Use Pattern of Electronic Information Resources by the Faculty Members of Osmania University

Kethavath Lakpathi[1], J Vivekavardhan[2]

Authors Affiliation:

[1]Research Scholar, [2]Assistant Professor, and Chairman Board of Studies, Department of Library and Information Science, Osmania University, Hyderabad, Telangana 500007, India.

Address for correspondence

J Vivekavardhan, Assistant Professor and Chairman Board of Studies, Department of Library and Information Science, Osmania University, Hyderabad, Telangana 500007, India.

E-mail: Vivekavardhan123@gmail.com

Abstract

The main objective of the study is that the use pattern of electronic information resources by the faculty members of Osmania University. The study was conducted through structured questionnaire administered to 120 faculty members 90 questionnaires were received. The paper compares the engineering, science and social science faculty use pattern of e-resources, purpose of use of e-resources, reasons to use e-resources, problems faced while accessing e-resources and mode of training required to access e-resources. Study reveals that majority of the faculty use pattern of e-resources is read findings and conclusion. The purpose of use of e-resources is to update knowledge, science and social science faculty is spending more time than engineering faculty in searching the electronic resources. The main reason to use electronic resource is easy to search, faster search, multiple user access. The study also highlighted on major problems in accessing electronic resource is irrelevant information, huge number of hits, network connectivity, finally faculty expressed that hands on experience training is required to maximum utility of electronic resources.

Keywords: E- Resources; Use pattern; Faculty members; Osmania university.

Introduction

There is a Paradigm shift from traditional libraries into electronic or digital libraries. Traditional libraries are meant for preservation of documents; where as electronic library provides online access to documents, journals through electronic gadgets. Machine Readable Catalogue (MARC) came into existence in libraries during 1960s. Online Public Access Catalogue, (OPAC), Micro computers is a revolution in libraries in 1980s. World Wide Web developed by Tim Berner's Lee in 1990, the web based e-resources are available in libraries. Web Browsers came into existence in 1992. Search Engines came into existence in the year 1994, this leads to more accessible to average patrons. 21st century world is changing to an electronic era. In the information era computer applications during the past few decades have brought radical changes in Library and Information Centers, in the form of information collection, storage, and dissemination. The internet and the web are constantly influencing the development of new modes of scholarly communication.

Academic community has undergone tremendous changes during these years, assuming new dimensions influenced by technology-driven applications. Universities are the highest learning centers and intellectual hubs of every nation. University libraries are the heart of every university as it supports every teaching, learning and research activity. University libraries are today moving towards having access to more and more E-resources in their collection as they form major intellectual research output of the world. The e-resources available in different formats help and support the faculty to carry out the teaching

and research quickly, in an effective and efficient manner. To support teaching, learning and research activities of the academic community of the university Osmania University is a 100 years old university, having access to huge number of E-resources. This study is to realize its use pattern of electronic resources by faculty members of Osmania University.

Need for the Study

Libraries are now moved from traditional resources to more dynamic and flexible e-resources, Osmania University Library is ahead of many other libraries in this way as it have the access to huge and valuable e-resources.With this concern to measure the impact of E-resources the present study has been taken up to know the current state of the use pattern of e-resources by the select faculty members.

E-resources

An electronic resource is defined as a resource which requires computer access or any electronic product that delivers a collection of data, be it text referring to full text databases, electronic journals, image collections, other multimedia products. These may be delivered on CD ROM, on tape, via internet. The e-resources on magnetic and optical media have a vast impact on the collections of university libraries. These are more useful due to inherent capabilities for manipulation and searching, providing information access is cheaper to acquiring information resources, savings in storage and maintenance.

Types of Electronic Resources: Some of the Electronic Resources are

- E-Books
- E-Journals
- E-Thesis and Dissertations
- E-Reference Books
- Research Guides by subject
- Indexes
- Library catalogs
- CD –ROMs, Databases etc.
- Internet Resources

Objectives of the Study: The following are the objectives of the study

1. To find out the use pattern of e-resources by the faculty members

2. To find out the purpose of accessing e-resources by the faculty members

3. To find out the time spent in searching e-resources by the faculty members

4. To find out the reasons to use e-resources by the faculty members

5. To identify the problems faced by the faculty members while accessing the e-resources.

6. To find out the training needs of the faculty members

Statement of the Problem:

The present study has been undertaken to answer what is the use pattern of e-resources, what are the problems in accessing e-resources and to identify the solutions for the problems identified through study to enhance the usage and impact of e-resources available at Osmania University.

Scope and Limitations of the study:

The scope of the study is limited to the Engineering, Science, Social Science select faculty members of Osmania University only.

Methodology

The simple random sampling method was used to collect the primary data. In this analysis 120 questionnaires were administered during in the month of July and August 2019 to the faculty members and 90 questionnaires were received, the response rate was 75%. The data is analyzed on the basis of simple statistical method using SPSS.

Significance of the study:

Osmania University is a 100 years old university, have invested a lot on providing infrastructure for e-resources as of now there are no attempts made to use pattern of e-resources. In this context authors felt it is essential to have a study of use pattern and impact of e- resources. This study would help to assess the use pattern of e-resources, purpose of use of e-resources by faculty members. This study will also help to improve the collection and utility of e-resources.

Review of Literature:

There are a number of studies related to the use of e-journals by faculty members, researchers in various institutions and universities. There

are many factors which affect the use pattern of e-resources. The present study is conducted in the light of the previous studies.

Ojo and Akande (2005) in their research study revealed that the level of usage of the electronic information resources is not high. The major problem identified that lack of information retrieval skills for exploiting electronic resources, thus making the level of usage of e- resources by medical students is very low. Madhusudhan (2008) in his research study reveals that seventy-eight percent (78%) of the respondents feel that the use of the UGC – Infonet e-journals has created high dependency value on their research work. The study also found that users need current article alert services and electronic document supply services. Okello-Obura and Magara (2008) study revealed that users derived a lot of benefits from electronic resources gaining access to a wider range of information and improved academic performance as a result of access to quality information. Kanniyappan, and others (2008) reveals that they identified four barriers to the effective provision of electronic resources in the libraries, namely: lack of strategic planning: lack of adequate or reliable funding; lack

of use of Internet to provide information services to users and a lack of consistent training for users in new ICT services. The study revealed that users derived a lot of benefits from electronic resources gaining access to a wider range of information and improved academic performance as a result of access to quality information. Thangavel P and Jayaprakash M. (2017) study revealed that majority of the respondent's use of e-resources for academic purpose. They are using Google search engine. The problems while using e-resources are lack of time, lack of training, slow accessibility, lack of IT knowledge and lack of facilities. They concluded that library should organize awareness programmes, training programmes to conduct seminars and conferences to instruct their users for maximize the e-resources usage.

Result and Discussion

Use Pattern of e-resources: E-resources are very essential in teaching, leaning and research activities of higher education. Use pattern of e-resources describes that how faculty members are using electronic information in Osmania University. (Table 1)

Table 1: Use Pattern of e-resources.

S. No.	Use Pattern	Faculty							
		Engineering		Science		Social Science		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1.	Read abstract/summary only	12 (40.0%)	18 (60.0%)	18 (60.0%)	12 (40.0%)	21 (70.0%)	9 (30.0%)	51 (56.7%)	39 (43.3%)
2.	Read findings/ conclusion only	18 (60.0%)	12 (40.0%)	24 (80.0%)	6 (20.0%)	18 (60.0%)	12 (40.0%)	60 (66.7%)	30 (33.3%)
3.	Read online and print abstracts	12 (40.0%)	18 (60.0%)	15 (50.0%)	15 (50.0%)	18 (60.0%)	12 (40.0%)	45 (50.0%)	45 (50.0%)
4.	Download and print without reading abstracts	0 (0.0%)	30 (100.0%)	0 (0.0%)	30 (100.0%)	9 (30.0%)	21 (70.0%)	9 (10.0%)	81 (90.0%)
5.	Read online and print full text	18 (60.0%)	12 (40.0%)	15 (50.0%)	15 (50.0%)	15 (50.0%)	15 (50.0%)	48 (50.0%)	42 (53.3%)
6.	Download without reading full text	0 (0.0%)	30 (100.0%)	3 (10.0%)	27 (90.0%)	3 (10.0%)	27 (90.0%)	6 (6.7%)	84 (93.3%)

Source: Primary data collected through questionnaire

The study found that the main use pattern of e-resources is 'Read findings and Conclusion' Faculty wise is in engineering (60%) science (80%) social science (60%). It is concluded that science faculty use pattern is higher than engineering and social science. Overall percentageof Read findings and conclusion is 60 (66.7%). Read Abstract and summary is 51 (56.7%).Read online and Print full

Text is 48 (53.3%), Read online and print abstracts is 45 (50%). The faculty is given least priority to downloading without reading full text i.e 6 (6.7%).

Purpose of Use of e-resources (Rank-wise):

The main purpose of use of e-resources of the three faculties is given in the following table (2) on the

basis of their opinions (rank-wise). The purposes mainly are to update Knowledge, For Research work, For general Information, For Current Information, Learn new things around the world, To enhance academic skills which are shown in table (2).

Table 2: Purpose of Use of e-resources (Rank-wise).

S. No.	Purpose	Faculty	Rank					
			First	Second	Third	Fourth	Fifth	Sixth
1.	To update knowledge	Engineering	12 (40.0%)	9 (30.0%)	3 (10.0%)	3 (10.0%)	3 (10.0%)	0 (0.0%)
		Science	12 (40.0%)	12 (40.0%)	3 (10.0%)	0 (0.0%)	3 (10.0%)	0 (0.0%)
		Social Science	12 (40.0%)	6 (20.0%)	6 (20.0%)	0 (0.0%)	3 (10.0%)	3 (10.0%)
2.	For research work	Engineering	9 (30.0%)	12 (40.0%)	3 (10.0%)	0 (0.0%)	3 (10.0%)	3 (10.0%)
		Science	9 (30.0%)	12 (40.0%)	3 (10.0%)	3 (10.0%)	3 (10.0%)	0 (0.0%)
		Social Science	9 (30.0%)	9 (30.0%)	3 (10.0%)	0 (0.0%)	6 (20.0%)	3 (10.0%)
3.	For general information	Engineering	9 (20.0%)	3 (6.7%)	12 (26.7%)	6 (13.3%)	6 (13.3%)	9 (20.0%)
		Science	4 (5.6%)	10 (13.9%)	7 (9.7%)	12 (16.7%)	15 (20.8%)	24 (33.3%)
		Social Science	0 (0.0%)	3 (4.8%)	9 (14.3%)	27 (42.9%)	6 (9.5%)	18 (28.6%)
4.	For current information	Engineering	0 (0.0%)	6 (13.3%)	3 (6.7%)	15 (55.6%)	9 (20.0%)	12 (26.7%)
		Science	11 (15.3%)	10 (13.9%)	12 (16.7%)	9 (12.5%)	15 (20.8%)	15 (20.8%)
		Social Science	0 (0.0%)	6 (9.5%)	21 (33.3%)	3 (4.8%)	12 (19.0%)	21 (33.3%)
5.	Learn new things around the world	Engineering	3 (6.7%)	0 (0.0%)	3 (6.7%)	18 (40.0%)	12 (26.7%)	9 (20.0%)
		Science	5 (6.9%)	7 (9.7%)	12 (16.7%)	24 (33.3%)	6 (8.3%)	18 (25.0%)
		Social Science	15 (23.8%)	9 (14.3%)	0 (0.0%)	15 (23.8%)	9 (14.3%)	15 (23.8%)
6.	To enhance academic skills	Engineering	6 (13.3%)	3 (6.7%)	9 (20.0%)	0 (0.0%)	15 (33.3%)	12 (26.7%)
		Science	6 (8.3%)	15 (20.8%)	13 (18.1%)	14 (19.4%)	12 (16.7%)	12 (16.7%)
		Social Science	3 (4.8%)	9 (14.3%)	9 (14.3%)	15 (23.8%)	18 (28.6%)	9 (14.3%)

Source: Primary data collected through questionnaire

All the three faculties are given first frank for the purpose 'to update knowledge'. Similarly all three faculty respondents given second rank for 'research work'. 'For general information' purpose the engineering respondents chosen third rank, science faculty chosen sixth rank and social science respondents chosen fourth rank. 'For current information' engineering faculty ranked fourth, both science and social science faculty ranked it as sixth. All the three faculties given fourth rank for the purpose of 'learn new things around the world'. The engineering and social science faculty ranked it as fifth for the purpose of 'to enhance academic skills', whereas the science faculty ranked it with fourth. In a nutshell, it can be concluded that the main purpose of the use of e-resources is to 'update knowledge' on the basis of their rank.

Time spent in searching e-resources: How much time spending faculty in day to day. Time spent is chosen are from <1 hour to More than four hours.

Table 3: Time spent in searching e-resources.

Sl. No.	Time spent	Faculty			
		Engineering	Science	Social Science	Total
1.	<1 hour	3 (10.0%)	0 (0.0%)	0 (0.0%)	3 (3.3%)
2.	1-2 hours	21 (70.0%)	3 (10.0%)	6 (20.0%)	30 (33.3%)
3.	2-3 hours	3 (10.0%)	6 (20.0%)	6 (20.0%)	15 (6.7%)
4.	3-4 hours	3 (10.0%)	9 (30.0%)	3 (10.0%)	15 (6.7%)
5.	More than 4 hours	0 (0.0%)	12 (40.0%)	15 (50.0%)	27 (30.0%)
	Total	30 (100%)	30 (100%)	30 (100%)	90 (100.0%)

Source: Primary data collected through questionnaire

Out of 30 respondents from engineering faculty, majority 21 (70.0%) of them spend 1-2 hours in searching e-resources. Out of 30 science faculty, 12 (40.0%) of them spend more than 4 hours in searching for e-resources. Similarly in Social Science faculty, fifty per cent of faculty (15) spend more than 4 hours. It is inferred from the above table that majority of the faculty spending 1-2 hours in searching the e-resources. (Table 3)

Reasons to use e-resources: To find out the opinion of the faculty what are the reasons to use e-resources. The reasons chosen here are Easy to search, Faster Search, Multiple user access, Available in Multiple formats, 24 × 7 Availability, Easy to read, To save time. The Engineering, Science, Social Science faculty opinions are given below in Table (4)

Table 4: Reasons to use e-resources.

S. No.	Reasons	Faculty							
		Engineering		Science		Social Science		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1.	Easy to search	24 (80.0%)	6 (20.0%)	24 (80.0%)	6 (20.0%)	21 (70.0%)	9 (30.0%)	69 (76.6%)	21 (23.3%)
2.	Faster search	9 (30.0%)	21 (70.0%)	21 (70.0%)	9 (30.0%)	27 (90.0%)	3 (10.0%)	57 (63.3%)	33 (36.7%)
3.	Multiple user access	3 (10.0%)	27 (90.0%)	18 (60.0%)	12 (40.0%)	27 (90.0%)	3 (10.0%)	48 (53.3%)	42 (46.7%)
4.	Available in multiple formats	3 (10.0%)	27 (90.0%)	21 (70.0%)	9 (30.0%)	15 (50.0%)	15 (50.0%)	39 (43.3%)	51 (56.7%)
5.	24× 7 Availability	9 (30.0%)	21 (70.0%)	18 (60.0%)	12 (40.0%)	15 (50.0%)	15 (50.0%)	42 (46.7%)	48 (53.3%)
6.	Easy to read	0 (0.0%)	30 (100.0%)	6 (20.0%)	24 (80.0%)	9 (30.0%)	21 (27.0%)	15 (16.7%)	73 (83.3%)
7.	To save time	15 (50.0%)	15 (50.0%)	15 (50.0%)	15 (50.0%)	12 (40.0%)	18 (60.0%)	42 (46.7%)	48 (53.3%)

Source: Primary data collected through questionnaire

The main reason to use e-resources by the entire faculty opined that Easy to Search 69 (76.6%). Faster Search is 57 (63.3%), Multiple User access 48 (53.3%), to save time and 24x7 availability is 42 (46.7%), Available in multiple formats is 39 (43.3%). The entire faculty is opinioned that the least priority to easy to read 15 (16.7%).

Problems faced while accessing e-resources:

To find out what types of problems are facing by the faculty members in accessing the e-resources. The problems identified are Lack of knowledge how to access e-resources, irrelevant information, Huge number of hits, Slow internet speed/ network connectivity problem, Limited number of computers, Lack of trained library staff who can't help the users, lack of awareness of available resources, information via paid sites, power failure.

Table 5: Problems faced while accessing e-resources

S. No.	Problems	Engineering		Science		Social Science		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1.	Lack of knowledge how to access e-resource	6 (20.0%)	24 (80.0%)	9 (30.0%)	21 (70.0%)	12 (40.0%)	18 (60.0%)	27 (30.0%)	63 (70.0%)
2.	Irrelevant information	9 (30.0%)	21 (70.0%)	15 (50.0%)	15 (50.0%)	18 (60.0%)	12 (40.0%)	42 (46.7%)	48 (53.3%)
3.	Huge number of hits	9 (30.0%)	21 (70.0%)	18 (60.0%)	12 (40.0%)	15 (50.0%)	15 (50.0%)	42 (46.7%)	48 (53.3%)
4.	Slow internet speed/network connectivity problem	9 (30.0%)	21 (70.0%)	21 (70.0%)	9 (30.0%)	12 (40.0%)	18 (60.0%)	42 (46.7%)	48 (53.3%)
5.	Limited number of computers	6 (20.0%)	24 (80.0%)	6 (20.0%)	24 (80.0%)	12 (40.0%)	18 (60.0%)	24 (26.7%)	66 (73.3%)
6.	Lack of trained library staff who can't help the users	9 (30.0%)	21 (70.0%)	6 (20.0%)	24 (80.0%)	3 (10.0%)	27 (90.0%)	18 (20.0%)	72 (80.0%)
7.	Lack of awareness of available resources	6 (20.0%)	24 (80.0%)	0 (0.0%)	30 (100.0%)	3 (10.0%)	27 (90.0%)	9 (10.0%)	81 (90.0%)
8.	Information via paid sites	9 (30.0%)	21 (70.0%)	12 (40.0%)	18 (60.0%)	9 (30.0%)	21 (70.0%)	30 (33.3%)	60 (66.7%)
9.	Power failure	9 (30.0%)	21 (70.0%)	12 (40.0%)	18 (60.0%)	3 (10.0%)	27 (90.0%)	24 (26.7%)	66 (73.3%)

Source: Primary data collected through questionnaire.

The main problem faced by the faculty members is irrelevant information and Huge number of hits, slow internet speed/network connectivity problem i.e 42 (46.7%), information via paid sites 30 (33.3%), Lack of knowledge how to access e-resource 27 (30%), limited number of computers, Power failures, 24 (26.7%), Lack of trained library staff who can't help the users 18 (20%). All the faculty members opinioned and given least priority to lack of awareness of available resources 9 (10%). (Table 5)

Mode of Training Required:

To find out the training needs of the faculty members the modes of training identified are Hands on experience, Demonstration, Lecture/ Presentation, Handouts, Audio-Visual aids, Online Tutorials. The opinions of the faculty members are shown in table (6)

Table 6: Mode of Training Required.

S. No.	Problems	Engineering		Science		Social Science		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1.	Hands on experience	3 (10.0%)	27 (90.0%)	18 (60.0%)	12 (40.0%)	3 (10.0%)	27 (90.0%)	48 (53.3%)	42 (46.7%)
2.	Demonstration	15 (50.0%)	15 (50.0%)	12 (40.0%)	18 (60.0%)	21 (70.0%)	9 (30.0%)	48 (53.3%)	42 (46.7%)
3.	Lecture/Presentation	15 (50.0%)	15 (50.0%)	15 (50.0%)	15 (50.0%)	18 (60.0%)	12 (40.0%)	48 (53.3%)	42 (46.7%)
4.	Handouts	0 (0.0%)	30 (100%)	3 (10.0%)	27 (90.0%)	0 (0.0%)	30 (100.0%)	3 (3.3%)	87 (96.7%)
5.	Audio-visual aids	3 (10.0%)	27 (90.0%)	6 (20.0%)	24 (80.0%)	9 (30.0%)	21 (70.0%)	18 (20.0%)	72 (80.0%)
6.	Online tutorials	6 (20.0%)	24 (80.0%)	0 (0.0%)	30 (100%)	3 (10.0%)	27 (90.0%)	9 (10.0%)	81 (90.0%)

Source: Primary data collected through questionnaire.

The mode of training is required for engineering faculty is demonstration (50.0%), science faculty is lecture presentation (50.0%), Social science faculty opinioned that Demonstration i.e 21 (70%).

Majority of the faculty members are opinioned that Hands on experience, Demonstration and Lecture / Presentation are modes of the training required to maximum utilization of e-resources.

Findings of the Study:

• Majority of the users use pattern of e-resource is read findings and conclusion, followed by read abstract or summary, read online and print full text, read online and print abstract. The respondents give least priority of use pattern is download and print without reading abstract, downloading without reading full text.

• The main purpose of use of e-resource on the basis of ranking the entire faculty chosen first rank to update knowledge, second rank is for research work.

• Time spent on searching e-resources by engineering faculty is 1-2 hours, science and social science faculty is more than 4hours.

• The main reason to use e-resource by the different faculty is easy to search, faster search multiple user access, to save time, available in 24x7 days, available in multiple formats, and easy to read.

• The major problem in accessing e-resource is irrelevant information, huge number of hits, slow internet speed and network connectivity problems, information via paid sites, lack of knowledge how to access e-resources.

• Mode of training required by the respondents is hands on experience, demonstration and lecture presentation.

Conclusion

E- Resources opened a new world for user community. E-resources became essence of every intellectual activity of higher education. In this way Osmania University gained a prominent place by providing huge number of valuable and quality e- resources to the university faculty with a more advanced infrastructure. The present study reveals that majority of the users use pattern of e-resource is read findings and conclusion, the main purpose of use of e-resource is to update knowledge, majority of the faculty spending time to search e-resource is 1-2 hours. The study also reveals that the problems in accessing the e-resource is irrelevant information, huge number of hits, slow internet speed and network connectivity problems. The faculty members opinioned that the mode of training required is hands on experience to maximum utility of e-resources. The present study further recommends that there is a need to conduct regular awareness programmes, trainings, workshops to the faculty members to improve the accessibility and scholarly communication further more in near future.

Reference

1. Kaniyappan and others (2008), " Use and impact of e-resources in an academic and research environment: A case study ", Kelpro Bulletin, Vol.12 No.l, pp.27-36

2. Ojo and Akhande (2005), "Students' access usage and awareness of electronic information resources at the University College Hospital, University of Ibadan, Nigeria Lagos Journal of Library and Information Science Vol. 3(1) 2005: 16-24.

3. Okello-Obura and Magara (2008), "Information access and utilization at the East African School of Library and Information Science, Makerere University, Uganda". September 2008 with 1,421 Reads DOI: 10.18438/B8ZS58

4. Margam Madhusudhan, (2008), " Use of electronic resources by teachers, students and research scholars of universities and research organizations ", The Electronic Library, Vol. 28 Issue: 4, pp.492-506,

5. Menezes, R. G. and et.al (2008) Standard of Medical Sciences. Current Science, Vol. 96, No.6, 25 March, 2009. pp.753.

6. Ramaiah, C.K. (2006) Electronic Publishing Trends in India. Serials, 19(2), July 2006, pp.142-154.

7. Sahu, D.K. (2006) Journal Publishing in India: A Case Study of MedKnow Publications. National Seminar on Electronic Publications. Centre for Information Science (MGNISRA) Hydrabad, 23-24, March 2006. pp.22-26

8. Sahu, D.K.(2009) Economics and citation Impact of Open Access Journal Publishing in India: An Experience of Eight Years and Eighty Journals.

9. Thangavel, P. and Jayaprakash, M (2017) Usage of E-Resources by the Faculty Members of Engineering College Libraries in Erode District, Tamil Nadu: An Analysis, Asian Journal of Information Science and Technology ISSN: 2231-6108 Vol. 7 No. 2, , pp. 65-69

10. www.osmania.ac.in. accessed on 20th july 2019

11. http://www.inflibnet.ac.in/infonet,accessed accessed on 5th August, 2019

12. http://en.wikipedia.org/wiki/Electronic_journal, accessed on 20th August, 2019

13. http://jgateplus.com/search accessed on 20th August, 2019