

## **AWARENESS OF OPEN ACCESS RESOURCES AMONG THE SCHOLARS AND FACULTY MEMBERS IN THE UNIVERSITIES OF HARYANA AND PUNJAB**

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**Abstract** The fundamental objective of the paper is to investigate the awareness regarding Open access and its resources among the PhD Scholars and Faculty members having science background only. A structured questionnaire has been designed and distributed randomly among the 820 PhD scholars and Faculty Members in the Six Universities of Haryana and Six University of Punjab. A well-prepared questionnaire was used for the collection of data. Moreover, the extensive survey has been conducted on PhD scholars 611(74.5%), Assistant professor 145(17.7%), Associate Professor 29(3.5%) and Professor 35(4.3%). The findings of the study revealed that majority of the respondents 364(44.4%) were moderately aware, while 287(35%) admitted that they were extremely aware, 92(11.2%) respondents somewhat aware and a very low percentage of users 13(1.6%) reported that they were not aware of open access. The study also determined that user awareness regarding types of open access resources. The study reported that 273(33.3%) respondents were moderately aware of Shod Ganga open with highest mean score 3.51, followed by World Wide Science. Org with 2<sup>nd</sup> highest mean score 3.31 and Directory of Open Access Journal(DOAJ) secured rank 3<sup>rd</sup> with mean value 3.28. The study also revealed that the maximum number of the respondents 579(70.9%) were satisfied regarding the comfort and use of Open Access resources.

**Keywords:** Open Access, Open Access Resources, PhD scholars and Faculty members

### **1.0 Introduction:**

Toady's era is the era of Open access. As per the present scenario due to pandemic COVID-19, open access became the indispensable component for the new innovation and disseminating scholarly information among the students, research scholars and scientists. The Open Access concept emerged in the late 1990s. But, the objective of the open access movement aptly reflected by Opening statement of the Budapest Initiative. The Budapest Open Access Initiative (BOAI) mentioned the rational understandings of open access as: "its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself..." (BOAI, 2002). Another milestone in the OA initiative was the Bethesda Statement. Same views are also reproduced in the Bethesda Statement (Bethesda, 2003) and Berlin Declaration, likewise clearly defines Open Access as the ability to "copy, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship" (Berlin, 2003). The tremendous development in the field of Information Communication Technologies (ICT) played a leading role to gain the momentum of Open access concept. Full access of the research articles, without any financial barrier, remote access to the scholarly content by open access and its resources mark this open access concept become more positive and more popular among all the users. According to Ho (2010), "Scholarly communication is a cyclical process in which content is generated, reviewed, disseminated, acquired, preserved, discovered, accessed, and assimilated for the advancement of scholarship. The assimilation can potentially lead to the generation of new content and thus start a new iteration of the process (or life cycle)". Now the question raised here whether the PhD scholars and faculty members are aware of

Open access and its resources in the selected universities of Haryana and Punjab. Thus this work needs to be conducted to answer the above questions.

## **2.0 Literature review:**

A literature review is the basic and essential part of a study which is researched at the next level. This past, present and future background of the studies are mentioned in the literature review. Based on the findings of previous studies, new objectives of any research can be accomplished. A large number of studies has been conducted regarding the various aspects such as awareness of Open access and its resources and few of them are mentioned in this work.

**Muthuvennila and Thanuskodi (2019)** entitled “User Perception on Open Access Resources among college students in India”. The descriptive survey has been performed on 131 students of Library and Information Science students in Idhaya college for the women. The study revealed that 80(61.07%) undergraduate and 51(38.93%) postgraduate students were using open access resources. Out of 32(24.43%), respondents were using open access for research purpose only.

**Bala et.al (2018)** conducted research entitled “Awareness of Open Access Resources(OAR) among the researchers of Punjab Agriculture University, Ludhiana”. The objective of the study is to investigate the Open Access Resources by the researchers of Punjab Agriculture University. The finding of the study determined that research articles, theses and e-books were extensively used as open access resources for course and research work. The further study recommended that Online tutorials and training overcome the problems faced by using the OAR.

**Sellan and Sornam (2017)** organized a study entitled “Awareness and Use of Open Access Scholarly Publications among the Theological Faculty Members in Karnataka”. The study examined the awareness and use of Open Access publication among the Theological Faculty members in Karnataka. The study described the challenges and constraints faced by the faculty members in accessing the open-access resources. The study determined that theological faculty members were partially aware of open access resources: Biblical Studies.org.uk and Google CSE are well known to them but the Directory of Open Access Books (DOAB) and Directory of Open Access Journals (DOAJ) are less known to them. The study also found that respondents were well aware of Open Access Resources, Google Custom Search Engine (GCSE) while they were less aware of Directory of Open Access Books(DOAB) and Directory of Open Access Journal (DOAJ).

**Manjunath, Joshi, and Patil (2015)** revealed that out of 83 students who used the internet every day, 73 per cent were familiar with the practice of OA scholarly content. The research findings also revealed that the largest number of users, i.e. 38(46%) referred open access journal articles, while 17(20%) referred Open access books, 9(11%) referred articles presented in conferences. 7(8%) referred Open access research reports and 12(14%) referred to other Open access sources. The study also analyzed that the first choice of researchers was Directory of Open Access Journals (45%) followed by Open J Gate (31%) and Google scholar (20%). The study concluded that the majority of Karnataka University researchers were familiar with the usage of scholarly content of open access resources.

**Stephen and Alex (2013)** carried out a study to assess the awareness and use of Open Access scholarly publication among the Library and Information Science (LIS) lecturers in Southern Nigeria. The study discovered that a high level of use of open access publication was found by both senior and Junior lecturers. The study recommended that more efforts should be applied to enhance the use of open access and resources by enabling infrastructure and implementing the policy to deposit the research work in open access repositories.

**Dulle(2011)** entitled “Awareness and usage of open access resources for scholarly communication by postgraduate students at the Sokoine University of Agriculture (SUA) and the University of Dar es Salaam (UDSM), Tanzania”. The findings of the study revealed that 58.6% of the respondents were aware and familiar with open access, even 60.9% of them had retrieved the open-access content and only 10.9% of them had disseminated the research work through open access. The perception of the respondents was positive towards open access resources. The findings of the study also reported that Slow internet connectivity and inadequate infrastructure were the major factors that spoiled the concept of open access.

**3.0 Objectives of the Study**

1. To Examine the awareness of open access publishing among the faculty members and research scholars of science background in the selected six universities of Haryana and Six universities of Punjab.
2. To assess the level of awareness about open access resources among the faculty members and research scholars.
3. To determine the Satisfaction level of the faculty members and research scholars about the open-access resources.

**4.0 Scope of The Study:**

The present study belongs to the Science faculty members and PhD scholars of the Six Universities of Haryana and Six Universities of Punjab. The present research work is confined to the 12 universities such as Kurukshetra University Kurukshetra(K.U.K), Maharshi Dayanand University(M.D.U), Rohtak, Choudhary Charan Singh Haryana Agriculture University(HAU), Hisar, Lala Lajpat Rai University of Veterinary and Animal Science, Haryana, YMCA University of Science and Technology, Deenbandhu Chhotu Ram University of Science and Technology(DCRUST), Haryana, Punjab Agriculture University, Punjabi University, Guru Nanak Dev University(GNDU), Guru Angad Dev Veterinary and Animal Sciences University, Punjab, Sant Longwal Institute of Engineering and Technology, Sangrur, Thapar University, Punjab.

**5.0 Methodology:**

The research survey method has been conducted for the achievement of the objective of the study. The survey method facilitates the researchers to collect original data from the users. Under this study, the user had been randomly selected by personally visiting the science and research department of the 12 Universities. In this context, a structured and descriptive questionnaire was designed to fulfil the specified objectives. The questionnaire consisted of 5 sections viz. (i) General Information, (ii) Status and Designation of the users (iii) Awareness of Open Access Scholarly publications (iii) Awareness of Open Access Resources (iv) Satisfaction level of open access resources (v) Channels by which faculty and PhD Scholars aware of Open access resources. The physical visits were made by the research scholar to collect the data. The filled questionnaires were analyzed by using Statistical Package for the Social Sciences (SPSS) 21.0.

**6.0 Analysis and Interpretation of data:**

A detailed analysis of the user's characteristics such as a total number of users, gender-wise status and designation of the respondents has been mentioned and analyzed in this section. Further analyzed data have been shown graphically.

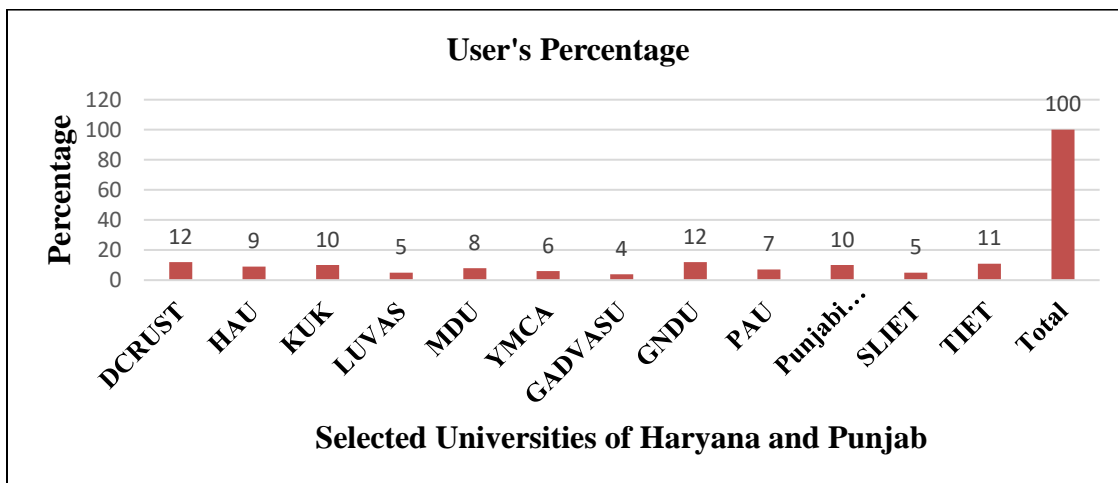
**Table 1-Total Number of Respondents**

State	University Name	No. of Respondents	Percentage
<b>Haryana</b> <b>n=418 (50.98%)</b>	<b>DCRUST</b>	98	12
	<b>HAU</b>	76	9
	<b>KUK</b>	81	10
	<b>LUVAS</b>	43	5
	<b>MDU</b>	69	8
	<b>YMCA</b>	51	6

<b>Punjab n=402 (49.02%)</b>	<b>GADVASU</b>	35	4
	<b>GNDU</b>	96	12
	<b>PAU</b>	54	7
	<b>Punjabi University</b>	81	10
	<b>SLIET</b>	42	5
	<b>TIET</b>	94	11
	<b>Total</b>	<b>820</b>	<b>100</b>

A total number of respondents have been shown in Table 1. The research scholar selected twelve universities (Six universities of Haryana and Six universities from Punjab). The table shows that 418 (50.98%) respondents belonged to the universities of Haryana State and 402 (49.02%) respondents were from universities of Punjab State. The study found that almost equal users have been considered for the study.

**Figure 1- Total Number Of Respondents**

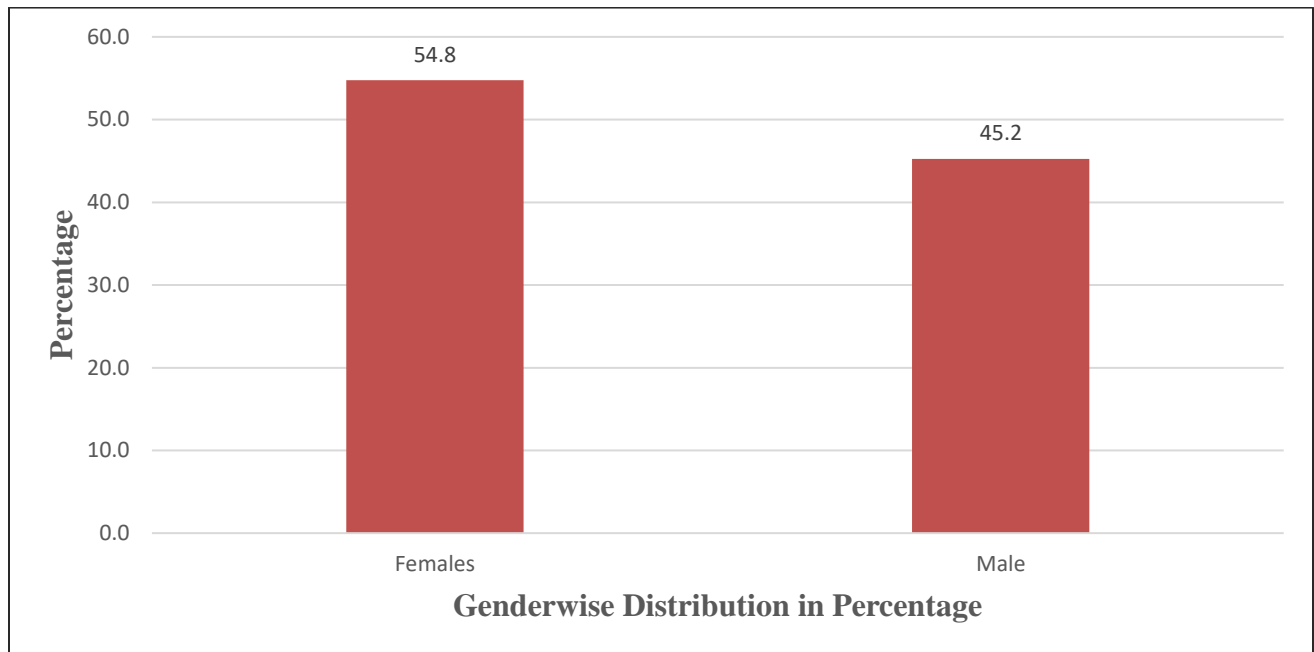


**Table 2-Gender Wise Distribution**

Gender	Respondents	Percentage
Females	449	54.8
Male	371	45.2

Table 2 shows the gender-wise response of the users. The table shows that females were 54.8% and the male was 45.2%. The study reported that females played a dominant and vital role as compared to male users in the participants of the survey. This analyzed data has been shown by the Fig.2.

**Figure 2: Gender Wise User Status**

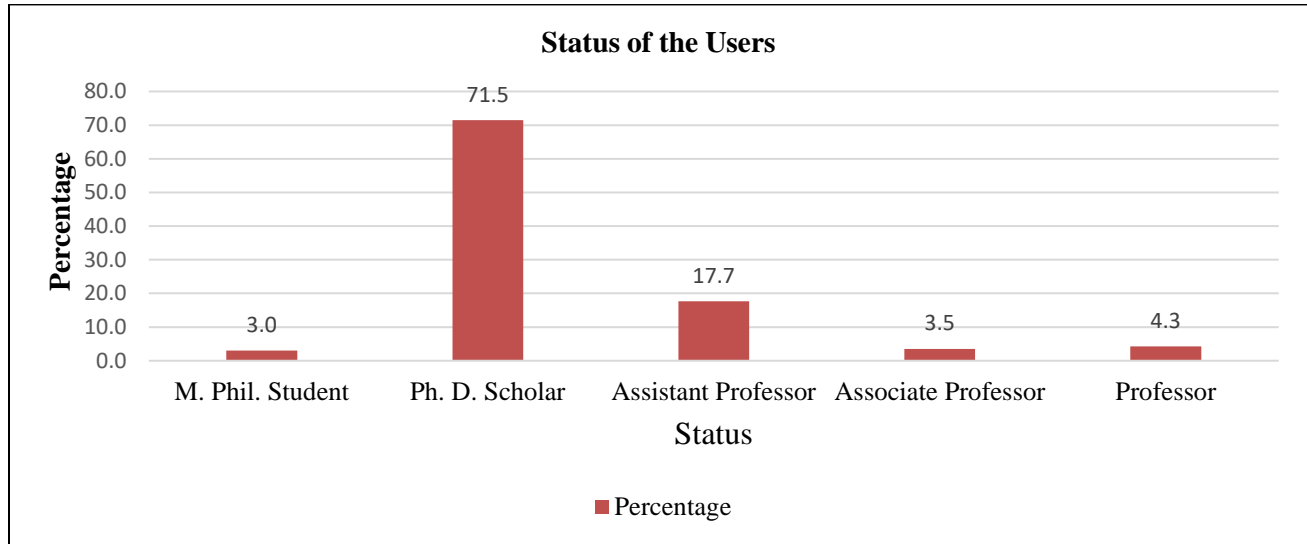


**Table 3 - Designation Of The Users**

Status	Respondents	Percentage
Ph. D. Scholar	611	74.5
Assistant Professor	145	17.7
Associate Professor	29	3.5
Professor	35	4.3
Total	820	100.0

Table 3 shows that a total of 820 users,611(74.5%) were PhD scholar, followed by 145(17.7%) Assistant professor, 35(4.3%) Professor, and 29(3.5%) respondents were Associate Professor Figure 4.3 shows the status of the user by the graphical method.

**Figure. 3: Status of Users**



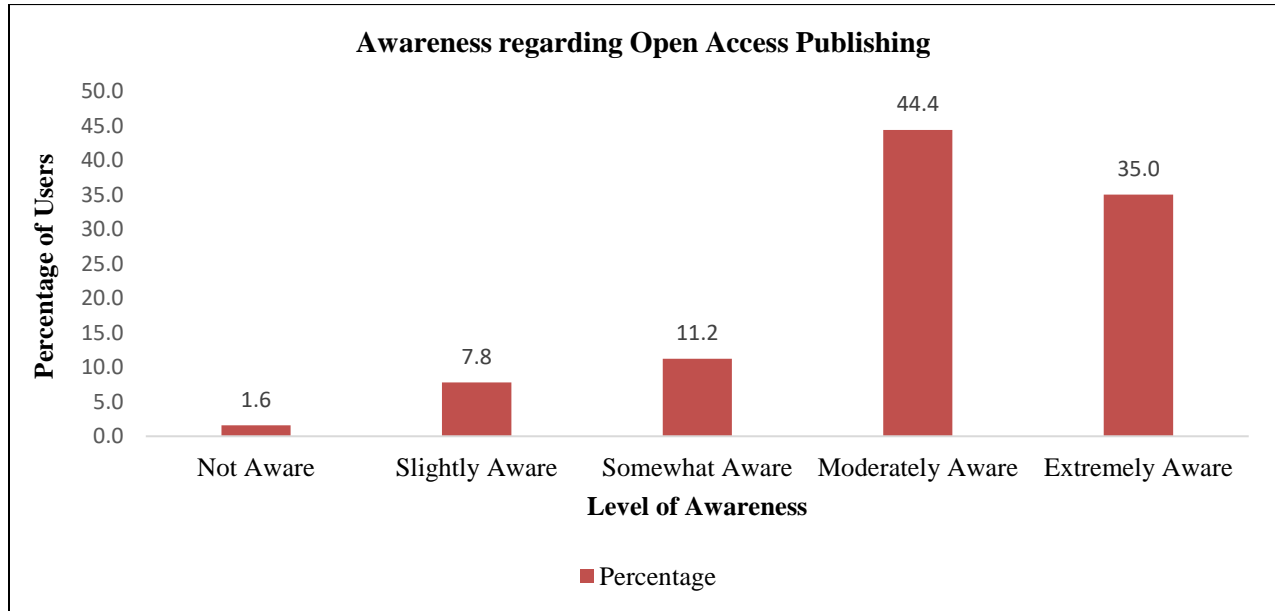
**7.0 Awareness about Open Access and Its Resources**

In this section interpretation and analysis of the data regarding awareness about the Open Access publishing, level of awareness and awareness about Open Access resources had been discussed. Here respondent’s awareness regarding Open Access Publishing shown by table 4. The study inculcates that 364(44.4%) respondents were moderately aware of open access publishing, while 287(35%) were extremely aware,92(11.2%) were somewhat aware and only 13(1.6%) of the users stated that they were not aware of open access publishing. **It is necessary to point out here that the majority 807(98.4%) majority of the users were aware regarding open access publishing** and the same has been illustrated by the fig.4.

**Table 4 - Awareness About The Open Access Publishing**

Level of Awareness	Respondents	Percentage
Not Aware	13	1.6
Slightly Aware	64	7.8
Somewhat Aware	92	11.2
Moderately Aware	364	44.4
Extremely Aware	287	35.0
Total	820	100.0

**Figure 4 - Awareness Regarding The Open Access Publishing**



In the present work, questions were asked by the users about Open Access Resources. There are several open access resources. Few of them such as Shodh-Ganga, World Wide Science. Org, Directory of Open Access Journal (DOAJ), PubMed, (Directory of Open Access Books) DOAB, PLOS (Public Library of Science), Open J Gate, Directory of Open Access Repositories(DOAR) were asked about the users. Table 5 shows the status of the user’s awareness regarding different types of Open Access resources. It has been determined that majority of the respondents **273 (33.3%)** were moderately aware of Shod Ganga open access resources via **ranked First with highest mean value ( $x = 3.51, \sigma = \pm 1.462$ )** followed by World Wide Science. Org with second highest mean value ( $x = 3.51, \sigma = \pm 1.462$ ), DOAJ ranked 3<sup>rd</sup> with mean value ( $x = 3.28, \sigma = \pm 1.294$ ). **The study revealed that Shod Ganga has now become the most popular Open Access source for scholar communications.** Same has been illustrated by the fig.5.

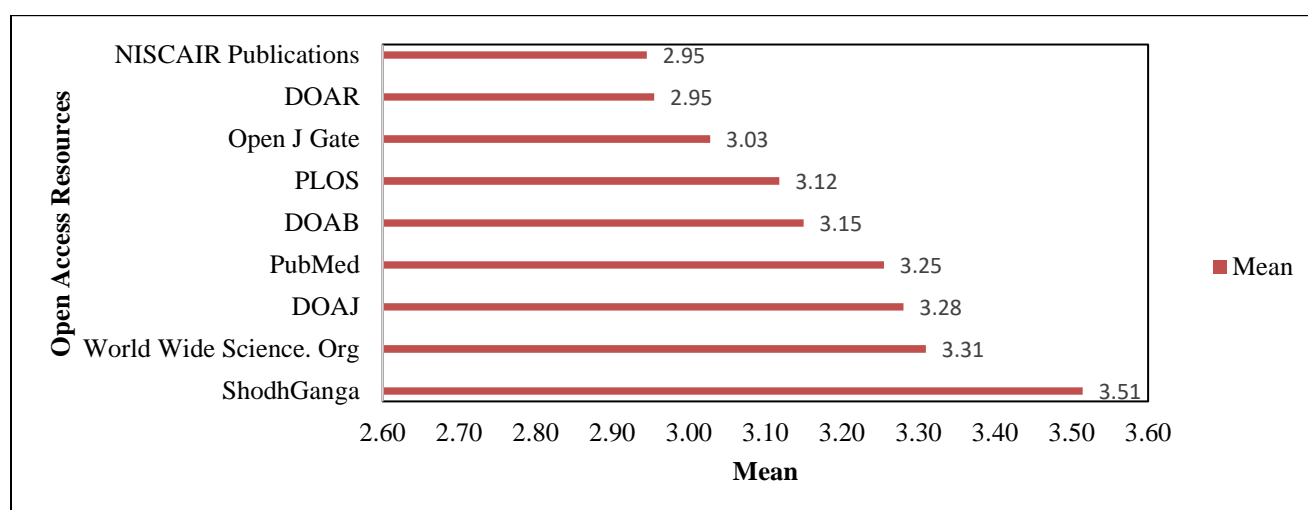
**Table 5 - Awareness Regarding Different Types Of Open Access Resources**

Types of Open Access resources	N=820	NA	SA	SWA	MA	EA	Total	Mean	Std. Deviation	Rank
Shodh-Ganga	N	119	99	182	273	147	820	3.51	1.46	1
	%	14.5	12.1	22.2	33.3	17.9	100			
World Wide Science. Org	N	99	110	216	228	167	820	3.31	1.27	2
	%	12.1	13.4	24.3	27.8	20.4	100			
DOAJ	N	119	99	182	273	147	820	3.28	1.29	3

	%	14.5	12.1	22.2	33.3	17.9	100			
PubMed	N	147	114	163	175	221	820	3.25	1.44	4
	%	17.9	13.9	19.9	21.3	27.0	100			
DOAB	N	134	104	210	249	123	820	3.15	1.29	5
	%	14.3	12.7	25.6	30.4	15.0	100			
PLOS	N	141	123	204	202	150	820	3.12	1.34	6
	%	17.2	15.0	24.9	24.6	18.3	100			
Open J Gate	N	174	100	222	177	147	820	3.03	1.38	7
	%	21.2	12.2	27.1	21.6	17.9	100			
DOAR	N	154	127	224	232	83	820	2.95	1.26	8
	%	18.8	15.5	27.3	28.3	10.1	100			
NISCAIR Publications	N	174	127	203	202	114	820	2.95	1.34	9
	%	21.2	15.5	24.8	24.6	13.9	100			

(Not Aware=NA; Slightly Aware=SA; Somewhat Aware=SWA; Moderately Aware: Extremely Aware=EA)

**Figure 5 - Types of Open Access Resource**



### 8.0 Result and Conclusion:

The study examines the awareness of PhD scholars and faculty members about open access and its resources. This study also determines the user's satisfaction with the open-access resources. A total of 820 respondents, 418 (50.98%) respondents belonged to the universities of Haryana state and 402 (49.02%) respondents were from universities of



Punjab State. Majority of the respondents 364(44.4%) were moderately aware, while 287(35%) admitted that they were extremely aware, 92(11.2%) respondents somewhat aware and a very low percentage of users 13(1.6%) reported that they were not aware of open access. Similarly based on the finding of the study user awareness regarding types of open access resources the study reported that 273(33.3%) respondents were moderately aware of Shod Ganga with highest mean score 3.51, followed by World Wide Science. Org with 2<sup>nd</sup> highest mean score 3.31 and Directory of Open Access Journal(DOAJ) secured rank 3<sup>rd</sup> with mean value 3.28. Here has been revealed that Shod Ganga has now become the most popular Open Access source for scholar communications. By the critical analysis of the open-access resources and its types, the study also resulted in the maximum number of the respondents 579(70.9%) were satisfied regarding the comfort and use of Open Access resources. As per the present scenario due to Pandemic COVID-19, the importance of open access and its resources has been increased in a very great extent and open access resources can be played a vital role in this situation. As per the analysis and interpretation of the data, the study concluded that the user's perception becomes more coaxed and positive towards open access and its resources. In this Pandemic COVID-19 situation, only the open-access resources withstand in the growth of scholarly communication. The study also recommends that librarians and professional related to this area must promote the open access resources by conducting a regular seminar, orientation and training session among the PhD scholars and faculty members for the betterment of the society.

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