Usage Evaluation of e-ShodhSindhu with reference to Research Scholars of IIT Delhi

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The e-ShodhSindhuis agovernment sponsored project to aggregate research resources and extend access to cultivate innovative culture among research, academic and hybrid institutions in India; hence it has become inevitable to evaluate its importance. Therefore, this study attempts to evaluate the usefulness of e-ShodhSindhuConsortiumamongresearch scholars of IIT Delhi. The study tries to understand the awareness and utilization of the consortiumamong researchers. It also measures the satisfaction level of researchers. The study explores the advantages and disadvantages of the resources of the consortium, and highlights them with respect to their usefulness. The study examines how to improve the consortiumresources and how to make its services more effective such as smooth and unrestricted access at researchers' end point.

Keywords: *e-ShodhSindhuConsortium, Library Consortia, IIT Delhi, eResource, Digital Libraries, eJournals*

1   INTRODUCTION

Consortia today have become a major resource to access research literature. The development of consortia is rooted in the philosophy of library resource sharing and organisational cooperation. A consortium may be described as a group of organizations or institutions which agree to procure common resourcesat economical rates to fulfill a common purpose. Consortia are of various types, i.e., academic, research or specialized based on the common objectives of the organisations. It is observed that most of the consortiawere setup by a small group of libraries or organisationswhich later expanded in the larger interest of the research fraternity.

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Libraries agree through more or less formal agreements with common terms, conditions,rules, and procedures to combine their resources and deliver better services to the patrons. Library consortium is an aggregator or platform to process for procurement and finalisation of terms and conditions of acquisition and dissemination of information products and services to satisfy the information needs of member library users.MoE, earlier MHRD, launched e-ShodhSindhu Consortium for various educational and research institutions as a revolutionary programme under its preview.Based on the recommendations of an Expert Committee, the e-ShodhSindhuwas formed on merging three consortia initiatives, namely UGC-INFONET (Information Network) Digital Library Consortium, NLIST (National Library and Information Services Infrastructure) and INDEST (Indian National Digital Library in Engineering Sciences and Technology) -AICTE Consortium. e-ShodhSindhu provides current as well as archival access to more than 15,000 core and peer-reviewed journals and a number of bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions, universities and colleges that are covered under 12(B) and 2(f) Sections of the UGC Act [1].

The objectives of e-ShodhSindhuConsortiumare to provide quality e-resources to support learning and research activities . These resources include full text, bibliographical and statistical databases, i.e., eBooks:3135000, Resources: 22, Databases: 04 and eJournals: 15000, etc.[1]

2   OBJECTIVES

1. To understand the usefulness of e-ShodhSindhu Consortium (eSS).

2. To analyse the usage statistics of eSS.

3. To assess the satisfaction level of the research scholars of IIT Delhi from eSS.

4. To identify the advantages and disadvantages of eSS, if any.

5. To suggest measures to improve the usefulness of eSS.

3   SCOPE AND LIMITATIONS

The study deals with research scholars (PhD) of IIT Delhi who are

using e-ShodhSindhu Consortium for their research. The study will focus on the usefulness of e-ShodhSindhu Consortium in various aspects and problems faced by the research scholars.

The scope of the study is restricted to scholars of IIT Delhi.

4   REVIEW OF LITERATURE

It has been observed that ICT has changed the scenario of library and information management. It has impacted the information seeking behavior of readers and researchers drastically. Consequently, the information generation, organisation and dissemination has also changed proportionately. As a result, many ways of information acquisition, management and dissemination have emerged such as library networks, consortia, etc. Hence, LIS professionals are upgrading themselves to deliver the best services in the changing environment. The researchers are the major stakeholders of libraries and users of most of the consortia resources.

Nayak[2]stated that the phrase library consortium has been used to mean cooperation, coordination and collaboration between and amongst libraries with an intention to share information resources. Over the past few decades, library consortia have emerged as a new trend in subscribing electronic resources and further to control and reduce information costs, to improve resource sharing, to develop a network information environment and to share licensing issues with others. Uplaonkarand Badiger[3] referred to it as a new paradigm that has emerged for libraries. No library is able to satisfy all the needs of its users due to various constraints. The phenomenon of consortia or group of libraries buying e-information together has become very important in the last few years. They observed that consortium of libraries is well known for sharing of resources all over the world. Information explosion, emergence of internet and particularly World Wide Web as a new medium of information storage made the concept came into sight. Bhatt [4] observed that e-resources are becoming more popular and considered as a better substitute of print journals. Prompt access to large array of e- resources available in specialized/interest areas helps in the information, knowledge building and accelerating research activities. It can be inferred from his study that faculty members and research scholars need to accept and adapt new technology and electronic information skills in order to effectively utilize the wide variety of electronic resources being made available to

them.Priyanka andShubhada[5] observed that there is a need of state wise consortia to access a wide range of electronic resources. Moreover, librarians need tailor-made training programs through which they can get acquainted with the latest trends in electronic resources management.VuppalaLingaiah[6] observed that the Government of India has taken various steps to introduce e-resources facility in academic institutions for the benefit of research scholars. Because of information resources especially journals are becoming very expensive due to their availability in electronic format. On the other hand, libraries are facing financial crunch which forces the libraries to cooperate and sharing their common resources. Amit [7] has focused on consortium facilities and expressed his views that the MHRD has taken concrete steps to increase and enhance the quality services in universities, colleges and other academic institutions. He stated that the e-ShodhSindhu Consortium has been formed to support the academic activity in higher education in India. It provides thousands of journals and book in electronic form and promotes usage of e-resources among its core members through awareness and training programmes. Ali [8]conducted a study at IIT Delhi library which examinedthe electronic information services usageby the users. The study found that Boolean logic and truncation are the most often used search facilities by IIT users.Lack of trained staff infrastructural facilities such as printers, terminals would discourage users from accessing e-resource and majority users facing difficulty while browsing. The survey reveals that about 60 per cent of users face difficulties while browsing information. He observed that there is need of improvement of electronic information service to fulfil the information needs and requirements of users at the IIT Library, Delhi.Bhardwaj [9]reiterated the importance, urgency of the consortium and further warned that if the libraries fail to exploit ICT based information services to meet the information needs of the users in the fast changing ICT environment then the professional must be ready for adverse consequences. Further he opined that if our libraries do not make significant progress towards providing instant access to electronic information resources to the users, we run the risk that our institution decision makers and users will go elsewhere for satisfaction of their information needs.

Kumar, et al[10] discussed how remarkable changes havetaken place with the advent of e-Shodhsindhuwith reference to both print and online e-journals. They also explained about subscription, usage and ease of publishing of journals in terms of money and time. Moghaddamand Talawar[11] discussedthe role of library consortia and referred to it as cooperation, co-

ordination, collaboration and sharing of information resources among libraries to serve the academic community at large. They specially highlighted that libraries in developing countries have been working on consortia to manage the costly information resources to extend their access to the target audiences at the minimum cost. They examined somebarriers which included poor technological and communication infrastructure, inadequate finances, culture and context, attitudes toward consortia and multiple efforts are reported to limitations of consortia activities in developing countries. They provided a useful overview of consortia in developing countries, particularly in India.Padmashree&Cahgari[12] found that there is limited evidence that some library consortia in Asia are moving towards the new approach to the modeling of networks in which libraries enter at one point and then move along a continuum, ideally ending in an advanced integrated knowledge environmental model, but most of the Asian consortia and networks are of the traditional and of static variety. Tamizhchelvan, Gopalakrishnan, &Anbalagan[13] stressed to evaluate the use of every resource that is acquired by the institute or through consortia.Suganthi&Muthurasu[14] conducted a study and found that the access pattern of the information is changed, the users are giving more important to use of electronic journals. Most of the users access the UGC-Infonet journals for their academic development. Majority of the users are satisfied with the UGC-Infonet journal facilities. Singh, Garg& Sharma [15] observed that e-ShodhSindhu consortium is the answer to each and every query of academicians for their scholarly act in university systems. Their study highlights that e-ShodhSindhu is more informative, more useful and easy to use in comparison to print journals.

There are many studies conducted on this topic and are available for literature analysis to enhance the value of subsequent studies. This is an extended study on the topic and will add value on assessment focused on e-ShodhSindhu Consortia resources.

Overall literature review indicates that evaluation of consortia is a challenging study for librarians. The LIS professionals needs to upskill and develop their competencies to manage the collective and collaborative approach to disseminate knowledge resources among research fraternity. They have to learn to handle the emerging tools, technology and methodologies to keep pace with latest trends in the field.

5   METHODOLOGY

The present study focussed on 'Usefulness of e-ShodhSindhu Library Consortium to IIT Delhi Research Scholars'.Random sampling method was applied to collect data from the users by using an open and close ended structured questionnaire. It wasdistributed to research scholars of IIT Delhi. About 100 students were enrolled in IIT Delhi as the research scholars (PhD. Students) during the study period. The authors visited IIT Delhi Library five to seven times and research scholars were requested to fill the questionnaire. The questionnaires were distributedto 50% of the research scholars. A response rate of 60%to the questionnaire was achieved.

The collected data was coded and analyzed using descriptive statistical techniques. The analyzed data were presented in the form of tables and charts.

6   DATA ANALYSIS AND INTERPRETATION

The data collected from theresearch scholars of Indian Institute of Technology, Delhi have been analyzed, tabulated and presented as follows:

Table 1 Distribution of Questionnaire

Sn	Category	No. of Questionnaires Distributed	No. of Questionnaires Received	%
1	Research Scholar	50	30	60

Table 1 depicts the number of questionnaires circulated among target respondents and sufficient number of responses received which were minimum required for conducting a study.

Table 2 Years of Study of Research Scholars

Sn	Years	No. of Respondent	%
1	First	05	16.67
2	Second	07	23.33
3	Third	07	23.33
4	Fourth	08	26.67
5	Fifth	02	06.67
6	Year not mentioned	01	03.33

Table 2 shows that 10 (33.33%) respondentsbelong to fourth and fifth years of study (8 respondents from 4th year of research and 2 respondents from 5th year), 7 (23.33%) respondents belong to second and third year and 5 (16.67%) of the respondents belong to first year. 1 respondent did not mentionher/his year.

Table 3 Awareness of e-ShodhSindhu Consortium

Sn	No. of Respondent (Yes)	No. of Respondent (No)
1	10	20

Table 3 shows that 10(33.33%) of the respondent are aware about e-ShodhSindhu Consortium and 20 (66.67%) most are not aware. It reveals that there is a need to create awareness among the researchers about e-ShodhSindhuConsortium.

Table 4 Place of Accessing the e-Resources

Sn	Place of Access	No. of Respondents
1	Access e-resources only from the Institute Library.	14
2	Access e-resources only from the Computer Centre.	1
3	Access e-resources only from some other place.	6
4	Access e-resources from Institute Library and Computer Centre.	6
5	Access e-resources from Institute Library and some other place.	2
6	Access e-resources from all Centers.	1

It is found in Table 4 that 14 respondents access e-resources fromthe institute library, 1 respondent from the Computer Centre and 6 from someother place. It also shows that 6 respondents access e-resources from the Institute Library and Computer Centre. 6 respondents also use e-resources from Institute Library and some from some other place. Hence, it can be concluded that most of the respondents access e-resources independently. Table 4, depicts that total 23 respondents access the e resources from the Institute Library, 8 respondents from the Computer Centre and 9 of the respondents use it from some other place.

Table 5 Use of the Institute Library

Sn	Frequency	No. of Respondents	%
1	Daily	5	16.66
2	Once in a Week	15	50.00
3	Once in a Month	3	10.00
4	Seldom	6	20
5	Not at all	1	3.33

Table 5 depicts the frequency of use of the Institute Library i.e., 15 (50%) respondent use once in a week, 6(20%) respondent use seldom, 5(16.67%) Daily, 3(10%) respondent use once in a month and 1(3.33%) do not use the institute library.

Table 6 Use of e-Resources

Sn	Frequency	No. of Respondent	%
1	Daily	15	50.00
2	Once in a week	13	43.33
3	Once in a month	0	0
4	Seldom	2	6.66
5	Not at all	0	0

Table 6 shows that, mostly respondents use e-resources daily 15(50%) and 13(43.33%) respondents access e resources once in a week and few of themuse the resources seldom. It seems that the frequency of using e-ShodhSindhu Consortium e-resources is associated with the stage of research of the respondents.

Table 7 Frequency of Use of the e-ShodhSindhuConsortium

Sn	Frequency	No. of Respondents
1	Daily	0
2	Once in a Week	8
3	Once in a Month	0
4	Seldom	2
5	Not at all	6
6	Not Mention	14

Table 7 depicts the frequency of using e-ShodhSindhuConsortium, 30 respondents 8(26.66%) use it once in a week, 2(6.66%) used it seldom but 6 (20 %) respondent do not use it at all. 14 (46.66%) respondents did not mention the frequency of using the consortium.

Table 8 Area of Research

Sn	Area of Research	No. of Respondent	No. of Respondent Aware of e-ShodhSindhu
1	Applied Mechanics	1	0
2	Civil Engineering	3	0
3	Chemistry	3	3
4	Electrical Engineering	1	1
5	Humanities and Social Science	14	4
6	Management Studies	4	2
7	Mathematics	1	0
8	Mechanical Engineering	2	0
9	Physics	1	0

Table 8 shows the subject areas of research and number of respondents who are aware about the e- ShodhSindhu. It depicts that 14(46.67%) respondent belong to Humanities and Social Science Departments, 4(13.33%) belongs to Management Studies Department, 3(10%) of the respondentsbelong to Civil Engineering and Chemistry Departments, 2(6.67%) were from Mechanical Engineering Department and 1(3.33%) eachfrom Applied Mechanics, Electrical Engineering, Mathematics and Physics Departments respectively.

Table 9 Databases of e-ShodhSindhu Consortium useful for Researchers

Sn	Name of Database	No. of Respondent
1	ACM Digital Library	1
2	American Chemical Society	4
3	Annual Reviews	1
4	ASCE Journals Online	5
5	ASME Journals Online	2
6	Economic & Political Weekly	2
7	JStor	16
8	MathSciNet	1
9	Oxford University Press	9
10	Project Muse	6
11	Springer Link 1700 Collection & Nature Journal	5
12	Taylor and Francis	11
13	Web of Science	5
14	Any Other	1 (APA)

On enquiring about the usefulness of databases for research it was found that 16 (53.33%) respondents use JSTOR, 11(36.66%) use Taylor and Francis, 9 (30%) accessed Oxford University Press. 6(20%) of research scholar accessed Project Muse, 5(16.66%) accessed Springer Link 1700 Collection & Nature Journal, Web of Science, ASCE Journal Online. While

4(13.33%) respondent accessed American Chemical Society and very few of the respondents accessed ACM Digital Library, Annual Reviews, ASME Journals Online, Economic& Political Weekly and MathSciNet. The results of the study indicate that JSTOR is widely popular among the researchers. Thus using of databases in e-ShodhSindhu Consortium of e-resources is associated with the subject area of the respondents.

Table 10 Advantages e-ShodhSindhu

Sn	Descriptions	No. of Respondent
1	Availability of my subject journals/ resources	16
2	Find Content quickly	11
3	Find full text context	10
4	Easy search and access the content	11
5	Quality of resources content good	6
6	Library staff supportive	5
7	Any Other	Not Aware

Table 10 depicts the advantages of eSS as felt by the respondents. 16 (53.33%) respondents found availability of subject journals/ resources, 11(36.67%) respondents find the content quickly and are able to search and access the content easily in e-ShodhSindhu Consortium. While 10 (33.33%) of the respondents found full text context and easy search and access the content from e-ShodhSindhu Consortium and 6 (20%) find that quality of resources content good and 5(16.67%) respondent find library staff supportive for e-ShodhSindhu Consortium.

Table 11 Disadvantages e-ShodhSindhu

Sn	Disadvantages	Respondent	%
1	Lack of my subject journal/resources	07	23.33
2	Time Consuming	04	13.33
3	Non-availability of full text content	10	33.33
4	Problem in search and access of content	04	13.33
5	Lack of Peer reviewed journals	02	6.66
6	Lacking in support	01	3.33
7	Any Other	00	00

Table 11 reveals that most of the respondents 10(33.33%) found non-availability of full text content in e-ShodhSindhu Consortium, 7(23.33%) found lack of subject journal/ resources related to their area of research, 4 (13.33%) respondent found e-ShodhSindhu Consortium is time consuming, and also have problem in search and access of content. Though 2 (6.67%) of the respondents found lack of peer reviewed journals and 1 (3.33%) respondent has mentioned the lack in support. Hence, the above six problems are independently distributed to the category of respondents.But further a few more difficulties have been noticed, i.e., lack of awareness, not enough advertisement of the resource, and lack of training to use this exhaustive resource.

Table 12 Satisfied with Resources of e-ShodhSindhuConsortium

SNo	Satisfied from Resources	No. of Respondent	%
1	Satisfied	14	46.67
2	Highly satisfied	1	3.33
3	Unsatisfied	4	13.33
4	Highly unsatisfied	1	3.33
5	Cannot Say	10	33.33

Table 12 shows that, 14 (46.67%) respondents are satisfied, very few are highly satisfied and highly unsatisfied, 4 (13.33%) are unsatisfied and mostly respondents 10(33.33%) cannot say about the resources of e-ShodhSindhu Consortium.

7   FINDINGS

Major findings of the survey are as given below:

- 33.33% of the respondents to the survey said that they are aware and are using the Consortium. 26.66% use the e-ShodhSindhu once in a week and 46.66 % of respondents have not mentioned any frequency of using e-ShodhSindhu Consortium because they are not aware about it.

- Fifty percent of the respondents use e-resources daily mentioned in Table 9.

- Majority of the respondents access e-resources through databases of e-ShodhSindhu Consortium useful for researchers. JStor is used mostly by researchers.

- Several (36.66%) of the respondents reported that Taylor and Francis is useful for their research. While 30% of researchers used Oxford University Press database for research.

- About 20% researchers used ProjectMuse database for research purpose and some (16.67%) of respondents accessed Springer Link 1700 Collection & Nature, Web of Science and ASCE journal online for their research.

- Whereas 13.33% of the respondents accessed American Chemical Society database and 3.33% found ACM Digital Library, Annual Reviews and ASME Journals helpful in their research.

- 46.66% of the users are satisfied with the resources of e-ShodhSindhu Consortium.

- Majority (53.33%) of the respondents found the services, like availability of my subject journal/ resources of e-ShodhSindhuConsortiumuseful for research purpose.

- With the help of e-ShodhSindhu Consortium 36.67% of research scholars mentioned that content could be found quickly. They found the search easy and content access quick.

- Altogether 20% of the research scholars found the content quality of resources as good for their research purpose.

- The most common problem faced by the users include, (33.33%) non-availability of full text content, (23.33%) of respondents found lack of subject journal/ resources related to their area of interest, (13.33%) respondents faced problem like time consuming and problem in search and access of content.

- 6.67% of respondent found lack of peer reviewed journals and very few (3.33%) respondents mentioned the lack of assistance by library staff.

- Some of the users suggested new databases, which are missing in the e-ShodhSindhu Consortium as per their area of research such as APA (American Psychological Association) journals, Research Gate, Transportation Research Board (TRB) and SCOPUS, LIBGEN (Library Genesis), Science Hub and Science Direct .

8   SUGGESTIONS

- Research scholars and students should be motivated to use the e-ShodhSindhue-Resources.

- Research scholars find lack of full text content in e-ShodhSindhu Consortium, so it is very necessary to improve the full text availability of the journals.

- There is need to encourage research scholars by arranging regular user education programmes about using e-resources of e-ShodhSindhu Consortium.

- Institute library must be conducting orientation, Workshops, Seminars, awareness and Training Programmes, audio-visual presentations, demonstrations, etc. to develop awareness among the scholars regarding the eSS.

- Library should ensure that Consortia based e-resources should be quality based, means e-resources which are high demanded by users and most useful for research or users.

9   CONCLUSION

e-ShodhSindhuConsortiumprovides access to a large number of e resources. Research scholars feel that it is very useful for them and it has a lot of positive impact on their academic and research performance.It is evident that from the results of the study that more awareness is required to be generated about e-ShodhSindhuby the library staff to ensure maximum use of its databases. More information promotion campaigns related to eSS should be organized by thelibrary.Regulartraining programs will boost the use of e-ShodhSindhu. Feedback on the consortium should be sought from the users to know areas for improvement.

REFERENCES

1. https://ess.inflibnet.ac.in/about.php. accessed on 25.5.2021

2. NAYAK (A P). Consortia model of accessing E resources among higher education institutions in India.International Research. Journal of Library and Information Science, 7.3: 2017: 466-478

3. UPLAONKAR (SHILPA S) and BADIGER (KALIKADEVI G). Library Consortia: An overview. International Journal of Library and Information Studies, 7.2: 2017; 132-139.

4. BHATT (R K). Use of UGC-Infonet digital library consortium resources by research scholars and faculty members of the university of Delhi in history

and political science: A study.Library Management, *31*.4: 2010; 319-343. doi:http://dx.doi.org/10.1108/01435121011046371

5. PRIYANKA (P W) and SHUBHADA (P N). Current practices of management of online databases at university libraries in Maharashtra state of India.Library Management, 39.8: 2018; 569-582. doi: http://dx.doi.org/10.1108/LM-08-2017-0073

6. LINGAIAH (VUPPALA). A study on use of E Shodhsindhu resources by the scholars and faculty membersin Jawaharalal Nehru Technological University, Hyderabad. *J of Advances in Lib and Inf Science.*5,3;2016, 268-72. Available at http://jalis.in/pdf/5-3/Lingaiah.pdf

7. AMIT. E-ShodhSindhu Consortium: A new approach for e-Resource sharing in higher education". International Journal of Library and Information Studies, 7.2: 2017; 121-124.

8. ALI (NAUSHAD). The use of electronic resources at IIT Delhi library: A study of search behaviours. The Electronic Library, 23.6: 2005; 691-700.

9. BHARDWAJ (RAJESH KUMAR). Research Report: A study on library consortia in science and technology: problems and prospects. Library Herald, 44.1: 2006; 74-81.

10. KUMAR (P VIJAY MAHESH), KISHORE (A V) and KUMARI (C). Use pattern of e-sodhsindhu consortium among research scholars and students of Srivenkateswara University, Tirupati: A Study. International Journal of Information Movement, 2.11: 2018; 51-54.

11. MOGHADDAM (G) and TALAWAR (V G). Library consortia in developing countries: An overview. Program: Electronic Library and Information Systems, 43.1: 2009; 94-104. doi: https://doi.org/10.1108/00330330910934138

12. PADMASHREE (S) and CAHGARI (S). A selective review of scholarly communication on library networks and networking of libraries.Library Philosophy and Practice, 3988: 2020; 1-19.

13. TAMIZHCHELVAN (M), GOPALAKRISHNAN (S) and ANBALAGAN (M). Measure the usage of e-resources: scientometric model.Library Philosophy and Practice, 4707: 2021; 1-17.

14. SUGANTHI (M) and MUTHURASU (C). Information Access Pattern through UGC-Infonet Digital Library Consortium by the Users of Central Library, Alagappa University, Karaikudi: A Study. Library Philosophy and Practice, 3895: 2020; 1-5.

15. SINGH (S), GARG (N) and SHARMA (C). Study of Kurukshetra University and MaharshiDayanand University.Library Philosophy and Practice, 4174: 2020;1-21.