USE OF ELECTRONIC RESOURCES BY POST GRADUATE STUDENTS: A CASE STUDY

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Abstract Now a days, the use of e-resources is becoming important in teaching and learning world-wide as they provide access to timely, high quality and relevant information to the academic community with a view to Keywords: keep them abreast with new discoveries and developments. This study is an attempt to find out the use of E-resources by the P.G students of Mar E-resources: Athanasios College for Advanced Studies Thiruvalla P.G students: (MACFAST). The study covers various aspects Library. related to e-resources such as use, factors that attracting towards e-resources, level of satisfaction in using e-resources, problems faced while using eresources etc. Suggestions have been given for empowering the use of e resources by students.

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1. Introduction

E-Resources play an important role by providing a convenient medium and fast access to a vast range of information. The electronic information resources have acquired a major portion of library collections. The value and use of information resources particularly e-resources, have increased with the time. Electronic information sources can be defined as all those documents that are available in the digital or electronic form such as E-journal, E-books, E-magazines, E-thesis, E-conference proceedings, E-Reports, E-Maps etc. These are more useful due to inherent capabilities for manipulation and searching, providing information access is cheaper to acquiring information resources, savings in storage, maintenance etc. and sometimes the electronic form is the only alternative. The library and information services of the 21st century are fast changing. With the rapid development of electronic publishing, libraries are not only acquiring reading materials such as printed books and journals but also arranging for providing access to various learning resources in electronic form. Therefore, there is necessity to make study on the different aspects of e- resources. This study is an attempt to find out the use of E-resources by the students of MACFAST.

2. Review of Literature

Bhat, Nazir Ahmad, and Shabir A. Ganaie¹ analyzed the use and search strategies of electronic resources by users of Dr. Y. S Parmar University of Horticulture and Forestry. The main objective of this study is to identify the most popular places, gadgets, searching tools and techniques adopted by users of Dr. Y. S Parmar university of Horticulture and Forestry (DYSPUH&F), Himachal Pradesh, while search electronic information resources. The survey was conducted with the help of structured questionnaire used as a data collection tool. It is found that department/office chamber (42%), hostel (29%) and home (26%) prove to be the most popular places of access. Majority of the users use laptops to access and read electronic information resources. Among all popular platforms, users of DYSPUH&F library prefer to use "search engines", and "Google" proves to be the number one search engine. Majority of users search the information through "title" followed by "key word/subject terms". The users are not yet well-versed with most of the advanced search techniques, as less than half of them are able to use only Boolean operators, and less than 10% of them claim to know other search techniques. Majority of the users have learnt to use information search and retrieval skills through self-

study.

Mahapatra,Rabindra K., Dilip K. Swain and Kamal Lochan Jena evaluated the use of eresources by faculty members of Orissa University of Agriculture Technology. The main objective of the study is to evaluate the existing electronic information environment of the central library of Orissa University of Agriculture & Technology and to find out the ways and means of better information related situation. It employs the survey method for the collection of data. Keeping the objectives of the study in mind the copies of the structured questionnaire were personally distributed among the faculty members of the OUAT, Bhubaneswar. It is found that majority of faculty members (83.33%) use personal computers, simultaneously they fairly use laptops (61.11%) for the sake of information retrieval. It is evident that a great majority of respondents demand teaching/research related databases on Agricultural Sciences (88.89%), and curriculum based books and full text journals in e-form.

3. Objectives

- To know the extent of use of e-resources by students in MACFAST.
- To know the factors that attracts users towards e-resources.
- To assess the level of satisfaction among the students in using e-resources.
- To find out the hindrances faced by the students while accessing and using e-resources.
- To make appropriate suggestions, for solving the problems if any in using e-resources.

4. Research Methodology

Population for the study is the students of Mar Athanasios College For Advanced Studies Thiruvalla (MACFAST). There are 7 PG courses in the college. Among the total population Master of Computer Application, M.Sc Biotechnology, M.Sc Plant Biotechnology and M.Sc Bioinformatics are the departments which have immense use of e-resources. It justifies the selection of these categories for the study. Two sets of questionnaire were prepared, one was prepared to know the information regarding library infrastructure critically required for the study. The second questionnaire was designed and distributed to the population selected for the study to ascertain the use of E-resources by the P.G students .The questionnaire designed for this study is mainly focused on various aspects included in the objectives and are grouped and

processed under 6 areas. The investigator visited the departments for taking response through the questionnaires. The investigator distributed 213 questionnaires to the departments during the month of April 20-30, 2017. The filled questionnaires i.e., 210 numbers were received within one week of distribution. Thus the present study is based on the responses provided by 210 respondents.

5. Data Analysis

The data collected through questionnaires were analyzed quantitatively and qualitatively. Percentage method is used for quantitative analysis. The analyzed data has been presented in the form of tables together with graphs and diagram wherever required.

Digital Library Facilities

Question was asked to know the opinion about the following digital library facilities.

Table 1. Opinion about digital library facility

Sl. No	F 714	No. of Resp	No. of Respondents and Percentage				
	Facilities	Fully Satisfied	Partially Satisfied	Not at Satisfied	allNot Available		
	Number of	108	82	20			
1.	Terminals	(51.43%)	(39.05%)	(9.52%)	0		
		165	39	6			
2.	Printer	(78.57%)	(18.57%)	(2.86%)	0		
		142	56	12			
3.	Scanner	(67.62%)	(26.67%)	(5.71%)	0		
	CD-ROM	11	28	129	42		
4.	Database	(5.24%)	(13.33%)	(61.43%)	(20.00%)		
		21	25	93	71		
5.	Online Database	(10.00%)	(11.90)	(44.28%)	(33.81%)		

Table 1 shows that 78.75% of the students are fully satisfied with printer followed by scanner (67.62%), number of terminals (51.43%), online databases (10%) and CD-ROM Database

(5.24%).39.05% of the students are partially satisfied with number of terminals followed by, scanner (26.67%), printer (18.57%), CD-ROM database (13.33%) and online database (11.90%).61.43% of students are not at all satisfied with CD-ROM database followed by online databases (44.28%), number of terminals (9.52%), scanner (5.71%) and printer (2.86%).33.81% of the students opined that online databases and CD-ROM database 20% are not available in their library.

Place of Access

Question was asked to know about the place of accessing e-resources.

Table 2 Place of accessing E-resources

No. of Respondents	Percentage	
197	93.81%	
210	100%	
13	6.19%	
58	27.62%	
	197 210 13	197 93.81% 210 100% 13 6.19%

Table 2 indicates that this question received multiple responses. Analysis shows that all the students use central library to access e-resources besides dept. computer lab (93.81); home (27.62%) and cyber café (6.19%).

Frequency of Use

Question was asked to know about the frequency of use of e-resources.

Table 3 Frequency of Use of E-resources

Frequency	No. of Respondents	Percentage
Daily	81	38.57%
2-3 time a week	23	10.95%

2-3 times a month	4	1.90%
Alternative days	7	3.33%
Once a week	13	6.19%
As and when required	82	39.05%

Table 3 shows that 39.05% of students use the e-resources as and when required, 38.57% of students uses the e-resources daily, 10.95% of students use the e-resources 2-3 times a week, 6.19% of students use the e-resources once a week, 3.33% of students use the e-resources alternative days and 1.90% of students uses the e-resources 2- times a month.

Purpose of Use

Question was asked to know about the purpose of using e-resources.

Table 4 Purpose of Use

			Order of	Priority	
Sl. No	Purposes	1	2	3	4
	-	No. of Res	pondents & Per	rcentage	I
1	For updating	50	20	68	49
	knowledge	(23.81%)	(9.52%)	(32.38%)	(23.33%)
2	Preparing lecture notes	30	78	41	37
		(14.29%)	(37.14%)	(19.52%)	(17.62%)
3	Prepare for seminars	60	63	50	25
		(28.57%)	(30.00%)	(23.81%)	(11.90%)
4	For research purpose	53	23	17	50
		(25.24%)	(10.95%)	(8.10%)	(23.81%)
5	Entertainment	14	7	20	21
		(6.67%)	(3.33%)	(9.52%)	(10.10%)
6	For career development	3	19	14	28
		(1.43%)	(9.05%)	(6.67%)	(13.33%)

Table 4 reveals that:

First Preference

28.57% of students prefer to use e-resources for preparing seminars followed by research purposes (25.24%), updating knowledge (23.81%), and preparing lecture notes (14.29%) entertainment (6.67%) and career development (1.43%).

Second preference

37.14% of students prefer to use e-resources for preparing lecture notes followed by preparing seminars (30%), research purpose (10.95%), updating knowledge (9.52%), career development (9.05%) and entertainment (3.33%).

Third preference

32.38% of students prefer to use e-resources for updating knowledge followed by preparing seminars (23.81%), preparing lecture notes (19.52%), entertainment (9.52%), research purpose (8.10%) and career development (6.67%).

Frequently used e-resources

Question was asked to know about the most frequently used e-resources.

Table 5 Frequently used E-resources

		(Order of Preference				
	E-Resources	1	2	3	4	5	
Sl.	No. of Respondents & Percentage						
No.							
	E-journals	25	34	41	17	49	
1		(11.90%)	(16.19%)	(19.52%)	(8.10%)	(23.33%)	
	E-magazines/	60	11	28	52	21	
2	Newspaper	(28.57%)	(5.24%)	(13.33%)	(24.76%)	(10.00%)	
	E-research	9	19	36	16	19	
3	Report	(4.28%)	(9.05%)	(17.14%)	(7.62)	(9.05%)	

	E-Dictionaries/	17	52	25	36	18
4	Encyclopedia	(8.10%)	(24.76%)	(11.90%)	(17.14%)	(8.57%)
	Conference	0	0	0	1	8
5	Proceedings				(0.48%)	(3.81%)
6	E-Question Papers	2	22	22	11	14
		(0.95%)	(10.48%)	(10.48%)	(5.24%)	(6.67%)
7	E-Books	50	23	13	39	24
		(23.81%)	(10.95%)	(6.19%)	(18.57%)	(11.43%)
8	E-Mail	45	25	30	19	44
		(21.43%)	(11.90%)	(14.29)	(9.05%)	(20.95%)
9	Bibliographic	0	0	2	1	12
	Databases			(0.95%)	(0.48%)	(5.71%)
10	E-Data Archives	2	10	0	4	1
		(0.95%)	(4.76%)		(1.90%)	(0.48%)
11	E-Maps	0	12	12	2	0
			(5.71%)	(5.71%)	(0.95%)	
12	E-Thesis	0	2	1	12	0
			(0.95%)	(0.48%)	(5.71%)	

Table 5 shows that:

First preference

28.57% of students give first preference to e-magazines/newspapers followed by e-books (23.81%), e-mail (21.43%), e-journal (11.90%), e-dictionaries/encyclopedia (8.10%), e-research reports (4.28%), e-question papers (0.95%) and e-data archives.

Second preference

24.76% of students give second preference to e-dictionaries/ encyclopedia followed by e-journals (16.19%), e-mail (11.90%), e-books (10.95%), e-question papers (10.48%), e-research reports (9.05%), e-maps (5.71%), e-magazines/ newspapers (5.24%), e-data archives (4.76%) and e-thesis (0.95%).

Third preference

19.52% of students give third preference to e-journals followed by e-research reports (17.14%), e-mail (14.28%), e-magazines/ newspapers (13.33%), e-dictionaries/ encyclopedia (11.90%), e-question papers (10.48%), e-books (6.19%), e-maps (5.71%), bibliographic database (0.95%) and e-thesis (0.48%).

Opinion about E-resources

Question was asked to know that the opinion about the following e-resources provided by the library.

Table 6 Opinion about E-resources

	No. of Respondents & Percentage				
E-resources	Fully Satisfied	Partially	Not at all	all Not Available	
		Satisfied	Satisfied		
E-Journals	29	64	85	32	
	(13.81%)	(30.48%)	(40.48%)	(15.24%)	
E-Book	28	41	94	47	
	(13.33%)	(19.52%)	(44.76%)	(22.38%)	
E-Magazine/E-Newspaper	20	100	31	15	
	(9.52%)	(47.62%)	(14.76%)	(7.14%)	
E-Research Report	13	58	99	40	
	(6.19%)	(27.62%)	(47.14%)	(19.05%)	
Bibliographic Databases	12	47	101	50	
	(5.71%)	(22.38%)	(48.09%)	(23.81%)	
E-Dictionaries/E- Encyclopedia	8	66	112	24	
	(3.81%)	(31.43%)	(53.33%)	(11.43%)	
E-Conference Proceedings	7	23	59	121	
	(3.33%)	(10.95%)	(28.09%)	(57.62%)	
Data Archives	0	0	16	194	
			(7.62%)	(92.38%)	
E-Maps	19	37	111	43	
	(9.05%)	(17.62%)	(52.86%)	(20.48%)	
E-Question Papers	11	26	120	53	
	(5.24%)	(12.38%)	(57.14%)	(25.24%)	
E-Thesis	26	17	138	29	
	(12.38%)	(8.09%)	(65.71%)	(13.81%)	

Table 6 reveals that 13.81% of students are fully satisfied with e-journals followed by e-book (13.33%), e-thesis (12.38%), e-magazine/ e-newspaper (9.52%), e-maps (9.05%), e-research reports (6.19%), bibliographic databases (5.71%), e-question papers (5.24%), e-dictionaries/ encyclopedias (3.81%) and e-conference proceedings (3.33%).65.71% of students are partially

satisfied with e-thesis followed by e-question papers (57.14%), e-dictionaries/ encyclopedias (53.33%), e-maps (52.86%), bibliographic databases (48.09%), e-research reports (47.14%),e-book (44.76%), e-journals (40.48%), e-conference proceedings (28.09%),e-magazine/e-newspaper (14.76%) and data archives (7.62%). 92.38% of the students opined that data archives are not available in their library followed by e-magazine/e-newspaper (85.24%), e-conference proceedings (57.62%), e-question papers (25.24%), bibliographic databases (23.81%), e-book (22.38%), e-maps (20.48%), e-research reports(19.05%),e-journals(15.24%),e-thesis(13.81%)and e-dictionaries/ encyclopedias (11.43%) and e-magazine/e-newspaper (7.14%).

Frequently used databases

Question was asked to know the frequently used databases in their field.

Table 7 Frequently used databases

Databases	No. of Respondents & Percentage					
Databases	Often	Sometimes	Rarely	Never	Not Available	
IEEE	29	77	58	45	65	
	(13.81%)	(36.67%)	(27.62%)	(21.90%)	30.95%	
ProQuest	20	64	99	27	43	
	(9.52%)	(30.48%)	(47.14%)	(12.86%)	20.48%	
J-Gate	18	62	97	33	80	
	(8.57%)	(29.52%)	(46.19%)	(15.71%)	(38.09%)	
Emerald Insight	0	0	0	110	185	
				(52.38%)	(88.09%)	
Springer's Link	0	0	0	121	201	
				(57.62%)	(95.71%)	
Science Direct	0	0	0	134	149	
				(63.81%)	(70.95%)	
ACM	0	0	0	97	194	
				(46.19%)	(92.38%)	

It is evident from the analysis of Table 7 that multiple responses were received for this question. Majority 95.71% of the students opined that Springer's Link is not available in their library

followed by ACM (92.38%), Emerald (88.09%), Science Direct (70.95%), J-Gate (38.09%), IEEE (30.95%) and ProQuest(20.48%).13.81% of students often use IEEE followed by ProQuest (9.52%) and J-Gate (8.57%).36.67% of students sometimes use IEEE followed by ProQuest (30.48%) and J-Gate (29.52%).Nearly half 47.14% of students rarely use ProQuest followed by J-Gate (46.19%) and IEEE (27.62%).Majority 63.81% of students never use Science direct followed by Springer's Link (57.62%), Emerald (52.38%), ACM (46.19%), IEEE (21.90%), J-Gate (15.71%) and ProQuest (12.86%).

Factors that attract towards E-resources

Question was asked to know the attracting factors of e-resources.

Table 8 Factors that attract towards E-resources

Factors	No. of Respondents	Percentage
Up to date information	198	94.28%
Easy access to information	125	59.52%
Easy to use	123	58.57%
Less expensive	68	32.38%
Access to wide range of information	166	79.05%
Comprehensiveness	39	18.57%
Time saving	203	96.67%
Downloading facility	137	65.24%

It is evident from the analysis of Table 8 that multiple responses were received for this question. Table 5.21 shows that majority of students (96.67%)marked time saving as the factor that attract towards e-resources, 94.28% of students marked for up to date information followed by 79.05% of students marked access to wide range of information as the factor that attracted

towards e-resources. 65.24% of students marked downloading facility as the attracting factor, 59.52% of students marked easy access to information, 58.57% of students marked easy to use as the factor that attract towards e- resources.32.38% of student marked less expensive and 18.57% of students marked comprehensiveness as the factors that attracted towards e-resources.

Quality of Information

Question was asked to know about the quality of information retrieved through e- resources.

Table 9 Quality of Information

Quality	No. of Respondents	Percentage	
Excellent	107	50.95%	
Average	103	49.05%	
Below Average	0	0	

Table 9 shows the majority of students (50.95%) opined that quality of information retrieved through e-resources is excellent. The remaining 49.05% of students opined that quality of information retrieved through e- resources is average.

Obstacles

Question was asked to know about the obstacles in using E-resources.

Table 10 Obstacles

Obstacles	No. of Respondents	Percentage
Slow internet access	186	88.57%
Inadequate computer skills	13	6.19%
Time consuming	112	53.33%
Information overload	108	51.43%
High cost of access	0	0
Lack of awareness	34	16.19%

Table 10 reveals the majority of PG students (88.57%) opined that slow internet access is the main obstacle faced while accessing e-resources. A good number of students (53.33%) opined that time consuming is the main problem faced by them. 51.43% of students opined that information overload is the main problem. Lack of awareness (16.19%) and inadequate computer skills (6.19%) are the other obstacles faced while accessing e-resources.

6. Major Findings

- 1. The entire PG students use central library to access e-resources besides majority of them also accesses it through dept. computer lab. Though they are using e-resources in different frequencies ranging from daily to once a week, not even half of the PG students use it daily.
- 2. Analysis shows that PG students prefer to use e-magazines/Newspapers and E-books frequently than other e-resources such as E-journals, E- research reports, conference proceedings which are the major electronic information sources.
- 3. Analysis revealed that major databases such as Emerald, Springer's Link, Science Direct and ACM are not available in the library and among the available databases such as ProQuest and J-Gate are rarely used by the PG students. IEEE is the only database which is often used by the PG students
- 4. Among number of factors which attracted the PG students towards e- resources time saving and access to wide range of information is the major ones.
- 5. As per the responses of majority of PG students slow internet access is the major problem faced by them while accessing e-resources.

7. Suggestions

1. The library should develop infrastructure facilities for accessing electronic resources by the users and to cover all the subjects content of the courses offered, the library should subscribe more e-journals.

2. MACFAST should increase the budget for subscribing more electronic resources.

Without adequate budget library cannot cover all subjects' content. The e-journal cost is

increasing day by day and among those the current issues are more costly than back issues.

3. MACFAST library should organize training program for the students so that they can

know about different search interface, latest changes of the journals site and develop

sophisticated searching and retrieval skills or techniques.

4. Bandwidth of internet connection must be increased in MACFAST campus. Faster

internet access should be offered to minimize download time.

8. Conclusion

This study was carried out to identify the use of electronic information resources by the students

in Mar Athanasius College for Advanced Studies Tiruvalla (MACFAST). It is clear from the

study that ease of up datedness, time saving and accessibility to wide range of information are

the factors that attract students' to e-resources. Slow internet access is a major problem

encountered by students. Proper feedback as well as orientation programmes should be

conducted from time to time by the college. So that the problems encountered must be resolved

according to user's requirements.

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