

Use of Electronic Resources by Science Faculty Members in Osmania University and Andhra University Libraries of Andhra Pradesh State: A Study

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Abstract - This paper focuses on the use of electronic resources by the faculty members of Osmania University and Andhra University of Andhra Pradesh States. To study the information usage pattern and needs of the faculties' survey was conducted among the faculty members of different departments. This paper examines the awareness, utilization and satisfaction of the faculty members with respect to the e-resources and ugc infonet consortium resources. This paper reflects that most of the faculty members aware about electronic resources and consortium resources. At the end, some suggestions have been provided for enhancing the use of the UGC-Infonet consortium.

Keywords: E-resources, UGC-Infonet, Osmania University, Andhra University

I. INTRODUCTION

Libraries are the collection of information sources, which provide information services by different kinds of sources, such as Books, Journals, Conference Proceedings, Pamphlets, Standards, Patents and etc. Basically the traditional libraries were working with printed documents. But due to the development of applications in Information and Communication Technology, the libraries have transformed printed version into digital libraries or virtual libraries, which stores information in electronic form and communicates and disseminate the information through network

Today, every Indian university is having facility of these consortia. University Grants Commission through INFLIBNET is providing connectivity of UGC Infonet to all the universities in India. About 4500 peer-reviewed electronic journals and databases are subscribed by the UGC-Infonet and are accessible in all the university libraries. Hence, the e-resources provided by UGC-Infonet consortium are proved to be valuable information sources for higher education and research. The present research is made to know about the e-resources directly subscribed by the university libraries and the e-resources that are accessible through the consortia subscribed by the university libraries.

INFLIBNET is a national level Inter-University Centre of UGC in India, set up by UGC to promote higher education and research in India. The INFLIBNET centre had already started the subscription of the electronic journals under the consortium for Universities in India. It is planned to extend these facilities to college libraries gradually. The consortium covers almost all subjects such as Arts, Humanities, Social Sciences, Physical and Chemical Sciences, Life Sciences, Computer Sciences, Mathematics and Statistics [1].

The UGC-INFONET is a boon to higher education in several ways. It is a major electronic information source for research scholars to get pin-pointed and the latest information in their subject area. The Electronic journal programme is a corner-stone of the UGC-INFONET effort which aims at addressing the teaching, learning the Universities. It would facilitate free access to scholarly journals and databases in all areas of learning to the research and academic community [2].

II. OBJECTIVES

1. To know the awareness of e-resources;
2. To know the extent of the use of UGC-Infonet Digital Library Consortium;
3. To ascertain preferences in search techniques;
4. To know the significance of e-journals over print journals;
5. To identify the problems faced by faculty members in accessing e-journals and
6. To suggest the ways and means for effective use of the UGC-Infonet Digital Library Consortium

III. SCOPE AND LIMITATION

The scope of the present study is limited to use of electronic resources and UGC-Infonet Digital Library Consortium in in Osmania University and Andhra University Libraries. Further, the study was restricted to the Science Faculty Members working in in Osmania University and Andhra University of Andhra Pradesh States.

IV. DATA ANALYSIS AND INTERPRETATION

TABLE 1 GENDER, AGE, ACADEMIC QUALIFICATION AND DESIGNATION CHARACTERISTICS OF THE STUDY POPULATION

| Universities | | Osmania University | Andhra University | Total (%) |
|--------------------------------|-------------------------------------|--------------------|-------------------|--------------|
| Distribution of questionnaires | No. of questionnaires distributions | 158 | 152 | 310 |
| | No. of questionnaires received | 86 (54.43) | 83 (54.61) | 169 (54.52) |
| Gender Wise | Male | 69 (80.23) | 63 (75.90) | 132 (78.11) |
| | Female | 17 (19.77) | 20 (24.10) | 37 (21.89) |
| | Total | 86 (100.00) | 83 (100.00) | 169 (100.00) |
| Age Wise | 21-30 | 02 (2.33) | 02 (02.41) | 04 (02.37) |
| | 31-40 | 10 (11.63) | 40 (48.19) | 50 (29.59) |
| | Above 41 | 74 (86.05) | 41 (49.40) | 115 (68.05) |
| | Total | 86 (100.00) | 83 (100.00) | 169 (100.00) |
| Academic Qualification Wise | Ph.D. | 82 (95.35) | 81 (97.59) | 163 (96.45) |
| | Non-Ph.D. | 4 (04.65) | 2 (02.41) | 6(03.55) |
| | Total | 86 (100.00) | 83 (100.00) | 169 (100.00) |
| Designation Wise | Professor | 47 (54.65) | 44 (53.01) | 91 (53.85) |
| | Associate Professor | 22 (25.58) | 22 (26.51) | 44 (26.04) |
| | Assistant Professor | 17 (19.77) | 17 (20.48) | 34 (20.12) |
| | Total | 86 (100.00) | 83 (100.00) | 169 (100.00) |

Table 1 show the highest response has come from Andhra University with 54.61 percent followed by Osmania University 54.43 percent. Majority of the respondents (78.11%) are male and above 68% of the respondents age

group of 41 and above years. Nearly 97 % of the faculty members had Ph.D. degree. Half of the respondents are professors.

TABLE 2 AWARENESS ABOUT UGC-INFONET DIGITAL LIBRARY CONSORTIUM

| Awareness of UGC-Infonet | Osmania University | | Andhra University | | Total | |
|--------------------------|--------------------|---------|-------------------|---------|-------|--------|
| | Number | Percent | Number | Percent | N | % |
| Yes | 86 | 100.00 | 83 | 100.00 | 169 | 100.00 |
| No | - | - | - | - | - | - |
| Total | 86 | 100.00 | 83 | 100.00 | 169 | 100.00 |

UGC-Infonet e-journals Consortium is the one amongst the foremost programmes launched by UGC, India for the free flow of scholarly information between the Indian universities. It is a new phase for the higher educational system of the country in which peer-reviewed literature from all across the world is being given to the academic and

research community. Above table shows that 100 percent (169) of the faculty members to the survey, responded that they know about the Consortium. It is evident that cent percent of the faculty members access e-journals through UGC-Infonet over University wide area network.

TABLE 3 PLACE OF ACCESS TO UGC-INFONET E-JOURNALS

| Place | Osmania University | | Andhra University | | Total | |
|------------------|--------------------|---------|-------------------|---------|-------|--------|
| | Number | Percent | Number | Percent | N | % |
| In their Chamber | 41 | 47.67 | 33 | 39.76 | 74 | 43.79 |
| Department | 25 | 29.07 | 12 | 14.46 | 37 | 21.89 |
| Central Library | 16 | 18.60 | 28 | 33.73 | 44 | 26.04 |
| Central Lab | 04 | 4.65 | 10 | 12.05 | 14 | 8.28 |
| Total | 86 | 100.00 | 83 | 100.00 | 169 | 100.00 |

A question was asked where they access UGC-Infonet electronic resources and the major purpose of the question was to identify the place where faculty members obtained access to e-journals and to what extent they had access. The above table shows that, where the faculty members had access to UGC-Infonet e-journals. Forty three percent (74)

of the faculty members are accessing e-journals through their chamber, followed by 26.04 percent (44) accessed from central library, followed by 21.89 % (37) accessed from department and only eight percent of the faculty members used the central lab.

TABLE 4 FREQUENCY OF USE OF UGC-INFONET E-JOURNALS

| Frequency | Osmania University | | Andhra University | | Total | |
|-------------|--------------------|---------|-------------------|---------|--------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Daily | 6 | 6.98 | 10 | 12.05 | 16 | 9.47 |
| Weekly | 30 | 34.88 | 20 | 24.10 | 50 | 29.59 |
| Fortnightly | 35 | 40.70 | 45 | 54.22 | 80 | 47.34 |
| Monthly | 15 | 17.44 | 8 | 9.64 | 23 | 13.61 |
| Total | 86 | 100.00 | 83 | 100.00 | 169 | 100.00 |

This is the most important and basic aspect related to the appraisal of the usefulness of the UGC-Infonet Consortium. The findings of the study show that most of the faculty members used the UGC-Infonet e-journals more frequently. It has been found from above table that, 47.34 percent (80)

of the faculty members make use of the fortnightly, 29.59 percent (50) weekly, 13.61 percent (23) of the faculty members make use of the same monthly. Only 9.47 percent (16) use the UGC-INFONET e-journals daily.

TABLE5 SEARCHING FULL-TEXT OF SCIENCE AND TECHNOLOGY E-JOURNALS / E-DATABASES

| E-Journals/ E-Databases | Osmania University | | Andhra University | | Total | |
|--|--------------------|-------|-------------------|--------|-------|-------|
| | N | % | N | % | N | % |
| American Chemical Society | 10 | 11.63 | 28 | 33.73 | 38 | 22.49 |
| American Institute of Physics | 8 | 9.30 | 55 | 66.27 | 63 | 37.28 |
| American Physical Society | 15 | 17.44 | 24 | 28.92 | 39 | 23.08 |
| Annual Reviews | 18 | 20.93 | 18 | 21.69 | 36 | 21.30 |
| Blackwell - Wiley | 35 | 40.70 | 56 | 67.47 | 91 | 53.85 |
| Cambridge University Press | 33 | 38.37 | 49 | 59.04 | 82 | 48.52 |
| Elsevier (Cell Press) | 71 | 82.56 | 80 | 96.39 | 151 | 89.35 |
| Emerald (LIS Collection) | - | 0.00 | - | 0.00 | 0 | 0.00 |
| Institute of Physics | 12 | 13.95 | 24 | 28.92 | 36 | 21.30 |
| JSTOR | 15 | 17.44 | 27 | 32.53 | 42 | 24.85 |
| Nature | 21 | 24.42 | 33 | 39.76 | 54 | 31.95 |
| Oxford University Press | 27 | 31.40 | 43 | 51.81 | 70 | 41.42 |
| Portland Press | 11 | 12.79 | 24 | 28.92 | 35 | 20.71 |
| Project Euclid | 12 | 13.95 | 13 | 15.66 | 25 | 14.79 |
| Project Muse | 5 | 5.81 | 9 | 10.84 | 14 | 8.28 |
| Royal Society of Chemistry | 18 | 20.93 | 21 | 25.30 | 39 | 23.08 |
| SciFinder Scholar | 9 | 10.47 | 19 | 22.89 | 28 | 16.57 |
| SIAM | 2 | 2.33 | 12 | 14.46 | 14 | 8.28 |
| Springer Link | 79 | 91.86 | 83 | 100.00 | 162 | 95.86 |
| Taylor and Francis | 28 | 32.56 | 55 | 66.27 | 83 | 49.11 |
| Math Sci. Net | 16 | 18.60 | 16 | 19.28 | 32 | 18.93 |
| Royal Society of Chemistry (6 Databases) | 29 | 33.72 | 33 | 39.76 | 62 | 36.69 |
| ISID | 8 | 9.30 | 12 | 14.46 | 20 | 11.83 |

Table 5 it is noted that the Springer Link is the leading publisher as 95.86 percent (162), Elsevier (cell press) is the second leading publisher as 89.35 percent (151), followed by Blackwell-Wiley is 53.85 % (91), Taylor and Francis

49.11 % (83), Cambridge University Press 48.52 percent (82), Oxford University Press 41.42 percent (70), and only 8.28 percent faculty members search the full-text journals published Project Muse and SIAM.

TABLE 6 METHODS OF READING FULL-TEXT ARTICLES

| Method for reading articles | Osmania University | | Andhra University | | Total | |
|------------------------------|--------------------|--------|-------------------|--------|-------|--------|
| | N | % | N | % | N | % |
| Print out on the paper | 19 | 22.09 | 23 | 27.71 | 42 | 24.85 |
| On the computer screen | 18 | 20.93 | 13 | 15.66 | 31 | 18.34 |
| Save the article in computer | 25 | 29.07 | 31 | 37.35 | 56 | 33.14 |
| Both read screen and paper | 24 | 27.91 | 16 | 19.28 | 40 | 23.67 |
| Total | 86 | 100.00 | 83 | 100.00 | 169 | 100.00 |

Above table shows the various methods used for reading UGC-Infonet full-text articles. Nearly thirty three percent faculty members are reading papers after save the article in

computer, 24.85 percent are reading full – text articles by printing on the paper and above twenty three percent faculty members are reading on both screen and paper.

TABLE 7 PREFERRED FORMATS OF E-JOURNALS

| Format of articles | Osmania University | | Andhra University | | Total | |
|--------------------|--------------------|---------|-------------------|---------|--------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| PDF | 62 | 72.09 | 51 | 61.45 | 113 | 66.86 |
| HTML | 9 | 10.47 | 14 | 16.87 | 23 | 13.61 |
| WORD | 15 | 17.44 | 18 | 21.69 | 33 | 19.53 |
| Total | 86 | 100.00 | 83 | 100.00 | 169 | 100.00 |

Above table shows that, nearly sixty six percent of the faculty members prefer PDF format articles to download.

Nineteen percent of the faculty members prefer Word format and only thirteen percents prefer HTML document.

TABLE 8 SATISFACTION WITH UGC-INFONET DIGITAL LIBRARY CONSORTIUM (KS)

| Satisfaction of Consortium | Osmania University | | Andhra University | | Total | |
|----------------------------|--------------------|---------|-------------------|---------|--------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Highly Dissatisfied | 35 | 40.70 | 15 | 18.07 | 50 | 29.59 |
| Dissatisfied | 16 | 18.60 | 2 | 2.41 | 18 | 10.65 |
| Moderately Satisfied | 22 | 25.58 | 16 | 19.28 | 38 | 22.49 |
| Satisfied | 13 | 15.12 | 27 | 32.53 | 40 | 23.67 |
| Highly Satisfied | 0 | 0.00 | 23 | 27.71 | 23 | 13.61 |
| Total | 86 | 100.00 | 83 | 100.00 | 169 | 100.00 |

It is observed from the above table that, 29.59 (50) percent faculty members are highly dissatisfied with the consortium, nearly twenty three percent of the faculty members are

satisfied with consortium and 10.65 (18) percent dissatisfied.

TABLE 9 PROBLEM FACED DURING ACCESSING UGC-INFONET CONSORTIUM

| Problem | Osmania University | | Andhra University | | Total | |
|---------|--------------------|---------|-------------------|---------|--------|---------|
| | Number | Percent | Number | Percent | Number | Percent |
| Yes | 52 | 60.46 | 17 | 20.48 | 69 | 40.83 |
| No | 34 | 39.54 | 66 | 79.52 | 100 | 59.17 |
| Total | 86 | 100.00 | 83 | 100.00 | 169 | 100.00 |

Above table shows that 59.17 percent (100) of the faculty members say that they are not problem with accessing

consortium, 40.83 percent (69) faced problem with accessing UGC-Infonet Digital Library Consortium.

TABLE 10 PROBLEMS FACED WHILE ACCESSING THE UGC-INFONET DIGITAL LIBRARY CONSORTIUM (N=69)

| Problem | Osmania University | | Andhra University | | Total | |
|--|--------------------|-------|-------------------|-------|-------|-------|
| | No | % | No | % | N | % |
| Retrieval problems (including loading) | 16 | 18.60 | 6 | 7.23 | 22 | 13.02 |
| Lack of system speed/Sow internet connectivity | 13 | 15.12 | 11 | 13.25 | 24 | 14.20 |
| Difficulty in accessing full text. | 10 | 11.63 | 0 | 0.00 | 10 | 5.92 |
| It is difficult to read from the screen | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Limited access to terminals | 13 | 15.12 | 0 | 0.00 | 13 | 7.69 |
| Difficulty in finding the relevant information | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| Total | 52 | 60.47 | 17 | 20.48 | 69 | 40.83 |

Table 10 shows the problems faced by the faculty members in using UGC-Infonet Digital Library Consortium. The most common problem faced by the users is that of retrieval problem 13.02 percent (22). 14.20 percent (24) faced with slow internet connectivity, 7.69 percent (13) state limited access to terminals as barrier to use of e-journals.

V. CONCLUSION

The present study shows that electronic journals perform an increasingly important role in research at universities. Not only current electronic journals are required, but faculty members need to be provided the use of significant electronic back runs as well. There is an ever increasing demand for subscriptions of more e-journal titles in research field. To summarize, UGC-Infonet e-journals are seen having a positive impact, and the study has enabled the respondents to express their satisfaction and their aspirations for improvements. Several responses identified both satisfaction and expectation for the future. To respond to this, the authorities of the university libraries need to ensure user awareness programs and surveys at departmental level and address issues of developing access skills and where appropriate, give feedback to INFLIBNET about the complexity of electronic journals interface.

Osmania and Andhra universities are members of UGC info net consortium and provide access to e-journals to the user.

All the respondents are using UGC info net service for their research work and almost all users are moderately satisfied with this service, but for the maximum utilization of electronic information Sources University should provide latest technological terminals, equipment. In the changing information environment, Electronic information sources are increasing the importance in the research activities. The users have realized the importance of electronic information sources. Due to changing tendency of information technology, libraries are now more dependent upon information and communication technology, hardware and software, campus area network. Libraries will have to be flexible enough to continue changing, adopting to change, as they have done over past decades. The universities should provide proper training programme to respondents regarding use of electronic information sources.

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