A SURVEY ON LIS POSTGRADUATE STUDENT'S USAGE PATTERN AND PERCEPTION TOWARDS ELECTRONIC RESOURCES IN CALCUTTA UNIVERSITY CENTRAL LIBRARY (CUCL)

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Abstract: With the rapid advancement of Information and Communication Technology (ICT), our societies are moving towards the digital and electronic-based world of information. The present study aims to explore the use and user perception of electronic resources in Central Library of Calcutta University (CUCL). Usage pattern and user perception may be an important factor to influence a positive learning outcome. The survey research method is adopted for the study. A questionnaire is used as a data collection instrument. A well-structured questionnaire was designed and distributed to the users. A total number of 40 users were taken into account for the study through a questionnaire-based survey method. The questionnaire contained maximum close-ended questions. Students' frequency counts and simple percentages are used in analyzing the data collected. The collected data were classified, analyzed, and tabulated by using simple statistical methods. The analysis of the collected data covers the usage pattern of electronic resources, the various purposes of using e-resources, how the e-resources improve carrier of the users and preferred mode of using e-resources and deals with various hindrances that are faced in using the e-resources & services. This study covers the impact of electronic resources on users in their academic career. This article reveals that the use of electronic resources has tremendous impact on the academic performances of the users of Calcutta university; however, there is need for them to acquire more skills in the use of electronic resources. Finally it concludes that, the main intension of the use of electronic resources has been the academic interest of the users.

Keywords: **ICT, Electronic resources, Usage pattern, Survey, Calcutta University Central Library (CUCL).**

1. Introduction:

Now-a-days every aspect is influenced by Information and Communication Technologies (ICTs). Today the information arena witnesses quite explosive situation with the advances in technology. Recent advancement in information and Communication Technology (ICT) has provided new ways of dealing with information and with advancement of technology. Application of Information Communication Technology (ICT) in libraries has provided enough opportunities for building e-resources and disseminated them in the manner which suits the needs of academics [4]. The concept of information retrieval has changed completely due to rapid and widespread developments in the technology. Earlier information resources were considered as a physical entity but now these have evolved from traditional print documents to electronically stored information [5]. Library contains the different types of reading materials namely books, periodicals, maps, microforms, sound recordings, video recordings, electronic resources etc. These are procured to meet the information requirements of the user community [3]. For this reason, the libraries are moving towards electronic resources which are found to be less expensive and more helpful for early access of information. E-resources are the concept of new era. Electronic resource is one of the emerging environments in libraries and information communication. E-resources usually consist of e-books, e-journals, articles, newspaper, thesis, dissertation, databases and CD-ROMs, which are likely to be the alternative to the print media. Electronic resources and services are the prestigious issue of modern library concepts. Access to electronic resources has become an important tool for the LIS Postgraduate students. Electronic information sources are becoming more and more important for the academic community [1]. Calcutta University Central Library (CUCL) started functioning in the 1870s [2]. Today the libraries have travelled a long way from traditional to modern. The CUCL has a great collection of e-resources like e-books, e-journals, e-theses, online databases, OPACs etc. Name of twenty six electronic resources including total 5720 e-journals, many e-books and e-databases were subscribed under the UGC-Infonet digital library consortium for the collection development of CUCL. Basically this article deals with the LIS postgraduate students' usage pattern and perception of electronic resources in Calcutta University Central Library (CUCL).

2. Objectives of the study:

The main aim of the study is to analyze the usage pattern and perception of electronic resources by the LIS postgraduate students in the Calcutta University Central Library (CUCL). Major objectives of the study are:
- ✓ To determine the awareness of electronic resources available in the library;

✓ To know the different types of electronic resources available in CUCL;
✓ To find out the frequency of use of electronic resources available in the CUCL by the undergraduates;
✓ To know user's source of acquaintance about e-resources;
✓ To know the satisfaction with the internet service available in the CUCL;
✓ To know the purpose of using e-resources;
✓ To find out preferred mode and basic hindrances while accessing and using e-resources;
✓ To find out the impact of electronic resources on the academic performance of the LIS postgraduates and future trends of using e-resources;
✓ To suggest improvement measures based on the findings of the study;

3. Scope and coverage:
The present article is confined to the postgraduate students of Calcutta University Central Library (CUCL). This article attempts to cover the usage pattern of electronic resources by the LIS postgraduate students.

4. Statement of the problem:
Supporting research and learning activities becomes a major mission for academic libraries. In recent years, academic libraries face pressures like diminished budgets, increased user demands and rising costs for book purchases and periodical subscriptions. The rapid growth of electronic resources is reshaping the nature of collections and the mode of delivering and accessing information in libraries. Now-a-days the traditional print resources face challenges from their electronic resources in faster and timely delivery of information as well as in improved access. Among various resources for learning, staff and students throughout much of the world can retrieve seemingly endless volumes of information from all over the globe in a short span of time. It appears that the rate of production of electronic resources has exceeded that of print-based publications. In this study author will examine some factors that correlate with students' usage of electronic resources. What is the level of awareness about electronic resources available in CUCL?
✓ What is the purpose for which LIS postgraduate students use electronic resources?
✓ What is the frequency of use of electronic resources by LIS postgraduate students?
✓ In what medium are electronic resources used by LIS postgraduate students of the Calcutta university?
✓ What are the hindrances faced by LIS postgraduate students in their attempt to use electronic resources?
✓ To what extent does the use of electronic resources impact on the academic performance of the LIS postgraduates?

5. Methodology:
The present study is mainly based on the primary data collected from the LIS postgraduate students of Calcutta university. A questionnaire was designed to elicit the opinion of students. A structured questionnaire was designed to find the knowledge and perceptions of users about e-resources and their satisfaction level with availability of infrastructure for accessing e-resources. A survey was carried out to meet the objectives of the study. A structured questionnaire was designed and distributed to the selected 40 LIS postgraduate students. All copies of the questionnaire were returned from students. The overall response rate was 100%. The questionnaire contained close ended questions. The collected data were classified, analyzed and tabulated by using simple statistical methods.

6. Data collection and data analysis:
6.1. Gender wise distribution of students' responses

Gender	Number of respondents	Percentage
Male	15	37.5
Female	25	62.5
Total	**40**	**100**

Table 1: Distribution of respondents by gender

Table 1 shows that 15 (37.5%) respondents were male and 25 (62.5%) were female.

6.2. Frequency of visit to library by the LIS postgraduate students'

Frequency of visit	Number of respondents	Percentage
Daily	17	42.5
Weekly	14	35
Monthly	06	15
Occasionally	03	7.5

Never	00	00
Total	**40**	**100**

Table 2: Frequency of library visit

The table 2 shows that total 40 respondents 17 (42.5%) of the students visit their library 'Daily' and 14 (35%) of the students visit 'weekly'. Total 40 respondents 6 (15%) of the students visit their library 'Monthly' and 3 (7.5%) of the students visit 'Occasionally'.

6.3. Awareness of e-resources those are available in the CUCL

Response	Number of respondents	Percentage
Yes	40	100
No	0	0
Total	**40**	**100**

Table 3: Awareness of e-resources

Table 3 shows that 40 (100%) respondents are aware of the electronic resources available from the library. It is a positive sign towards the use of the electronic resources by the LIS postgraduate user community.

6.4. Various types of electronic resources used by LIS students'

Types of E-resources	Number of respondents	Percentage
CD-ROMs	00	00
Internet	37	92.5
OPAC	37	92.5
Online database	10	25
E-books	12	30
E-journals	24	60
Any others	00	00

Multiple options allowed **Table 4: Types of E-resources used**

Table 4 shows that the internet and OPAC are the most used electronic resources by the respondents (37, 92.5%) and (37, 92.5%) respectively, followed by Online database (10, 25%), E-books (12, 30%), E-journals (24, 60%).

6.5. Frequency of accessing electronic resources by LIS postgraduate students

Frequency	Number of respondents	Percentage
Daily	02	5
Weekly	13	32.5
Monthly	09	22.5
Occasionally	15	37.5
Never	01	2.5
Total	**40**	**100**

Table 5: Frequency of accessing e-resources

Table 5 shows that the maximum 15 (37.5%) respondents accessed electronic resources occasionally, followed by 13 (32.5%) weekly, 9 (22.5%) monthly and 02 (5%) daily. Only 1 (2.5%) respondent does not used electronic resources.

6.6. LIS postgraduate students' sources of information about e-resources

Options	Number of respondents	Percentage
Library webpage	35	87.5

Library notice board	01	2.5
Library display	12	30
Librarian's guidance	04	10
Interaction with professors	17	42.5
Seminar	06	15

Multiple options allowed　　　　　**Table 6: Source of acquaintance with e-resources**

Table 6 shows that 35 (87.5%) respondents learned about the electronic resources available at the CUCL from library website, followed by 17 (42.5%) from the interaction with professors, and 12 (30%) from the library display. Only 6 (15%) respondents learned about the electronic resources available at the CUCL from the seminar and 4 (10%) respondents learned about the e-resources available from the librarian's guidance. Only 1 (2.5%) respondent learned about the e-resources available from the library notice board.

6.7. Satisfaction with the internet facilities in the CUCL

Opinion	Number of respondents	Percentage
Very good	10	25
Good	20	50
Average	10	25
Poor	00	00
Very poor	00	00
Total	**40**	**100**

Table 7: Satisfaction with the internet service in the CUCL

Table 7 shows that 20 (50%) respondents express satisfaction level 'good' about the internet services, only 10 (25%) respondents express 'very good' and 10 (25%) respondents express 'average' about the internet services.

6.8. Purposes of using electronic resources by the LIS Postgraduate students'

Purposes	Number of respondents	Percentage
To write articles	35	87.5
To prepare study notes	30	75
To prepare for projects	32	80
To obtain general knowledge	11	27.5
To keep up-to-date	15	37.5
For recreation	04	10

Multiple options allowed　　　　　**Table 8: Purposes of using e-resources**

Table 8 shows that 35 (87.5%) respondents used electronic resources to write articles, followed by 32 (80%) to prepare for projects, 30 (75%) to prepare study notes, 15 (37.5%) to keep up to date, and 11 (27.5%) to obtain general knowledge. Only 4 (10%) of respondents used electronic resources for recreation.

6.9. Time Spent on accessing electronic resources

Time Spent	Number of respondents	Percentage
One hour	16	40
Two hours	11	27.5
More than two hours	13	32.5
Total	**40**	**100**

Table 9: Time spent on accessing e-resources

Table 9 shows that 16 (40%) respondents spent one hour on accessing electronic resources, followed by 11 (27.5%) spent two hours. Only 13 (32.5%) respondents spent more than two hours on accessing electronic resources.

6.10. Methods used for acquiring necessary skills to use e-resources

Methods used	Number of respondents	Percentage
Guidance given by other users	12	30
Learn through trial and error	30	75
Guidance from the library staff	24	60
Training programme by library	02	5
External courses	06	15

Multiple options allowed **Table 10: Methods used for acquiring the e-resources**

Table 10 shows that 30 (75%) respondents said that they learnt through trial and error. However, 24 (60%) of them pointed out that they acquired necessary skills by guidance from the library staff and 12 (30%) of them pointed out that they acquired necessary skills by guidance given by other users. 6 (15%) respondents said that they learnt from external courses. Only 2 (5%) of respondents pointed out that they acquired necessary skills from training programme conducted by the library.

6.11. Preferred mode of using electronic resources by LIS postgraduate students'

Preferred mode	Number of respondents	Percentage
Reading on the screen	25	62.5
Take print out on paper	19	47.5
Downloading in CD/Pen drive	18	45
E-mail attachment	32	80
Any other mode	00	00

Multiple options allowed **Table 11: Preferred mode of using e-resources**

Enquiry was made about preferred mode of using e-resources and results are presented in table-11. It is depicted in the table that 32 (80%) of respondents prefer e-mail attachment process and 25 (62.5%) of respondents chose to read article on the screen. 19 (47.5%) of respondents take print out on paper followed by 18 (45%) of respondents are downloading the searched electronic resources in CD/pen drive for use.

6.12. Basic hindrances in accessing the electronic resources

Hindrances	Number of respondents	Percentage
Slow speed of internet	30	75
Difficulty in searching information	08	20
Lack of training	04	10
Lack of adequate infrastructure	10	25
Limited no. of computer terminals	20	50
Privacy problem	08	20
No off campus access	14	35

Multiple options allowed **Table 12: Basic hindrances in accessing e-resources**

Table-12 shows that 30 (75%) of respondents express slow speed of internet as the major problem for not using the e-resources followed by 20 (50%) of respondents stated that limited number of computer terminals. 14 (35%) respondents found that non availability of off-campus access is main hindrance in accessing e-resources followed by 10 (25%) respondents who found that there is lack of adequate infrastructure for searching relevant information from the e-resources. 8 (20%) respondents stated that difficulty in searching information and privacy problem respectively followed by 4 (10%) respondents express that lack of training is one of the basic hindrance in accessing e-resources.

6.13. Impact of electronic resources on academic career

Opinion	Number of respondents	Percentage
High	29	72.5
Average	10	25
Low	01	2.5
Total	**40**	**100**

Table 13: Impact of e-resources on academic career

Table 13 shows that 29 (72.5%) of respondents say high impact of e-resources on academic career, followed by 10 (25%) of respondents say average impact of e-resources on academic career and 01 (2.5%) of respondents express low impact of e-resources on academic career.

6.14. LIS postgraduate students' views to access using electronic resources in future

Views	Number of respondents	Percentage
Yes	12	30
No	18	45
Sometime	10	25
Total	**40**	**100**

Table 14: Views to access using e-resources in future

Table 14 shows that 18 (45%) of respondents do not access using e-resources in future, followed by 12 (30%) of respondents access using e-resources in future and 10 (25%) of respondents sometime access using e-resources in future.

7. Findings of the study:
a) The majority 25 (62.5%) of the respondents of the present study are "female" LIS postgraduate students'. Only 15 (37.5%) of the respondents are "male".
b) Total (40) respondents, highest frequency 17 (42.5%) of the LIS postgraduate students visit their library "daily" and lowest frequency 03 (7.5%) of the LIS postgraduate students visit their library "occasionally".
c) Every LIS postgraduate students are aware about the electronic resources in the CUCL. Total 40 (100%) respondents are "aware" of electronic resources in the CUCL.
d) The types of electronic resources use most by the respondents are "Internet" and "OPAC" with usage rates of 92.5% and 92.5% respectively. 24 (60%) of the respondents use "e-journals" and 12 (30%) of the respondents use "e-books".
e) The highest frequency of using the electronic resources in the library is "occasionally" by 15 (37.5%) of the respondents. The lowest frequency of using the electronic resources in the library is "never" by 01 (2.5%) of the respondents.
f) Primary source of acquaintance with e-resources are "library webpage" and "interaction with professors" by the 35 (87.5%) and 17 (42.5%) respectively.
g) The majority of the respondents 20 (50%) satisfaction level are "good" with the internet service in the CUCL followed by satisfaction level is "very good" and "average" by 10 (25%) of respondents and 10 (25%) of respondents respectively.
h) The purpose of using electronic resources most by the respondents 35 (87.5%) and 32 (80%) are "to write articles" and "to prepare for projects" respectively. The purpose of using electronic resources lest by the respondents 11 (27.5%) and 04 (10%) are "to obtain general knowledge" and "for recreation" respectively.
i) Most of the respondents 16 (40%) spent "one hour" to access the electronic resources. Only 13 (32.5%) of the respondents spent "more than two hours" to access the electronic resources.
j) More than half of the LIS postgraduate students' 30 (75%) admit that they learn to use e-resources by trial and error followed by 24 (60%) of respondents who get guidance from the library staff other for acquiring necessary skills to use e-resources.
k) Most of the respondents 32 (80%) prefer e-mail attachment for e-articles and 25 (62.5%) of respondents prefer to read e-articles on the screen. 19 (47.5%) of respondents prefer to take print out on paper.
l) Majority of respondents 30 (75%) express that slow speed of internet is major hindrance in accessing e-resources followed by limited number of computer terminals which is opted by 20 (50%) of respondents.
m) Majority of respondents 29 (72.5%) identify highly impact of e-resources on academic career. Only 01 (2.5%) of respondents identify less impact of e-resources on academic career.
n) Most of the respondents 18 (45%) give their views "no" to access using e-resources in future followed by 12 (30%) of respondents give their views "yes" to access using e-resources in future.

8. Conclusion:

Electronic resources have played a pivotal role in all fields of human life. These have rapidly changed the way of seeking and disseminating information. This has happened due to rapid advancement in information communication technology. The electronic resources have become an inseparable part of today's educational system. With the development in the area of internet and information technology, more and more of the educational resources are being produced, distributed and accessed in the electronic format. Based on the findings of this study, the LIS students conclude that the use of electronic resources has tremendous impact on the academic performance of the LIS Postgraduate students of Calcutta university; however, there was need for them to acquire more skills in the use of electronic resources. The purpose of this study is to enable the library improve on the provision of electronic resources to meet the academic needs of the LIS postgraduate students of the university. The students should become aware about the available e-resources and familiar with latest search techniques for optimum utilization of available electronic information resources.

9. Suggestions:

Based on the findings of the present study the following suggestions are recommended to improve the use of electronic resources among the LIS postgraduate students.

a) Effective computerized library system first develops adequate and sufficient electronic resources collection in the library as per need of the LIS postgraduate students.

b) More e-books should be available in CUCL database.

c) The library authority and library professionals must conduct proper training programmes for LIS postgraduate students regarding how to use the electronic resources effectively.

d) The library staff should provide more guidance in using e-resources.

e) The adequate infrastructure should be needed and the time limit should be more flexible.

f) The CUCL must arrange seminar, conference, and many external training courses for electronic or digital literacy among LIS postgraduate students.

g) Librarians should be more flexible with the students.

h) Awareness through library display should be created to more use e-journals and e-books to obtain current information.

i) For benefit of the LIS students, more computer terminals should be installed in the library and pen drives should be allow in the CUCL.

j) A common interface for searching all electronic resources of the library should be provided.

k) The CUCL must subscribe more electronic resources on humanities especially on english literature, bengali literature etc. for the LIS students.

l) Wi-Fi facility, off campus access and high speed of internet should be given to the LIS postgraduate students for improvement of their academic field.

m) Provision of more funds is essentials for electronic resources.

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