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## Study of Awareness of the E-Resources in the Higher Education Institutions

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### ABSTRACT

Numerous technical developments and inventions have opened the door for a new idea known as "digital technology," which has given rise to the idea of "digital India," which has the potential to improve society and change people's lives. The 'Digital India' initiative has sparked new developments across a number of industries and inspired creative projects for the tech-savvy next generation with the goal of creating a system that is responsive, transparent, and participatory. The Indian government's dream initiative, the Digital India campaign, aims to transform India into a technologically advanced economy and society. The internet has brought the globe closer together, and the Indian government's digital India drive has seen a sharp increase in computer use, awareness, and paperless rules. The rate of computer literacy has also grown as a result of ICT being required as a topic in schools and colleges. Data resources have also surfaced in the form of electronic resources, such as publisher databases, e-journals, e-books, consortiums of special libraries, etc., in the current era of information explosion. The entire globe now conducts research and studies using digital media. Several government bodies in India support the development of e-resources by giving educational institutions financial aid and subsidies to expand their digital book collections and advance digital education. Therefore, the purpose of this research study is to comprehend Digital India in terms of the accessibility of e-resources and their applications in educational institutions.

### KEYWORDS

Higher Education Institutes, Teaching Staff, Library Services, Digital Resources, Delhi NCR.

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### INTRODUCTION

To meet the demands of both students and teachers, electronic learning facilities, online educational institutions, and open education systems must embrace technological advancements and make digital materials accessible. Teachers and students at educational institutions employ a variety of e-resources, including elementary, secondary, and postsecondary ones. Academic and research requirements now include the idea of a digital classroom, online lectures, and electronic information resources. Numerous higher education organisations, including the UGC for short, the NAAC, and NBA, AICTE, ILC, and others, have mandated them. Academic institutions invest a significant amount of money on electronic resources.

Conventional and contemporary academic institutions have subscriptions to databases such as N-LIST, JGATE, EBSCO, the SCIENCE DIRECT, and others. By making them available, stakeholders' information demands are met. However, current researchers have noticed that these assets are not

being used to their full potential. The current situation of insufficient utilisation of these facilities is being discussed by library professionals and specialists.

As a result, the current researcher felt compelled to identify the issues causing the improper utilisation of the resources at hand and offer solutions. Thus, an iceberg depicting a complete problem that exists everywhere has been used in a case study. The purpose of libraries is to meet the information demands of its patrons. The current researcher believed that the phenomenon of improper utilisation of electronic materials was something that all library personnel were aware of, and that it would encourage them to increase user interest in utilising these resources.

Any work that has been encoded and made accessible via a computer is referred to as an electronic resource. It comprises information accessible through (i) immediate access (fixed media) and (ii) remote access.

### PROBLEM STATEMENT

- 1) Knowledge of the electronic resources offered by educational institutions?
- 2) How many institutions make efficient use of the given e-resource?
- 3) What variables contribute to the use or lack thereof of electronic resources?
- 4) What major issues do patrons and librarians encounter while utilizing e-resources?

### RESEARCH OBJECTIVES

- 1) To be aware of the educational institution's e-resource availability and awareness.
- 2) To research how government funding are used in relation to e-resource utilisation.
- 3) To comprehend user awareness of e-resources and the elements that contribute to better e-resource utilisation in the research field.
- 4) To research the issues and challenges that users encounter.

### RESEARCH METHODOLOGY

For the research, 2027 college instructors were chosen from 165 colleges. Twenty percent of these 2027 educators were chosen at random from the five faculties – education, science, commerce, law, and the arts. To gather information from the chosen demographic, 416 questionnaires were sent out. Of these, 395 questionnaires were obtained from the community that was chosen for the study. The data were entered into Microsoft Excel, and the questionnaire was analysed and interpreted using SPSS software. Data has been gathered using basic random sampling and purposeful sampling.

### RELIABILITY TEST

Reliability Statistics	
Cronbach's Alpha	Number of Items
0.505	65

There are three main categories of validity that are commonly recognised: construct, criterion-related, and content. The degree to which a measure was impartial and, as a result, guaranteed consistent measurement throughout time and among the different components in the instrument is known as its reliability. As a result, a measure's reliability served to evaluate the measure's quality by indicating

how consistently and steadily the instrument evaluated the notion. The reliability analysis process is available in SPSS. To evaluate the trustworthiness of the data, this reliability approach was applied. Reliability analysis took into account the analyse menu. Cronbach's alpha was examined as part of a reliability investigation. Cronbach's alpha should ideally be anywhere from 0.5 to 1. In present study, the value of Cronbach's alpha is 0.505 which states that the data and the scale are reliable.

### SCOPE OF THE PRESENT STUDY

Information on well-developed and used e-resources will be revealed by the study. The study will determine the present state of the library collection at educational institutions and provide light on faculty and student users' knowledge of e-resources. The information gathered for this study is crucial for university and institution accreditation, which will help them with affiliation, curriculum, syllabus, and other rules.

### MAJOR LIMITATIONS OF THE RESEARCH

The restrictions of the study kind of institute were as follows: institutions of higher learning connected to the SPPU.

Faculty-wise: This is a general study rather than a faculty-specific one.

Region Only the districts of Delhi/NCR are covered.

### RESULT ANALYSIS AND INTERPRETATION

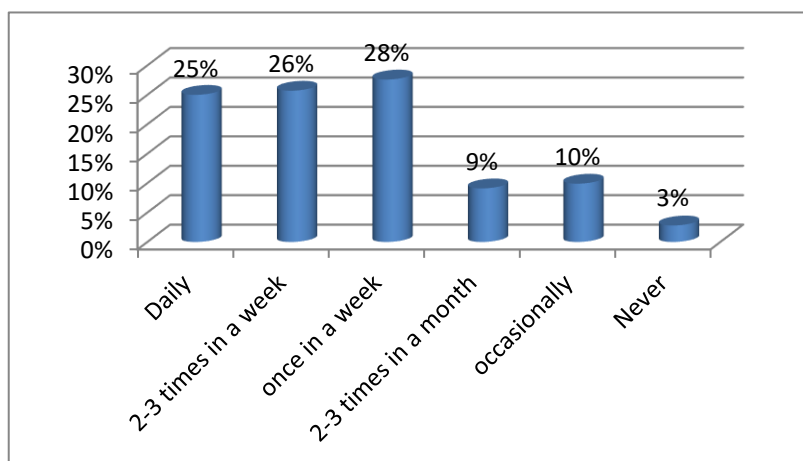


Chart 1: Frequency of visiting library

The frequency of respondents' library visits is shown in chart I. Twenty-five percent of respondents visited the library every day, 26% visited two to three times per week, and over seventy-seven percent visited the library at least once per week. Because the department had sufficient publications of their interest and they weren't interested in the e-resources, 3% of respondents said they never went to the campus library.

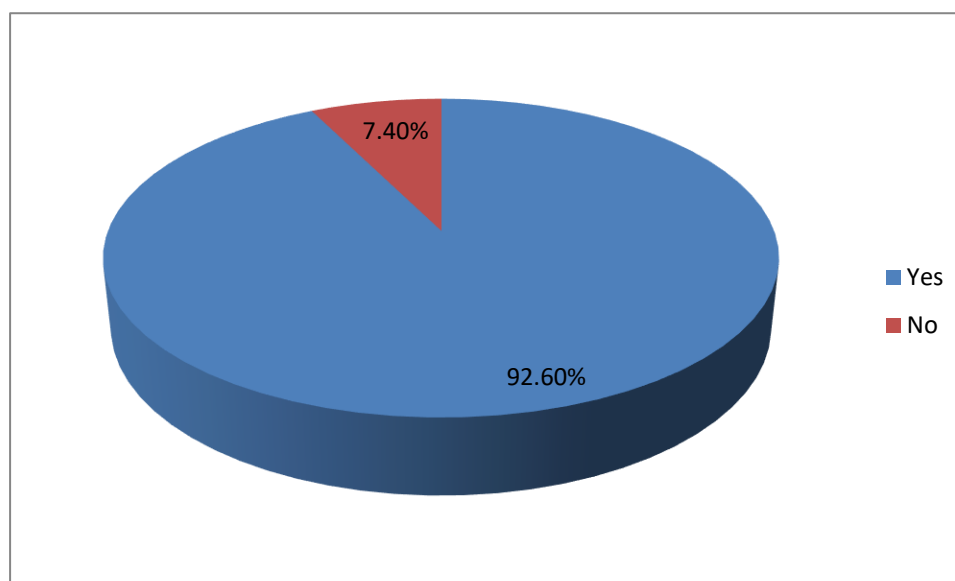


Chart 2: Awareness of availability of E-resources

92.60% of respondents were aware that the library had e-resources available, whereas 7.40% were unaware of this fact, according to chart 2.

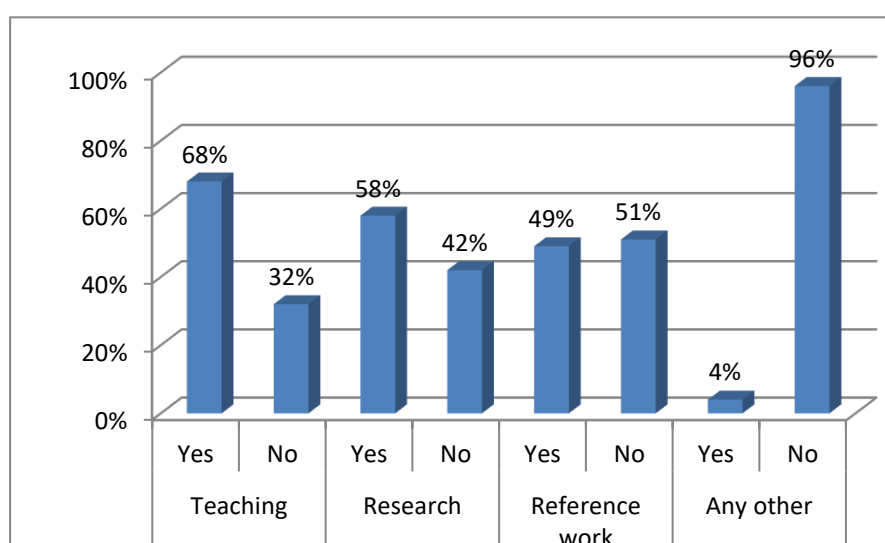


Chart 3: Causes of using Digital-resources

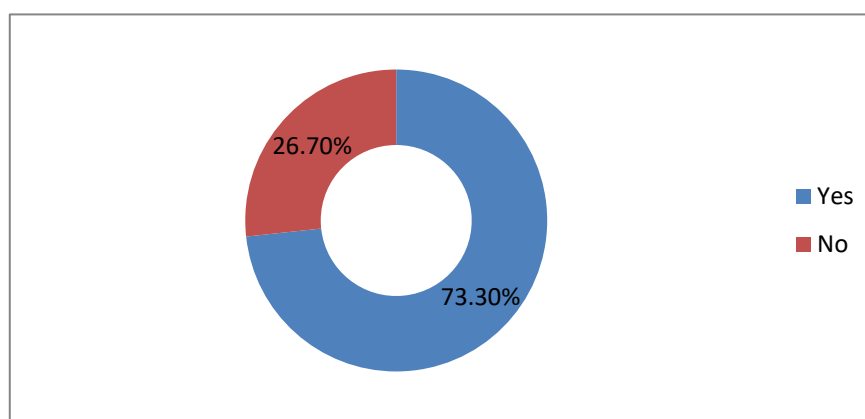
According to Chart 3, 68% of respondents used e-resources for instruction & teaching, 58% used them for research, and 49% used them for reference work. 4% of those surveyed were using the electronic resources for other reasons, according to this chart.

accessibility of the e-resources		Frequency	Percent	Valid Percent	Cumulativ e Percent
Training & Orientation	Yes	35	40.5	40.5	40.5
	No	45	59.5	59.5	100.0

	Total	80	100.0	100.0	
Social Network	Yes	15	16.5	16.5	16.5
	No	65	83.5	83.5	100.0
	Total	80	100.0	100.0	
Institution website	Yes	15	15.2	15.2	15.2
	No	65	84.8	84.8	100.0
	Total	80	100.0	100.0	
Print Material	Yes	9	7.6	7.6	7.6
	No	71	92.4	92.4	100.0
	Total	80	100.0	100.0	
Notification Over Mail	Yes	19	21.5	21.5	21.5
	No	61	78.5	78.5	100.0
	Total	80	100.0	100.0	
Self-Awareness	Yes	32	39.2	39.2	39.2
	No	48	60.8	60.8	100.0
	Total	80	100.0	100.0	
Any other	Yes	7	5.1	5.1	5.1
	No	73	94.9	94.9	100.0
	Total	80	100.0	100.0	

**Table 1:** Accessibility of E-Resources

Table 1 shows that only 40% of respondents knew about the e-resources' availability thanks to the college library's orientation and training program. According to self-awareness, 40% of respondents are aware of the e-resources. 21% of respondents from libraries and 15% of respondents from college websites sent emails to their personal accounts. Five percent of respondents learnt about it via visiting a library, and eight percent learnt about it from a campus magazine.



**Chart 4:** Provision of Log-in ID & Password to access E-Resources

More than 73.3% of respondents, as shown in chart 4, were given a username and password in order to access e-resources from their home, department, and college library. Twenty-seven percent of those surveyed had no idea what their login credentials were.

Source		Frequency	Percent	Valid Percent	Cumulative Percent
Library of Institution	Yes	42	50.04	50.04	49.4
	No	38	49.06	49.06	100.0
	Total	80	100.0	100.0	
Laboratory of Computer	Yes	25	29.4	29.4	30.4
	No	54	70.6	70.6	100.0
	Total	80	100.0	100.0	
Hostel facility	Yes	3	2.3	2.3	1.3
	No	77	97.7	97.7	100.0
	Total	80	100.0	100.0	
Any other	Yes	24	26.8	26.8	27.8
	No	56	73.2	73.2	100.0
	Total	80	100.0	100.0	

Table 2: Sources to Access E-Resources

Only 49.4% of respondents use the central library's e-resources, while 30.4% use the department's and computer lab's resources, according to Table 2. About 27.8% of the respondents said they accessed the electronic resources from their homes or from nearby wifi hotspots.

Mode of access		Frequency	Percent	Valid Percent	Cumulative Percent
Coincident Access	Yes	17	21.0	21.0	19.0
	No	63	79.0	79.0	100.0
	Total	80	100.0	100.0	
Social Guidance	Yes	31	35.7	35.7	36.7
	No	49	64.3	64.3	100.0
	Total	80	100.0	100.0	
Through Library Staff	Yes	19	20.5	20.5	21.5
	No	61	79.5	79.5	100.0
	Total	80	100.0	100.0	
Through Supervisor	Yes	27	32.6	32.6	31.6

	No	53	67.4	67.4	100.0
	Total	80	100.0	100.0	
	Yes	10	11.1	11.1	10.1
Training sessions By the Library	No	70	88.9	88.9	100.0
	Total	80	100.0	100.0	
	Yes	7	7.3	7.3	6.3
Any other	No	73	92.7	92.7	100.0
	Total	80	100.0	100.0	
	Yes	7	7.3	7.3	6.3

Table 3: Mode access E-Resources

Table 3 lists the ways in which the respondents accessed the e-resource. 36.7% of respondents got advice from friends or coworkers, whereas 19% of respondents used the random technique. Among those surveyed, 22% received assistance from library workers. 6.3 respondents exclusively used printed materials, while 31.6% of respondents followed their supervisor's instructions.

Channel for E-resources		Frequency	Percent	Valid Percent	Cumulative Percent
Institutional Website	Yes	35	42.8	42.8	42.8
	No	45	57.2	57.2	100.0
	Total	80	100.0	100.0	
Digital Platforms	Yes	21	25.1	25.1	25.1
	No	59	74.9	74.9	100.0
	Total	80	100.0	100.0	
SEO	Yes	36	42.8	42.8	42.8
	No	44	57.2	57.2	100.0
	Total	80	100.0	100.0	
Others	Yes	8	7.3	7.3	7.3
	No	72	92.7	92.7	100.0
	Total	80	100.0	100.0	

Table 4: Channel for the E-Resources

Table 4 lists the channels that the respondents used to find the e-resource. To find the e-resources, 42.8% of respondents utilise the institutional website. Search engines platforms are used by 57.2% of respondents to find e-resources, whereas digital databases are used by 25.1% of respondents. 7.3% of those surveyed said they solely use print media as a source.

Tools & Techniques for accessing E-resources		Frequency	Percent	Valid Percent	Cumulative Percent
Random Search	Yes	48	59.2	59.2	59.2
	No	32	40.8	40.8	100.0
	Total	80	100.0	100.0	
Sentence Search	Yes	16	17.5	17.5	17.5
	No	64	82.5	82.5	100.0
	Total	80	100.0	100.0	
Area Search	Yes	18	21.3	21.3	21.3
	No	62	78.7	78.7	100.0
	Total	80	100.0	100.0	
Scientific Search	Yes	19	22.5	22.5	22.5
	No	61	77.5	77.5	100.0
	Total	80	100.0	100.0	
Keyword Search	Yes	32	39.0	39.0	39.0
	No	48	61.0	61.0	100.0
	Total	80	100.0	100.0	
Other	Yes	14	16.2	16.2	16.2
	No	66	83.8	83.8	100.0
	Total	80	100.0	100.0	

Table 5: Ways to access E-Resources

According to Table 5, 59.2% of respondents used a random search strategy, 17.5% used a sentence search strategy, 21.3% used a area search strategy, 22.5% used a scientific search strategy, 39% used a keyword search strategy, and 16.2% did not know how to conduct a search. As a result, people were searching utilising the whole article title or the name of the author.

Way of studying research work		Frequency	Percent	Valid Percent	Cumulative Percent
Online	Yes	39	47.8	47.8	47.8
	No	41	52.2	52.2	100
	Total	80	100	100	
Conventional print	Yes	38	46.6	46.6	46.6
	No	42	53.4	53.4	100
	Total	80	100	100	
Drive data	Yes	32	39	39	39



	No	48	61	61	100
	Total	80	100	100	

Table 6: Way of studying research work

Table 6 shows that 39% of respondents save full-text articles on their drive storage equipment and read them whenever it is convenient for them, 46.6% take printouts and read the complete text later, and 47.8% view full-text articles online.

Motive of accessing the e-resources		Frequency	Percent	Valid Percent	Cumulative Percent
Project & Research	Yes	47	58	58	58
	No	33	42	42	100
	Total	80	100	100	
Teaching & Learning	Yes	48	59.2	59.2	59.2
	No	32	40.8	40.8	100
	Total	80	100	100	
Knowledge upgradation	Yes	60	74.4	74.4	74.4
	No	20	25.6	25.6	100
	Total	80	100	100	
For publication	Yes	46	56.7	56.7	56.7
	No	34	43.3	43.3	100
	Total	80	100	100	
other	Yes	23	27.6	27.6	27.6
	No	57	72.4	72.4	100
	Total	80	100	100	

Table 7: Motive of accessing the e-resources

Table 7 shows why the respondent used the electronic resources. 58 percent of respondents said they used the e-resources for their study or project, and 59.2 percent said they used them for teaching. Of the respondents, 74% were upgrading their knowledge of the issue, and 56.7% were using the e-resources to write research papers or articles. The usage of e-resources for private assignments was the reason given by 28% of respondents.

Content that motivate access of e-resources		Frequency	Percent	Valid Percent	Cumulative Percent
Archived	Yes	13	14.9	14.9	14.9
	No	67	85.1	85.1	100
	Total	80	100	100	

Basic Journals	Yes	24	28.8	28.8	28.8
	No	56	71.2	71.2	100
	Total	80	100	100	
Online Portals	Yes	58	71.9	71.9	71.9
	No	22	28.1	28.1	100
	Total	80	100	100	
Open Abstracts	Yes	46	56.7	56.7	56.7
	No	34	43.3	43.3	100
	Total	80	100	100	
Index	Yes	34	41.5	41.5	41.5
	No	46	58.5	58.5	100
	Total	80	100	100	
Other	Yes	4	3.5	3.5	3.5
	No	76	96.5	96.5	100
	Total	80	100	100	

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

Table 8 shows what kinds of material encourage responders to use the e-resources. Accessing e-resources for archive purposes was the motive of 15% of respondents, while reading core journals was the motivation of 28.8% of respondents. 72 percent of respondents were motivated to access e-resources for a variety of online databases, and 56.7% were motivated to use e-resources for article abstracts. 2.5% of respondents used print media, while 42% of respondents were motivated to explore e-resources for the table of contents.

Category of E-resource used by Teachers		Frequency	Percent	Valid Percent	Cumulative Percent
Digital Books	Yes	42	51.6	51.6	51.6
	No	38	48.4	48.4	100
	Total	80	100	100	
Online Journals	Yes	61	75.7	75.7	75.7
	No	19	24.3	24.3	100
	Total	80	100	100	
database	Yes	38	46.6	46.6	46.6
	No	42	53.4	53.4	100
	Total	80	100	100	
	Yes	17	20	20	20

Storage Device	No	63	80	80	100
	Total	80	100	100	
Thesis	Yes	11	12.4	12.4	12.4
	No	69	87.6	87.6	100
	Total	80	100	100	
Online Courses	Yes	12	13.7	13.7	13.7
	No	68	86.3	86.3	100
	Total	80	100	100	
Referred material	Yes	13	14.9	14.9	14.9
	No	67	85.1	85.1	100
	Total	80	100	100	
Project Reports	Yes	24	26.8	26.8	28.8
	No	56	71.2	71.2	100
	Total	80	100	100	
Others	Yes	3	2.3	2.3	2.3
	No	77	97.7	97.7	100
	Total	80	100	100	

Table 9: Category of E-resource used by Teachers

Table 9 shows that using e-resources is preferred by the respondents. The e-books from electronic resources are preferred by 52% of respondents, while the e-journals from e-resources are preferred by 75.7% of respondents. 20% of respondents choose CDs or DVDs, and 42% prefer online databases from e-resources. 13.7 percent of respondents said they prefer digital courseware from e-resources, and 12% said they prefer e-thesis. 2.3% of respondents do not use e-resources at all, whereas 15.0% prefer e-reference sources and 28.8% prefer research reports and projects from e-resources.

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

Table 10: Monthly count of articles downloaded

According to Table 10, the respondents use the e-resources to obtain full-text articles once a month. Over the course of a month, 55.7% of respondents download 0-5 full-text publications utilising e-resources. 16.5% of respondents use the e-resources to download six to ten full-text articles in a month. 8.9% of respondents use the e-resources to download 11-15 full-text articles in a month. 6.3% of respondents use the e-resources to download 16-20 full-text articles in a month. 12.7% of respondents said they use e-resources to download over 20 full-text publications in a month.

## TESTING OF HYPOTHESES

**H<sub>0</sub>:** The way that college instructors use e-resources does not change significantly.

**H<sub>1</sub>:** The way that college instructors use e-resources changes significantly.

One-Sample Test						
Test for	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
1) Instructing	24.918	79	.000	1.516	1.31	1.52
2) Research	25.328	79	.000	1.618	1.41	1.63
3) Ref. Work	26.589	79	.000	1.706	1.29	1.52
4) Any other	90.619	79	.000	1.762	1.82	2.11
5) Research work	25.534	79	.000	1.330	1.52	1.74
6) Teaching purpose	25.328	79	.000	1.618	1.21	1.63
Update subject knowledge	25.326	79	.000	1.366	1.37	1.47
8) Writing articles / research papers	25.626	79	.000	1.343	1.13	1.66
9) any other	34.629	79	.000	1.634	1.43	1.63

To invalidate the null hypothesis and support the alternative hypothesis, the significance value, or "P" value, must be less than 0.05. The "P" value in this instance is less than 0.05, as the following table demonstrates. Therefore, it may be concluded that college instructors' utilisation of e-resources varies significantly.

**H<sub>0</sub>:** Regarding the necessity of an orientation or training program to raise awareness and comprehend methodologies, methods, and where to get e-resources, respondents' opinions do not differ much.

**H<sub>1</sub>:** Regarding the necessity of an orientation or training program to raise awareness and comprehend methodologies, methods, and where to get e-resources, respondents' opinions differs much.

One-Sample Test						
Test for	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	5% Confidence Interval of the Difference	
					Lower	Upper
Orientation training Programme Participation	30.283	79	.000	1.556	1.45	1.83
E- Resources enhance the efficiency of academic work	30.754	79	.000	1.224	1.11	1.23

To invalidate the null hypothesis and support the alternative hypothesis, the significance value, or "P" value, must be less than 0.05. The "P" value in this instance is less than 0.05, as the following table demonstrates. As a result, respondents' opinions on the necessity of an orientation or training program for using e-resources varied significantly.

### MAJOR FINDINGS

- 1) The private grants in assistance institutions in Pune city that are the subject of the study have strong library infrastructure.
- 2) There are notable variations in how college instructors use e-resources.
- 3) Only a small percentage of college instructors regularly visit campus libraries.
- 4) The majority of college instructors are aware that their institutions have electronic resources available.
- 5) To enable remote access outside of the library's physical location, all university libraries have given their patron teachers their login credentials.
- 6) The respondents said that the leader of the orientation program should have access to the databases' e-resources. Additionally, they felt the need to understand other methods of retrieving information, such as Boolean operators, phrase and key word searches, using Google Expert, and sorting keywords from general to specialised, which users encounter through hashtags.
- 7) Training for patrons, or professors, has encouraged effective use of e-resources in faculty members' research, teaching, and study.

### RECOMMENDATIONS

- 1) The information demands of college library stakeholders must be identified. It would assist library professionals in examining essential electronic resources that meet their demands. It is beneficial to properly assess e-resources in relation to patron demands in order to prevent purchasing them at exorbitant costs. Resources that are not necessary would be omitted. It might not be helpful to have

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the entire database accessible through the aggregator. Thus, the available price model may be used to choose the necessary resources.

- 2) The library staff must start a number of services related to the resources after they have been chosen and made available, including orientation programs, article alert services, indexing services, content page delivery via portal at the patrons' desk, RSS services, and document delivery services.
- 3) Stakeholders should participate in extensive orientation programs to prevent psychophobia while collecting necessary information.
- 4) A help desk should be established in the digital resources area in the form of a reference section.
- 5) Customers should have access to an easy-to-use digital reference service to prevent delays in information searches.
- 6) Faculty members should receive training on search techniques so they can effectively use e-resources for their research and teaching tasks.
- 7) A mobile app for reference services should be created for mobile devices. Users can access e-resources through Twitter, WhatsApp groups, YouTube, and other platforms.

## DISCUSSION

College instructors are drawn to utilise e-resources when they are in a well-equipped library with top-notch infrastructure and fast LAN access. Even while the college library provides login credentials for college instructors to access internet databases, relatively few people actually use the e-resources. Among college instructors identified in the study, a lack of technical proficiency and orientation for learning search strategies undoubtedly enhances their ability to access e-resources. Using multiple methods to locate e-resources and obtain information is becoming less common among college instructors. The use of e-resources by college instructors is not very widespread. For academic assignments, updating their topic knowledge, and composing their research papers, the majority of instructors use electronic resources.

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