

USE OF E-RESOURCES BY THE FACULTY MEMBERS AND STUDENTS: A STUDY OF SWAMI SHRADDHANAND COLLEGE, UNIVERSITY OF DELHI, DELHI

Neetika Sharma

With the advent of information and communication technology, resources like electronic books, electronic journals, electronic databases, electronic reference sources, electronic bulletins, electronic reports, etc. are making their way into higher education system. An academic library is a fundamental part of a higher education system and it is essential for academic libraries to acquire relevant information resources and make them readily available for use by the prospective library user groups. The present study examines the use of e-resources by the faculty members and students of Swami Shraddhanand College, University of Delhi. The main aim of the study was to find out how academicians compare e-resources with print resources, how they perceive the advantages of e-resources, and how they face the problems while accessing them. In this connection, out of a total of 200 questionnaires distributed to the faculty members and students of Social Sciences (Political Science, History, Geography, and Economics), only 180 were responded. The collected data was analyzed to reveal interesting results.

Keywords: E-resources; Web resources; Digital Library; Search Engines; Internet.

INTRODUCTION

The advent of Internet has brought in an unprecedented use of e-resources for research and development in recent years as compared to the diminishing use of print resources. In fact, the digital documents do not require any intermediary medium. Information is directly accessed from the host computer.

The impact of technology on all aspects of academic life and research is discernable in today's rapidly changing world. On the one hand, higher education systems in developed countries underlie the fact that expansion in the sphere envisages rich and best opportunities to embed technological innovations within the teaching-learning environment. On the other hand, developing countries are striving to be equally competitive in enhancing their learning experiences.

Academic libraries today are complex institutions with multiple roles and a host of housekeeping operations and services developed over the years. Yet their fundamental purpose has remained the same—to provide access to reliable, influential knowledge. Consequently, academic libraries along with their private and governmental counterparts have long remained unchallenged throughout the world as the primary providers of recorded knowledge and historical information, especially within the context of higher education [1].

ELECTRONIC RESOURCES

Electronic resources are the electronic representation of information. They are available in various forms like e-books, digital libraries, online journal magazines, e-learning tutors and online tests. Because of their effective presentation with multimedia tools, these e-resources have become important and effective sources of

Neetika Sharma
Swami Shraddhanand
College, University of Delhi,
Alipur, Delhi
sharon_niti@yahoo.com

information. Electronic resources form collection of information in libraries as full text databases, e-journals, image collections, multimedia in the form of CD, tape, internet, web technology, e-discussions, e-news, data archives, e-mail, even online chatting. E-resources are convenient to use and make research a lot easier. In the process, they enable one to search for information at a faster rate because of the use of search engines as opposed to manual searches in the library.

E-resources are "Material consisting of data and/ or computer program(s) encoded for reading and manipulation by a computer by the use of a peripheral device directly connected to the computer or remotely via a network such as the Internet (AACR2). The category includes software applications, electronic texts, bibliographic databases, etc." [2].

SWAMI SHRADDHANAND COLLEGE LIBRARY

Swami Shraddhanand College, a constituent college of Delhi University established in 1967, is administered under the trusteeship of the Delhi Govt. It is a co-educational institution and imparts instructions in various subjects at both undergraduate and post-graduate levels. To run its curricular and extra-curricular programmes, the college has a well-qualified teaching staff, specialized laboratories and adequate library facilities.

Swami Shraddhanand College library houses a collection of more than one lakh volumes and subscribes to more than 45 national and international journals. The library is an active member of INFLIBNET's N-List programmes for E-resources and is also having direct linking facility with DULS (Delhi University Library System) for accessing e-resources.

It plays an important role in fulfilling the information needs of their users, especially students and faculty members and helps them in their overall development. The prime mission of the library is to provide relevant collections of information sources and services that support the educational goals of the college. In order to achieve the prime mission of the college, the library is also providing e-resources to its users. After the advent of internet, e-resources have flourished in an unprecedented way and have become the focus of research and development in academic

institutions in recent years. It is well known that e-resources are the trend of the later part of the 20th century and came in the wake of advances in computer and communication technologies. Now, with the emergence of these resources, the text and the data are available online and are read on the end user's computer which is significantly different from publishing it in print on the paper. It is in the digital form and does not require any intermediary medium. Information is directly accessed from the host computer. E-resources are such paperless resources which are also called skywriting, web resources and internet resources.

REVIEW OF LITERATURE

The importance and wide-ranging scope of electronic resources for general communication, information retrieval and instructional delivery to support teaching and research activities in tertiary educational institutions is acknowledged worldwide. The literature also shows that a number of relevant studies have been carried out on the use of e-resources by lecturers, research scholars and students worldwide. General user opinion towards the use of electronic resources, in particular CD-ROM, has been positive, with students enjoying using these sources and finding relatively few problems while using them [3]. This is clearly confirmed in the case of a survey undertaken at Oakland University by Milne into students' satisfaction levels with CD-ROMs [4].

Several studies underline the fact that 83% of students surveyed felt that using this source saved them time and made it relatively easy to access information. Two thirds of those surveyed stated that if the CD-ROM was busy, they would wait for it to become free rather than use the print tool. However, a study of online searches of scientific information in science and technology libraries in Delhi reveals that a sizeable number of users (almost 60%) are facing numerous problems while browsing electronic information, such as lack of knowledge about the resources, lack of trained staff and inadequate terminals [5].

Studies have also been carried out on the use of electronic resources by teachers, students and research scholars of universities and research organizations. Seventy-eight percent (78%) of the respondents feel that the use of the UGC-INFONET e-journals has created high dependency value on their

research work and they needed current article alert services and electronic document supply services to supplement it [6].

In the context of developing countries, Okello-Obura and Magara [7] investigated electronic information access and utilization at the East African School of Library and Information Science, Makerere University, Uganda. Out of the 250 targeted students, 190 responded, giving a response rate of 76%. The study revealed that users derived a lot of benefits from electronic resources gaining access to a wider range of information and improved academic performance as a result of access to quality information.

After the survey of ten African Public Library Services, Kebede [8] found that although most libraries had internet connectivity, very few were offering web-based information services to their users. The study, however, identifies four barriers to the effective provision of electronic resources in those libraries: lack of strategic planning, lack of adequate or reliable funding, lack of use of Internet to provide information services to users, and lack of consistent training for users in new ICT services.

Another study of Oduwole and Akpati [9] in Nigeria found that all members of the University community felt that it was relatively easy to use electronic information and they were satisfied with their search outputs. The constraints identified included insufficient number of terminals available for use despite high demand and inadequate electricity supply.

Again, a study of Ojo and Akande [10] Nigeria examined that the level of usage of the electronic information resources is not high. A major problem identified is lack of information retrieval skills for exploiting electronic resources, thus making the level of usage of resources by medical students very low. In a study of Jagboro [11] with some Nigerian Universities, it was found that 45.2% of respondents accessed electronic resources from cybercafés. This attitude, according to her, was due to the proximity of cybercafés to users workplaces or homes. Ajuwon [12] also carried out a study of uptake of ICTs by health science students at the University College Hospital, Ibadan. He found that 57% of students sampled could not use a computer and that the use of the database was poor due to lack of awareness and lack of ICT skills.

With all above studies we can conclude that in order to accomplish the academic upgradation, uptake of electronic resources is highly desirable as it leads to increased productivity of work, learning, teaching and research.

SIGNIFICANCE OF THE STUDY

In the present era of information explosion, more and more publications are becoming Web-linked. Most of the social science libraries have changed their outlook towards functions and services. The environment is rapidly changing to an electronic one. In this context, the investigators decided to conduct this study for measuring the usage of e-resources by the faculty members and students of Swami Shraddhanand College, University of Delhi.

OBJECTIVES OF THE STUDY

The main objectives of the present study are as follows:

- To find out the users' awareness about e-resources.
- To study the level of satisfaction and availability of e-resources.
- To find out the barriers and problems faced by the users while accessing e-resources.
- To suggest suitable recommendations to improve facilities and services related to the use of e-resources.

METHODOLOGY

Keeping in view the above objectives in mind, a structured questionnaire was prepared to collect data from the users of e-resources in Swami Shraddhanand College. For fulfilling the objectives, a survey was conducted with the help of the structured questionnaire containing various questions pertaining to the awareness and use of e-resources. A total of 200 questionnaires were distributed among faculty members and students of social sciences (History, Geography, Economics, and Political Science). Out of 200 questionnaires distributed, 180 valid questionnaires were collected and then data was analysed, tabulated, interpreted and presented in the form of this paper.

DATA ANALYSIS

The findings of any study depend upon proper analysis of collected data through the application of various techniques. The data collected for the present study was analysed with the help of Microsoft Excel and presented in tabular and graphical forms.

Population Study

Personal details section of the questionnaire provides information regarding the sex and other details of the respondents. In table 1, it is shown that of all the respondents who can use e-resources available through library for different purposes, 71.11% of population studied were males and only 28.89% were females.

Table 1: Gender-wise Distribution of Respondents

Gender	No. of Respondents	Percentage
Male	128	71.11
Female	52	28.89
Total	180	100.00

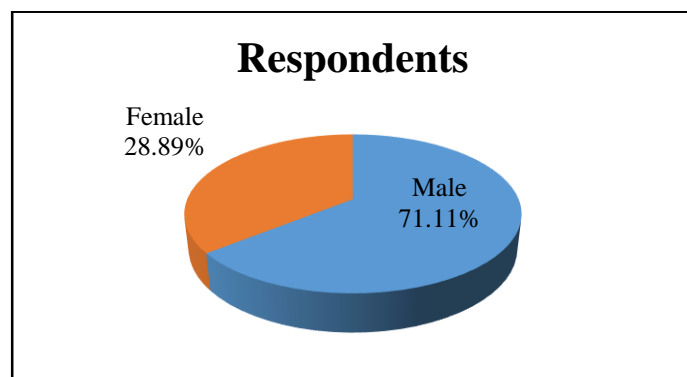


Figure 1: Gender-wise Distribution of Respondents

Table 2: Academic Status-wise Distribution of Respondents

Academic Status	No. of Respondents	Percentage
Faculty Members	45	25.00
Students	135	75.00
Total	180	100.00

Table 2 shows that 25% of the respondents were faculty members and 75 % were students.

Academic Status

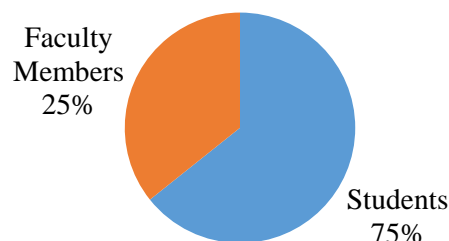


Figure 2: Category-wise Distribution of Respondents

Awareness about E-resources

Table 3 shows that a majority of students and faculty members 158 (87.77%) are aware of the e-resources. However, 22 (12.22%) are not aware of them.

Table 3: Awareness about E-resources

Awareness	No of Respondents	Percentage
Yes	158	87.77
No	22	12.23
Total	180	100

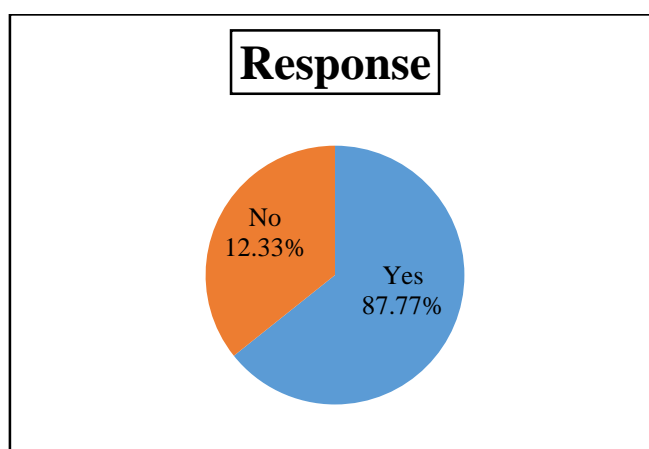


Figure 3: Awareness about e-resources

Preference Level of Using E-resources

The result reveals that 47.78 % of respondents want to access only electronic version of information whereas only 32.78 % users want to read the printed version of information but 19.44% respondents wants to use both electronic and printed information.

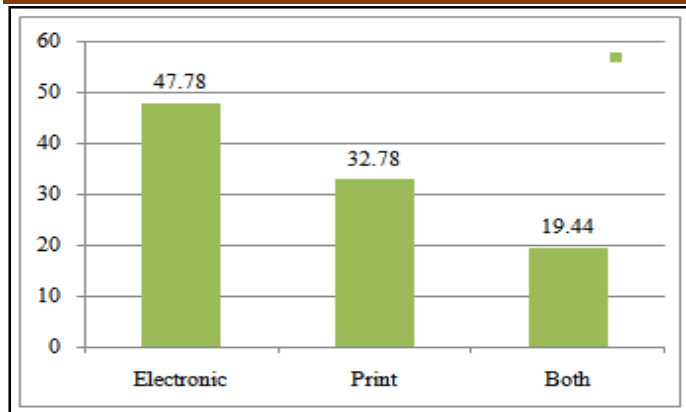


Figure 4: Preference Level of Using E-resources

Frequency of Using E-resources

As to the frequency of using e-resources, the respondents have reacted differently. Table-4 shows that 88 respondents (48.88%) use e-resources once in a week, 42 (23.34%) use these daily and 38 (21.12%) twice in a week. Only 12 respondents (6.66%) use e-resources on a monthly basis.

Table 4: Frequency of Using E-resources

Duration	Number	Percentage
Daily	42	23.34
Twice in a week	38	21.12
Weekly	88	48.88
Monthly	12	6.66
Total	180	100.00

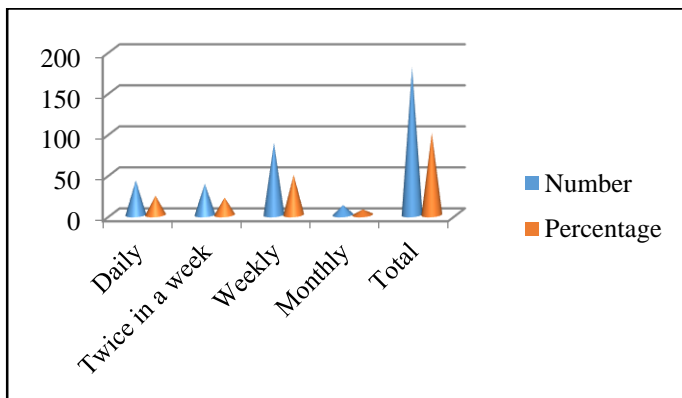


Figure 5: Frequency of Using E-resources

Purpose of Using E-resources

From the Table 5, it is clear that 138 respondents (76.66%) use e-resources for writing papers followed by 112 respondents (62.22%) who use e-resources for studying their course work, 93 respondents (51.66%) who use e-resources for

research work, 81 respondents (45%) who use e-resources for updating their subject knowledge, 42 respondents (23.33%) who use e-resources for teaching while only 29 respondents (16.11%) use e-resources for other works like taking exams, etc.

Table 5: Purpose of Using E-resources

Purpose	Number	Percentage
For studying course work	112	62.22
For updating subject knowledge	81	45.00
For teaching	42	23.33
For research work	93	51.66
For writing papers	138	76.66
Any other works	29	16.11

Note: The total sample exceeds the required size since the questions are framed in multiple choice format

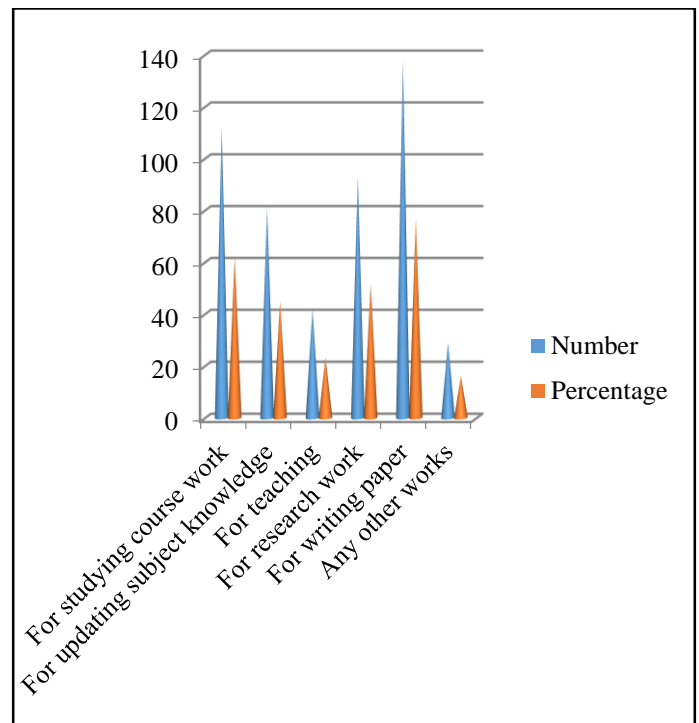


Figure 6: Purpose of Using E-resources

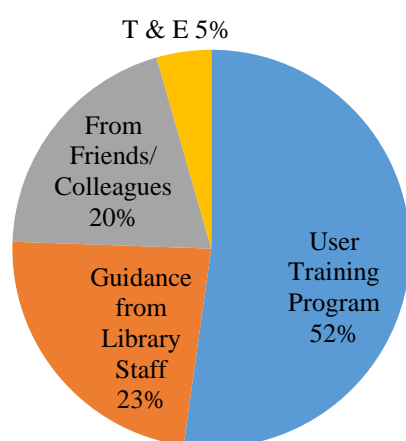
Handling of E-resources

Table 6 highlights that 94 of respondents (52.23%) learned to handle e-resources through trial user training programmes followed by 42(23.33%) who were guided by library staff, 36(20%) learned from friends/colleagues. Only 8(4.44 %) acquired skills from trial and error methods.

Table 6: Handling of E-resources

Method	Number	Percentage
User Training programmes	94	52.23
Guidance from Library Staff	42	23.33
From Friends/ Colleagues	36	20.00
Trial& Error	8	4.44
Total	180	100.00

Handling of E-resources

**Figure 7: Handling of E-resources**

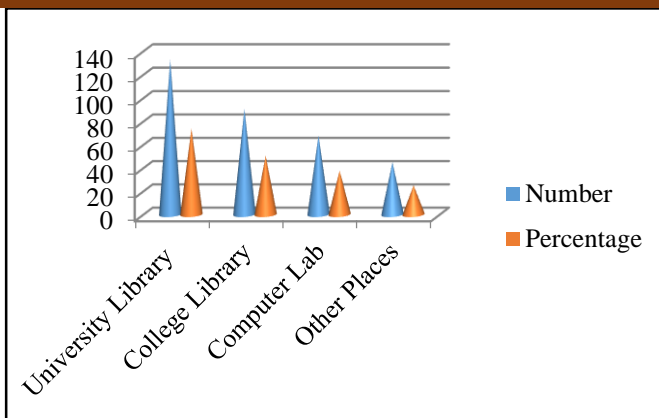
Location for Accessing E-resources

Table 7 shows that 133 of the respondents (73.88%) accessed e-resources at the University library system, about 91 (50.55%) accessed these at the college library, 68 (37.77%) accessed these from the computer center and 45 (25%) used other place where they got facility to access e-resources.

Table 7: Location for accessing E-resources

Location	Number	Percentage
Delhi University Library System	133	73.88
College Library	91	50.55
Computer Lab	68	37.70
Other Places	45	25.00

Note: The total sample exceeds the required size since the questions are framed in multiple choice format.

**Figure 8: Location for Accessing E-resources**

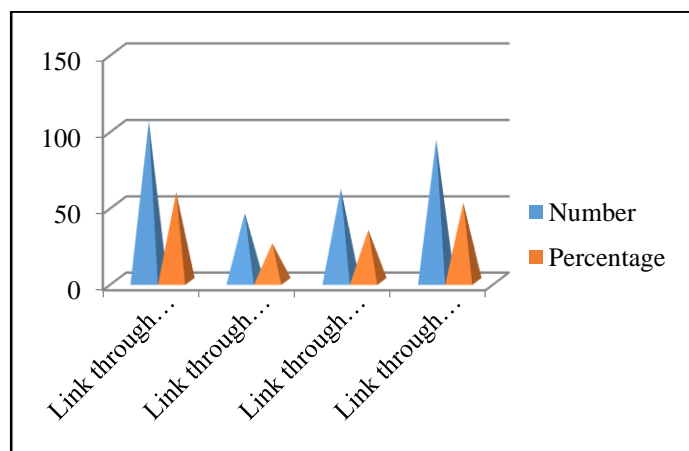
Linking Pattern of E-resources

Table 8 shows how respondents search e-resources. Many of the respondents search e-resources through linking facility available on the library website while many search these through library website followed in turn by e-resources websites. Some of them also get linked through search engines and publishers' websites.

Table 8: Linking Pattern of E-resources

Linking	Number	Percentage
Link through University library website	105	58.33
Link through publisher's website	45	25.00
Link through search engine	61	33.88
Link through E-resource website	93	51.66

Note: The total sample exceeds the required size since the questions are framed in multiple choice format.

**Figure 9: Linking Pattern of E-resources**

Preferred Method for Reading E-resources

Respondents were asked to indicate how they use the content of e-resource. It was observed from the analysis that 70.55% of respondents download the content in storage devices, 54.44% of respondents take printouts from e-resources and 48.33% of respondents use the computer screen.

Table 9: Preferred Method for Reading E-resources

Use Pattern	Number	Percentage
On computer screen	87	48.33
Download in storage device	127	70.55
Take print out	98	54.44

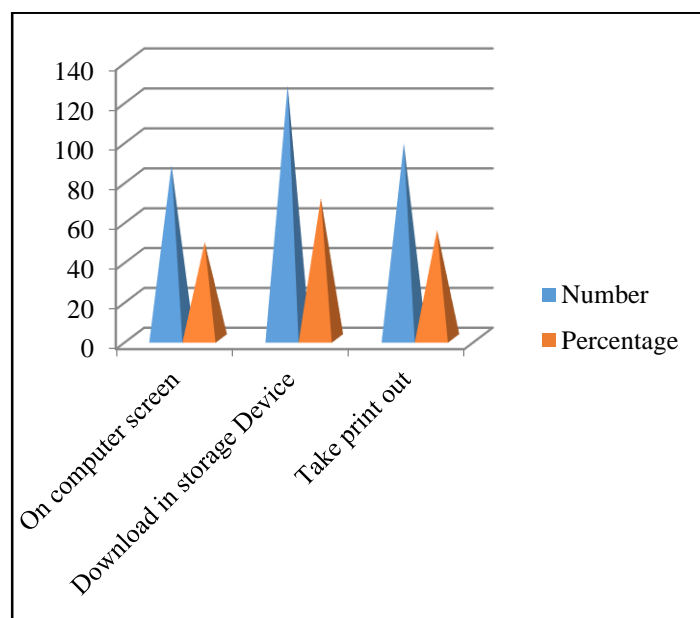


Figure 10: Preferred Methods for Reading E-resources

Types of E-resources

As shown in Table 10, 60 respondents among students and faculty members (33.34%) prefer to use internet (Google) as e-resource followed by 43(23.88%) who give preference to subscribed e-journals, 36(20%) consult e-newspaper for seeking information, 24(13.34 %) give preference to e-books, 9(5%) prefer to use e-databases whereas 8(4.44 %) use other sources.

Table 10: Types of E-resources

Types of E-resources	No. of Respondents	%
Internet (Google)	60	33.34
E-Books	24	13.34
E-Newspaper	36	20
E-Databases	9	5.0
Subscribed E-journals	43	23.88
Others	8	4.44
Total	180	100

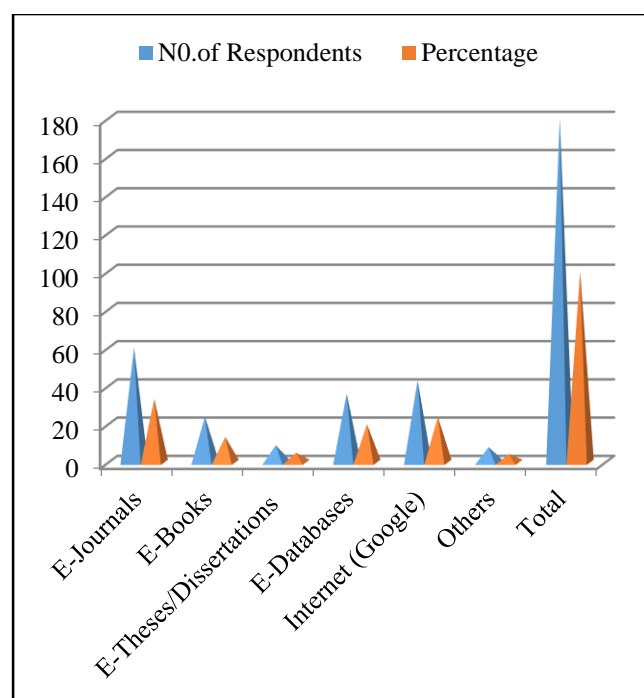


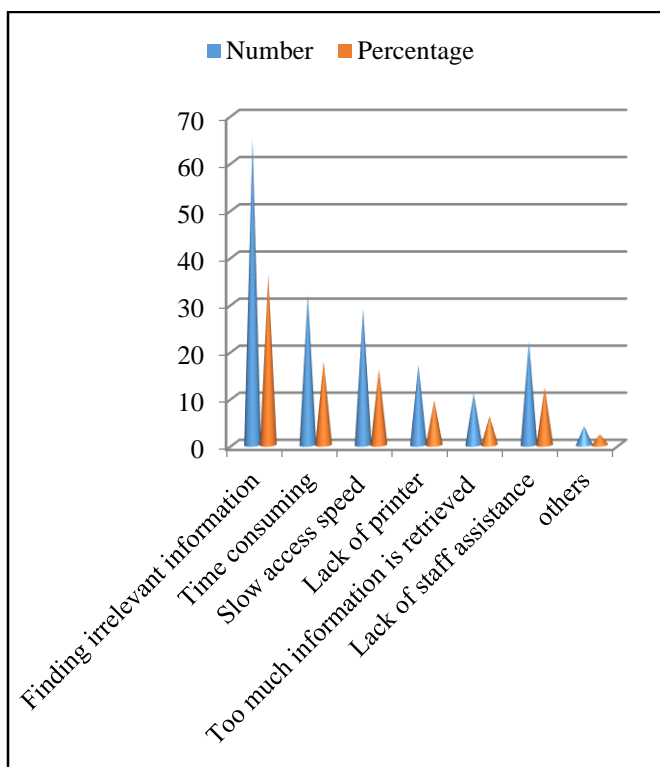
Figure 11: Types of E-resources

Problems faced while using E-resources

There are many problems associated with the accessing of e-resources by respondents. While getting information from the respondents, they were asked to mention the problems faced by them during the searching of information by utilizing e-resources. Table-11 reveals that 65 respondents (36.11%) faced problems related to getting irrelevant information followed by 32(17.77%) who found the process time consuming, further followed by 29(16.11%) who complained of slow speed, 22(12.23%) complained of lack of staff assistance, 11(6.11%) were bogged down by excess retrieval of information, 17(9.44%) with lack of printer facility and only 4(2.23%) faced other types of problems.

Table 11: Problems faced while using E-resources

Types of Problem	No. of Respondents	%
Finding irrelevant information	65	36.11
Time consuming	32	17.77
Slow access speed	29	16.11
Lack of printer	17	9.44
Too much information is retrieved	11	6.11
Lack of staff assistance	22	12.23
others	4	2.23

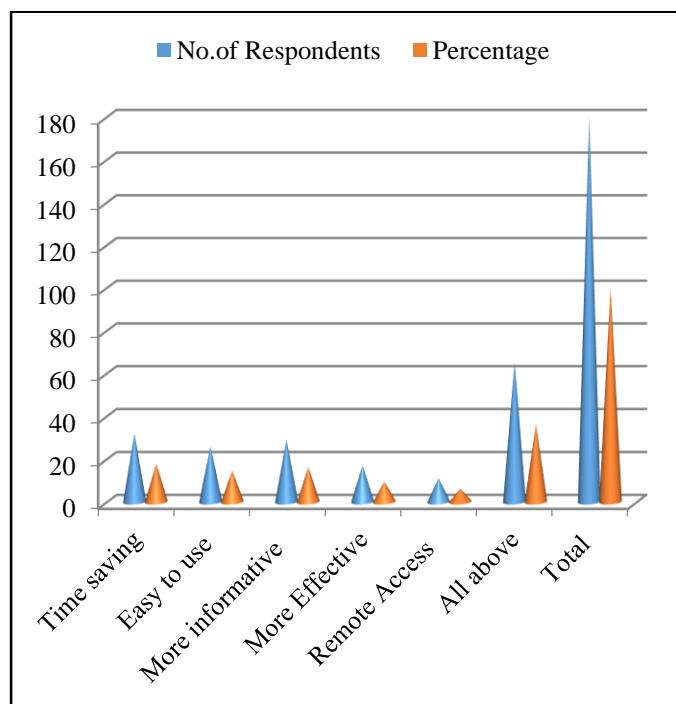
**Figure 12: Problems faced while Using E-resources**

Advantages of Using E-resources

Table 12 elaborates that a majority of the respondents prefer to use e-resources in comparison to print resources because 65(36.11%) of them feel that e-resources are time saving, easy to use, more effective, more efficient, and have remote access facility followed by 32(17.77%) who find it time-saving, further followed by 29(16.11%) who find it more informative, 26(14.44%) who feel e-resources are more effective and last but not the least 11(6.11%) who find remote access to e-resources a big advantage.

Table 12: Advantages of using E-resources

Advantages of using E-resources	No. of Respondents	%
Time saving	32	17.77
Easy to use	26	14.44
More informative	29	16.11
More Effective	17	9.44
Remote Access	11	6.11
All above	65	36.11
Total	180	100

**Figure 13: Advantages of E-resources**

Satisfaction of Accessing E-resources

A question was asked to know the satisfaction level of infrastructure among the users for accessing e-resources. It was observed that a majority of respondents (50.56%) are highly satisfied with the infrastructure provided by the library for accessing e-resources at different levels whereas only 10% of respondents are not satisfied with the same.

Table 13: Satisfaction of Accessing E-resources

Level	Number	%
Highly Satisfied	91	50.56
Satisfied	49	27.22
Average	22	12.22
Not satisfied	18	10.00
Total	180	100.00

CONCLUSION

The study found that the majority of users (with several forms of e-resources) are aware of the availability of e-resources. The result reveals that 47.78 % of respondents (faculties and students of economics and geography) want to access only electronic version whereas 32.78% users (faculties and students of history) want to read the printed resources but 19.44% respondents (political science) want to use both electronic and printed versions. A majority of the faculty respondents (76.66%) use e-resources for their teaching and research work activities. The analysis reveals that 73.88 % of the respondents chose the Delhi University Library System (Central Reference Library, Rattan Tata Library, and Central Science Library) followed by 50.55% who accessed college library for e-resources further followed by 37.77% who accessed computer lab and 25% who approached other places where they got the facility to access e-resources.

On the basis of the aforesaid results of the study, it may be said that the fast growth of information and communication technologies and electronic resources, has changed the total scenario of research, storage, retrieval and communication of scholarly information. In order to retrieve relevant information, users have to make use of different electronic and web resources. The study showed that the use of electronic resources has created a great impact upon users of Swami Shraddhanand College, University of Delhi and has also helped faculty members and students in their respective research works. The rapid developments in information communication technology have facilitated the convergence of new electronic devices and formats. Information has been embedded in a variety of ways and forms in various kinds of electronic resources. It is clear from the study that not only the younger generation has accepted the electronic resources, but also the volume of frequent usage of e-resources among all users has been found to be at the optimum level. Still it is not hard to find the respondents who are unaware and have not used online theses/ dissertations, abstracts/indexes, OPAC, online databases and other resources which are very relevant for their study and research. It is therefore imperative for the library to take initiatives in organizing more orientation programmes, lectures, workshops and user awareness programmes in this area to maximize their understanding.

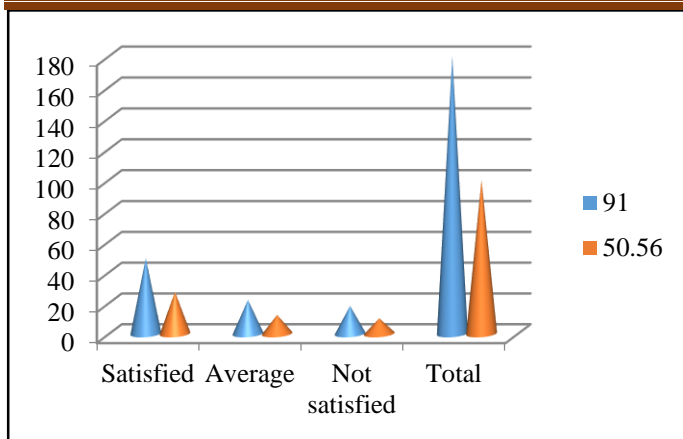


Figure 14: Satisfaction of Accessing E-resources

SUGGESTIONS

The following suggestions with regard to improvement of ICT infrastructure, promotion of library resources, end-user training, etc. are made after thoroughly analyzing access and use of e-resources in Swami Shraddhanand College library which might help this library in strengthening and improving the facilities for fulfilling the requirements of their users.

- More collaboration is required between teachers, students, librarian, and library staff, so that the process of searching, and retrieving content-based results from the e-resources type guidance may be given to students making them realize the benefits of using e-resources.
- Conducting expert user training (Information Literacy Programmes) is essential for the better use of electronic resources in the library. It will train the users in techniques of using e-resources.
- Students' orientation programmes should be organized on a regular basis to apprise them about advanced search strategies and the use of controlled vocabulary to make electronic search process much easier.
- Setting up of more terminals and printers for the users for their effective use.
- Moreover, instead of expecting users to accept whatever exists in the market, the right perspective is to know and provide whatever electronic resources suit users in their respective circumstances [8]. The library management, therefore, needs to conduct user study programmes to know more about electronic resource needs of the users.

REFERENCES

- [1] Campbell, T. (2008). U. S. Patent Application No. 11/853,007.
- [2] Reitz, M. Dictionary for Library and Information Science. London: Raintree, 2005.
- [3] Ray, K., & Day, J. Student attitudes towards electronic information resources. *Information research*, 4, 1998.
- [4] Milne, P. Electronic access to information and its impact on scholarly communication, 1998.
- [5] Ali, N. The use of electronic resources at IIT Delhi Library: a study of search behaviors. *The Electronic Library*, 23(6), 2005, 691-700. <https://doi.org/10.1108/02640470510635773>
- [6] Madhusudhan, M. Use of UGC-Infonet e-journals by research scholars and students of the University of Delhi, Delhi: A study. *Library Hi Tech*, 26(3), 2008, 369-386. <https://doi.org/10.1108/07378830810903300>
- [7] Okello-Obura, C., & Magara, E. Electronic information access and utilization by Makerere University students in Uganda. *Evidence Based Library and Information Practice*, 3(3), 2008, 39-56. <https://doi.org/10.18438/B8ZS58>
- [8] Kebede, G. The changing information needs of users in electronic information environments. *The Electronic Library*, 20(1), 2002, 14-21. <https://doi.org/10.1108/02640470210418227>
- [9] Oduwole, A. A., & Akpati, C. B. Accessibility and retrieval of electronic information at the University of Agriculture Library, Abeokuta, Nigeria. *Library Review*, 52(5), 2003, 228-233. <https://doi.org/10.1108/00242530310476742>
- [10] Ojo, R. A., & Akande, S. O. (2005). Students' access usage and awareness of electronic information resources at the University College Hospital, University of Ibadan, Nigeria. <http://hdl.handle.net/123456789/445>
- [11] Jagboro, K. A study of internet usage in Nigerian universities: a case study of Obafemi Awolowo University, Ile-Ife, Nigeria. *First Monday*, 8(2), 2003. http://Firstmonday.Org/Issues/Issue8_2/Jagboro/Index.html
- [12] Ajuwon, G. A. Computer and internet use by first year clinical and nursing students in a Nigerian teaching hospital. *BMC medical informatics and decision making*, 3(1), 2003, 10. <https://doi.org/10.1186/1472-6947-3-10>