

An Analytical Study of Awareness of the E-Resources and its Uses in the Educational Institutes

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Abstract: Many new innovations and technological advancements has paved way for a new concept called as digital technology which in turn has led to the new concept of digital India which has the capacity to transform the lives of people and empower the society in a better manner. The 'Digital India' programme has led to new progressions in different sectors and has generated innovative endeavors for the tech savvy future generation with the motive to build participative, transparent and responsive system. The Digital India drive is a dream project of the Indian Government aimed to remodel India into a knowledgeable economy and a digitally empowered society. Due to the internet the whole world has come closer and with the digital India initiative by the Indian government there has been a steep rise in the paperless policies, awareness and the use of computers. Due to compulsion of ICT as a subject in schools and colleges the computer literacy rate has also increased. In today's era of information explosion, the resources of data have also emerged in the form of e-resources like publisher's database, e-journals, e-books, consortia of special libraries etc. Today the whole world uses digital media for their research and study. In order to promote the e-resources there are different agencies of the Government of India who provide funds and subsidies to the educational institutes to increase their collection of digital books and to develop the digital form of education. Hence, this research study aims to understand Digital India – with respect to the availability of the e-resources and its uses in the educational institutes.

Keywords: E- Resources- use -college teachers, E-Resources-use-orientation, E-Resources- use- services

1. Introduction

E-Learning Centres, Online Universities, and open education system have to adopt digital technology and make available digital resources to cater to the needs of students and faculty members. All sorts of e-resources (primary/ secondary/ tertiary) are used by learners and teachers from educational institution. The concept of digital classroom, online lectures and information resources in electronic format have become integral part of academic and research needs. They have been made mandatory by various higher education bodies like- UGC, NAAC, NBA, AICTE, ILC etc. A huge amount is invested in electronic resources by academic institutions. The databases like N-LIST, JGATE, EBSCO, SCIENCE DIRECT etc. are subscribed by traditional and professional academic institutions. Information needs of stakeholders are fulfilled by making them available. But, it has been observed by present researcher that these resources are underutilized. The discussion regarding the present scenario of underutilisation of these resources is occurring among experts and library professionals.

Therefore, the present researcher felt the need to understand problems behind the underutilisation of these resources and provide solution to them. Hence, a case study has been undertaken which an iceberg and representing comprehensive problem is prevailing everywhere. Libraries are meant for satisfying information needs of their stakeholders. The present researcher felt that all library professionals are observing the phenomena of underutilisation of electronic resources and it would be a motivating factor for them to enhance interest of users in using these resources.

Electronic Resource defined as any work encoded and made available for access through the use of a computer. It

includes data available by (i) remote access and (ii) direct access (fixed media). <http://www.loc.gov/resource/rfs>

2. Statement of Problem

- 1) Awareness about the e-resources available in the educational institutes?
- 2) How many institutes use that available e-resource effectively?
- 3) Which factors are responsible for the use/non use of the e-resources?
- 4) What are the significant problems faced by the users and the librarian while using the e-resources?

3. Objectives of the Study

- 1) To know awareness and availability of the e-resources in the educational institute.
- 2) To study the usage of the government grants regarding the use of the e-resources.
- 3) To understand the awareness about the e-resources among users and factors responsible for improving the uses of the e-resources in the study area.
- 4) To study the problems/obstacles faced by the users.

4. Research Methodology

There were 2027 college teachers from 165 colleges which were selected for the study. Out of these 2027 teachers 20% teachers were selected on random basis from five faculties i.e. Arts, Science, Commerce, Law and Education. Four hundred and sixteen questionnaires were distributed to collect data from the selected population. Out of these Three hundred and ninety five questionnaires were received from the selected population under study. The data were input in MS-Excel and SPSS software was used for analysis and interpretation of the questionnaire. Purposive sampling has

been used and through simple random sampling data has been collected.

5. Test of Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
.503	62

One widely accepted classification of validity consists of three major forms: Content, criterion-related, and Construct. Reliability of measure indicates the extent to which it was without bias and hence ensured consistent measurement across time and across the various items in the instrument. Thus, reliability of a measure was an indication of the stability and consistency with which the instrument measured the concept and helped to assess the goodness of measure. SPSS has the reliability analysis procedure. This reliability procedure was executed on the data to assess its reliability. In reliability analysis, the analyze menu was considered. Reliability analysis was carried out where the Cronbach's alpha was tested. Ideally, the Cronbach's alpha should be in between 0.5 and 1. In this case the value of Cronbach's alpha is 0.503 which meant that the data and the scale were reliable.

6. Scope

The study will bring out the information regarding the e-resources which are well developed and used. The study will understand the current status of the educational institutes' library collection and will throw light on the awareness about the e-resources amongst faculty members and students i.e. users. The data collected for this research would be extremely important for accreditation of institutes as well as universities, which will be useful to them for policies regarding affiliation, curriculum, syllabus etc.

7. Limitations of the Study

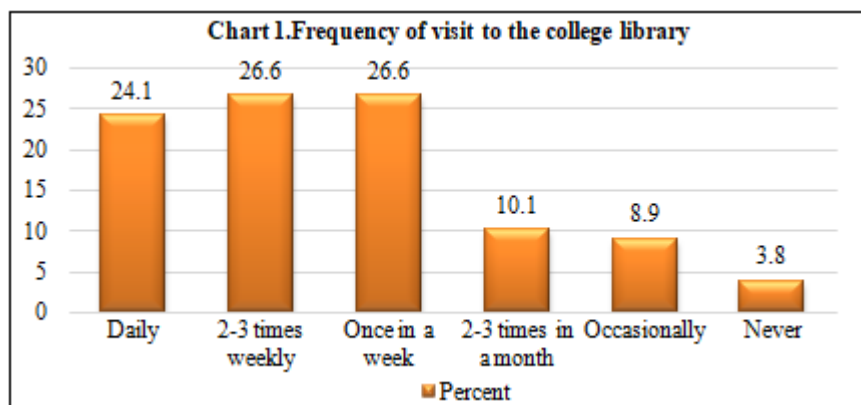
Following were the limitations of the Study

Type of Institute: Educational Institutes affiliated to the SPPU.

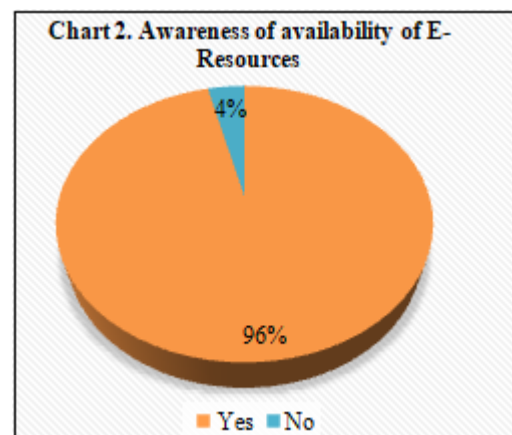
Faculty wise: No specific faculty wise study, it is an overall study

Area Coverage: Only Pune, Ahmednagar and Nashik districts

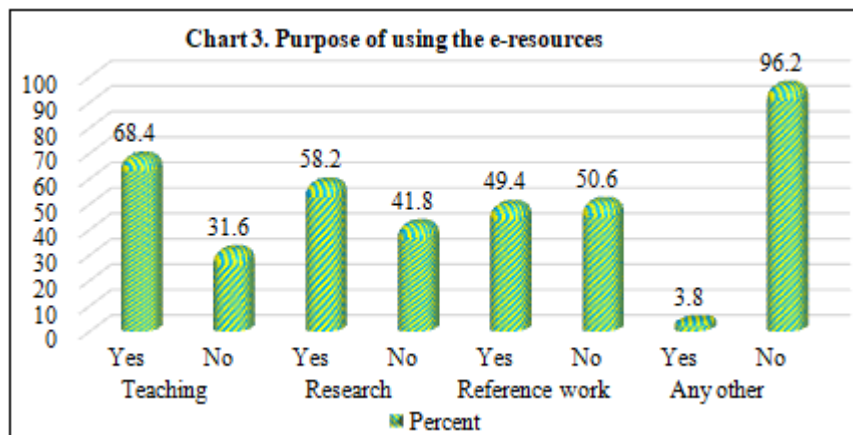
8. Data Analysis and Interpretation



The chart I indicates frequency of visit to the library by respondents. Twenty four percent respondents were daily visitors of the library, 26.6% respondents 2-3 times weekly visit to the library and more than 77% respondents were visiting libraries at least once in a week. Four percent respondents never visited college library because enough books of their interest were available in the department and they were not interested in the e-resources.



The chart 2 indicates that 96% respondents were aware availability of the e-resources in the library and 4% respondents are not aware availability of the e-resources in the library.

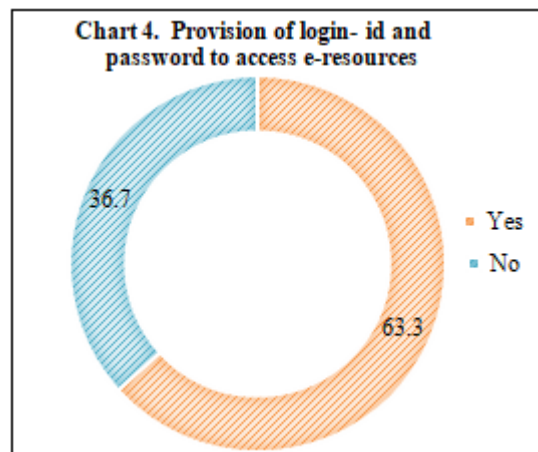


The Chart 3 indicates that the 68% respondents were accessing the e-resources for teaching, 58% respondents were accessing the e-resources for research and 50% respondents were accessing the e-resources for reference work. This chart also indicate that 3.8% respondents were using the e-resources for other purposes.

Table 1: Source of availability of E-Resources

Source of availability of the e-resources		Frequency	Percent	Valid Percent	Cumulative Percent
Library Orientation/ Training	Yes	32	40.5	40.5	40.5
	No	47	59.5	59.5	100.0
	Total	79	100.0	100.0	
Friends/ Colleague	Yes	13	16.5	16.5	16.5
	No	66	83.5	83.5	100.0
	Total	79	100.0	100.0	
College website	Yes	12	15.2	15.2	15.2
	No	67	84.8	84.8	100.0
	Total	79	100.0	100.0	
Printed Source	Yes	6	7.6	7.6	7.6
	No	73	92.4	92.4	100.0
	Total	79	100.0	100.0	
Email Notification	Yes	17	21.5	21.5	21.5
	No	62	78.5	78.5	100.0
	Total	79	100.0	100.0	
Self-Awareness	Yes	31	39.2	39.2	39.2
	No	48	60.8	60.8	100.0
	Total	79	100.0	100.0	
Any other	Yes	4	5.1	5.1	5.1
	No	75	94.9	94.9	100.0
	Total	79	100.0	100.0	

The table 1 indicates only 40% respondents were aware of the availability of the e-resources through orientation/ training programme conducted by the college library. Forty percent respondents know about the e-resources by self-awareness. Fifteen percent respondents from college website and 21% respondent from libraries email to their personal email account.8% respondents from college magazine and 5% respondents were aware surprisingly by visiting library.

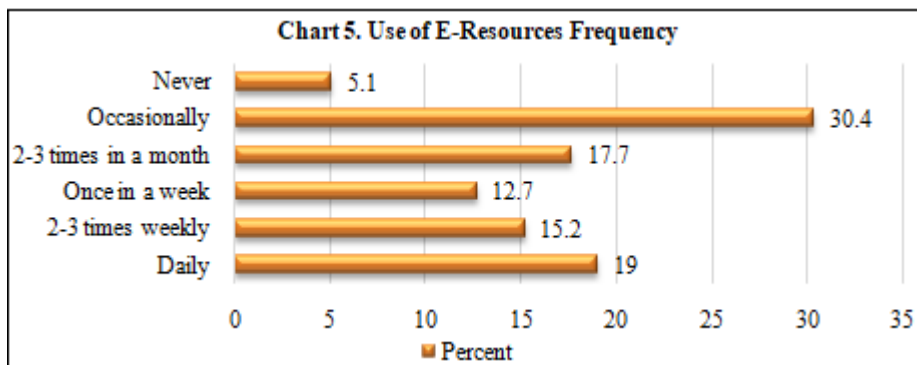


The chart 4 indicates more than 63.3% respondents were provided login id and password to access the e-resources from college library, department and from their home. Thirty seven percent respondents were not aware about login id and password.

Table 2: Access of E-Resources

From place		Frequency	Percent	Valid Percent	Cumulative Percent
Central Library	Yes	39	49.4	49.4	49.4
	No	40	50.6	50.6	100.0
	Total	79	100.0	100.0	
Computer Lab	Yes	24	30.4	30.4	30.4
	No	55	69.6	69.6	100.0
	Total	79	100.0	100.0	
Hostel Residence	Yes	1	1.3	1.3	1.3
	No	78	98.7	98.7	100.0
	Total	79	100.0	100.0	
Any other	Yes	22	27.8	27.8	27.8
	No	57	72.2	72.2	100.0
	Total	79	100.0	100.0	

Table 2 indicates that only 49.4% respondents access the e-resources from the central library and 30.4% from computer lab and department. About 27.8% respondents were accessing the e-resources from their home or from wifi hotspot of their residential local area.



The chart 5 indicates that use of the e-resources by 19% respondents on regular basis, It means respondents frequently visiting the library were small in number, 15.2% respondents access the e-resources once in 2-3 times in a week and 12.7% respondents access the e-resources once in

a week. 17.7% respondents access the e-resources once in 2-3 times in a month. 30.4% respondents access the e-resources occasionally and 5.1% respondents never access the e-resources.

Table 3: Methods to access E-Resources

Method to access		Frequency	Percent	Valid Percent	Cumulative Percent
Random access	Yes	15	19.0	19.0	19.0
	No	64	81.0	81.0	100.0
	Total	79	100.0	100.0	
Guidance by Friend	Yes	29	36.7	36.7	36.7
	No	50	63.3	63.3	100.0
	Total	79	100.0	100.0	
Guidance by Lib. Staff	Yes	17	21.5	21.5	21.5
	No	62	78.5	78.5	100.0
	Total	79	100.0	100.0	
Guidance by Supervisor	Yes	25	31.6	31.6	31.6
	No	54	68.4	68.4	100.0
	Total	79	100.0	100.0	
Course offer By the Lib.	Yes	8	10.1	10.1	10.1
	No	71	89.9	89.9	100.0
	Total	79	100.0	100.0	
Any other	Yes	5	6.3	6.3	6.3
	No	74	93.7	93.7	100.0
	Total	79	100.0	100.0	

Table 3 indicates methods to access the e-resource by the respondents. Nineteen percent respondents were using random method and 36.7% respondents received guidance from their friends/ colleague. Twenty two percent respondents were helped library staff. 31.6% respondents were guided by their supervisor and 6.3 respondents use only printed materials.

Table 4: Medium to locate the E-Resources

Medium to locate		Frequency	Percent	Valid Percent	Cumulative Percent
College Website	Yes	33	41.8	41.8	41.8
	No	46	58.2	58.2	100.0
	Total	79	100.0	100.0	
Online database	Yes	19	24.1	24.1	24.1
	No	60	75.9	75.9	100.0
	Total	79	100.0	100.0	
Search Engine	Yes	33	41.8	41.8	41.8
	No	46	58.2	58.2	100.0
	Total	79	100.0	100.0	
Any other	Yes	5	6.3	6.3	6.3
	No	74	93.7	93.7	100.0
	Total	79	100.0	100.0	

Table 4 indicate mediums to locate the e-resource by the respondents. 41.8% respondents uses college website to locate the e-resources. 24.1% respondents locate the e-

resources through online database and 41.8% respondents uses search engine method to locate the e-resources. 6.3% respondents are using only print media for resources.

Table 5: Search Techniques

Search technique		Frequency	Percent	Valid Percent	Cumulative Percent
Simple Search	Yes	46	58.2	58.2	58.2
	No	33	41.8	41.8	100.0
	Total	79	100.0	100.0	
Phrase Search	Yes	13	16.5	16.5	16.5
	No	66	83.5	83.5	100.0
	Total	79	100.0	100.0	
Field Search	Yes	16	20.3	20.3	20.3
	No	63	79.7	79.7	100.0
	Total	79	100.0	100.0	
Boolean Search	Yes	17	21.5	21.5	21.5
	No	62	78.5	78.5	100.0
	Total	79	100.0	100.0	
Key Word Search	Yes	30	38.0	38.0	38.0
	No	49	62.0	62.0	100.0
	Total	79	100.0	100.0	
Any other	Yes	12	15.2	15.2	15.2
	No	67	84.8	84.8	100.0
	Total	79	100.0	100.0	

Table 5 indicates 58.2% respondents were using simple search technique and 16.5% respondents were using phrase search technique, 20.3% respondents were using field search technique, 21.5% respondents are using boolean search

technique, 38% respondents use key word search technique and 15.2% respondents do not know search technique. Hence, they were using full title of the articles or author's name as search technique.

Table 6: Method of reading full text articles

Method of reading full text articles		Frequency	Percent	Valid Percent	Cumulative Percent
Read online	Yes	37	46.8	46.8	46.8
	No	42	53.2	53.2	100
	Total	79	100	100	
Printout and read	Yes	36	45.6	45.6	45.6
	No	43	54.4	54.4	100
	Total	79	100	100	
Saving in storage device	Yes	30	38	38	38
	No	49	62	62	100
	Total	79	100	100	

Table 6 indicates 46.8% respondents are reading full text articles online, 45.6% respondents taking printouts and later read full text, and 38% respondents are saving full text articles on the storage device and read them as per their convenience

Table 7: Purpose of using the e-resources

Purpose of using the e-resources		Frequency	Percent	Valid Percent	Cumulative Percent
Research work/ Project	Yes	45	57	57	57
	No	34	43	43	100
	Total	79	100	100	
Teaching	Yes	46	58.2	58.2	58.2
	No	33	41.8	41.8	100
	Total	79	100	100	
Update subject knowledge	Yes	58	73.4	73.4	73.4
	No	21	26.6	26.6	100
	Total	79	100	100	
Writing article/ research paper	Yes	44	55.7	55.7	55.7
	No	35	44.3	44.3	100
	Total	79	100	100	
Any other	Yes	21	26.6	26.6	26.6
	No	58	73.4	73.4	100
	Total	79	100	100	

The table 7 indicates that purpose of respondent to use the e-resources. Fifty-seven percent of respondents to use the e-resources for their research work/ project and 58.2% respondents purpose to make use of the e-resources was for teaching. Seventy-three percent respondents were updating their subject knowledge and purpose of 55.7% respondents

was to use the e-resources for writing articles/ research paper. Twenty-seven percent respondents purpose was to use the e-resources for private assignment.

Table 8: Type of contents motivate to Access the E-Resources

Type of contents to motivate to access the e-resources		Frequency	Percent	Valid Percent	Cumulative Percent
Archival access	Yes	11	13.9	13.9	13.9
	No	68	86.1	86.1	100
	Total	79	100	100	
Core Journals	Yes	22	27.8	27.8	27.8
	No	57	72.2	72.2	100
	Total	79	100	100	
Wide range of online database	Yes	56	70.9	70.9	70.9
	No	23	29.1	29.1	100
	Total	79	100	100	
Abstract of the Articles	Yes	44	55.7	55.7	55.7
	No	35	44.3	44.3	100
	Total	79	100	100	
Table of contents	Yes	32	40.5	40.5	40.5
	No	47	59.5	59.5	100
	Total	79	100	100	
Any other	Yes	2	2.5	2.5	2.5
	No	77	97.5	97.5	100
	Total	79	100	100	

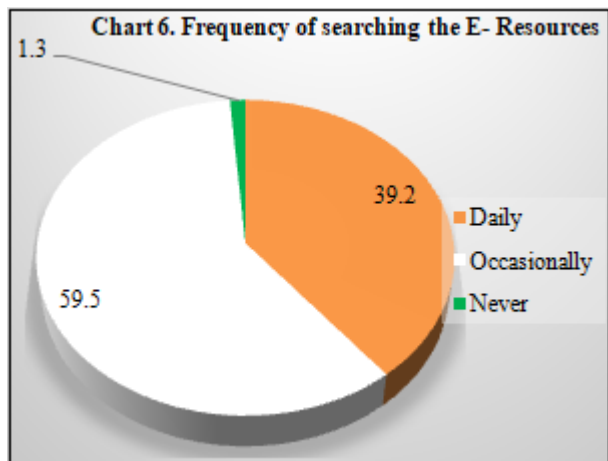
The table 8 indicates the type of contents motivate respondents to access the e-resources. Fourteen percent respondent's motivation was to access the e-resources for archival purpose and 27.8 respondent's motivation was to access the e-resources for reading core journals. Seventy-one percent respondent's motivation to access the e-resources for wide range of online database and 55.7% respondent's motivation to access the e-resources for abstract of the articles. Forty-one percent respondent's motivation to access the e-resources for table of content and 2.5% respondents were using print media.

Table 9: Use of E-Resources by College Teachers

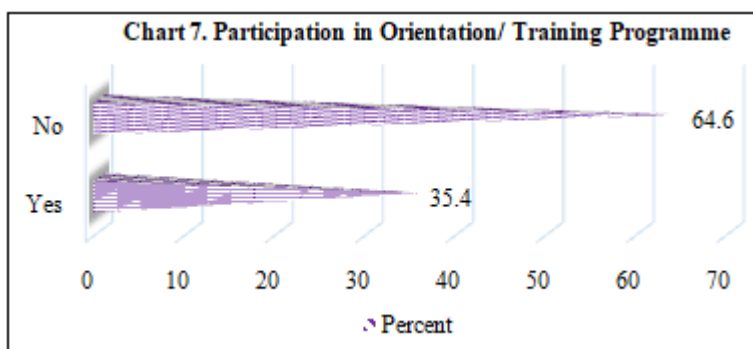
Use of the e-resources by college teachers		Frequency	Percent	Valid Percent	Cumulative Percent
E-Books	Yes	40	50.6	50.6	50.6
	No	39	49.4	49.4	100
	Total	79	100	100	
E-Journals	Yes	59	74.7	74.7	74.7
	No	20	25.3	25.3	100
	Total	79	100	100	
Online database	Yes	36	45.6	45.6	45.6
	No	43	54.4	54.4	100
	Total	79	100	100	
CD/DVD	Yes	15	19	19	19
	No	64	81	81	100
	Total	79	100	100	
E-Thesis	Yes	9	11.4	11.4	11.4
	No	70	88.6	88.6	100
	Total	79	100	100	
Electronic Courseware	Yes	10	12.7	12.7	12.7
	No	69	87.3	87.3	100
	Total	79	100	100	
E-Reference Source	Yes	11	13.9	13.9	13.9
	No	68	86.1	86.1	100
	Total	79	100	100	
Research Report/ Project	Yes	22	27.8	27.8	27.8
	No	57	72.2	72.2	100
	Total	79	100	100	
Any other	Yes	1	1.3	1.3	1.3
	No	78	98.7	98.7	100
	Total	79	100	100	

The table 9 indicates that the respondents preference to use of the e-resources. Fifty one percent respondents prefer to use the e-books from e-resources, 74.7% respondents prefer to use the e-journals from the e-resources. Forty one percent respondents prefer online database from e-resources and 19% respondents prefer CD/DVD. Eleven percent respondents prefer E-thesis and 12.7 respondents prefer electronic courseware from e-resources. Fourteen percent

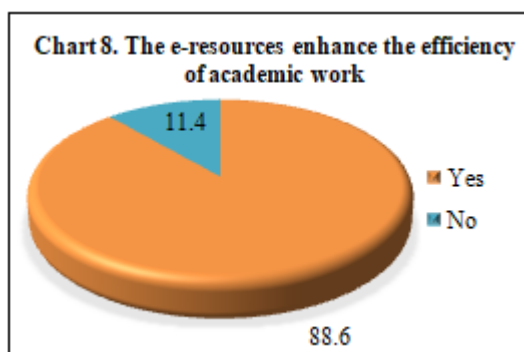
respondents prefer E-Reference Source and 27.8 respondents prefer Research Report/ Project from e-resources, 1.3% respondents are not using the e-resources at all.



The chart 6 indicates that the respondents frequency of searching the e-resources. 39.2% respondent's frequency of searching the e-resources is on daily basis and 98.7% respondent's frequency of searching the e-resources are occasionally. 1.3% respondents are not searching the e-resources instead they prefer to read print books and journals.



The chart 7 indicates that the respondents are participated in the orientation/training programme conducted by the college for use of the e-resources. 35.4% respondents are participated in the orientation/training programme conducted by the college for use of the e-resources. 64.6% of the respondents are not participated in the orientation/training programme conducted by the college for the use of the e-resources.



The chart 8 indicates that the e-resources enhance the efficiency of academic work of the respondent. 88.6% of the respondents efficiency of the academic work is enhance by using the e-resources. 11.4% of the respondents have no effect on their efficiency by using the e-resources.

Table 10: Full text articles downloaded in a month

Number of articles	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5	44	55.7	55.7
	6-10	13	16.5	72.2
	11-15	7	8.9	81.0
	16-20	5	6.3	87.3
	More than 20	10	12.7	100.0
Total	79	100.0	100.0	

Table 10 indicates that the respondents are downloading full text articles by using the e-resources in a month. 55.7% respondents are downloading 0-5 full text articles by using the e-resources in a month period. 16.5% respondents are downloading 6-10 full text articles by using the e-resources in a month period. 8.9% respondents are downloading 11-15 full text articles by using the e-resources in a month period. 6.3% respondents are downloading 16-20 full text articles by using the e-resources in a month period. 12.7% respondents are downloading more than 20 full text articles by using the e-resources in a month period.

9. Testing of Hypotheses

9.1 H₀: There is no significant difference in the use of e-resources by the college teachers

H₁: There is a significant difference in the use of e-resources by the college teachers

Test for	One-Sample Test					
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
1) Teaching	24.998	78	.000	1.316	1.21	1.42
2) Research	25.388	78	.000	1.418	1.31	1.53
3) Ref. Work	26.609	78	.000	1.506	1.39	1.62
4) Any other	90.659	78	.000	1.962	1.92	2.01
5) Research work	25.514	78	.000	1.430	1.32	1.54
6) Teaching purpose	25.388	78	.000	1.418	1.31	1.53
7) Update subject knowledge	25.306	78	.000	1.266	1.17	1.37
8) Writing articles /research papers	25.656	78	.000	1.443	1.33	1.56
9) any other	34.669	78	.000	1.734	1.63	1.83

The significance value i.e. the 'P' value should be less than 0.05 to reject the null hypothesis and accept the alternate hypothesis. In this case the above table shows that the 'P' value is less than 0.05. Hence it can be said that there is a significant difference in the use of e-resources by the college teachers.

H₀: There is no significant difference in the opinion of the respondents regarding the need for orientation / training programme for awareness and understand techniques, methods and where to locate the e-resources.

H₁: There is a significant difference in the opinion of the respondents regarding the need for orientation / training programme for awareness and understand techniques, methods and where to locate the e-resources.

One-Sample Test						
Test for	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
1) Participation in Orientation training programme	30.383	78	.000	1.646	1.54	1.75
2) E- Resources enhance the efficiency of academic work	30.964	78	.000	1.114	1.04	1.19

The significance value i.e. the 'P' value should be less than 0.05 to reject the null hypothesis and accept the alternate hypothesis. In this case the above table shows that the 'P' value is less than 0.05. Hence, there was a significant difference in the opinion of the respondents regarding the need for orientation/ training programme in the use of the e-resources.

10. Finding of the Study

- 1) Private grants in aid colleges in Pune city, under study have good infrastructural facilities in the libraries.
- 2) There is a significant difference in the use of the e-resources by college teachers
- 3) A very few college teachers are visiting college libraries on regular basis.
- 4) Maximum college teachers are aware about the availability of the e-resources in their colleges.
- 5) All college libraries have distributed login id and password to their patron teachers to make feasible remote access apart from library premises.
- 6) The respondents expressed the head for orientation programme to access the e-resources from the available databases. They also felt the need to know various information retrieval techniques, i.e. Boolean operators, phrase search, key word search, use of Google expert and sequencing key terms from general to specific, which user come across in the form of hashtags.
- 7) Training to patron, i.e. teachers has promoted efficient use of the e-resources in study, teaching and research of the faculty members.

11. Suggestions

- 1) There is need to identify information needs of stakeholders of college libraries. It would help library professional to scrutinise core e-resources which would satisfy their needs. Proper evaluation of e-resources related to the needs of patrons is helpful to avoid financial extravagancy to purchase them. The resources which are not required would be avoided. A complete database available with the aggregator may not be useful. So required resources can be selected with the help of available price model.
- 2) Once the resources are selected and made them available in the library then library professional must initiate various services in connection with them, orientation programmes, article alert service, indexing service, delivery of content page through portal at the patrons' desk, RSS service, document delivery service. To initiate tjis services library portal should be developed.
- 3) Large scale orientation programmes be conducted for stakeholders to avoid psycho- phobia of them in retrieving required information.
- 4) Help desk in the form of reference section be set up in digital resources section.
- 5) Digital reference service to be provided to patrons which would be user friendly to avoid time- lag in searching information.
- 6) Training of search methods be imparted to faculty members to make efficient use of e-resources in their task of teaching and research.
- 7) Reference service through mobile app be developed on mobile phone. YouTube, WhatsApp groups, twitter etcbe used to connect users to e-resources.

12. Conclusion

Well-equipped college library with best infrastructure and high speed LAN connectivity attracts college teachers to use the e-resources. Although college teachers are avail login id and password from the college library for accessing online database but the end result of uses of the e-resources is very less. Lack of technical skill and orientation for search techniques learning definitely improve skilled of the teachers to retrieve the e-resources among the college teachers found in the study. Less number of college teachers are using different method to access information and locating the e-resources by using different techniques. College teachers are not using the e-resources extensively. Most of the teachers are accessing the e-resources for research projects, updating their subject knowledge and writing their research paper.

References

- [1] Academic Institutions in the United States and Canada Ranked According to Research Productivity in the Field of Conservation Biology. (2007). *Conservation Biology*, 21(5), 1139–1144. <https://doi.org/10.1111/j.1523-1739.2007.00762.x>
- [2] Adams, J. D. (2004). *Scientific teams and institutional collaborations: evidence from U.S. universities, 1981-1999*. Cambridge, MA: National Bureau of Economic

- Research. Retrieved from [20] <http://papers.nber.org/papers/W10640> [21] www.jdhepune.info
- [3] Ahmed, M. O., a. mo@live. co., Daw, M. A. ., & van Velkinburgh, J. C. . (2017). An evolving research culture: Analysis of biomedical publications from Libya, 2003-13. *Research Evaluation*, 26(4), 284–291. <https://doi.org/10.1093/reseval/rvx027> [22] www.ignou.ac.in
- [4] Raghuram, K. and R.M. Vantal(2011)” Effectiveness of UGC-INFONET Digital Library Consortium on users: A case study of users of Social Science Faculty, Goa University, Goa” in 8th International CALIBER, Goa March 2-4, 2011, Goa University, pp 71-87 [23] www.doaj.org
- [5] Charles H. Busha& Stephen P. Harter (1980), *Research Methods in Librarianship: Techniques and Interpretation*, New York: ACADEMIC PRESS INC. [24] www.unipune.ac.in
- [6] Cynthia Orr. (2011) *Secret of E Book Success-34-Library Journal: Sept15,2011*
- [7] De Langhe, R. (2018). An Agent-Based Model of Thomas Kuhn’s “The Structure of Scientific Revolutions”. *Historical Social Research / Historische Sozialforschung Vol. 43, No. 1*(2018), Volumes per year: 1</p>-. <https://doi.org/10.12759/hsr.43.2018.1.28-47>
- [8] Habiba U. and Choudhary S.(2012) “ Use of electronic resources and its impact: A study of Dhaka University Library users, *The Eastern Librarian*, 23(1), pp74-90
- [9] Harish Chandra. (2002) *Building e-collection in science and technological libraries*, New Delhi: Allied Pub., 421-427
- [10] OS Shekhar Singh, MTM Khan (2015) “Users attitude towards electronic resources in IIT libraries: An evaluative study. 10th International CALIBER March 12-14, 2015, pp440-452
- [11] Projes Roy(2012) “ Problem in searching Online databases: A case study of select Central University libraries in India” *DESIDOC Journal of Library and Information Technology*, Vol.32(1), pp 59-63
- [12] SadanandBansode(2013), “ Use and Impact of Electronic Journals on the Users of University of Pune, Pune, India” *Library Philosophy and Practice(e-journal)*, 847. <http://digitalcommons.unl.edu/libphilprac/847>
- [13] Satyanarayan, M (2005) *INFLIBNET: its activities in library automation*, IASLIC Bulletin, 50(2), 110
- [14] SharadkumarSonkar, Singh, M.P.,Jetendra Kumar(2014) “ Use of electronic resources by post graduate students and research scholars of the Banarus Hindu University: A study *Journal of Information Management*, vol.1(2), pp87-97
- [15] Siwach, Anilkumar, Parmar Seema (2013), *Access, Management and usage of electronic resources*, Delhi: Ess Ess Publication, 415p
- [16] TawfeeqNazir(2015) “Use and Adequacy of e resources by the research scholars and students of the University of Kashmir in science and social science faculties: A case study. *Brazilian Journal of Information Science* Vol.9(1), pp 87-89
- [17] Tintswalo, T., Madeleine,F.(2017)” The use of electronic resources by undergraduate students at the university of Venda, south Africa, *The Electronic Library*, Vol.35(5), pp861-881
- [18] www.inflibnet.ac.in
- [19] www.ugc.ac.in