

USE OF E- JOURNALS BY RESEARCH SCHOLARS IN ALAGAPPA UNIVERSITY: A STUDY

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ABSTRACT

The phrase electronic journal or "e-journal" is used to denote a broader category of electronic publications that may or may not have a print counterpart. The Encyclopedic Dictionary of Library and Information Science define a journal as "the record of proceeding of transactions of a learned society". This study found in Ph.D scholars, more respondents (52.1%) participated in the study than the M.Phil. scholars (47.9%). It is pertinent to mention here that some responses received from M.Phil. Scholars were not usable as most of the questions were left unanswered. This study also shows that in M.Phil Scholars, 72.8 % respondents were aware of e-journals and 27.2 % were not aware of them. In Ph.D Scholars 100 % respondents were aware of e-journals. Overall, in research scholars, more than third of the respondents (86.9 %) were aware of e-journals while 13.1 % were not aware at all. This study found about place of accessing e-journals, In Ph.D Scholars, more respondents (54.5 %) became access of e-journals from Department Lab than in the Scholars M.Phil scholars (38.9%). 15.2% respondents in M.Phil Scholars and 14.7% Ph.D scholars came to access about e-journals from cyber cafe. Similarly In M.Phil Scholars, more respondents (27.1 %) became access of e-journals from university central library than in the Ph.D Scholars (12.5 %). 18% respondents both M.Phil Scholars and Ph.D scholars came to access about e-journals from hostel campus. Overall, in research scholars one important place of accessing e-journals were Department lab. It is also clear from the above table that majority of users have become accessing of e-journals by using Dep.lab Ph.D scholars and as well as in M.Phil Scholars, while least number of users access from cyber cafe.

Keywords: E-resources, E-Journals, User Study, Internet, Open Access, Academic Library.

1. INTRODUCTION

The twentieth century was shaped by sweeping changes in communication technologies. The emergence and use of information technology is the century's most significant development affecting scholarly communication. The application of computers to information processing has brought several products and services to the scenes. Consequently, the academic community has undergone tremendous changes during these years, assuming new dimensions influenced by technology-driven applications. Libraries have witnessed a great metamorphosis in recent years both in their collection development and in their service

structures. Thus Libraries are using technology to improve the management of scholarly information to strengthen and speed access to scholarly information not held locally. Over the last several years a significant transformation has been noticed in collection development policies and practices. Print medium is increasingly giving way to the electronic form of materials (Sharma, 2009). Ani (2008) states that “the transition from print to electronic medium apart from resulting in a growth of electronic information, has provided users with new tools and applications for information seeking and retrieval. Electronic resources are invaluable research tools that complement the print-based resources in a traditional library setting.

Commenting on the advantages of electronic resources, Dadzie (2007) writes that electronic resources are in-valuable research tools that complement the print – based resources in a traditional library setting. Their advantages, according to her include: access to information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources related contents. This rapid emergence and development of electronic information technologies therefore makes it possible to envision radically different ways of organizing the collections and services the library has traditionally provided. While libraries approach a crisis point in financing collection development, these new technologies offer possible ways to mitigate costs and revolutionize ways to access information. Naidu (2007) also finds that speedy publication and availability on the desktop are the key advantages that attract research scholars.

2. REVIEW OF LITERATURE

Pardeep Mittal, Monu Bala (2013)¹ carried a study “Use of e-resources in universities” that study expressed According to the information collected through interviews, interviews are also taken from students, research scholars and faculties to check their awareness and usage of e-Resources. According to the interviews most of them are familiar with e-Resources, they also use these resources but these resources mainly include E-journals, E-thesis and EBooks, which are helpful for them in their research work. They are not much familiar with other e-Resources as they do not know to access directly these resources. Therefore, the access of these resources for them is very time consuming and sometimes it also results in irrelevant information. Hence, the advantages of e-Resources are unknown to them.

Faizul Nisha & Naushad Ali (2012)² conducted a study “ Use of E-Journals by IIT Delhi And Delhi University Library Users”. They found that that most of the users are aware of ejournals and they are not only using them for building and updating their knowledge but also for collecting relevant material for their study and research purpose as information can be acquired expeditiously through e-journals. The main aim of consulting these journals is for retrieving information regarding research, publishing papers, assignments, presentations, seminars, and largely to update their own knowledge. However, this study also reveals several inherent problems especially with the use of e-journals e.g. Slow downloading as revealed by maximum IIT Delhi and Delhi University users. Other mechanical deficits like non-availability of a particular issue, lack of training and limited access to terminals are also present while using e-journals.

Thanuskodi (2010)³ The internet is also making substantial inroads in patient care and dissemination of health care information. It is changing the way health sciences professionals obtain information. They use the internet and electronic resources to do things like accessing medical records, providing remote patient care through telemedicine facilities, and accessing

health care literature. Medicine is among many other sciences, an area in which the expansion of information is enormous and which is critically dependent on up to date information. These factors have influenced the implementation of problem based learning approach in the medical education. Numerous search tools are available to locate appropriate sources and without these search tools, the chance of finding relevant information on the Web would be slim. Even with the help of search tools, users must be able to sophisticated searching techniques and strategies of respective search tools in order to find relevant information. Results of the present study show that less than two hours of access to internet takes the first order reporting among the medical professionals of Tamil Nadu. About two to three hours of access to internet the second, 3-4 hours of access to internet the third, 4-5 hours of access to internet the fourth and above 5 hours of access to internet the last. Study reveals that respondents have high problems in accessing e-resources in terms of virus, difficulty in using digital resources due to lack of Information Technology (IT) knowledge and limited access to computers. The respondents have moderate problems in accessing relevant information and taking long time to view. The respondents have low problems in accessing towards slow accessibility, lack of time and too much information retrieved.

Shajarul Islam Khan (2012)⁴ studied “ use of e journal by research scholars in the department of botany Aligarh Muslim University”. He found More respondent are used UGC-INFONET by Research Scholars 100%, M.Sc. students used 90.48% and B.Sc. students used 56.82%, CSIR Consortium used by Research Scholars 73.33%, M.Sc. students used 66.67% and B.Sc. students used 43.18%, J- Gate used by Research Scholars 46.67%, M.Sc. students used 28.57% and B.Sc. students used 20.45% and user prefer other consortium very less such as 20% RS used different-different Consortium M.Sc. students used only 19.05% and B.Sc. students used only 9.09% in this table shown that UGCINFONET consortium is very important for everyone in the department of botany AMU Aligarh and other Consortium also used by the user regularly.

Banker and Gajbhiye (2011)⁵ found at National Research Center for Citrus (NRCC), Nagpur that majority of users faced the problem of slow downloading (81.81 percent), non-availability of full text articles (45.45 percent) lack of training (27.27 percent) and unfamiliarity with e-resources (22.72 percent). PG and doctoral students at Kerala Agricultural University (Francis, 2012) faced problems of non availability of essential resources (64.75 percent), lack of knowledge in searching (59.84 percent), slow speed of internet (59.02 percent), limitation of night working (56.56 percent), non availability of abstracts (41.80 percent), additional irrelevant information (35.25 percent), inadequacy of computer terminals (17.21 percent) etc.

Mahapatra & Gayatri (2011)⁶ carried a study “User satisfaction of the Central Library of Odisha University of Agriculture and Technology Agriculture and Technology (OUAT), Bhubneshwar”. He found that 59.17 percent users were satisfied with ejournals while 75 percent with CDROM and 54.16 percent with online databases. The users who access the e-journals daily are considerably less (25%) and users using e-journals 2-3 times a week is 53%. Easy search (88%) and Speed of publication (85%) are the key advantages, as revealed in study. The problem areas in which the respondents face considerable troubles include lack of training (53%) and difficult to read from screen (39%).

Thanuskodi (2010)⁷ has revealed in his study the present situation of declining budgets and higher subscription costs of journals in India, it is becoming very difficult to meet the demands of library users. The age of library consortia is at the doorsteps to prove the library cooperation locally, regionally, nationally and internationally. It is the one of the emerging

tool kit for the maximum libraries to survive if the libraries have to provide information to their users.

Sunil Tyagi (2011)⁸ conducted a study of “Scientists’ Perception of Use of Electronic Information Resources: A Case Study of Pharmacopoeia Laboratory for Indian Medicine”. Their responses are depicted in Majority of Scientists (100%) browsed E-Journals, Online Databases and used CD-ROM Databases. In case of Scientists from GOI departments (100%) browsed subject specific information websites, E-Journals, online databases and used CD-ROM databases. The Scientific Assistants marked (100%) in browsing of e-journals, online databases, and CD-ROM databases respectively

E-Journals awareness and use among research scholars of Central Science Library; University of Delhi has been accessed by Ali and Nisha (2011)⁹. Findings of the study clearly reveal that more than 60 per cent of users in the Central Science Library are using e-journals weekly for the purpose of research. Print journals are consulted by the majority of users compared with e-journals. Keyword is the most popular search method for searching e-journals among research scholars, whereas the date of publication carries the least percentage among all the options. However, it is found that slow downloading of PDF files is the major problem that would discourage users while using e-journals.

SeemaVasishta & Navijyoti (2011)¹⁰ conducted a study “Trends in the Use of E-journals: A Case Study of PEC University of Technology, Chandigarh”. It is particularly use of INDEST consortium. They found 100% users were aware of the facility of e-journals and majority of users (46%) gain knowledge about e-journals from the library web page. As far as learning how to access the e-journals, users were not depending on any particular means. Majority of them (37%) acquired skills from formal training given by library staff and 22% used the guidance given by other users. For a significant proportion of the users (65%), library is a favorite place to access e-journals. The users were aware that e-journals could be utilized for various purposes like for research work, seminars, project work and writing papers etc, but primarily it is being used for research purpose (57%). The users who access the e-journals daily are considerably less (25%) and users using e-journals 2-3 times a week is 53%. Easy search (88%) and Speed of publication (85%) are the key advantages, as revealed in study. The problem areas in which the respondents face considerable troubles include lack of training (53%) and difficult to read from screen (39%). From the analysis it is apparent that a significant segment of users (57%) are fully satisfied with the facilities provided by the CL PEC in accessing e-journals. Results of study also reveal that a good number of users (49%) want to access journals in electronic form in future.

Thanuskodi (2009)¹¹ has revealed in his study declining budgets and higher subscription costs, it is becoming difficult to meet the demands of library users. The age of library consortia brings cooperation locally, regionally, nationally, and internationally. It is a toolkit to help libraries survive and provide the best information to their users.

2.1 OBJECTIVES OF THE STUDY

The main objectives of the study are as follows:

- To study about the awareness of e-journals among research scholars, in the Alagappa University.
- To find the purpose of the using e-journals by the research scholars.
- To study the use of e-journals.

- To find out the most frequently used e-journals being referred by research scholars.
- To study the research output after usage of e-Journals by research scholars.
- To study the users satisfaction pertaining to e-journals availability.
- To study the problems faced by s research scholars in accessing e-journals.

3. RESEARCH METHODOLOGY

The study used a questionnaire, with 25 questions spread over the following areas General profile of the respondent, frequency of visit the library, frequency of using library services, use of ICT services, purpose of information gathering, preferred search engine for information seeking, among Research Scholars (M.Phil and Ph.D) of Alagappa University, Karaikudi.

The researcher has employed a well structured questionnaire for collecting the data from the research scholar of Alagappa University. The questionnaire has been prepared in such a way that the respondents could easily understand the items. The population of this study consists of Research scholars Alagappa University, Karaikudi (TN). As it is not possible to study the entire population in view of time and cost, a sample of 200 Research scholars has been selected by simple random sampling method. The Research Scholars covered in the study are from Arts, Education, Science, Management faculty. Out of the 200 research scholars thus selected, 169 research scholars returned the questionnaire, with an overall response rate of 84.5%. The sample for the present study is composed of 200 research scholars.

4. DATA ANALYSIS

4.1 General Information

Analysis and interpretation of general characteristics of the respondents of research scholars have been presented in tabular (table 4.1 to table 4.3) as well as in graphical form. These characteristics include response, gender, and status of respondents.

Table 4.1 Response of Research Scholars

Research Scholars	Respondents N (%)
M.Phil	81 (47.9)
Ph.D	88 (52.1)
Total	169 (100.00)

Table 6.1 shows the number of respondents in research scholars. In Ph.D scholars, more respondents (52.1%) participated in the study than the M.Phil. scholars (47.9%). It is pertinent to mention here that some responses received from M.Phil. Scholars were not usable as most of the questions were left unanswered.

4.2. Gender wise response in Research Scholars

Table 4.2 Gender wise response in Research Scholars

Gender	M.Phil N (%)	Ph.D N (%)
Male	49 (60.5)	54 (61.4)
Female	32 (39.5)	35 (39.6)
Total	81 (100.00)	88 (100.00)

Table 4.2 shows gender wise respondents in research scholars. In M.Phil Scholars, 60.5% respondents were males while 39.5% respondents were females. Likewise in Ph.D scholars, 61.4% respondents were males and 39.6% respondents were females which was slightly more than the M.Phil scholars.

4.3. Faculties of respondents in Research Scholars

Table 4.3 Faculties of respondents in Research Scholars

Faculties	M.Phil N (%)	Ph.D N (%)	Total N (%)
Arts	17 (20.9)	19 (21.6)	36 (21.3)
Science	16 (19.7)	21 (23.9)	37 (21.9)
Management	22 (27.2)	26 (29.4)	48 (28.4)
Education	26 (32.1)	22 (25.0)	48 (28.4)
Total	81 (100.0)	88 (100.0)	169 (100.0)

Table 4.3 shows the respondents according to their status. In M.Phil Scholars, 32.1 % respondents were Education faculty, followed by 27.2 % Management faculty, 20.9 % Arts faculty and 19.7 % Science faculty while in Ph.D Scholars, 29.4 % Management faculty followed by 25 % Education faculty, 23.9% Science faculty and 21.6 % Arts faculty. Overall, 28.4 % respondents were Management and Education faculties, followed by 21.9 % Science faculty and 21.3 % Arts faculty. It shows that in both research Scholars education and management faculty responded more than Arts and Science faculty

4.2 Library Visits and Use of Internet

Analysis and interpretation of the data related to library visits and use of Internet by research scholars has been presented in following tables (table 4.4 to table 6.7. This aspect include frequency of library visits, period of internet use, frequency of internet use, use of internet based services.

4.4. Frequency of users' library visits

Table 4.4 Frequency of users' library visits

Frequency	M.Phil N (%)	Ph.D N (%)	Total N (%)
Daily	28 (34.6)	53 (60.2)	71 (42.0)
Weekly	24 (29.6)	28 (31.8)	62 (36.7)
Monthly	16 (19.8)	5 (5.7)	21 (12.4)
Several times a year	8 (9.8)	2 (2.3)	11 (6.5)
Occasionally	5 (6.2)	0 (0.0)	5 (2.9)
Total	81 (100.00)	88 (100.00)	169 (100.0)

Table 4.4 presents users' frequency of visiting library. A total of 60.2 % respondents of Ph.D Scholars visited library daily while only 34.6 % respondents of M.Phil Scholars visited library with same frequency. The weekly visit to library was made by almost same number of respondents in Ph.D Scholars (31.8 %) and M.Phil Scholars (29.6 %). The monthly visit to library was made by more respondents in M.Phil scholars (19.8 %) than in Ph.D Scholars (5.7 %). On the other hand, occasional visitors were more in M.Phil Scholars (6.2 %) than in Ph.D Scholars (0 %). Similarly, there were more respondents in M.Phil Scholars (9.8 %) than in Ph.D Scholars (2.3%) who visited library several times a year.

4.5. Period of use of Internet by users

Table 4.5 Period of use of Internet by users

Period	M.Phil N (%)	Ph.D N (%)	Total N (%)
Less than 1 Year	6 (7.4)	4 (4.5)	10 (5.9)
1-2 years	11 (13.6)	16 (18.2)	27 (15.9)
3-5 years	28 (34.6)	25 (28.4)	61 (36.1)
Above 5 Years	36 (44.4)	43 (48.9)	71 (42.1)
Total	81 (100.00)	88 (100.00)	169 (100.0)

Table 4.5 shows period of use of Internet by users. A total of 48.9 % Ph.D scholars respondents were using Internet for more than five years while a little less i.e. 44.4 % respondents of M.Phil Scholars were using internet for the same period. In the period of 3-5 years the use of Internet was almost same in M.Phil Scholars (34.6 %) and Ph.D Scholars (28.4 %). In the duration of 1-2 years the use of Internet was a little bit more in Ph.D Scholars (18.2 %) than in .Phil Scholars (13.6 %). More respondents of M.Phil Scholars (7.4 %) started using Internet only during last one year than in Ph.D Scholars (4.5%). Thus it is clear from the table that respondents of both type of research scholars were quite experienced in using Internet and more than 42 % respondents of M.Phil scholars and Ph.D Scholars had been using Internet for more than 5 years.

4.6. Frequency of Internet use

Table 4.6 Frequency of Internet use

Frequency	M.Phil N (%)	Ph.D N (%)	Total N (%)
Daily	53 (60.2)	28 (34.6)	71 (42.0)
Weekly	28 (31.8)	24 (29.6)	62 (36.7)
Monthly	5 (5.7)	16 (19.8)	21 (12.4)
Several times a year	2 (2.3)	8 (9.8)	11 (6.5)
Occasionally	0 (0.0)	5 (6.2)	5 (2.9)
Total	88 (100.00)	81 (100.00)	169 (100.0)

Table 6.6 presents respondents' frequency of use of Internet. A total of 60.2 % M.Phil Scholars respondents used Internet daily while 34.6 % respondents of Ph.D Scholars were using internet daily. The weekly use of Internet was more in M.Phil Scholars (31 %) than in Ph.D Scholars (29 %). The response in other three less frequently used categories i.e. monthly, several times a year and occasionally was quite low. However, in all these three categories response of M.Phil Scholars was more than those in Ph.D Scholars.

4.7. Internet based services used

Table 4.7 Internet based services used

Services	M.Phil N (%)		Ph.D N (%)		Total N (%)	
	Yes	No	Yes	No	Yes	No
Search engine	52 (64.2)	29 (36.8)	88 (100)	0 (0)	140 (82.8)	29 (17.2)
E-mail	76 (93.8)	5 (6.2)	81 (92.0)	7 (8.0)	157 (92.9)	12 (7.1)
Chatting	43 (53.1)	38 (46.9)	57 (64.8)	31 (35.2)	100 (59.2)	69 (40.8)
FAQ	25 (30.9)	56 (69.1)	68 (77.3)	20 (22.7)	93 (55.0)	76 (45.0)
E-commerce	19 (23.4)	62 (76.6)	24 (27.3)	64 (72.7)	43 (25.4)	126 (74.5)
BBS	25 (30.9)	56 (69.1)	68 (77.3)	20 (22.7)	93 (55.0)	76 (45.0)

Table 4.7 shows the number of users and non users of internet based services like Search engine, e-mail, Chatting, Frequently Asked Questions (FAQ), e-commerce and Bulletin Board Services (BBS). In Ph.D Scholars, 100 % respondents used Search Engine which was slightly more than the M.Phil Scholars (64.2 %). Likewise, 93.8 % respondents in M.Phil Scholars used e-mail service which was also more than the Ph.D Scholars (92 %). There were 64.8 % respondents in Ph.D Scholars who used Chatting service while almost half of this number used this service in M.Phil Scholars (53.1 %). Response of both research scholars regarding other services like FAQ, e-commerce and BBS was also on similar pattern and respondents of Ph.D Scholars used these services more than M.Phil Scholars. Overall, in technic research scholars, two most used services were e mail (92 %) and search engine service (82 %) distantly followed by chatting (59 %) FAQ service (55 %), and BBS service (55 %). while the least used services were e-commerce (25 %)

4.3 Awareness of E-Journals

Analysis and interpretation of the data related to awareness of e-journals in research scholars has been presented in following tables (table 6.9 to table 6.15). This aspect includes awareness of e-journals, number of e-journals, sources of awareness of e-journals, period of awareness of print journals and e-journals, comparison of period of awareness of print and e-journals.

Table 4.8. Awareness of e-journals

Awareness	M.Phil N (%)	Ph.D N (%)	Total N (%)
YES	59 (72.8)	88 (100)	147 (86.9)
NO	22 (27.2)	0 (0)	22 (13.1)
Total	81 (100.0)	88 (100.0)	169 (100.0)

Table 6.9 shows the awareness of e-journals among research scholars. Out of a total of 169 respondents, All are responded to this question. In M.Phil Scholars, 72.8 % respondents were aware of e-journals and 27.2 % were not aware of them. In Ph.D Scholars 100 % respondents were aware of e-journals. Overall, in research scholars, more than third of the respondents (86.9 %) were aware of e-journals while 13.1 % were not aware at all.

4.9. Faculty wise awareness of e-journals

Table 4.9 Faculty wise awareness of e-journals

Faculties	M.Phil N (%)	Ph.D N (%)	Total N (%)
Arts	11 (18.6)	19 (21.6)	30 (20.4)
Science	13 (22.0)	21 (23.9)	34 (23.1)
Management	19 (32.2)	26 (29.4)	45 (30.6)
Education	16 (27.1)	22 (25.0)	38 (25.8)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 6.10 shows the status wise awareness of e-journals in research scholars. It is clear from the above table that almost all the management faculty research scholars (32.2 % in M.Phil and 29.4 % in Ph.D) were aware of e-journals, followed by education faculty (27.1 % in M.Phil and 25.0 % in Ph.D), Science faculty (23.9 % in Ph.D and 22.0 % in M.Phil) and Arts faculty (21.6 % in Ph.D and 18.6 % in M.Phil).

4.10. Users' awareness of number of e-journals

Table 4.10 Users' awareness of number of e-journals

Number of e journals	M.Phil N (%)	Ph.D N (%)	Total N (%)
1-5 e- journals	8 (13.5)	3 (3.4)	11 (7.5)
6-10 e- journals	21 (35.6)	31 (35.2)	52 (35.4)
11 -20 e- journals	19 (32.2)	13 (14.8)	32 (21.8)
Above 21 e- journals	11 (18.6)	41 (46.6)	55 (37.4)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.10 shows the users' awareness of e-journals. In Ph.D Scholars more respondents (46.6 %) were aware of more than above 21 e-journals than in M.Phil Scholars (18.6%). On the other hand, more respondents in M.Phil Scholars (32.2 %) were aware of 11-20 e-journals than in Ph.D Scholars (14.8 %). Likewise, the equal respondents who were aware of 6-10 e-journals were 35%. M.Phil Scholars and Ph.D Scholars. Least respondents rate is 3.4% Ph.D and 13.5% M.Phil scholars.

4.11. Sources of awareness of e-journals

Table 4.11 Sources of awareness of e-journals

Number of e journals	M.Phil N (%)	Ph.D N (%)	Total N (%)
Internet / Intranet	16 (27.1)	11 (12.5)	27 (18.4)
Workshop / Seminar	11 (18.6)	16 (18.2)	27 (18.4)
Library / Librarian	9 (15.2)	13 (14.7)	22 (14.9)
Dep.Faculty / Friends	23 (38.9)	48 (54.5)	71 (48.3)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.11 shows the different sources from which users became aware of e-journals. In Ph.D Scholars, more respondents (54.5 %) became aware of e-journals through Department faculty / friends than in the Scholars M.Phil scholars (38.9%). 15.2% respondents in M.Phil Scholars and 14.7% Ph.D scholars came to know about e-journals through library and librarians. Similarly In M.Phil Scholars, more respondents (27.1 %) became aware of e-journals through Internet/Intranet than in the Ph.D Scholars (12.5 %). 18% respondents both M.Phil Scholars and Ph.D scholars came to know about e-journals through workshop and seminar. Overall, in research scholars one important sources of awareness of e-journals were Dep.Faculty / Friends It is also clear from the above table that majority of users have become aware of e-journals by using Dep.faculty / friends Ph.D scholars and as well as in M.Phil Scholars, while least number of users through librarian guidance.

4.4 Use of E-Journal

4.12. Use of e-journals by research scholars

Table 6.18 Use of e-journals by research scholars

Use	M.Phil N (%)	Ph.D N (%)	Total N (%)
YES	59 (72.8)	88 (100)	147 (86.9)
NO	22 (27.2)	0 (0)	22 (13.1)
Total	81 (100.0)	88 (100.0)	169 (100.0)

Table 4.12. shows the awareness of e-journals among research scholars. Out of a total of 169 respondents, All are responded to this question. In M.Phil Scholars, 72.8 % respondents were use of e-journals and 27.2 % were not use of them. In Ph.D Scholars 100 % respondents

were use of e-journals. Overall, in research scholars, more than third of the respondents (86.9 %) were use of e-journals while 13.1 % were not use at all.

4.13. Faculty wise use of e-journals

Table 4.13 Faculty wise use of e-journals

Faculties	M.Phil N (%)	Ph.D N (%)	Total N (%)
Arts	11 (18.6)	19 (21.6)	30 (20.4)
Science	13 (22.0)	21 (23.9)	34 (23.1)
Management	19 (32.2)	26 (29.4)	45 (30.6)
Education	16 (27.1)	22 (25.0)	38 (25.8)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.13. shows the faculty wise use of e-journals by research scholars. It is clear from the above table that almost all the management faculty research scholars (32.2 % in M.Phil and 29.4 % in Ph.D) were use of e-journals, followed by education faculty (27.1 % in M.Phil and 25.0 % in Ph.D), Science faculty (23.9 % in Ph.D and 22.0 % in M.Phil) and Arts faculty (21.6 % in Ph.D and 18.6 % in M.Phil).

4.14. Place of accessing e-journals

Table 4.14. Place of accessing e-journals

Place	M.Phil N (%)	Ph.D N (%)	Total N (%)
University Library	16 (27.1)	11 (12.5)	27 (18.4)
Hostel Campus	11 (18.6)	16 (18.2)	27 (18.4)
Cyber café	9 (15.2)	13 (14.7)	22 (14.9)
Dep. Lab	23 (38.9)	48 (54.5)	71 (48.3)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 6.12 shows the different places from which users became accessing of e-journals. In Ph.D Scholars, more respondents (54.5 %) became access of e-journals from Department Lab than in the Scholars M.Phil scholars (38.9%). 15.2% respondents in M.Phil Scholars and 14.7% Ph.D scholars came to access about e-journals from cyber cafe. Similarly In M.Phil Scholars, more respondents (27.1 %) became access of e-journals from university central library than in the Ph.D Scholars (12.5 %). 18% respondents both M.Phil Scholars and Ph.D scholars came to access about e-journals from hostel campus. Overall, in research scholars one important place of accessing e-journals were Department lab. It is also clear from the above table that majority of users have become accessing of e-journals by using Dep.lab Ph.D scholars and as well as in M.Phil Scholars, while least number of users access from cyber cafe.

4.15. Time spent on use of e-journals per week

Table 4.15 Time spent on use of e-journals per week

Period	M.Phil N (%)	Ph.D N (%)	Total N (%)
Less than 1 hour	6 (7.4)	4 (4.5)	10 (5.9)
1-2 hours	36 (44.4)	43 (48.9)	71 (42.1)
3-5 hours	28 (34.6)	25 (28.4)	61 (36.1)
Above 5 hours	11 (13.6)	16 (18.2)	27 (15.9)
Total	59 (100.00)	88 (100.00)	147 (100.0)

Table 6.21 shows the number of hours per week spent by users on use of e-journals. More respondents in Ph.D Scholars (48.9 %) used e-journals for 1-2 hours weekly than those in M.Phil Scholars (44.4 %). In M.Phil Scholars maximum number of respondents (34.6 %) used them for 3-5 hours than the Ph.D Scholars (28.4%). Almost same number of respondents in both type of research scholars used e-journals for above 5 hours per week. Interestingly, a small number of respondents in Ph.D Scholars (4.5 %) and M.Phil scholars (7.4 %) used e-journals for less than one hour.

4.16. Purpose of using e-journals

Table 4.16. Purpose of using e-journals (Multiple Responses)

Purpose	M.Phil N (%)	Ph.D N (%)	Total N (%)
Research Work	59 (100)	88 (100)	147 (100)
Current Awareness	47 (79.7)	69 (78.4)	116 (78.9)
Writing Papers	51 (86.4)	76 (86.4)	127 (86.4)
Preparing Notes	31 (52.5)	48 (54.5)	79 (53.7)

Table 4.16 shows the different purposes of users in using e-journals. In Ph.D Scholars and M.Phil scholars 100% made use of e-journals for their research work. Secondly, more Ph.D scholars respondents (86.4 %) made use of e-journals for the purpose of writing research papers than M.Phil scholars respondents (39.73 %). Use of e-journals for Current Awareness and Preparing notes was almost same in both types of scholars. Overall, in research scholars e-journals were primarily used for the purpose of conducting research work (100 %) followed by writing papers (86.4 %), current awareness (78.9) and preparing notes (53.7 %).

It is necessary to point out here that both research scholars are respondents used e-journals for 100% research work. And followed by writing papers. It is clearly reflected from above table that majority of respondents are using e-journals for doing their research work by research scholars.

4.17. Type of e-journals used by the respondents

Table 4.17 Type of e-journals used by the respondents

Types of e-journal	M.Phil N (%)	Ph.D N (%)	Total N (%)
Open Access	26 (44.1)	37 (42.0)	63 (42.9)
Subscribed / consortium based	33 (55.9)	51 (57.9)	84 (57.1)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.17 shows the use of open access and subscribed/ consortia based e-journals by the respondents of research scholars. In Ph.D Scholars more respondents (57.9 %) made use of subscribed/consortia based e-journals than the respondents in M.Phil Scholars (55.9 %). While in M.Phil Scholars the use of open access journals was more (44.0 %) than in Ph.D Scholars (42.0 %). Overall, in research scholars more respondents Ph.D Scholars (65.98 %) made use of subscribed/consortia based e-journals than M.Phil scholars use of open access journals (42.7 %).

4.5. Period of using e-journals: Print journals have been in existence for more than 400 years. E-journals entered the scene practically during the last decade of 20th century but due to many additional features of e-format these are being accepted by scholarly community speedily. This section analyses the response on use of journals in both formats.

4.18. Period of using e-journals

Table 4.18 Period of using e-journals

Period	M.Phil N (%)	Ph.D N (%)	Total N (%)
Less than one year	26 (44.1)	41 (46.6)	67 (45.6)
1-2 years	30 (50.8)	31 (35.2)	61 (41.5)
2- 5 years	3 (5.1)	13 (14.8)	16 (10.9)
Above 5 years	0 (0)	3 (3.4)	3 (2.0)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.18 shows the period of use of e-journals. Out of a total of 200 respondents 147 responded to this question. More respondents in Ph.D Scholars (3.4 %) than the M.Phil Scholars (0 %) used e-journals for more than five years. Similarly, in the duration of 2-5 years e-journals were slightly more used in Ph.D Scholars (14.8 %) than M.Phil Scholars (5.1 %). The respondents in M.Phil Scholars (50.8 %) used e-journals more than Ph.D Scholars (35.2 %) in the duration of 1-2 years. Almost similar number of respondents in both type of scholars (44.1 % in M.Phil scholars and 46.6 % in Ph.D Scholars) were using e-journals for last one year.

4.19. Frequency of using e-journals.

Table 4.19 Frequency of using e-journals

Frequency	M.Phil N (%)	Ph.D N (%)	Total N (%)
Daily	23 (38.9)	48 (54.5)	71 (48.3)
Weekly	17 (28.8)	26 (29.6)	43 (29.2)
Monthly	19 (32.2)	13 (14.8)	32 (21.8)
Rarely	0 (0)	1 (1.1)	1 (0.7)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.19 shows the frequency of using e-journals. Out of a total of 200 respondents 147 responded to this question. More respondents in Ph.D Scholars (54.5 %) than the M.Phil Scholars (38.9 %) used e-journals daily. Similarly, in the frequency of weekly e-journals were slightly more used in Ph.D Scholars (29.6 %) than M.Phil Scholars (28.8 %). The respondents in M.Phil Scholars (32 %) used e-journals more than Ph.D Scholars (14 %) in the frequency of monthly. Finally 1.1 % Ph.D research scholars using were using e-journals for rarely.

4.20. Access mode of e-journals

Table 4.20 Access mode of e-journals (Multiple responses)

Faculties	M.Phil N (%)	Ph.D N (%)	Total N (%)
Library / Consortia portal	47 (79.7)	69 (78.4)	116 (21.3)
Search engine	42 (71.2)	51 (57.9)	93 (21.9)
Publisher website	32 (54.2)	46 (52.3)	78 (28.4)
CD- Rom Database	26 (44.1)	29 (32.9)	55 (28.4)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.20 shows different access modes of e-journals like library/ consortia portal, publisher website, search engines and CD ROM databases being used by respondents. Use of e-journals through library/ consortia portal was most preferred mode for both M.Phil scholars (79.7) and Ph.D Scholars (78.4). The second preferred mode was search engine in both the research scholars (71.2% in M.Phil and 57.9 % in Ph.D scholars). Almost equal no respondent in both the scholars (54.2 % in M.Phil and 52.3 % in Ph.S scholars) used publisher website for accessing e-journals. Significantly more number of respondents in (44.1 %) used M.Phil Scholars CD ROM databases for the same purpose while in Ph.D Scholars the response was only 32.9 %.

4.21. Printouts of downloaded e-articles taken in a week

Table 4.21. Printouts of downloaded e-articles taken in a week

Printouts per week	M.Phil N (%)	Ph.D N (%)	Total N (%)
1-2 printouts	21 (35.6)	31 (35.2)	52 (35.4)
3-5 printouts	19 (32.2)	13 (14.8)	32 (21.8)
6-10 printouts	8 (13.5)	3 (3.4)	11 (7.5)
No printout	11 (18.6)	41 (46.6)	55 (37.4)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.21 shows the Printouts of downloaded e-articles taken in a week of e-journals. In Ph.D Scholars more respondents (46.6 %) were no printouts of more than in M.Phil Scholars (18.6%). On the other hand, more respondents in M.Phil Scholars (35.6 %) were take printout of 1-2 printouts than in Ph.D Scholars (35.2 %). Likewise, the Ph.D scholars 14.8% and 32.2% M.Phil Scholars who were printouts of 3-5 e-journals per week .. Least respondents rate is 3.4% Ph.D and 13.5% M.Phil scholars for 6-10 printouts e journals in a week.

4.6. Successful Search and User Satisfaction

Any information source is as useful as it is able to satisfy users' requirements. Having discussed various aspects of use of e-journals users were requested to specify their views regarding various aspects of e-journals provision by the institution and various features of e-journals. The responses received on frequency of successfully finding info in e-journals, convenience in using these journals and level of satisfaction and features of e-journals have been presented in this section.

4.22. Frequency of finding information in e-journals

Table 4.22 Frequency of finding information in e-journals

Number of e journals	M.Phil N (%)	Ph.D N (%)	Total N (%)
Always	21 (35.6)	13 (14.8)	34 (23.1)
Some time	30 (50.8)	58 (65.9)	88 (59.9)
Rarely	8 (13.5)	17 (19.3)	25 (17.0)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.22 shows success rate of finding the required information in e-journals.. Almost one third number of respondents in both type of research scholars (35.6 % in M.Phil and 14.8 %

in Ph.D Scholars) always found their required information while using e-journals. More respondents in Ph.D Scholars (65.9 %) found their required information sometimes than the M.Phil Scholars respondents in (50.8 %). On the other hand, more respondents in Ph.D Scholars (19.3 %) than in M.Phil Scholars (13.5 %) found their required information in e-journals rarely.

4.23. Less convenience in use of e-journals

Table 4.23. Less convenience in use of e-journals

Options	M.Phil N (%)	Ph.D N (%)	Total N (%)
Yes	13 (14.8)	21 (35.6)	34 (23.1)
No	58 (65.9)	30 (50.8)	88 (59.9)
Cannot Say	17 (19.3)	8 (13.5)	25 (17.0)
Total	88 (100.0)	59 (100.0)	147 (100.0)

Table 4.23. shows the users' convenience in using e-journals. In M.Phil Scholars more respondents (65.9 %) found e-journals more convenient as they opted 'No' option in response to the question "Are e-journals somewhat less convenient as compared to available print journals". In Ph.D Scholars 50.8 % users responded in this category. However, more respondent in Ph.D Scholars (35.6 %) found e-journals less convenient than those in M.Phil Scholars (14.8 %). respondents was undecided on this issue in both types of research scholars. Thus, respectively 19.5% M.Phil scholars majority of respondents opted cannot say anything.

4.24. Satisfaction level of respondents

Table 4.24 Satisfaction level of respondents

Satisfaction level	M.Phil N (%)	Ph.D N (%)	Total N (%)
Fully Satisfied	21 (35.6)	31 (35.2)	52 (35.4)
Partially satisfied	11 (18.6)	41 (46.6)	55 (37.4)
Least Satisfied	19 (32.2)	13 (14.8)	32 (21.8)
Not	8 (13.5)	3 (3.4)	11 (7.5)
Total	59 (100.0)	88 (100.0)	147 (100.0)

Table 4.24. shows the level of satisfaction of respondents in using e-journals. In M.Phil Scholars more respondents (35.6 %) were fully satisfied with use of e-journals than the respondents in Ph.D Scholars (35.2 %). More respondents in Ph.D Scholars (46.6 %) were partially satisfied with use of e-journals than the respondents in M.Phil Scholars (18.6 %). Almost same number of respondents in Ph.D Scholars (14.8 %) and M.Phil Scholars (32.2 %) were least satisfied with use of e-journals. Whereas, a small number of Ph.D Scholars respondents (3.4 %) and M.Phil Scholars respondents (13.5 %) were not satisfied while

making use of e-journals.

5. SUGGESTIONS

Based on the findings of the study the following suggestions are made:

- The authority must conduct training programmes for users regarding how to use e-journals and online databases.
- Awareness should be created to use e-journals and online databases to fulfill information needs.
- More computer terminals should be installed in the library for the benefit of users.
- There is need to include more number of e-journals in various disciplines.
- More fund should be given to acquire e-journals.
- Information professionals have to help users to create awareness and use of e-journals.

6. CONCLUSION

E-journals opened up many exciting opportunities and potentials for academic libraries. e-journals have both advantages and disadvantages. Librarians need to be able to identify and balance the factor that would make e-journals a success in their libraries. Looking at the present situation of information explosion and competency in acquiring it, it is on the part of the library staff to create more awareness about the e-journal availability among the users and provide them a friendly environment so that they can make a better use of the facility. From the above study it is observed that e-journals have become the vital part of information for various needs. E-journals are the most important for the research community. It is proceed that e-journals saves time of the users. Lack of training among users and proper infrastructure in the library is a major de-motivating factor in the use of e-journals. This study helps the librarian to know the importance of e-journals and it helps them to improve the services related to e-journals.

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