

Free and Open Sources (E-Dissertations) Utility Behavior in Intellectual Community of Madhya Pradesh: A Study

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ABSTRACT: *The revolution of Information and Communication Technology (ICT) paves the path for the holistic development of human beings. Education plays a crucial role in fulfilling the global community's sustainable development goals (SDGs). Research plays a vital role in the inclusive development of the human being. The Prime objective of the study is to understand the utility behaviour of the E-theses resources, particularly about Shodh Ganga: A Reservoir of Indian Theses in the Intellectual Community of Devi Ahilya Vishwa Vidyalaya. Indore, M.P. A wellstructured questionnaire was designed, and more than 439 questionnaires were distributed among the intellectual community. More than 83 per cent of respondents gave effective responses, which supported and helped fulfil the research objectives and elaborated the study's findings. The study revealed that Shodh Ganga is crucial in fulfilling the research needs and activities. Library professionals and Faculty members need to inspire the students for optimum utilization of the Shodh Ganga as a tool for research resources.*

Keywords: Utility Behavior, Intellectual Community, Academic Library, DAVV, Indore, Shodh Ganga: A Reservoir of Indian Theses, Library Resources, Services & Facilities

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1. Introduction

“Man is made by his belief as he believes so he is-Bhagwat Gita”

The emergence of Information and Communication Technologies (ICTs) opened various opportunities to communicate with people from across the world and facilitated the optimum harnessing of multiple resources and services. The ICTs play a pivotal role in the inclusive development of Human beings and society. It offered various means, services and facilities which have been supported for living a quality life with no bar of time and place. Okiki, O. C. (2012) explained that information and Communication technologies opened a new path for intellectual society to fulfil the thrust of knowledge. Information Communication Technol-

ogy supported and helped in every sector of human beings viz—education, health, Economics, Industry, Research, Space and many more. Education has played a vital role in the inclusive development of human beings. Without education, we cannot access and harness the available resources and services, which affects our quality of life. Reitz, J. M. (2012) illustrated that the Library and Information Centre has been provided with quality and enormous intellectual resources and developed a user-centric model of library services, which enhanced and supported to fulfil the thrust of knowledge of the knowledge seeker.

Kofi Annan explicated that 'knowledge is power. Information is liberating. Education is the premise of progress in every society and every family. It means knowledge is an important power for a human being to survive in society and its development. University nurtured the intellectuals by providing quality education among the students. Dr S. R. Ranganathan quoted about the library that 'library is the heart of university'. In the higher education system, University's Library and Information centres are responsible for supporting the university's goal and providing the utmost satisfaction to the intellectual community to fulfil the thrust of knowledge. The Library and Information Centers play a crucial role in developing a platform to generate processes and disseminate knowledge to intellectual society for the development of the human being. Library Professionals have a pivotal role in the smooth functioning of Library operations. Over time with the technological revolution, library professionals are eager to utilize modern technology's tools & applications for providing innovative services among the intellectual communities.

Devi Ahilya Vishvavidyaya Indore is an essential national academic institution situated in the cleanest city of India, i.e. Indore. NAAC accredits the University with A+ grade. The University provides quality education to the intellectual society. The vision of the University is to emerge as a leading higher education institution by generating, advancing and disseminating knowledge for inclusive development. The following figure no.01 explains, in brief, the gargantuan views of the DAVV, Indore.

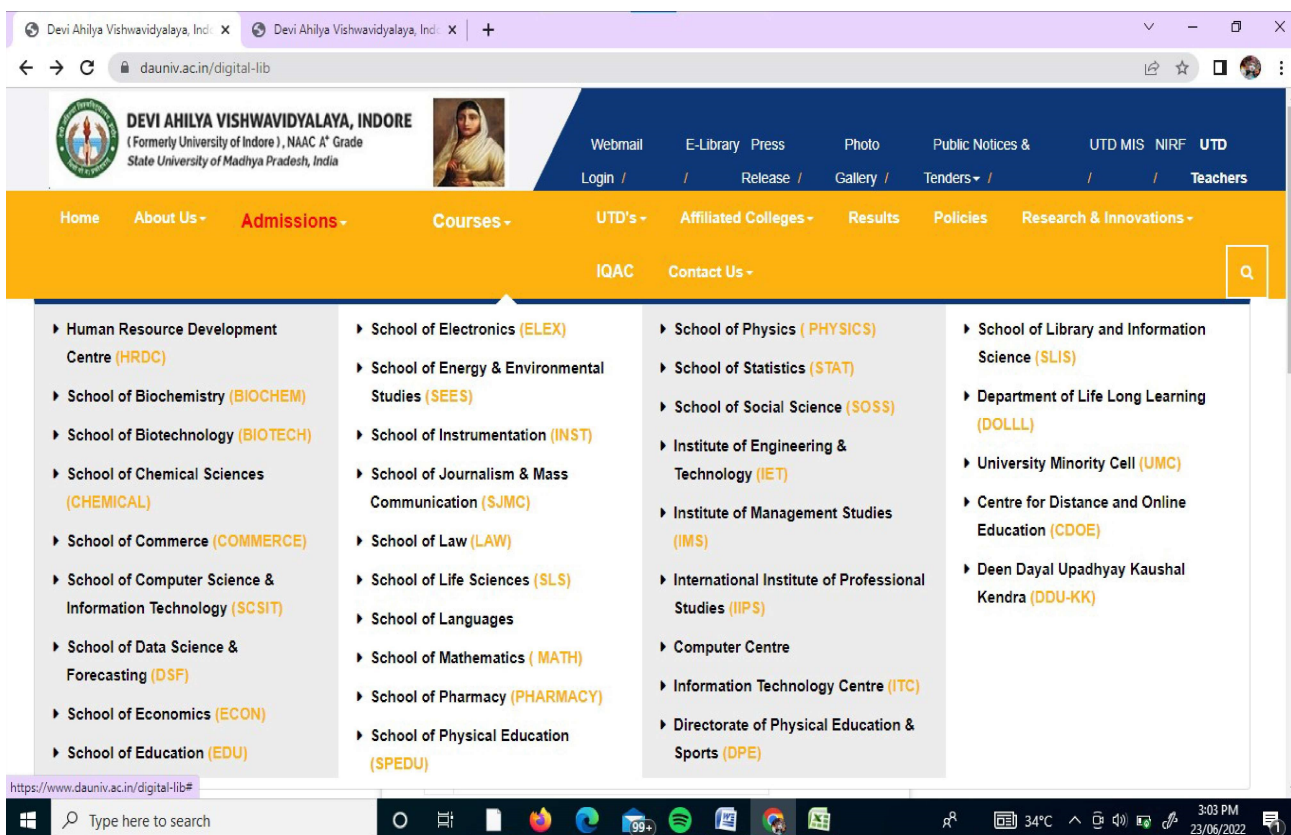


Figure 1. The gargantuan views of the DAVV, Indore

During the revolutionary era of Information and Communication Technology and the need of the end-users of libraries and the intellectual community, Libraries developed a digital library which helps to access academic resources 24/7 at the desired place of the end users.

Library-subscribed E-databases, E-Journals, E-Books, and various E-resources helped the intellectual community get the desired information resources in a jiffy. These library resources and services support the University's vision and mission and fulfil the objectives of the academic institutions.

According to (Reitz, 2012), a University library is a library or library system established, administered, and funded by a university to meet the information, research, and curriculum needs of its students, faculty, and staff.

E-Resources

The prime objectives of the Library Profession are to provide the optimum information at an optimum time at the desired place and the minimum cost, which are helpful to satisfy the five rules of the library and information science, which Dr S.R. Rangnathan derives in the year 1931. Singh, D. Singh, D and Chander, R. (2020) defined E-resources as a system in which information is stored in electronic mode and accessible through the same design and computer networks. Davis (2013) explained that e-resources require digital gadgets to access, and harnessing electronic resources requires the Internet's availability. Renwick (2005) elaborated that eresources are enhanced to support academic research and fulfil the thrust of the knowledge seeker. This is the prime role of the University Library.

Types of e-resources

Tamizhchelvan (2012) elucidated that E-resources are delivered information, data or any collection available in digital form. The types of E-resources are as follows.

Online reference sources	E-newspaper	Subject gateways
E-journals	E-encyclopedia	Virtual Conference/
E-books	E-images	Conference Proceedings
E-theses	E-music and sound collection	Online databases/ E-Database

Characteristics of E-Theses (Dissertations)

Okiki (2012) explained the characteristic of E-resources and said that e-resources have multiple accessibilities at the same time and the desired place, which means we can access these resources in different areas by various users with no time bar. Some more features of the E-resources are as follows.

- Multiple access
- Rich content
- No limit to time
- Accessibility anywhere the subject is the availability of the Internet
- There is no bar of Geographical area
- Multiple Input and Multiple Out Put (MIMO techniques)
- Accessibility of current and Updated information

1.3 Shodh Ganga: A Reservoir of Indian Theses

Shodh Ganga: A Reservoir of Indian Theses, a dream project for the Ministry of Education. Theses and dissertations are a rich and unique source of information, often the only source of research work that does not find its way into various publication channels. Theses and dissertations remain an untapped and under-utilized asset, leading to unnecessary duplication and repetition that, in effect, is the anti-theses of research and waste of enormous resources, both human and financial. The UGC Notification (Minimum Standards & Procedure for Award of M.Phil. / PhD Degree, Regulation, 2009 Amendment made in 2016)

dated 5th May 2016 mandates submission of the electronic version of theses and dissertations by the researchers in universities to facilitate open access to Indian theses and dissertations to the academic community world-wide. Online availability of electronic theses through centrally-maintained digital repositories not only ensures easy access and archiving of Indian doctoral theses but will also help raise the standard and quality of research. This would overcome the severe problem of duplication of research and poor quality resulting from the "poor visibility" and the "unseen" factor in research output. As per the Regulation, the responsibility of hosting, maintaining and making the digital repository of Indian Electronic Theses and Dissertations (called "Shodhganga") accessible to all institutions and universities is assigned to the INFLIBNET Centre.



Figure 2. Overview of Shodh Ganga Website Shodh Ganga replicates the academic structure of each University in terms of Departments/ Centres/ Colleges each University has to facilitate ease of navigation. This structure enables research scholars from universities to deposit their theses in the respective Department / Centre / College. As shown in Fig 2, simple and advanced search options are available on the home page and browsing facilities through universities and departments. The Centre is also developing a semantic web-based interface to facilitate subject-based browsing, navigation, search and retrieval of content in the repository.

S. No.	Name of Database	Access Title	Remarks
1	E-Theses	391438	
2	Synopsis	9297	
3	DAVV, Indore's contribution	2269	
4	DAVV, Indore's contribution in Percent	0.579658 %	

Table 1. Details of Shodh Ganga Databases

Sreitz, (2012) illustrated that the academic library developed a user-centric model where knowledge seekers fulfil the thirst for knowledge and accomplish their academic and research activities.

3. Review of Literature

Sujatha (2011) elaborated that the academic community focused on accessing E-resources to fulfil educational and research needs. The study recommended improving the quality of digital infrastructure for better access and harnessing digital resources and services.

Thanuskodi and Ravi (2011) described that the learning community fulfilled their academic and research objectives by harnessing E-resources and services. The study suggested that digital literacy programs should be organized twice a year for optimum utilization of resources and services.

Kaur, Amriipal Kaur and Randhawa (2010) recommended that libraries and information centres offer quality resources and services to the end users and fulfil the academic and research need of the intellectual community, which is the motto of the library profession.

Patil and Parameshwar (2009) illustrated that E-resources enhanced library facilities and services utilization. The study recommended for effective utilization of e-resources, library professionals need to organize the digital literacy program for the intellectual community. It supports to increase in return on the investment of the Library community.

Singh, Madhuri Devi and Raychaudhury (2009) depicted that E-resources facilitated 24/7 accessibility with no bar of place, meaning end users can access these resources at their fingertips. The subject is only the availability of the internet connection. Library professionals developed a user-centric system to fulfilling the thrust of knowledge to the end user.

Davis, R. (2013), concluded that internet services played a pivotal role in harnessing E-resources. The study recommended that developing the digital infrastructure and creating a digital environment in academic institutions is the need of the hour.

Anuradha, Gopakumar and Baradol (2011) illustrated that E-resources enhanced the accessibility of library and information resources centres. Students and faculty members fulfil their academic and research needs and produce quality output per their predefined objectives.

Kanniyappan, Nithyanandan, and Ravichandran (2008) revealed that E-resources played a vital role in intellectual development and library professionals offered optimum satisfaction to end users.

E-resources develop interest among the scholarly community and produce quality results in research and academics. Manjunath and Millinath (2008) illustrated that digital resources supported user-centric library service systems design. The intellectual community could be accessed these resources from anywhere and anytime.

Singh, D. Singh, D and Chander, Ram (2020) depicted that harnessing digital technology enhances intellectuals' productivity and fills the gap between the end user and library services and resources.

3. Objectives

Renwick, S. (2005) illustrated that the prime objective of the study is to understand the awareness and utilization of subscribed digital resources, i.e. Shodh Ganga, by the intellectual community. The primary goals behind the study are as follows.

- To understand the awareness of the Shodh Ganga resources
- To know the utility frequency of digital resources
- To recognize of harnessing the purpose of ShodhGanga's contents
- To understand the challenges for the optimum harnessing of the resources
- To get the recommendation for the maximum utilization of the resources

4. Research Questions

As per the study's objectives, the following research questions were formulated to understand better the utilization of Shodhganga resources, which supported fulfilling the intellectual community's academic and research needs. The study is to provide answers to the following research questions.

RQ.1: Is the Intellectual community aware of E-theses resources, i.e. Shodhganga?

RQ.2: Are the resources facilitated for 24/7 and anywhere access to the intellectual community?

RQ.3: Are resources helpful for the research need of the intellectual community?

R.Q.4: For what purpose do librarians inspire for harnessing the Shodhganga resources?

RQ.5: What is the DAVV Indore's contribution to Shodh Ganga Resources?

RQ.6.: What are the advantages of Shodhganga resources for the intellectual community?

RQ.7.: What challenges are users facing in harnessing the resources?

RQ.8.: What do you think about the best harnessing resources?

RQ.9.: Are the resources satisfied the intellectual community?

5. Scope and Limitation of the Study

The scope of study to know the Utility Behavior of E-Thesis, i.e. Shodhganga resources by the Intellectual Community of Madhya Pradesh with the particular reference of Devi Ahilya Vishwa Vidyalaya, M.P. The scope of the study has been lightening the research gap for the optimum harnessing of the E-resources with a specific focus on the E-dissertation resources, i.e. Shodhganga. The study also highlighted the challenges and opportunities for the optimum harnessing of E-these Databases resources and Library professionals' accountability.

6. Methodology

The study used the survey methods for the detailed information and data collection of the harnessing of resources and satisfaction by the end users. To accomplish the study's objectives, a structured questionnaire was designed as a tool for data collection. More than 439 questionnaires were distributed among students and faculty members of DAVV, Indore, Madhya Pradesh, India. More than 403 responded submitted and took active participation, and only 364 respondents' submitted effective responses and used them for the study. The details of the reactions are explicated in the study's data analysis and interpretation section. Table No. 02 explicated the particulars of the respondents and their responses.

Sl. no.	Course	Questionnaire Distributed	Effective Questionnaire returned	Returned and Effective for study %	Not Returned /Effective %	Highest Return Rate
1	Undergraduate Students	79	48	11	7	48
2	Post Graduate Students	154	127	29	6	127
3	Research Scholar	171	162	37	2	162
4	Faculty Members	35	26	6	2	26
Total		439	364	83	17	364

Table 2. Response Rate of the Study

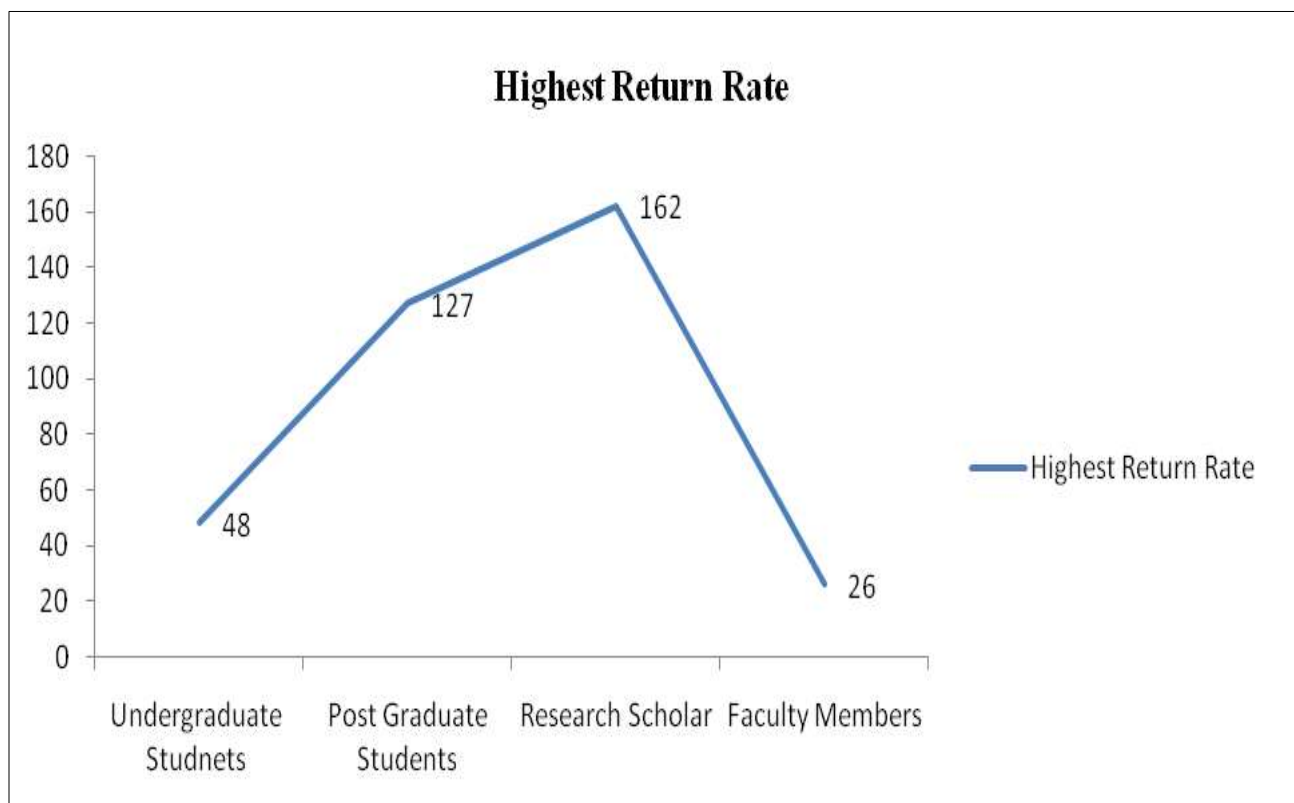


Figure 3. Highest Returned Rate of Respondents

The above table 1 illustrates that Research scholars gave effective responses, i.e. 37 per cent, followed by 29 per cent of PG students, 11 per cent of UG students and 6 per cent of faculty members presented effective responses, which attained the study's goal. There is no need for gender discrepancy in the survey, as figure no.04 depicted that more than 53 per cent of male respondents, whereas 47 female respondents submitted effective responses.

Gender	Frequency	Percent (%)
Male	193	53
Female	171	47
Total	364	100

Figure 4. Gender-wise Distribution of Respondent

7. Data Analysis and Interpretation

A study was conducted on the utilization of Shodhganga resources, and there were zero effects of gender, age, etc., and it helped to save respondents' time. This part of the study briefed and explained the data, which produced concrete results to fulfil the study's prime objectives. You don't need to include the demographic data of the study.

7.1. Awareness of Shodhganga Resources

The DAVV, Indore, provides quality education among the intellectual community and the Library and Information Resource Centre offer quality Library resources and services which supported to fulfil the academic and research need of the end users. Following table 3 depicted that more than 81 per cent of end users were well aware of the resources

Sl. No.	Aware of E-Theses	Respondents	Percentage
1	Yes	295	81
2	No	69	19
Total		364	100

Table 3. Awareness of Shodhganga Resources

Sl.No.	Sources of Awareness	Respondents	Percentage
1	Teachers	29	8
2	Students	80	22
3	Library Professionals	149	41
4	Friends	58	16
5	Library Websites	47	13
Total		364	100

Table 4. Sources of Awareness of Shodhganga Resources

The answer to research question 01 is explained in table no. 03, explicated that more than 81 percent of the intellectual community is well aware of the Shodhganga resources and accessed for the research activity. And table no. 04 depicted the sources of end users' awareness of ShodhGanga resources and facilities. Data showed that 41 per cent of end users' basis of understanding was Library professionals and 22 per cent of the students. Hence library and Information Science professionals play an essential role in inspiring them to harness the Shodhganga resources, which are supported by the research activities and particularly the research topics.

7.2. Motto of using Shodhganga resources

Table 5 illustrates about objectives of harnessing the resources. This showed Shodhganga resources provided quality resources to fulfil the research and project need of the end users. It explained that more than 47 percent of end users used it to meet their research needs, and 32 per cent accomplished the project works, whereas 21 per cent of respondents used it for knowledge updating and reference works.

The answer to Research question No. 03, the above table explicated Shodhganga's intellectual resources, encouraged the research activities and helped to complete the projects concerning the study area.

The answer to Research question no. 04, the purpose of harnessing Shodhganga's resources, table no. 05 depicted that 47 per cent of respondents accessed it for research activities and research articles, 32 per cent of respondents used it to complete the project, whereas 21 per cent of respondents harnessed it for knowledge updating and reference works.

7.3. Frequency and Using place of Shodhganga resources

Table no. 06 illustrates the frequency of resource utilization, and table no. 06 explicated about the harnessing resources of Shodhganga Databases by the end-users preferred place for accessing the resources.

Sl.No.	Motto for using of Shodhganga	Respondents	Percentage
1	To complete the project Works	116	32
2	To help for research activities and articles	172	47
3	To updated knowledge and Reference works	76	21
Total		364	100

Table 5. Motto for using of Shodhganga Resources

Sl. No.	Department	Response	Cumulative	Percent	Cumulative (%)
1	Most of Time	94	94	25.82	25.82
2	Occasionally	88	182	24.18	50
3	Once in a while	66	248	18.13	68.13
4	Hardly Ever	62	310	17.03	85.16
5	Whenever need	54	364	14.84	100
Total		364	364	100	100

Table 6. Frequency of Utilization

S.N.	Location	Respondents	Percentage
1	Library	116	32
2	Department	178	49
3	Computer Center	40	11
4	Home	29	8
Total		364	100

Table 7. Location accessing Shodhganga Resources

The data in the table above and charts depicted that 49 per cent of the community is interested in accessing the databases from the department, and 32 per cent of users are accessing the library.

The answer to Research question No. 02, above table no. 06 explicated that more than 50 per cent of respondents used most of the shodhganga's intellectual resources most frequently. And table no. 07 depicted that end users accessed the resources from different places, viz, Library, Department, Home and Computer centre, so the data explained that help could be accessed 24/7 and at any time.

7.4. End User's Satisfaction with Shodhganga resources:

The prime objective of the library and information resources centre is to provide optimum satisfaction to the end users. Table no. 08 depicts the joy of the Library users from the Shodhganga Resources.

The answer to Research Question number 09 is that the resources provided satisfaction and supported and increased the productivity in the academic and research need of the end users. As per the above data, more than 72 per cent (39 per cent fully satisfied + 33 percent satisfied) of end users were satisfied with the Shodhganga Resources, and 28 percent were partially happy.

S.N.	Satisfaction	Respondents	Percentage
1	Fully Satisfied	142	39
2	Satisfied	120	33
3	Partially Satisfied	102	28
Total		364	100

Table 8. User Satisfaction of Shodhganga resources

7.5. Advantages of harnessing of Recourses

The table no. 09 depicted about the advantages of harnessing of the resource for the end users in various aspects viz. time savvy, ease of use and etc.

Sl. No.	Particular	Strongly Agree	Agree	Neutral	Disagree	Strongly Dis-Agree	Total
1	Time Save	80	190	78	12	4	364
	Percent	22	52	21	3	1	100
2	Ease to Use	57	178	108	14	6	363
	Percent	16	49	30	4	2	100
3	Better Resources of Information	78	174	94	10	8	364
	Percent	21	48	26	3	2	100
4	Updated Resources	76	180	88	12	8	364
	Percent	21	49	24	3	2	100
5	24/7 Accessibility	78	190	80	12	4	364
	Percent	21	52	22	3	1	100
6	Various Formats of Resources (PDF, JPEG, Video, Audio and etc.)	59	189	104	9	3	364
	Percent	16	52	29	2	1	100
7	Improve the Academic and Research Activities	66	166	106	18	8	364
	Percent	18	46	29	5	2	100

Table 9. Advantages of Using Resources

The answer to question number 6 about the advantages of the Shodhganga resources for the intellectual community, table no. 09 depicted the benefits viz. Time-saving, Ease of Use, Better Information, Updated Resources, 24/7 Accessibility, Various Formats of Resources (PDF, JPEG, Video, Audio, etc.), and improved Academic and Research Activities. The researchers used a 5-point Likert scale to understand the advantages of the Shodhganga resources better. The data interpreted that more than 50 to 70 per cent of respondents strongly agree with the benefits of the resources.

7.6. Challenges for Harnessing the Shodhganga resources

There was some challenge to harnessing the resources and services of the library and information centre; table number 10 illustrates the difficulties in optimally harnessing the Shodhganga resources.

S.N.	Particular	Respondents	Percentage
1	Lacuna of Adequate ICT Infrastructure	102	28
2	Speed of Internet	73	20
3	Power Interruptions	36	10
6	Motivation for harnessing of resources	153	42
Total		364	100

Table 10. Challenges for Harnessing the Shodhganga Resources

The data above illustrates that 28 percent of Lacuna has Adequate ICT Infrastructure, 20 cent Speed Internet, 10 per cent Power Interruptions, and 42 per cent interest in the motivation for harnessing the Shodhganga resources.

The answer to question no. 07 regarding challenges faced by users for harnessing the resources, table no. 10 depicted that 42 per cent of respondents explained that they lack motivation, 28 per cent said inadequate ICT infrastructure, 20 cent internet speed and only 10 per cent faced power interruptions. Nowadays, various tools and applications are available to remove these challenges. Still, motivation is the most crucial factor which can be released by the motivational approach adopted by the teaching community and library professionals.

7.7. Suggestions for maximum utilizing Shodhganga

The respondents have been given various suggestions for the optimum harnessing of the library and information resources centre. Table no.11 explicated that end users required more orientation programmes and helped by the supporting staff.

Sl.No.	Particular	Respondents	Percentage
1	Promotion for Utilization	62	17
2	Development of ICT Infrastructure	22	6
3	Workshop Organization for Training to staff members	91	25
4	Library Orientation Programme	102	28
5	Help Desk	87	24
Total		364	100

Table 11. Suggestions for Optimum utilizing Shodhganga

The data explained that more than 28 per cent of users need to require the orientation programme for maximum utilization of the resources, and 25 per cent suggested that skilled professionals are required for optimum access to these E-resources. The answer to question no. 08 regarding suggestions for harnessing the resources; table no. 11 depicted the Promotion for Utiliza

tion, Development of ICT Infrastructure, Workshop Organization for Training to staff members, Library Orientation Programme, and Help Desk. Suppose Library professionals work on the suggestions mentioned above that the respondents suggested. In that case, the utilization of the resources may be increased, and the library's ROI (return on investment) will be increased.

7. Conclusion

It is not exaggerated that the intellectuals of this university has their unique quality and serve better in their respective area of interest. Devi Ahlya Vishwa Vidyalaya, Indore, Madhya Pradesh, India, developed and nurtured the intellectual to participate actively in the inclusive development of India and the world. The alumnae of this institution play a vital role in the nation's growth and in performing accountable jobs and duties. Various renowned personalities viz Hon'ble former Lok Sabha speaker Smt. Sumitra Mahajan, various Cabinet Ministers, Members of Parliaments and Members of the Legislative Assembly (MLA) of M.P. and different folk dancers, singers and multidimensional personalities, and many more characters created and nurtured by this university.

This study aimed to understand and enable the libraries to support and cooperate with the intellectual works and offer quality library resources among the academic community of DAVV, Indore, and Madhya Pradesh, India.

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