agreement with each statement, reflected in the rightmost column of Table 4, was computed by assigning weight of -2 to strongly disagree; -1 to disagree, 0 to neutral, 1 to agree and 2 to strongly agree. The high value of the weighted mean score of the agreement indicates the extent of agreement with that statement by a large number of respondents.

Thirty-two students strongly agreed that print book collection in the library met their requirements and only 15 students strongly agreed that e-book collection met their needs. It indicates that e-book collection was not strong enough like the print book collection. Previous studies have highlighted that all that is required is not available as e-books.²⁸ Most of the respondents did not agree with the statement that they did not refer to e-books older than five years, thus Library needs to subscribe to old e-books.

Forty-five respondents (31.2 %) were encouraged to read specific titles of e-book on recommendations made by

Table 4. Satisfaction with collection of books

Statements	SA	A	N	D	SD	Mean score of agreement
Print Collection of the Library meet my academic & research needs	32	45	13	13	5	0.80
E-books available with the Library meet my academic & research needs	15	50	20	13	7	0.50
Support extended by library staff in retrieving e-books is satisfactory	13	49	27	18	2	0.49
E- books are easily accessible whenever I need them	17	33	36	14	2	0.48
E-books older than five years are rarely referred by me	8	31	22	29	7	0.04

SA: Strongly agree; A Agree; N Neutral; D: Disagree; SD: Strongly disagree

search engines, while 44 (36.4 %) read on the recommendation of teachers. Thirty-four (28.1 %) respondents read specific books on recommendation of their colleagues. Thus, users rely on machine (search engines) as well as human support (teachers and colleagues) in the selection of e-book titles.

A number of respondents reported multiple resources for getting e-books. Eighty-seven (71.9 %) respondents were dependent on the Dr. B R. Ambedkar Central Library for getting e-books, while 52 (43.0 %) read e-books that are free of cost. Seventy-six (62.7 %) respondents explored Google portal for e-books. All the respondents had read e-books; however, only three users had ever purchased one. E- books are more expensive than their print counterparts²⁹. These finding were in consonance with observations of Salau³⁰ that students would like to pursue only those e-books of their interests that are offered free of cost, besides using the ones provided by their libraries. Respondents were asked to specify physical locations preferred by them for reading e-books. Seventy-nine (65.3 %) respondents accessed e-books in the library, 64 (52.9 %) in the reading rooms of their respective

Table 5. Factors which encouraged reading of e-books

Reading of e-book is encouraged by	Respondents (%)
Recommendation of colleague	34 (28.1)
Recommendation of teachers	44 (36.4)
Requirements of curriculum	39 (32.2)
Recommendation of search engine on keywords typed by me	45 (31.2)
Recommendation of renowned database/ aggregators offering good titles in my discipline	23 (19.0)
Recommendation of social media (blog, twitter, face books) having students, research scholars and teachers as members	22 (18.2)

department, School or Centre, while 53 (43.8 %) preferred to access e-books from home or the hostels. Hence serious reading requires peaceful and conducive environment.

6.5 Access and Reading Behaviour for E-books

The survey endeavours to understand the evolution of reading behaviour induced by e-books. Table 6 shows the different devices used to read e- books.

Ninety-four (77.7 %) respondents preferred reading e-books on their laptops, while 36 (29.5 %) took printouts of the portions relevant to their study and research needs. Such users were fond of reading print books.

The null hypothesis H₀₁ states that it is not necessary that students who frequently visit library are also frequent in checking out print books. Both the

Table 6. Preferred methods for reading e-books

Preferred methods for reading e-book	Respondents (%)
Print relevant contents of e- book	36 (29.5)
Read on laptop	94 (77.7)
Read on desktop	25 (20.7)
Read on mobile phone	18 (14.9)
Read on e- book reader (Kindle, Sony, etc)	7 (5.8)

parameters are on Ordinal Scale hence, the association between the frequency of visiting library and frequency of checking out of print books was statistically examined with the Kendall tau-c test as shown in Table 7.

The level of significance of Kendall's tau-c test value, expressing association in frequency of visiting the library and frequency of checking out of print books, rejects the null hypothesis. Thus, students who were frequent in library were also frequent in checking out print books.

Null hypothesis H_{02} states that there is no association in between the frequency of visiting library and the time spent in exploring e-resources. The association is statistically examined with the Kendall tau-c test as shown in Table 8.

The level of significance of the Kendall's tau-c test value, expressing the association between the frequency of visiting library and the time spent in exploring e-resources failed to

Table 7. Association in frequency of visiting library and frequency of checking out of print books

Parameter	Value	Asymp. Std. Error (a)	Approx. T(b)	Approx. Sig.
Kendall's tau-b	.299	.072	4.154	.000
Kendall's tau-c	.269	.065	4.154	.000

Table 8. Association in frequency of visiting library and time spent in exploring e-resources

Parameter	Value	Asymp. Std. Error (a)	Approx. T(b)	Approx. Sig.
Kendall's tau-b	.094	.069	1.363	.173
Kendall's tau-c	.090	.066	1.363	.173

Table 9. Association in frequency of browsing library website and time spent in exploring e-resources

Parameter	Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Kendall's tau-b	.042	.077	.542	.588
Kendall's tau-c	.041	.076	.542	.588

Table 10. Association in gender and time devoted for exploring e-resources

Parameter	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.469(a)	5	.132

3 cells (25.0 per cent) have expected count less than 5. The minimum expected count is .79.

reject null hypothesis H_{02} . Thus, students who frequently visit library need not necessarily devote considerable time in exploring e-resources; however, null hypothesis H_{01} indicated that such students are inclined to checking out print books.

To test null hypothesis H_{03} , the association between the frequency of users browsing library website and the time spent in exploring e-resources was statistically examined with the Kendall tau-c test as shown in Table 9.

The level of significance of the Kendall's tau-c test value, expressing association between the frequently of browsing university's website and the time spent in exploring e-resources failed to reject null hypothesis H_{03} . It shows that students who frequently browse university website need not necessarily devote considerable time in exploring e-resources.

To test null hypothesis H_{04} , the association between gender and time devoted in exploring e-resources was statistically examined with the Pearson Chi-square test as shown in Table 10.

The level of significance of the Pearson Chi-square test value examining the association between gender and time devoted in exploring e-resources failed to reject null hypothesis H_{04} . Thus, male and female students do not differ in devoting time for exploring e-resources.

7. CONCLUSIONS

The present study gives a snapshot of the perception and experiences of students and researchers with e-books. They perceive a bright and promising future for e-books, and think that e-books will gain popularity with time. Library users are not comfortable with the idea of dropping print books even if their electronic counterparts are available in library. The print and e-books will coexist in academic libraries in future. Users do not appreciate the idea of dependence on e-readers and availability of the e-books during the subscription period only. A complete online reading habit is yet to become the norm.

The results of this study cannot be generalised as the survey is confined to students, researchers and faculty members of one research university. Further research needs to be undertaken with a larger sample of the user population across different learning and research institutions before the findings could be generalised. The authors recommend that similar kind of studies should be undertaken on a regular basis to understand rapid evolution in users' perception of e-books.

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CONTRIBUTORS

Mr Nageswara Rao Kondamudi is Assistant Librarian in Jawaharlal Nehru University, New Delhi. His areas of research include electronic resource management, innovative library services, and user behaviour in online environment. All authors contributed equally to the current study.

Dr Sunil Kumar is a Senior Analyst at Planning & Development Division, Indira Gandhi National Open University (IGNOU),

New Delhi, India. His research interest includes social media in education, elearning, course management system, planning and funding of distance education. He has authored more than 35 papers, three monograms, two books. All authors contributed equally to the current study.

Dr Manorama Tripathi received her PhD in Library and Information Science from Banaras Hindu University, Varanasi. Presently she is working as Deputy Librarian at the Central library, Jawaharlal Nehru University, New Delhi. She has published 50+ research papers in journals and conference. Her areas of research include : Information seeking behaviour of researchers, innovative library services, and scientometrics. All authors contributed equally to the current study.