Optimization of Space in Central Library: A case study of Jawaharlal Nehru University and Delhi University

Susanta Kumar Panigrahi
Assistant Librarian
Central Library
Jawaharlal Nehru University
New Delhi-110067
Contact No 9810846840
e-mail: sushant@mail.jnu.ac.in

Abstract - This paper discusses about the opinion of research scholars of Jawaharlal Nehru University (JNU), New Delhi and Delhi University (DU) regarding the optimization of space in their Central Library. In order to optimize the space in library, the assessment of usage of print resources and physical space in the Central Library has been taken into account. There is paradigm shift in availability of information sources. Library user's expectations nowadays are connection centric library instead of collection centric. This paper recommends the librarians to re-design the library space to meet the users need. Least use print materials occupy major chunk of shelf space, becomes a hurdle to accommodate new titles. Every year more number of students enrolled in the university and number faculty members also increase because of opening of new school/department. But the physical space of the library remains unchanged. Users are of the view to increase the number of Reading hall with Wi-Fi connectivity for laptops, mobile phone charging and power point for laptop charging for longer hour reading. Users also of the opinion to weed out the old obsolete, damage/mutilated pages books from the library to accommodate new titles. University libraries should re-design their physical space to meet the expectation of the 21st century users. Libraries need to more connection and learner centric instead of only collection centric. This paper reveals the space crunch in the University Libraries where users visit to not only issue/return, browse books and consult reference materials, but more users visit to read/concentrate/access e-resources in the Reading Hall. Different types of reading space are the need of the users.

Keywords: Library space, Weed out, Optimization of Library space, Learner centric library, Delhi University.

Introduction

Since the last one and a half decades libraries are witnessing a revolutionary change in the availability and accessibility of knowledge resources. One of the objectives of the library is a systematic organization of knowledge resources for easy retrieval by the users. ICT has made it possible through digital creation, storage, and delivery of online knowledge resources. The fourth law of library science is "Save the time of the users". The advent of, online resources is a step forward in this direction. It saves the time of the users in searching and retrieval of knowledge resources. Because of the online availability of monographs and journals, there is fewer footfalls in the stack area of print books and bound volumes of journals.

Users visit library to spend time for academic purpose. Reading hall is the place where they can read books and journals of their subject interest. They access e-resources subscribed by

library as well as open access using their laptops, mobile phones. Nowadays teaching methodology also change. Teachers provide video lecture, ppt files to students. Students have to prepare assignment, project report etc in collaborative ways. Whether it is for creativity, thinking, concentrating, reading, writing and preparing for term end examination students choose library is the best place. They need more group and individual study space. They also need collaborative learning space and reading space for socializing with their peer group. The University Libraries particularly the established during late 1950 onwards couldn't change their infrastructure as expected. With the span of time, especially since 1995 onwards there is paradigm shift in the landscape of information science. Information and Communication Technology has changed role and responsibilities of Libraries. The understand the need of the users and existing infrastructure at University Library the current study has been planned.

Related Literature review

Usage of print vs Electronic

Bradford, (2005)[2] reviewed the use of reference sources in print format, at the Stetson University, Central Florida. The objective was to test hypothesis "that print resources are less referred by the Reference Librarian compared to online". The study concluded that the print reference sources are not well used by either by the users or the Reference Librarians. Marry Biggs and Victor Biggs, studied 471 libraries regarding written policies for selection, weeding out, and retention of reference sources. 11 percent responded about the need for large volumes of reference materials in the library. (Biggs, Biggs 1987, P.69). [1] A use study of reference resources was conducted in the Iowa University. Table count method was used to ascertain the usage. Only the call number range was tracked. (Daniel, 1988, P.71).A similar study was done by librarians of Stetson University about the use of reference materials by librarians to answer user's queries and not by the users directly. (Bradford and et.al.). The study of Bradford concluded, less than 10 percent of the print reference collections was used even once. The items used in the range of call numbers indicated to strengthen the collection development in a particular subject. But, the overall result reveals the "Reference Collections were least used items".(Bradford, 2005).

Borrego,Anglada, Barrios, and Comellas (2007)[3] analysed the usage of e-Journals by the faculty members of the "Consortium of Academic Libraries of Catalonia (CBUC)", The Consortium had eight public-funded libraries of Catalan University and National Library. The Consortium had been subscribed to 7200 electronic journals. 75% of the faculty refer online journals for research and 41% for teaching, reported Tenopir and King. (Tenopir and King, 2005, P.802)[4]. Bar-Ilan, Peritz, and Wolman, stated that the databases and electronic journals were used for both teaching and research by 69.2%, 23.9 percent use it exclusively for research, and 0.6% for teaching. Again their finding shows, majority of the users of e-Journals and Databases, were young faculty members. (Bar-Ilan, Peritz and Wolman, 2003P. 355)[5] 72% of the respondents said they would like to stop the use of print journals."Electronic journals were consulted for both research and teaching by 53.6 percent of the respondents. 37.4 percent use for research and 2.7 percent use for teaching. The respondents from Biomedicine, Exact and Natural Sciences and Engineering gave a significantly higher value to the collection of e-Journals, whereas the respondents in Social Sciences and Humanities gave a significantly higher value to print journals. (Borrego,Anglada, Barrios, and Comellas , 2007, P.73)[6]

Kaur (2015)7 in his research paper "Users Attitude Towards Print And Digital Information Resources: A Survey With Reference To Guru Nanak Dev University, Amritsar", summarised the unique qualities and various aspects of print and electronic resources expressed by the users. The result shows 50.43% of users prefer digital resources whereas 39.13% prefer print resources. 58.26% prefer digital because of quality and functionality. In response to the question of conducive to reading, 46.96% responded, they prefer electronic resources in comparison to print. When, question of publishing scholarly output, 48.69% prefer print instead of digital. 45.21% of the respondents satisfied by consulting print resources. As far as the physical format is concerned 67.82% of the users satisfied with the print format in terms of ease in reading 53.91% respondent said they prefer print resources for academic work because of proficiency, accuracy, and efficiency. However, 50.43% responded, they prefer, print resources as the best medium for delivering information.

The print resources have their stronghold still now, however, the digital resources have also their role in the digital world. A hybrid collection may meet the needs of users.

Tanopir, Carol, Donald,Christian, & Volentine (2015)[8] had compared the reading habit and information-seeking behavior, of Scientists and Social Scientists in USA. The study conducted during the period 1977 to 2005 and 2012. During 1977 King and Tenopir studied, the information-seeking behaviour and scholarly reading patterns of faculty and other researchers in United States of America. Starting early 1990, many attempts were made to understand the reading pattern of faculty and students in universities. The rising number of availability of electronic resources along with back files through library subscription is responsible for online reading in the USA. The research questions were to" investigate the reading patterns of scientists, a number of articles read in a month, time spent on reading articles and reasons for reading articles. The researchers used questionnaire method to collect data. The result revealed that online articles were frequently used information sources. 74.3% of the respondents used online articles. "These sources included archive files, citations, books, author speaking engagements, a television show, Facebook, Twitter, Google Scholar, other news reports, and databases such as PubMed, EBSCO, and ScienceDirect. Scholars are increasingly using diversified means of discovering information and this tendency has only increased with the advent of various social media networks and sites". 94.5% of the reading materials were obtained through the library. 51% reads the article on the screen, few prefer mobile. 43.7% take a print of the article. The physical location of reading e-articles was preferably from office, labs, and home through remote access. The respondents said the purpose of reading was for research and education. 54.9% of article referred were less than 2 years old, while only 9.3% older than 15 years.

Since the research was a comparative study of reading patterns and the use of articles in the different disciplines from 1977 to 2005 and 2012. During the 30 years of study, there was a decline in the use of personal subscriptions. The use of articles on current issues is high because every researcher wishes to be updated.

 Kumar and Reddy (2016)[9] examined the usage of e-Journals by research scholars at the University of Hyderabad, the Sri Venkateswara University, and the Andhra University. The result shows the majority of the users (43.92%) use both print and online journals. 75.03% use e-Journals for their M.Phil and Ph.D. work.

Miller (2016)[10] conducted an investigative study of the use of e-Books vs print books in the Health Science Library and presented in the paper "Is it cost-effective to purchase print books

when the equivalent e-book is available?". The researcher selected 60 print books whose online versions were available in the library. He took the usage statistics of eBooks through COUNTER and print books from LMS during the period 2010-2014. The findings revealed that the usage of eBooks was 3, 70,695 whereas its counterpart had only 93 during the period. However the researcher did not mention the term "use" means the COUNTER gives the result of download, browse, chapter download, printing, online reading, etc. Again the sample was very small compared to 2, 50, 000 titles available in electronic form. The study shows, users of Health Science prefer Electronic compared to print books.

Yuan, Ballegooie, & Robertson (2018)[11] assessed the preference of format of monographs upon one another among the users of the University of Toronto. In this study, the population of the study was monographs of University Press namely Oxford University Press, Cambridge University Press, and Duke University Press. For the study, UTL has considered the Oxford Scholarship Online (OSO) with imprint 2010 to 2014, Cambridge Books Online with 2012 to 2014, e-Duke Book Scholarly Collections with imprint 2008-2014. The result reveals the usage of print copy is slightly higher than online. Overall 78.6% of titles used at least once. The result shows, 66.2% of print books, and 57.0% of online books used at least once. In the case of OUP the print has a higher percentage than online, whereas in the case of CUP it was more balanced and Duke University Press, print has more preference than online. DUP has the highest circulation followed by OUP. The usage percentage also varies disciplines. Again it was found the metadata in catalogue awareness of eBooks played a role in the usage of eBooks. If there were no e-books metadata in the catalogue the usage was low.

Research gap

Literature shows that library users prefer electronic journals than print format of books. The usage of eBooks is not encouraging. Again the usage of library space increased when the interior architecture changed. Libraries on the western part of the world are developing variety reading space to meet the need of the users like, group study room, quiet study room, presentation room, discussion study room, creative space, coffee dispensing machines etc. Many studies revealed that there hardly 10% of reference sources used in their library. But in India there is no such study conducted to assess the library space and its usage. Usage of print reference sources and its assessment has also not done. The present study tries to find out the users purpose of visit to library, their expectation in the digital information world and usage of library space.

Research Problems

Universities are opening more and more schools of study to produce human resources to meet the need of the Society. As a result, more faculty members and students join the Universities. Whereas there is no financial support to enhance University Library building and other infrastructure to cater to the additional users of the school of study. Rather there is continuous budgetary cut every year. Users now days want information round the clock, any time and anywhere across the globe. Online resources like e-journals, online databases, Institutional Repository, Digital Library and ebooks can be accessed through desktop, laptops, , iPad, mobile phone. So storing the miles long books shelves of century-old literature and bound volumes of print journals, Ph.D. Theses in the library, is raising question mark in the mind of administration and users.

1. Least used, outdated, old edition, books related to closed school of study and out of syllabus print resources occupy major chunk of library space.
2. Limited space to accommodate new titles.
3. Budgetary constraint and unavailability of land to build an extension of the library building.
4. Wastage of valuable library shelves spaces in storing hard copy bound volumes of journals and PhD Theses.
5. Limited reading space to accommodate the growing numbers of library users in the University Library.
6. Duplicity in availability of information sources (both print and online version of archive issues are available in collection and subscription)

Research Questions

The research will attempt to answer the following questions:
- Why the users visit library, what do they do, which are the areas they visit during their stay in the library building, how long they spend time in library in a day?
- Are the users satisfy with the existing physical space available in Library for their serious reading, leisure reading, socializing with friends,?
- Is the space occupied by the bound volume journals, hardcopy of Ph.D. Theses and Old obsolete book, justified in terms of usage?
- Do the users need the print bound journals and Ph.D. theses while the electronic version is available to them?
- Do the users need a collection centric library while many open access resources, google scholar and library subscribed online resources are available round the clock?

Objectives of the study

- To explore the frequency and purpose of visit to the library by the users.
- To investigate how long the users stay and spare time in different premises of library building.
- To study the views of users to optimize the shelf space by weeding out least used/damaged and online available print resources in the library.
- To analyze the views of library users with respect to optimize the reading space for their satisfaction.

Limitations

Due to paucity of time, the study will have the limitations
1. The population of the study will be Researchers of JNU and Delhi University who visit library.
2. The study will only cover users view with respect to use of print resources and, physical space, in the Central Library only.

Significance of the Study

The significance of the study will bridge the expectation of the users concerning the collections and infrastructure of libraries. The study will help the librarians of the universities

under study to optimize the Physical Space and other resources to meet the users satisfaction and mandate of the University.

Research Methodology:

Data collection: Survey method used to collect data from the respondents of the study, the researcher visited the Central Library for a week time during 10 AM to 7 PM. The printed questionnaires were distributed to the respondents at the entrance of the library as well as in the reading hall. Random sampling has been adopted to select the respondents. The population of the study is M.Phil/PhD students of both the universities. Ms-Excel has been used to code the rdinal data and numerical calculation.

Data analysis and Interpretation

Frequency of visit: Students, researchers and teachers in the University visit their library, as and when they require to collect/refer books, journals and other reference materials from the library. The level of frequency of visit by various type of users varies. The following table shows the frequency of visit to the library by the researchers in JNU and DU.

Table1: Frequency of visit

Respondents	Daily	2-3 Times a week	Weekly once	Once in month	1-2 times in a quarter	once in six month	once in year	No response	Total
DU	71 (71%)	23 (23%)	0 (0%)	5 (5%)	1(1%)	0 (0%)	0 (0%)	0 (0%)	100
JNU	155 (70%)	35 (16%)	15 (7%)	7 (3%)	1 (0%)	3 (1%)	1 (0%)	3 (1%)	220
Total	226 (71%)	58 (18%)	15 (5%)	12 (4%)	2 (1%)	3 (1%)	1 (0%)	3 (1%)	320 (100%)

71% of the Research scholars visit the library daily.18% visit 2-3 times a week. This indicates that majority of the users visit library daily. JNU is a residential university having maximum students stay in the campus. DU has both day scholars and resindentials. But the percentage of day scholar is higher than residential. The result shows more than 70% of the users visit library to study, access e-resources and transactions of reading materials.

Purpose of visit to library

Every library user has his/her reason(s) to visit library like Issue/return of books, to consult books and other reading materials in reading hall, to access e-resources using either desktop or own laptops, consult the reference sources and PhD Theses/Dissertations those which are not permitted to take outside of library. Many students visit to socialize with friends, for collaborative study, for quiet study and for seminar talk presentation preparation in the seminar room. The following figure shows the purpose of visit to the library by the user.
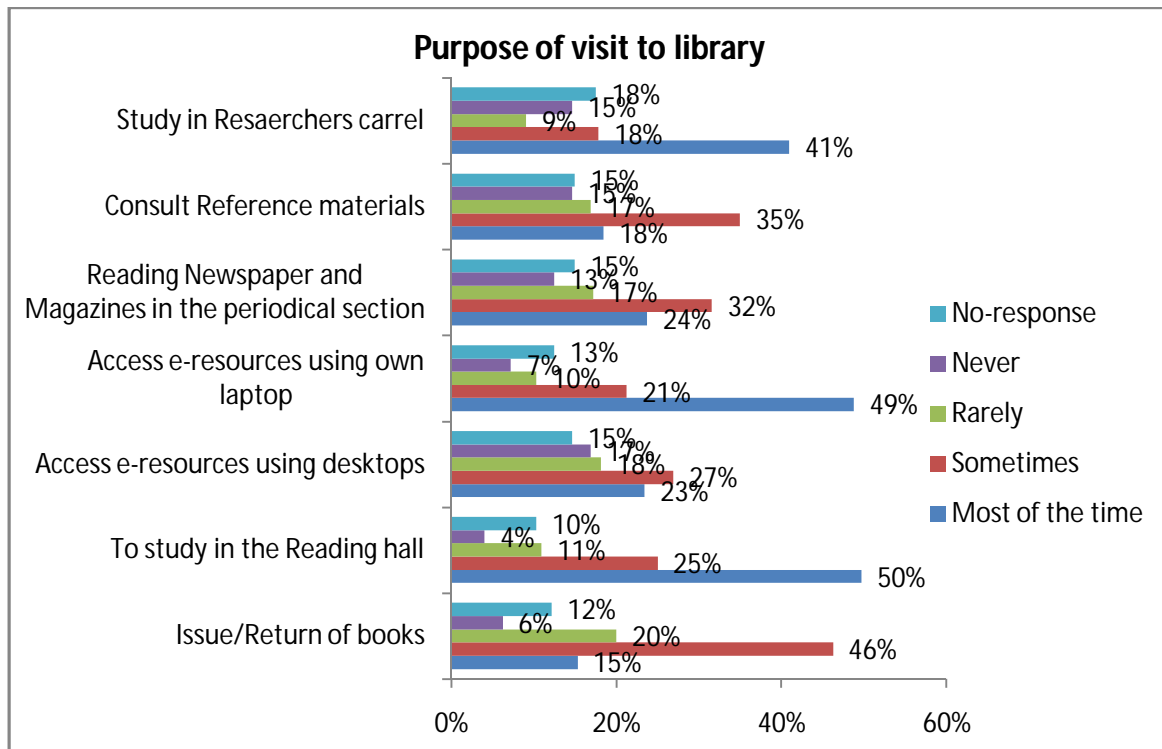
Figure1: Purpose of visit to library

The result shows that 50% and 49% of the users visit most of the time to study and access e-Resources in the Reading Hall of the library. 46% of them visit for issue/return of books and 41% to study in the Researcher Carrels for serious reading. Around 30%-35% of them visit sometimes for reading newspaper, magazines and consult reference materials. Both the libraries have cyber library to access e-Resources. The result shows the usage of desktops in the library is not encouraging. The reasons may be the desktop hardware are not upgraded to meet the internet speed and storage.

The inference that can be drawn, is that the major purpose of visit to the library is to study and accessing online resources in the reading halls, followed by issue/return of books and study in Researchers carrel. As newspapers and reference materials are available online, users prefer less to read hard copy. This indicates that users prefer print as well as online resources and ambient reading hall with latest infrastructure like Wi-Fi for better internet connectivity, AC reading hall , comfortable chairs, tables, charging points for longer hour reading.

Hours of stay in the Library building

The Researchers visit the central library for different academic purpose. Some visit the library to issue/return of books, some visit to browse books of their interest, to read newspapers and magazines in the periodical section, read in the researcher carrels, to study in the Reading hall, to access e-resources to socialize with friends etc. So the length of time spend by the users depends on the purpose of visit. The following table present the data of length of time they spend in a visit in the library.

Table:2 Hours of stay in the library building

Respondents	Less than one hour	Between one to two hours	Between two to three hours	Between three to four hours	More than four hours	Non-Respondent	Total
DU	0 (0%)	8 (8%)	12 (12%)	20 (20%)	58 (58%)	2 (2%)	100 (100%)
JNU	8 (4%)	14 (6%)	8 (4%)	26 (12%)	161 (73%)	3 (1%)	220 (100%)
Total	8 (3%)	22 (7%)	20 (6%)	46 (14%)	219 (68%)	5 (2%)	320 (100%)

As evident from the above table 68% of the users spend more than 4 hours in studying books, journals, preparing notes, assignment, preparing for semester exam and other competitive examination in the Reading Hall. Users also access e-resources using their own laptop in the reading hall as many of the reading halls in JNU and DU library are air conditioned with wi-fi facility as well as charging points for laptops and mobile phones.

Library Premises visit by users

When the users visit the library building they spend their time for various sections of the library according to their need. University library building has many sections according collections and services. There are Issue/return counter, Bound volume/archive section, Book stack areas, Periodical sections, Reference section, Cyber library to access online resources using desktops, Researcher carrels, Reading halls, and Rare collection etc. The following table shows the various premises the users visit during their stay in the building.
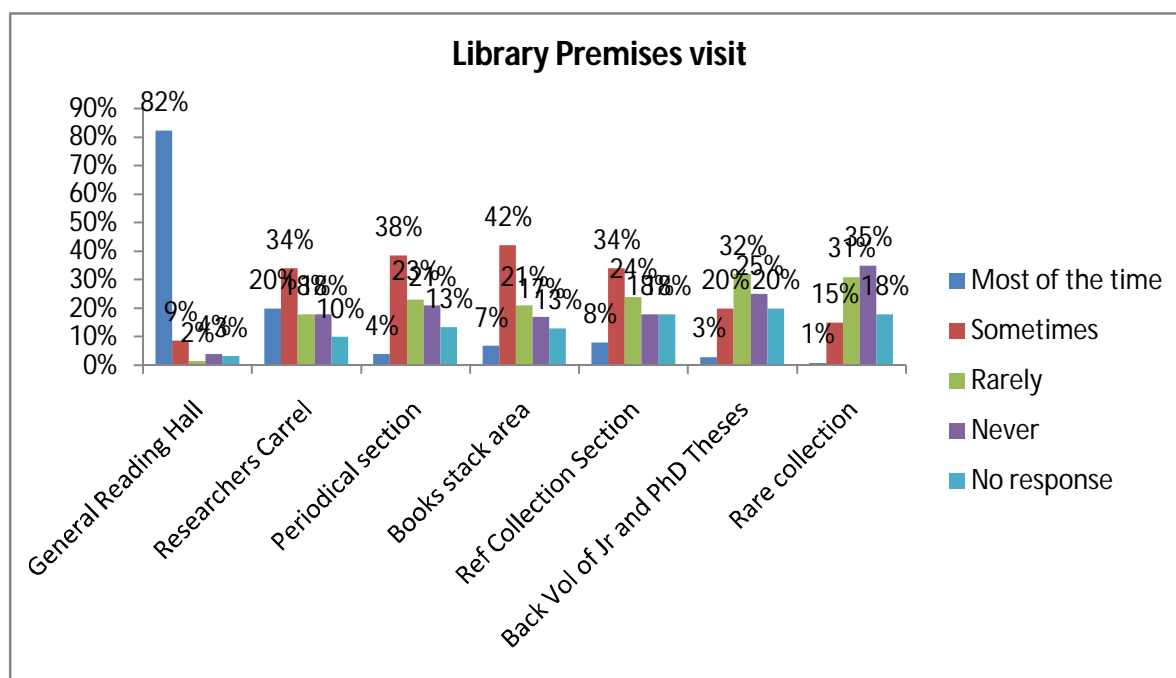

Figure 2: Library premises visit by users during stay in library building

More than 80% of the users visit the Reading hall, whereas they sometimes visit the periodical section, books stack areas, Reference collection section, and archive section where old bound volumes and PhD Theses/Dissertations are stocked. 20% visit most of the time to researcher carrel to study. Around 35% rarely visit the Rare collection.

The inference that can drawn from the above data that users visit the library for study in the Reading hall and Researchers Carrel. The word "study" here may include reading/writing, accessing e-resources, preparing for examination, reading notebooks, preparing presentations for seminar, project etc. So the Reading Space is mostly used library premise than any other. University Administration and Librarian should try to improve the Reading space in the library to satisfy the users.

Shelf space management for optimization of Library space

The primary objective of library is to collect, organize, preserve and disseminate knowledge resources. The knowledge resources are both in print, and non print media. The libraries under the study were built during the twentieth century. Obviously the objective of the buildings to make space for print resources. Many of the print copies of the books torn out, damaged, mutilated because of heavy usage by the users. Many books never issued or least used also stocked in the shelves. Many books are having old and obsolete technologies contents, many are out of syllabus etc still occupy the shelf space and posing hurdles to accommodate new titles. The storage and maintenance of the print resources is wastage of money and manpower.To optimize the shelf space the researchers, collect the views of users about weeding out these the used/least used and damaged collection books to make space for new titles.

Table 3: Shelf space management

Researcher	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Median	QD
	1	2	3	4	5			
Damaged/mutilated pages Books should be weeded out to accommodate new titles	20	32	64	106	98	320	4	2
	6%	10%	20%	33%	31%			
Text Books belongs to out of syllabus, out dated technologies, Courses closed in the University should be weeded out	32	63	71	87	67	320	3	2
	10%	20%	22%	27%	21%			
Equal number of old and never used issued books since 2 decades should be replaced with new titles	31	57	59	89	84	320	4	2
	10%	18%	18%	28%	26%			

The result of the table 3 shows that 31% and 33% of the users strongly agree and agree respectively to the proposal of weeding out the damaged/mutilated pages books from the shelves to accommodate new titles. 27% of the users agree to weed out the text books belongs to out of syllabus, outdated technologies and courses closed in the university should be replaced. However 22% of them neutral of the view. With respect to the proposal of equal number of old and never issued books since 2 decades should be replaced with new titles, 28% and 26% of users agree and strongly agree respectively.

The inference of the result is most of the users agreed to weed out the damaged/mutilated pages books, never issued books since last 2 decades, books covering old technologies and out of syllabus from the library. Users also expressed their views in favour of replacing the

weeded out books with new titles and latest edition of books. This indicates that users prefer print books also.

Weed out of least used materials and duplicate copy available online

The libraries under study have rich collections of PhD Theses/Dissertations and Bound volume of Research Journals as both the universities are famous for their research output since long time. In the last one decade there is proliferation online resources that includes e-Journals, Online Databases and other online resources. In the recent past INFLIBNET has designed a digital platform to upload the print copy of PhD Theses and Dissertations called "Sodhganga"". Both the libraries are subscribing to e-Resources trough e-Sodhsindhu and from their own budget. Again both of them upload their PhD These on to Sodhganga platform. So there is a duplicity in the availability of these print resources.

 To make the occupied space free for space optimization, the views of users has been taken to the question" Print copy of PhD Theses, Dissertations, archive of old research journals occupy valuable library. There is fewer readerships of print resources and storing these hard copies is wastage of valuable space.The following table shows the views of the users.

Table 4: Weed out of print resources whose online version available

Researcher	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total	Median	QD
	1	2	3	4	5			
These resources are available online in JSTOR, Portico, and Sodhganga (e-Repository of PhD theses) at INFLIBNET	3	37	86	113	31	320	4	2
	1%	12%	27%	35%	10%			
There is less readership of these print resources and storing the hardcopies is wastage of valuable library space	22	92	72	86	48	320	3	2
	7%	29%	23%	27%	15%			

35% and 10% of users agree and strongly agree to the proposal of making the space free by weeding out these resources. However 27% remains" neutral" means many users still prefer both the format.

The result shows that median value 4 means all responses are close to " Agree". Hence, we may assume that all respondents agree to the view "that storing the hard copy of archive of Research Journals and PhD Theses are wastage of valuable library space because their online version are available on platform like JSTOR, Portico and Sodhganga (a e-repository of online PhD Theses).

In response to the proposal "There is less readership of these resources and storing the hardcopies is wastage of valuable library space", 29% and 27% of the respondents disagree and Neutral. The result shows that median value 3 means all responses are close to " Neutral". Hence, we may conclude there are readers available for print format along with digital copies.

The reasons may be because many users still prefer the hard copy of reference sources. Many of the view that all the PhD theses may not have been uploaded on Sodhganga Platform. So if library weed out them, the valuable old knowledge resource may lost. Online version of

many of the archive volumes of research journals may not be available in the library subscription.

The conclusion may be drawn that library may weed out those PhD Theses/Dissertations and bound volumes of research journals whose online version are available.

Users views for optimization Reading space

As discussed in the aforementioned tables the users primary purpose of visit to library is to study in the reading hall. To access e-resources and for other academic purpose also they visit the reading hall of the library. So there is more demand of seating space in the reading hall than any other place. The following table indicates the views of users regarding availability of seats in the reading hall. The users were asked "whether there is less reading space in the library?

Table 5: Availability of Reading Space in Library

Respondents	Agree	Disagree	Can't say	No response	Total
DU	70 (70%)	15 (15%)	13 (13%)	2 (2%)	100 (100%)
JNU	163 (74%)	31 (14%)	22 (10%)	4 (2%)	220 (100%
Total	233 (73%)	46 (14%)	35 (11%)	6 (2%)	320

73% users agree "that there is less reading halls in the Library". It may be concluded that although there seating capacity of 700-1000 in both the University Library still it is less looking into users population. Research Scholar wants to concentrate on their research, writing papers, and preparation of project proposal etc using library books, journals and online resources in the reading hall. But the seating capacity is less.

Users view with respect preference of location e-Resources access

University libraries are subscribing to many e-resources, which are accessible through campus IP ranges. Remote access facility to access e-resources has been extended to library users, so that they access from out of the campus. The following table shows data collected for showing the preference of location to access e-Resources although it can be access across the library building

Table 6: Preference of location for accessing e-Resources

Respondent	Library	Outside library building	No response	Total
DU	52 (52%)	29 (29%)	19 (19%)	100 (100%)
JNU	119 (54%)	59 (27%)	42 (19%)	220 (100%)
Total	171 (53%)	88 (28%)	61 (19%)	320 (100%)

The study shows that 53% prefer to access the e-resources subscribed by library in the reading hall instead of outside, although the facility to access through Remote access is available. The conclusion may be the ambience of the reading hall like Air condition, Quiet place and better internet connectivity is the reason.

Users view behind high usage of Reading Hall

There are many factors that users want to study and access e-resources in the reading halls of the Library. Few of them are like Centralized AC reading hall, Tables with charging points for laptops and mobile and reading with friend circle motivates for concentration. The following table shows the result of study.

Table 7: AC reading hall

Respondents	Strongly Agree	Agree	Neutral	No response	Total
DU	45 (45%)	32 (32%)	15 (15%)	8 (8%)	100 (100%)
JNU	115 (52%)	61 (28%)	25 (11%)	19 (9%)	220 (100%)
Total	160(50%)	93 (29%)	40(13%	27 (8%)	320 (100%)

50% and 29% of the users strongly agree and agree that the centralized AC Reading hall is one factor to access e-resources although remote access facility is available for outside access.

Table 8 : Reading with friend circle

Respondents	Strongly Agree	Agree	Neutral	No response	Total
DU	37 (37%)	34 (34%)	17 (17%)	12 (12%)	100 (100%)
JNU	98 (45%)	59 (27%)	46 (21%)	17 (8%)	220 (100%)
Total	135 (42%)	93 (29%)	63 (20%)	29 (9%)	320 (100%

The above table 8 shows 42% strongly agree and 29% agree that reading with friend circle motivate them to study and access e-resources in the reading hall.

The inference from the above two tables are that reading hall is the main attraction of the library bilding then any space in the library. If the library make them more habitable with clean, dust free, natural light, centralized AC, laptop charging point, wi-fi facilty, cosy and ergonomically designed chairs to satisfy the users need.

To support the above views of the users, the researcher asked the users, "Whether there is a need to re-design the Library space for optimization?"

Table 9: Re-design of library space for optimization

Researcher	Can't say	Don't Agree	Agree	Total	Median	QD
	1	2	3			
Library physical space need to re-design to optimize space	36	48	236	320	3	1
	8%	11%	56%			

The table 9 shows that 56% of the users agree that there is a need re-design the library space. The result shows that the median value is 3 and QD is 1 means all respondents agree to the view library space should re-design to optimize the space.

The conclusion may be that, the Central Library of JNU and DU are around 50 years old. The buildings were built in that era looking into the need of expansion of print collection. There was no such planning for reading hall and variety of redaing need of the present century. As there is financial constraint to expand the old building, it may be possible to re-design the existing physical space to satisfy the users need.

Findings of the study

The study reveals that there is a paradigm shift in library and information world. Information is ubiquitous in nature. So users can access these anytime, anywhere, but still the users prefer to spend time in accessing e-resources and consult their personal notebooks, library books and other information sources in the reading hall of the library. Users want to spend more time in the reading hall, than other areas of the library building. The preference of online version of research journals, reference sources, online PhD Theses and Dissertations is high the study reveals. Although libraries are subscribing/purchasing eBooks, but users prefer the print version of books. All users agreed to weed out the least used books, damaged/mutilated pages books, books covering old and outdated technologies to make space for new titles. There is need to re-design of the building to make more space for reading and concentration. The users are of the view there is less reading space in the library, compared to number of users. All the reading halls are not air conditioned and some don't have charging points for laptops and mobile phones. There is less readership for print version of reference sources and PhD Theses/Dissertations, whereas more readership for print copy of General and Text Books. There is a stronghold of print version of books than eBooks. Users prefer online version of Research Journals, and Reference sources than their counterpart.

Recommendations:

Looking into the financial constraint, space constraint and users views with respect to Indian University Library, the study recommends the followings:
1. University Library should change its collection development policy with more emphasis on online subscription of databases, reference sources and research journals and Print copy of books.
2. More reading space with infrastructure like wi-fi for internet, laptop charging points, researcher carrels, discussion rooms, presentation rooms and quiet space.
3. Periodical collection assessment to weed out the least used and never used books and bound volumes of print research journals whose online version available in library subscription.
4. Engagement of subject librarians for Collection Development, Collection Management, and Collection Assessment for overlapped subject discipline.
5. More departmental library and librarian for optimal usage of both print and online resources, which leads to optimization of shelf space in Central Library.
6. Archive of common print resources of university libraries in metro cities for optimization of space and print resources.

Conclusion:

Change is inevitable. Without change there no development in the society. The last two decades has witnessed drastic change in creation, storage and dissemination of knowledge sources. Library is the place for storing, preservation and dissemination of knowledge. Information are born digital, stored digital and disseminate digitally. Users has the freedom

of access to these information with number of electronic gadgets. Still the users prefer to access information in the library building. Library is the second house of the users, where they spend 20-30% of the day in the library. Looking into the users expectations, library should consider to refurbish the internal architecture of the building, collection development policy and make space for variety of reading requirement. More research should be conducted on the aspects of preference of information sources, issues with accessibility of online resources and weeding out of print copies for creation of Common Print Repository of Universities in metro cities.

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