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USE OF E-RESOURCES BY RESEARCHERS AND FACULTY MEMBERS IN SELECT UNIVERSITIES OF HARYANA: A COMPARATIVE STUDY OF SCIENCE AND SOCIAL SCIENCE FACULTIES

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ABSTRACT

E-resources rose in significance throughout the world during COVID-19 pandemic as these were used extensively in teaching, learning and research. Present study was conducted to know about the awareness and use of e-resources by the researchers and faculty members of science and social science faculties in three universities of Haryana, their purpose of using e-resources, levels of satisfaction and problems faced by them. This study is based on primary data collected from the faculty members and researchers using a self-designed questionnaire. It was found that all respondents were aware about e-resources and majority of respondents were using e-resources. The respondents of science faculty were using e-resources more as compared to social science faculty. The respondents of science faculty are more satisfied with regard to e-standards/e-patents, subject specific portals and Anti-plagiarism software as compared to social science faculty. The respondents of social science faculty are facing more problems as compared to science faculty.

KEYWORDS: E-resources, Faculty Members, Researchers, Science, Social Science, State Universities, Haryana

INTRODUCTION

E-resources particularly rose in their significance throughout the world during COVID-19 pandemic as these became the medium of disseminating information during lockdown period. We all require information for our day to day activities, and the e-resources play very important role in providing the required information quickly to their users. Any academic institution dealing with primary, secondary or higher education acting as a hub of learning, teaching and research activities

where students, researchers, faculty are the information seekers, can explore the potential of these resources. Since, faculty members and researchers both are involved in research and teaching so, a need was felt to conduct a study on awareness and use of e-resources by these two academic communities and make a comparison among science and social science faculties.

REVIEW OF SELECT LITERATURE

The studies related to use of electronic resources by the faculty members, research scholars, PG students/UG students, etc. conducted from 2012 to 2021 were reviewed and these are discussed below:

Thanuskodi (2012) conducted a survey on use of e-resources by the students and researchers of Faculty of Arts, Annamalai University and found that the majority of users were aware about the e-resources. 76.66% used e-resources for writing papers. It was also found that majority of respondents were not satisfied with availability of e-resources in their respective subject. The study concluded that the library can take initiatives to organize orientation programmes and user awareness programme in this area. **Ivwithreghweta and Oyeniran (2013)** discussed in their study on “usage and awareness of e-resources by lecturers in two selected Nigerian Universities” that majority of the respondents (88%) were aware of e-resources. It was found that 90% respondents used e-resources whereas 10% respondents reported that they don't use these. Most of the respondents (47%) said that their main purpose of using e-resources is for research work. It was also found that 61% respondents reported that they are fully satisfied with the e-resources available in the university. **Jomy Jose (2014)** examined the use of electronic resources by the students of Mahatma Gandhi University, Kottayam, Kerala using survey method. Total 600 questionnaires were distributed to collect the primary data and 584 questionnaires were received. It was found that online databases (35.10%) and UGC-INFONET (25.34%) are the major sources of e-resources whereas Directory of Open Access Journals comes in third position (15.58%). The study also found that 35.10% respondents said that their main purpose of using e-resources was doing research work. 32.53% were very satisfied about the available e-resources and 48.63% were satisfied whereas 18.84% of respondents were not satisfied about the currently available e-resources.

Das (2015) used survey method in his study on “use of e-resources and services by research scholars at Siksha O Anusandhan University, Bhubaneswar and total 120 questionnaires

were distributed to the regular & part-time research scholars and 89 questionnaires were collected. After analysis the data, it was found that 44% research scholars visit the library daily. 94% respondents used Internet and 87% respondents used the online information daily as compared to other sources. The study further concluded that orientation programmes for research scholars should be conducted for introducing various kinds of e-resources useful to their research work. **Thanuskodi (2016)** studied the awareness and use of e-resources among Social Scientists of Alagappa University and its affiliated colleges. He found that majority of the respondents (60.25%) visited the library on daily basis. It was also found that the main purpose of respondent to visit the library was exam preparation while research and recreation were the other reasons. Most of the respondents were aware about e-resources but they do not know all its techniques and applications. Therefore, that study suggested that for this purpose, there is need for effective user education, to develop awareness and knowledge of the social scientists regarding use of e-resources. **Sharma (2018)** in his study on “use of e-resources by the faculty members and students: A study of Swami Shraddhanand College, University of Delhi” found that majority of respondents i.e. 87.77% were aware about e-resources and 12.22% were not aware. 76.66% respondent reported that their main purpose to use e-recourses was writing papers followed by 62.22% respondents who used e-resources for their course work, 51.66% respondents used e-resources for research work and 45% respondents used e-resources for updating their subject knowledge. 36.11% respondents admitted that they faced problems related to getting relevant information followed by 17.77% respondents found the process time consuming and 16.11% respondents complained of slow Internet speed. 50.56% were highly satisfied with the infrastructure provided by the library for accessing e-resources at different levels and 10% of respondents were not satisfied in this regard.

Siwach and Malik (2019) jointly conducted a study on “use of electronic resources by Science Faculty and researchers in selected North Indian Universities” and found that e-journals were used by maximum respondents. The study revealed that Google was the main search engine to search electronic resources which was used by the respondents. 67.81% respondents strongly agreed that their important purpose of using e-resources was to update knowledge. The major problems faced by the respondent while using e-resources was that they were not able to access e-resources from home. The study suggested that the university libraries should focus more on promoting e-resources using traditional as well as new methods. **Ansari (2020)** found in his

study on “use and awareness of e-resources among research scholars of Literature subjects in Banaras Hindu University” that most of the respondents were aware of the features of e-resources and majority of respondents were using e-resources daily. The main purpose of the respondents for using e-resources was getting help in their studies and research. Lack of technical knowledge is the biggest problem which was faced by most of the respondents. The study recommended that the libraries should improve the facilities and services for their users. The libraries must focus on acquiring more online resources for the maximum number of users. A single window should also be developed to find the required content at a single click. The library should also make a helpline desk to solve issues related to e-resources. **Bhanu Partap and Ranga (2021)** conducted a study on “awareness and use of e-resources at Chandigarh College of Architecture, Chandigarh, India: A study”. Total 150 questionnaires were distributed and 127 questionnaires were received back by respondents. More than 90% respondents were aware about the use of e-resources and using in their academic and research work. Majority of the respondents (95%) were satisfied with the use of e-resources. 55% respondents were facing the problems in downloading the e-contents and 49% respondents were facing the problems in searching the e-contents. The study concluded that trend or usage surveys must be conducted on regular basis in institutions to find lacunas so that improved services could be provided to the users and utmost users’ satisfaction could be achieved.

On the basis of above review it was felt that a study needs to be conducted on the awareness and use of e-resources by researchers and faculty members of science and social science faculties.

OBJECTIVES OF THE STUDY

The present study was undertaken with the following objectives:

1. To study the awareness and use of e-resources by the researchers and faculty members of science and social science faculties.
2. To know the purpose of using e-resources by researchers and faculty members of science and social science faculties.
3. To know the satisfaction level of researchers and faculty members of science and social science faculties with regard to e-resources.

4. To identify the problems faced by researchers and faculty members of science and social science faculties.

SCOPE AND METHODOLOGY

The present study is confined to three oldest and well-established multidisciplinary state universities of Haryana: Kurukshetra University, Kurukshetra, Maharshi Dayanand University, Rohtak and Chaudhary Devi Lal University, Sirsa. The total population of this study was 1252, out of which 516 respondents were from science faculty including departments of Physics, Chemistry, Mathematics, Energy and Environment Sciences, Computer Science and Food Science & Technology, and 736 respondents were from the departments of Economics, Public Administration, Education, Commerce, Management Studies and Mass Communication under social science faculty.

The stratified random sampling technique was used for the present study for collecting data from the respondents and the estimated sample was 576. A well structured questionnaire was designed and distributed among 576 respondents with 219 from Kurukshetra University, 252 from Maharshi Dayanand University and 105 from Chaudhary Devi Lal University. The questionnaires were administered personally, by post, e-mails, Google forms and through WhatsApp. Out of these 576 questionnaires, 542 were received back. Finally, 500 questionnaires were found valid for the study. The details of valid questionnaires which were considered for the study is reproduced in Table 1:

Table 1: Department wise Valid Responses received from Respondents

Faculty	Departments	Faculty Members N (%)	Researches N (%)	Total N (%)
Science	Physics	9 (1.80)	25 (5.00)	34 (6.80)
	Chemistry	15 (3.00)	38 (7.60)	53 (10.60)
	Mathematics	14 (2.80)	29 (5.80)	43 (8.60)
	Computer Science	14 (2.80)	28 (5.60)	42 (8.40)
	Energy and Environment Science	7 (1.40)	17 (3.40)	24 (4.80)

	Food Science and Technology	2 (0.40)	4 (0.80)	6 (1.20) } (2.20) 5 (1.00) }
	Home Science	1 (0.20)	4 (0.80)	
Social Science	Economics	12 (2.40)	39 (7.80)	51 (10.20)
	Public Administration	6 (1.20)	23 (4.60)	29 (5.80)
	Education	9 (1.80)	37 (7.40)	46 (9.20)
	Commerce	13 (2.60)	43 (8.60)	56 (11.20)
	Management Studies	15 (3.00)	61 (12.20)	76 (15.20) } (18.00) 14 (2.80) }
	Business Administration	6 (1.20)	8 (1.60)	
	Mass Communication	6 (1.20)	15 (3.00)	21 (4.20)
Total		129 (25.80)	371 (74.20)	500 (100.00)

Table 1 shows the department wise valid responses received from the respondents. From the science faculty, maximum number of questionnaires were received from Chemistry department i.e. 10.60% followed by Mathematics with 8.60%, Computer Science with 8.40%, Physics with 6.80%, Energy & Environmental Science with 4.80% and Food Science and Technology (Home Science in KUK) with 2.20%.

Among the social science faculty, maximum numbers of questionnaires (18.00%) were received from Management Studies and Business Administration, Commerce with 11.20%, followed by Economics with 10.20%, Education with 9.20%, Public Administration with 5.80% and Mass Communication with 4.20%.

DATA ANALYSIS AND INTERPRETATIONS

Data collected from the respondents using questionnaire was analyzed through descriptive statistics with the help of SPSS 23rd edition and MS Excel using appropriate statistical techniques viz. Percentage, Mean, Standard Deviation, t-test, etc. The collected data is presented in tables and discussed below:

Table 2: Frequency of Visiting the Library

Frequency	Faculty Members N (%)	Researchers N (%)	Total N (%)
Never	1 (0.20)	2 (0.40)	3 (0.60)
Rarely	25 (5.00)	43 (8.60)	68 (13.60)
Monthly	40 (8.00)	55 (11.00)	95 (19.00)
Fortnightly	21 (4.20)	17 (3.40)	38 (7.60)
Twice a week	32 (6.40)	167 (33.40)	199 (39.80)
Daily	10 (2.00)	87 (17.40)	97 (19.40)
Total	129 (25.80)	371 (74.20)	500 (100.00)

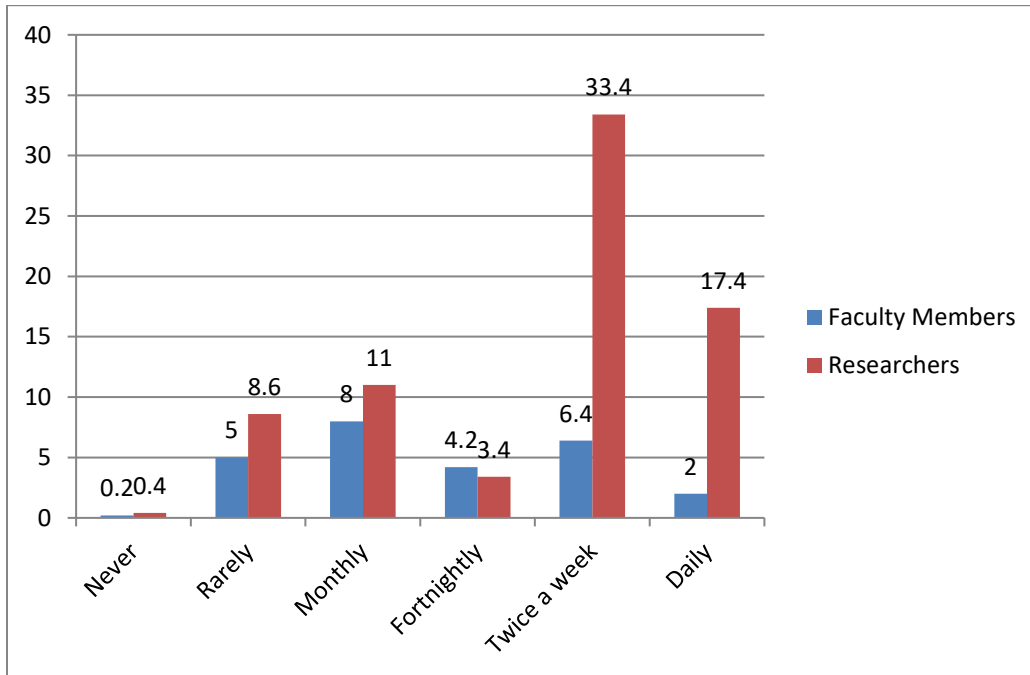


Figure 1: Frequency of Visiting the Library

Table 2 and Figure 1 shows that 39.80% respondents visit the library twice a week, followed by daily and monthly visitors being 19.40% and 19% respectively. The next proportion belongs to 13.60% respondents who visit the library rarely, followed by 7.60% respondents who visit library fortnightly. Only 0.60% respondents recorded that they never visit the library. It shows that respondents are very much connected to the library.

Table 3: t-test for Purpose of Visiting the Library

Purposes	Stream	N	Mean	Std. Deviation	t	Sig. (2-tailed)
To borrow reading material	Science Faculty	207	1.88	1.132	.259	.796
	Social Science Faculty	293	1.85	1.086		
To consult periodicals	Science Faculty	207	2.59	1.351	3.466	.001
	Social Science Faculty	293	2.20	1.122		
For accessing e-resources	Science Faculty	207	1.46	.928	-1.119	.264
	Social Science Faculty	293	1.56	1.089		
For consulting reference sources	Science Faculty	207	3.19	1.595	1.231	.219
	Social Science Faculty	293	3.01	1.667		
To read newspaper/magazine	Science Faculty	207	3.60	1.803	3.259	.001
	Social Science Faculty	293	3.11	1.594		
For accessing the Internet	Science Faculty	207	4.29	1.974	2.527	.012
	Social Science Faculty	293	3.83	2.040		

Table 3 shows that respondents of science faculty and social science faculty have no significant difference regarding purpose of visiting the library as they visit library to borrow reading material, for accessing e-resources and for consulting reference sources because the p-value of t-test is more than the critical value i.e. 0.05 in each case but the respondents of science faculty are visiting the library more for the purposes like consulting periodicals, reading newspaper/magazine and accessing the Internet as compared to the respondents of social science faculty.

Table 4: Awareness about E-Resources among the Respondents

Awareness	Faculty Members N (%)	Researchers N (%)	Total N (%)
Aware	129 (25.80)	371 (74.20)	500 (100.00)
Not Aware	0 (0.00)	0 (0.00)	0 (0.00)
Total	129 (25.80)	371(74.20)	500 (100.00)

The entire world faced pandemic of COVID-19, and in these turbulent times e-resources had played an important role because in the lockdown all the necessary information and other teaching work was done through electronic resources only. Table 4 shows that all the faculty members and researchers covered under the study are aware about the electronic resources.

Table 5: Use of E-Resources by the Respondents

Responses	Faculty Members N (%)	Researchers N (%)	Total N (%)
Yes	128 (25.60)	362 (72.40)	490 (98.00)
No	1 (0.20)	9 (1.80)	10 (2.00)
Total	129 (25.80)	371(74.20)	500 (100.00)

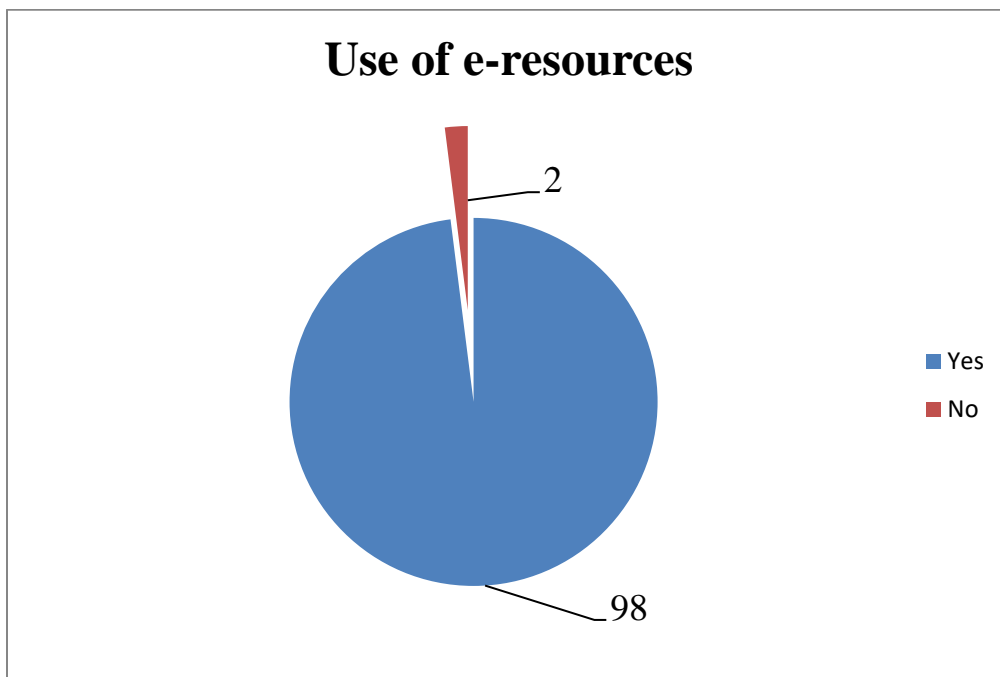


Figure 2: Use of E-Resources by the Respondents

The respondents were asked about the use of e-resources and Table 5 and Figure 2 shows that majority of respondents (98%) use e-resources whereas only 2.00% reported not using the e-resources.

Table 6: t-test for Purpose of Using E-Resources

Purposes	Stream	N	Mean	Std. Deviation	t	Sig. (2-tailed)
For general reading	Science Faculty	207	3.52	2.201	2.818	.005
	Social Science Faculty	293	2.97	2.130		
For updating subject knowledge	Science Faculty	207	2.55	1.662	1.770	.077
	Social Science Faculty	293	2.29	1.577		
For lecture preparation	Science Faculty	207	4.00	2.246	3.705	.000
	Social Science Faculty	293	3.24	2.233		
For guiding research	Science Faculty	207	3.64	2.069	3.121	.002
	Social Science Faculty	293	3.06	2.029		
To carry out project work	Science Faculty	207	4.08	2.107	4.540	.000
	Social Science Faculty	293	3.25	1.952		
For writing research articles	Science Faculty	207	2.62	1.614	2.740	.006
	Social Science Faculty	293	2.22	1.580		
For doing research	Science Faculty	207	1.76	1.625	.294	.769
	Social Science Faculty	293	1.72	1.519		

Table 6 found that respondents of science faculty and social science faculty have significant difference regarding their purpose of using e-resources because the p-value of t-test is less than the critical value i.e. 0.05 in each case except for updating subject knowledge and for doing research. The respondents of science faculty are using e-resources more for general reading, for lecture preparation, for guiding research, to carry out project work and for writing research articles as compared to the respondents of social science faculty.

Table 7: t-test for Use of E-Resources

E-Resources	Stream	N	Mean	Std. Deviation	t	Sig. (2-tailed)
E-journals	Science Faculty	207	5.18	1.129	1.468	.143
	Social Science Faculty	293	5.02	1.227		
E-books	Science Faculty	207	4.84	1.273	.237	.813
	Social Science Faculty	293	4.81	1.343		
E-theses/E-	Science Faculty	207	4.23	1.604	-2.346	.019

dissertations	Social Science Faculty	293	4.54	1.388		
E-magazines	Science Faculty	207	4.22	1.703	-2.368	.018
	Social Science Faculty	293	4.55	1.422		
E-newspapers	Science Faculty	207	4.57	1.788	-2.392	.017
	Social Science Faculty	293	4.91	1.470		
E-standards/E-patents	Science Faculty	207	3.46	1.740	.167	.868
	Social Science Faculty	293	3.44	1.802		
E-newsletters	Science Faculty	207	3.48	1.792	-1.463	.144
	Social Science Faculty	293	3.72	1.780		
E-databases (Bibliographic)	Science Faculty	207	3.61	1.728	-.137	.891
	Social Science Faculty	293	3.63	1.694		
Full text databases	Science Faculty	207	3.59	1.718	.210	.833
	Social Science Faculty	293	3.56	1.738		
CD ROMs/DVDs	Science Faculty	207	2.79	1.556	-.651	.515
	Social Science Faculty	293	2.88	1.686		
Subject Specific Portals	Science Faculty	207	4.14	1.740	.188	.851
	Social Science Faculty	293	4.12	1.666		
Anti-plagiarism Software	Science Faculty	207	3.01	1.637	-.277	.782
	Social Science Faculty	293	3.05	1.658		
Search Engines like Google	Science Faculty	207	5.64	.994	1.605	.109
	Social Science Faculty	293	5.48	1.143		
Institutional/Digital Repository	Science Faculty	207	3.97	1.790	-.141	.888
	Social Science Faculty	293	3.99	1.680		
Library OPAC/Web-OPAC	Science Faculty	207	3.42	1.768	-.815	.416
	Social Science Faculty	293	3.55	1.764		

Table 7 shows that respondents of science faculty and social science faculty have no significant difference regarding the use of various e-resources like e-journals, e-books, e-standards/e-patents, e-newsletters, e-databases (Bibliographic), full text databases, CD ROMs/DVDs, subject specific portals, Anti-plagiarism software, search engines like Google, institutional/digital repository, library OPAC/Web-OPAC because the p-value of t-test is more

than the critical value i.e. 0.05 in each. But the respondents of social science faculty are more frequently using e-theses/e-dissertations, e-magazines and e-newspapers as compared to the respondents of science faculty.

Table 8: t-test for Satisfaction Level regarding E-Resources

E-Resources	Stream	N	Mean	Std. Deviation	t	Sig. (2-tailed)
E-journals	Science Faculty	207	4.63	.531	1.348	.178
	Social Science Faculty	293	4.57	.549		
E-books	Science Faculty	207	4.49	.630	1.669	.096
	Social Science Faculty	293	4.39	.630		
E-theses/E-dissertations	Science Faculty	207	4.37	.724	.599	.549
	Social Science Faculty	293	4.33	.728		
E-magazines	Science Faculty	207	4.24	.768	.669	.504
	Social Science Faculty	293	4.19	.739		
E-newspapers	Science Faculty	207	4.27	.779	-.426	.671
	Social Science Faculty	293	4.30	.767		
E-standards/E-patents	Science Faculty	207	3.99	.753	2.636	.009
	Social Science Faculty	293	3.80	.823		
E-newsletters	Science Faculty	207	3.93	.757	-.202	.840
	Social Science Faculty	293	3.94	.807		
E-databases (Bibliographic)	Science Faculty	207	3.97	.717	1.704	.089
	Social Science Faculty	293	3.85	.791		
Full text databases	Science Faculty	207	4.01	.721	.980	.327
	Social Science Faculty	293	3.95	.750		
CD ROMs/DVDs	Science Faculty	207	3.78	.773	1.105	.270
	Social Science Faculty	293	3.70	.918		
Subject Specific Portals	Science Faculty	207	4.23	.771	2.511	.012
	Social Science Faculty	293	4.04	.847		
Anti-plagiarism Software	Science Faculty	207	4.22	.800	3.527	.000
	Social Science Faculty	293	3.94	.942		
Search Engines	Science Faculty	207	4.65	.553	1.954	.051

like Google	Social Science Faculty	293	4.54	.689		
Institutional/Digital Repository	Science Faculty	207	4.10	.707	2.217	.027
	Social Science Faculty	293	3.96	.737		
Library OPAC	Science Faculty	207	3.95	.644	.593	.554
	Social Science Faculty	293	3.91	.819		
Social Media Tools	Science Faculty	207	4.17	.775	.700	.485
	Social Science Faculty	292	4.12	.811		

Table 8 shows that there is no significant difference between the respondents of science faculty and social science faculty regarding satisfaction level with regard to e-journals, e-books, e-theses/e-dissertations, e-magazines, e-newspapers, e-newsletters, e-databases (Bibliographic), full text databases, CD ROMs/DVDs, search engines like Google, institutional/digital repository, library OPAC and social media tools because the p-value of t-test is more than the critical value i.e. 0.05 in each case but the respondents of science faculty are more satisfied with regard to e-standards/e-patents, subject specific portals and anti-plagiarism software as compared to the respondents of social science faculty.

Table 9: t-test for Problems faced while Accessing Relevant Information

Problems	Stream	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Inadequate library resources in your subject	Science Faculty	207	2.32	1.160	-2.708	.007
	Social Science Faculty	293	2.64	1.379		
Non-availability of e-resources in your subject	Science Faculty	207	2.14	1.059	-2.920	.004
	Social Science Faculty	293	2.45	1.264		
Inadequate library infrastructure	Science Faculty	207	1.86	1.028	-3.097	.002
	Social Science Faculty	293	2.17	1.184		
Inadequate lab infrastructure	Science Faculty	207	1.80	.983	-4.012	.000
	Social Science Faculty	293	2.22	1.230		
Poor Internet Connectivity	Science Faculty	207	2.12	1.075	-3.884	.000
	Social Science Faculty	293	2.54	1.275		
Lack of library orientation	Science Faculty	207	1.98	1.026	-3.435	.001
	Social Science Faculty	293	2.35	1.333		

Information scattered in too many sources	Science Faculty	207	2.05	1.089	-3.378	.001
	Social Science Faculty	293	2.41	1.229		
Lack of time for searching	Science Faculty	207	2.14	.993	-2.815	.005
	Social Science Faculty	293	2.43	1.224		
Lack of knowledge in using the library catalogue/OPAC/ Web-OPAC	Science Faculty	207	1.98	1.021	-4.193	.000
	Social Science Faculty	293	2.43	1.300		
Lack of ICT skills in information searching	Science Faculty	207	1.85	1.003	-3.599	.000
	Social Science Faculty	293	2.22	1.230		
Strict library rules	Science Faculty	207	1.75	.958	-4.213	.000
	Social Science Faculty	293	2.19	1.264		
Lack of technical support in library	Science Faculty	207	1.81	.954	-4.291	.000
	Social Science Faculty	293	2.26	1.269		

Table 9 shows that respondents of science faculty and social science faculty have significant difference with regard to all the problems because the p-value of t-test is less than the critical value i.e. 0.05 in each case. The respondents of social science faculty are facing more problems like to inadequate library resources in your subject, non-availability of e-resources in your subject, inadequate library infrastructure, inadequate lab infrastructure, poor Internet connectivity, lack of library orientation, information scattered in too many sources, lack of time for searching, lack of knowledge in using the library catalogue/OPAC/ Web-OPAC, lack of ICT skills in information searching, strict library rules and lack of technical support in library as compared to the respondents of science faculty.

Table 10: t-test for Suggestions regarding Increasing the Use of E-Resources

Suggestions	Designation	N	Mean	Std. Deviation	T	Sig. (2-tailed)
Organizing workshops/ training programmes frequently	Faculty Members	129	2.19	1.704	-1.946	.052
	Researchers	371	2.57	1.976		
Increasing the time of accessing e-resources in	Faculty Members	111	2.60	1.675	-1.796	.073

the library	Researchers	345	2.92	1.626		
Expert staff assistance in accessing/using e-resources	Faculty Members	114	2.22	1.510	-1.373	.171
	Researchers	349	2.44	1.470		
Online tutorials	Faculty Members	117	2.51	1.648	-2.167	.031
	Researchers	352	2.91	1.718		
Circulating list of subscribed e-resources on monthly basis	Faculty Members	119	2.40	1.531	-1.429	.154
	Researchers	339	2.63	1.459		
Email alert from university library about subscribed e-resources	Faculty Members	116	1.91	1.495	-1.078	.281
	Researchers	352	2.10	1.643		

Table 10 represents that there is no significant difference among the researcher and the faculty members of both the faculties for suggestions regarding organizing workshops/ training programmes frequently, increasing the time of accessing e-resources in the library, expert staff assistance in accessing/using e-resources, circulating list of subscribed e-resources on monthly basis, circulating list of subscribed e-resources on monthly basis and email alert from university library about subscribed e-resources because the p-value of t-test is more than the critical value i.e. 0.05 in each case except for the online tutorials. The researchers gave more preference to ‘online tutorials’ for increasing the use e-resources as compared to the faculty members.

FINDINGS

Major findings of the study are given below:

1. It is found that 39.80% respondents visit the library twice a week and 19.40% respondents visit the library on daily basis. This finding is contradictory to the study of **Thanuskodi (2016)** which stated that 60.25% respondents visit the library daily.
2. All faculty members and researchers are aware about the electronic resources. This finding is supported by the study of **Thanuskodi (2012)** which revealed that majority of the respondent were aware of e-resources.

3. The study found that 98% respondents use e-resources. This finding is supported by the study of **Ivwichreghweta and Oyeniran (2013)** which found that 90% respondent used e-resources.
4. It was found that the respondents of science faculty are visiting the library more as compared to the social science respondents for consulting periodicals, reading newspapers/magazines and for accessing the Internet.
5. It is found that the respondents of science faculty are using e-resources more for the purpose of general reading, lecture preparation, guiding research, carry out project work and writing research articles as compared to the respondents of social science faculty.
6. The study found that the respondents of social science faculty are more frequently using e-theses/e-dissertations, e-magazines and e-newspapers as compared to the respondents of science faculty.
7. It is also found that the respondents of science faculty are more satisfied with regard to e-standards/e-patents, subject specific portals and anti-plagiarism software as compared to the respondents of social science faculty.
8. The study revealed that the respondents of social science faculty are facing more problems as compared to the respondents of science faculty like inadequate library resources in their subjects, non-availability of e-resources in their subjects, inadequate library infrastructure, inadequate lab infrastructure, poor internet connectivity, lack of library orientation, information scattered in too many sources, lack of time for searching, lack of knowledge in using the library catalogue/OPAC/Web-OPAC, lack of ICT skills in information searching, strict library rules and lack of technical support in library.

CONCLUSION

The present study, confined to three universities of Haryana can be regarded as a comprehensive picture of all the universities of this state as these were the oldest and well established universities. This study covered 1252 respondents from Science and Social Science faculties of Kurukshetra University, Kurukshetra; Maharshi Dayanand University, Rohtak and Chaudhary Devi Lal University, Sirsa. The respondents, chosen through stratified random sampling provided valuable insights, which proved to be the backbone of the study. Through this study, the most satisfying fact that came to light is that all the respondents are aware about the

electronic resources and most of them are using e-resources. It is also encouraging to know that the stakeholders are not only aware, but are also making good use of the available resources. Incidentally, the tenure of this study witnessed an unusual outbreak of the COVID-19 pandemic, and the outbreak resulted in paradigm shift in use of learning resources. Due to the temporary closure of libraries, the learners shifted from printed resources to electronic resources. This shift may seem temporary, but it will have a very long term impact on the usage pattern of the learners. Overall, it is concluded that the people resorted to increased use of electronic resources during this critical time, in comparison to normal times in past. However, it was found that the respondents of social science faculty faced more problems as compared to the respondents of science faculty while using these resources.

SUGGESTIONS

On the basis of this study, it is suggested that the libraries should take extra initiatives in organizing orientation programmes, lectures, workshops and user awareness programmes with regard to use of e-resources which will not only enhance the awareness levels, but will also let the users take optimum benefits from the facilities created out of public funding. The libraries of concerned universities must improve the Internet connectivity for the benefit of the users, so that they can make efficient use of the available e-resources. It is also suggested to increase the number of e-resources in all the subjects for the benefit of the respondents, especially in those subjects where users feel that there is less number of available e-resources. The responses received during the study are really encouraging and it can be concluded that despite the availability of plethora of digital resources at personal level, the information seekers prefer to visit the library and make use of available resources.

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