

RELEVANCE OF ELECTRONIC JOURNAL DATABASES IN LIFE SCIENCES: A STUDY OF KURUKSHETRA UNIVERSITY

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In ICT set-up electronic journal database play a tremendous role in academic research, it is essentially due to its usefulness over the print resources. Libraries spend huge amount on online databases in a tender to boost teaching, learning and research in higher education. This study carried out on usage of e-journal databases by research scholars of life sciences in Kurukshetra University. The aim of the study is to find out the significance of online databases among the research scholars. A questionnaire survey was conducted to collect the data from the respondents. The result of the study shows that 96% respondents are aware about the e-databases of their respective field. Though research scholars acknowledge the importance of the e-databases in research, they face few difficulties that constrain effective use of the e-resources. It is analyzed that e-journal databases have become vigorous portion of information for research. Springer link, Science Direct, Nature and PubMed are the prominent databases primarily used by the respondents.

Keywords: Electronic Journal Database, Online Resources, Research Scholar, Life Science, Kurukshetra University Kurukshetra.

INTRODUCTION

Electronic journal databases are the most prominent assets in the libraries of an academic institutions. Globalization of electronic journal databases through contemporary Information and Communication Technology (ICT) is transforming the conduct of teaching and research in higher education throughout the world. The university remnants a center of excellence, a stronghold of learning, and more importantly the essence of research. The archives of electronic journal databases are equally important which are not accessible on Google or other common search engines, particularly full text. Web-based databases are extensively available to library patrons in the whole world. The online database is compendium of concomitant data which can be accessible over a network or internet. Electronic databases are today identical widespread between librarians and library users because of numerous factors like, speed, flexibility, wide range and the currency. Traditional library services are transmuted by

technological expansion and it introduces several kind of electronic resources which strike academic libraries. The walls of library operations and services are extended due to hi-tech revolt observed in last few years. Electronic database provides several advantages over traditional print based resources to compromise current information because of various user friendly options, updateness and also offers innovative search capabilities, litness in storage of results .by using electronic database we can access information without any limitation of time and location.

REVIEW OF LITERATURE

A number of studies on usage of e-journal databases have been conducted at various levels, some of the reverent studies are discussed as below:

Bellary and Surve (2019) investigated that engineering databases are in high demand compared to other databases. ASCE, ASME, IEEE/ IEL, Springer, Science Direct, McGraw Hill e-books and Pearson e-books were used rigorously among the academicians of Engineering in NMIMS, Mumbai. Parmar (2019) conducted a study on utilization of e-resources and databases in Agriculture and Veterinary universities of Hisar and found that 30% respondents of HAU used Krishikosh Repository, whereas 33% respondents used CeRA journals. Akinola et al. (2018) revealed that 66.40% respondents were aware about electronic database, 55.7% respondents used electronic database for research work among the respondents of University of Ibadan. The study also found that 9.2% respondents used electronic databases every month, whereas, 53.40% respondents used these occasionally. Ansari and Raza (2018) indicated

that a respondents of Aligarh Muslim University use JSTOR mainly for research work. It is observed that field search was most collective search method, followed by phrase search. It is suggested that the use of JSTOR database can be increased, if researchers have frequent literacy programs. Larson (2017) investigates that among the respondents of University of Education, Winneba, Ghana most of the users were aware of the e-databases. The results shows that 31.37% faculty members used electronic database frequently, whereas, 27.45% respondents used it occasionally. Nwokedi et al. (2017) investigated that majority of respondents of University of Jos lecturers on campus were unaware of the existence of the online database and indicating, that the content of the Elsevier database relevant for learning, teaching and research. Adam (2017) explored that majority of academic staff in the university were fully aware of the availability of e-database, 38% respondents used database for research purpose, whereas, 23% respondents used it for study purpose. Gautam and Sinha (2017) carried out a study on the use of electronic resources among 53 research scholars and 45 faculty members of University of Allahabad, Uttar Pradesh. The study explored that only 39.79% faculty members and 43.87% research scholars were aware about E-resources. The study revealed that 17.34% respondents used e-resources for current development and 13.26% respondents used for research work. The authors found that e-journals were preferred by 28.56% respondents while 6.12% respondents preferred ETD.

Natarajan (2017) investigated a study on the use of electronic resources and services by 148 students of Social Science, Jimma University, Ethopia. The study explored that 85.8% respondents used e-resources daily while

9.4% respondents used e-resources occasionally. Study also showed that slow downloading was major obstacle while using e-resources. Singh and Verma (2017) conducted a study on the use of electronic resources by the Students and Researchers with special reference to Faculty of arts, B.H.U, Varanasi. The study concluded that majority of the respondents used the E-journals, e-books, and e-thesis. Kwadzo (2015) explored that 96.9% respondents were aware about database, 63.2% respondents used JSTOR database and 36.9% respondents used science direct database among the students of University of Ghana. Musa et al. (2015) found that research activities, theses writing, lecture notes, teaching, formulating writing for publication were the key aims for the use of electronic databases by the academics in UMYUK. Nazir (2015) conducted a study on research scholars and post graduate students of University of Kashmir and found that respondents from science faculty were 100% aware about e-resources. Major problem faced by the respondents was lack of awareness, lack of assistance from the resource personnel and library professionals. Singh (2013) conducted a study on the use of E-resources by 43 students, 24 Research Scholars and 12 Faculty Members of Indian Institute of Management, Ahmedabad. The study explored that 83.72% Students, 87.50% Research Scholars and 100% Faculty Members were well aware of E-resources. The study revealed that 62.50% research scholars and 75% Faculty Members used E-journal frequently. Velmurugan (2013) investigated the awareness and utilization of library electronic resources among the faculty members of SKR Engineering College (SKREC) at Chennai. The study found that 62.8% respondents were aware about online resources of their respective field. 56.19 %

respondents faced problem of slow Internet that takes a lot of time to retrieve the relevant information.

OBJECTIVES OF THE STUDY

1. To determine the awareness level of electronic journal databases among the research scholars.
2. To determine the frequency of using electronic journal databases by researchers.
3. To ascertain the purpose of using electronic journal databases by the research scholars.
4. To study the challenges faced by research scholars in using electronic databases.

RESEARCH METHODOLOGY

The data was collected using the questionnaire method in the life science departments of Kurukshetra University i.e. Zoology, Botany, Microbiology, Biochemistry, Biotechnology. Total population of research scholars in Life Science disciplines is 59. Questionnaire were distributed among the 59 research scholars. Appropriate time was given to the users to provide the information. A detailed conversation was also made with the research scholars on diverse questions inquired in the questionnaire. 51 filled questionnaires were received back and 50 questionnaires were found in order for analysis. Suggestions given by the students were noted and incorporated in the analysis.

DATA ANALYSIS AND INTERPRETATION

Department - Wise Distribution of Respondents

The target population of the study is the research scholars of Life Science disciplines of

Kurukshetra University. The table 1 shows the discipline-wise population under the study.

Table 1: Department- Wise Distribution of Respondents

| Departments | Respondents |
|---------------|------------------|
| Zoology | 11(22%) |
| Botany | 11(22%) |
| Microbiology | 09 (18%) |
| Biochemistry | 10 (20%) |
| Biotechnology | 09 (18%) |
| Total | 50 (100%) |

Table 1 shows that more or less equal number of respondents of each discipline is the part of population under study. 11 (22%) respondents from each Zoology and Botany, 9 (18%) from Microbiology, 10 (20%) from Biochemistry and 9 (18%) from Biotechnology department have been covered in the study.

Gender- wise Distribution of respondents

Table 2 shows gender wise distribution of respondents of life science discipline. The data shows that 15 (30.00%) respondents are male, whereas 35 (70.00%) respondents are female. Population of female respondents is high as compare to male respondents

Table 2: Gender- wise Distribution of respondents

| Gender | Respondents |
|--------------|------------------|
| Male | 15 (30.00%) |
| Female | 35 (70.00%) |
| Total | 50 (100%) |

Awareness of Electronic Database

Table 3 shows the awareness of Electronic databases among the research scholars of life science discipline. Data shows that majority of

the respondents i.e. 48 (96%) are aware about electronic database, whereas 2 (4%) respondents are not aware about the electronic databases. The result shows that research scholars are very much concerned about the e-databases of their respective field.

Table 3: Awareness of Electronic Databases

| Awareness of Electronic Databases | Respondents |
|-----------------------------------|------------------|
| Yes | 48 (96.00%) |
| No | 02 (4.00%) |
| Total | 50 (100%) |

Source of Awareness of Electronic Databases

Table 4 shows the sources of awareness of electronic databases. 45 (93.75%) respondents get aware of electronic databases through supervisor whereas 40 (83.33%) respondents know about the electronic databases through their colleagues. 35 (72.91%) respondents get awareness of e-databases through internet. Library plays an important role as a good number of respondents get awareness regarding the e-databases through various sources of library. 6 (12.5%) respondents get aware through library staff, whereas, 5 (10.41%) respondents know about the electronic databases through library websites, followed by library orientation with 2 (4.16%) respondents.

Table 4: Source of Awareness of Electronic Databases

| Sl. No. | Sources of Awareness | Respondents |
|---------|----------------------|-------------|
| 1 | Supervisor | 45 (93.75%) |
| 2 | Internet | 35 (72.91%) |
| 3 | Colleagues | 40 (83.33%) |
| 4 | Library Websites | 05 (10.41%) |
| 5 | Library Staff | 06 (12.50%) |
| 6 | Library Orientation | 02 (4.16%) |

Frequency of Free Internet Searching for E-Databases

Table 5 shows about frequency of free internet searching for e-databases. The data indicates that majority of respondents i.e. 42 (87.5%) surf internet daily for access of e-databases of their choice. 4 (8.33%) respondents search e-database twice a week through internet followed by 2 (4.16%) respondents who search e-database thrice a week for the same.

Table 5: Frequency of Free Internet Searching for E-Databases

| Sl. No. | Frequency | Respondents |
|---------|---------------|-------------|
| 1 | Daily | 42 (87.5%) |
| 2 | Twice a Week | 04 (8.33%) |
| 3 | Thrice a week | 02 (4.16%) |
| 4 | Fortnightly | --- |

Frequency of Use of Various Electronic Databases

Table 7 indicates Electronic database used by the respondents. 38 (79.16%) respondents use Science Direct 3-4 times in a week, whereas, 35

Table 7: Frequency of Use of Various Electronic Databases

| Sl. No. | Electronic database | 3-4 Times in a Week | 1-2 Times in a Week | Once in a Week | Don't Use |
|---------|----------------------------|---------------------|---------------------|----------------|------------|
| 1 | Springer Link | 35(72.91%) | 10(20.83%) | 2(4.16%) | 1(2.08%) |
| 2 | JSTOR | 7(14.58%) | 5(10.41%) | 32(66.66%) | 4(8.33%) |
| 3 | Science Direct | 38(79.16%) | 9(18.75%) | 1(2.08%) | --- |
| 4 | PubMed | 32(66.66%) | 12(25.00%) | 3(6.25%) | 1(2.08%) |
| 5 | Nature | 24(50.00%) | 15(31.25%) | 7(15.58%) | 2(4.16%) |
| 6 | PubChem | 14(29.16%) | 17(35.41%) | 15(31.25%) | 2(4.16%) |
| 7 | Medline | 9(18.75%) | 24(50%) | 10(20.83%) | 5(10.41%) |
| 8 | Biological Science Collect | --- | 4(8.33%) | 33(68.75%) | 11(22.91%) |
| 9 | SageOARE | 1(2.08%) | 2(4.16%) | 30(62.5%) | 15(31.25%) |
| 10 | Biomed Central | 1(2.08%) | 3(6.25%) | 29(60.41%) | 15(31.25%) |
| 11 | American Chemical Society | 5(10.41%) | 32(66.66%) | 9(18.75%) | 2(4.16%) |

Awareness of the Electronic Databases Available in the Library

Table 6 shows that 29 (60.41%) respondents are aware of the electronic databases available in the library, whereas, 19(39.58%) respondents are not aware with the availability of the electronic databases. It is really surprising that almost 40% of the respondents are not aware about the availability of the e-databases of their respective field in the library; it means they are not seriously involved in their research work.

Table 6: Awareness of the Electronic Databases Available in the Library

| Awareness of E-Databases | Respondents |
|--------------------------|-------------|
| Yes | 29(60.41%) |
| No | 19(39.58%) |
| Total | 48(100%) |

(72.91%) respondents use Springer link 3-4 times in a week, followed by 32(66.66%) respondents make use of PubMed. Nature is used by 24 (50.00%) respondents 3-4 times in week, whereas 24 (50.00%) respondents prefer to use Medline

1-2 times in a week. American Chemical Society, a most renowned electronic database is used 1-2 times in a week by only 5 (10.41%) respondents. The number of e-databases i.e. Biological Science Collect, JSTOR, SageOARE and Biomed Central are used once in a week by 33 (68.75%), 32 (66.66%), 30 (62.5%) and 29 (60.41%) respondents respectively. 14 (29.16%) respondents prefer to use PubChem 3-4 times in a week.

Tools Used to Access the Electronic Databases

Table 8 shows about the tools used to access the electronic databases by the research scholars. The data reveals that 41 (85.41%) respondents use personal computer for accessing the electronic databases. 29 (60.41%) respondents use cell phone for accessing e-databases, whereas 21 (43.75%) respondents use university library e-learning computer centre for accessing e-databases. Only 6 (12.5%) respondents make the use of internet café to access the electronic database of their choice.

Table 8: Tools Used to Access the Electronic Databases

| Sl. No. | Tools used to Access e Database | Respondents |
|---------|---|-------------|
| 1 | Personal computers | 41(85.41%) |
| 2 | Cell Phone | 29(60.41%) |
| 3 | Internet cafe facilities | 6(12.50%) |
| 4 | University Library e-learning computer centre | 21(43.75%) |

Purpose of Using Electronic Databases

Table 9 shows various purposes of using electronic databases by the respondents. Majority of the respondents i.e. 37 (77.08%) use electronic database for research work. 23 (47.91%) respondents use electronic database for updating subject knowledge, whereas, 19 (39.58%

respondents use electronic database for internal and external presentation. The data also reveals that 15 (31.25%) respondents use electronic database for preparing notes for lectures, whereas 11 (22.91%) respondents use electronic database for writing report. Only 9 (18.75%) respondents use electronic database for current awareness.

Table 9: Purpose of Using Electronic Databases

| Sl. No. | Purpose of Using Electronic Databases | Respondents |
|---------|--|-------------|
| 1 | For research Work | 37(77.08%) |
| 2 | To update subject Knowledge | 23(47.91%) |
| 3 | For preparing lecture notes | 15(31.25%) |
| 4 | For writing report | 11(22.91%) |
| 5 | For current awareness | 9(18.75%) |
| 6 | For internal and external presentation | 19(39.58%) |

Impact of Electronic Database on Research

Table 10 indicates the impact of using electronic database on research. The data shows that 30 (62.50%) respondents opined that use of electronic database has great impact on research. 15 (31.25%) respondents opined that electronic database has moderate impact on research, whereas, only 3 (6.25%) respondents feel that there is no impact of electronic database on research.

Table 10: Impact of Electronic Database on Research

| Sl. No. | Impact of Using Electronic Databases | Respondents |
|---------|--------------------------------------|-------------|
| 1. | No impact | 3(6.25%) |
| 2. | Great impact | 30(62.50%) |
| 3. | Moderate impact | 15(31.25%) |

Challenges Faced while Using Electronic Databases

Table 11 reveals the challenges faced by the research scholars while using electronic databases. 36 (75%) respondents face slow internet connectivity in department/ institution while accessing electronic database, whereas, 29 (60.41%) respondents opined that lack of desired information is a barrier while accessing electronic databases. 21 (43.72%) respondents face lack of archives, whereas 17 (35.41%) respondents are not able to get relevant databases of their respective field.

Table 11: Challenges Faced while Using Electronic Databases

| Sl. No. | Challenges Faced while Using Electronic Databases | Respondents |
|---------|---|-------------|
| 1 | low internet connectivity in the department/institution | 36(75%) |
| 2 | Lack of information literacy skill | 2(4.16%) |
| 3 | Lack of desired information | 29(60.41%) |
| 4 | Lack of Archives | 21(43.72%) |
| 5 | Lack of up to datedness | 4(8.33%) |
| 6 | Lack of relevant databases | 17(35.41%) |

CONCLUSION

The study concluded that electronic journal databases substantiate a vital source of information for researchers as well as other professionals. As e-databases are easily accessible, researchers focused on e-journals in contrast to print journals. The results of the study shows that research scholars of Life Science discipline procure a major benefit from the electronic journal databases for their research works. A large number of research scholars are well aware of electronic database, majority of the respondents frequently use e-databases of their respective discipline, they are highly dependent

on e-journal databases. Science Direct and Springer are the most preferred databases among the researchers. More than 62% research scholars feel that e-databases have great impact on their research. But a huge number of respondents face the problem of slow internet connectivity and lack of desired information. Being in the cloud era problems are still existing at a large, technology is transforming with a great speed but it is observed on the basis of multiple studies that problem faced by the respondents are not receding. The authorities in higher education system need to review the technological issues to provide the flawless access of e-resources to their users, so that they can make the maximum and appropriate use of the subscribed resources by the institution.

Evidence: *Multidisciplinary Journal of Information and Applied Informatics*. Volume 1 (1) 2017

REFERENCES

1. Adam, U. A. (2017). Awareness and Use of Online Scholarly Database by Academics of Kaduna State University, Nigeria. Evidence: *Multidisciplinary Journal of information and Applied Informatics* 1(1).
2. Akinola, A. O., Shorunke, O. A., Ajayi, S. A., Odefadehan, O. O., & Ibikunle, F. L. (2018). Awareness and use of electronic databases by postgraduates in the University of Ibadan. *Library Philosophy and Practice*, 1.
3. Ansari, N. A., & Raza, M. M. (2018). Usage of JSTOR Database Among Research Scholars in the Faculty of Social Science, Aligarh Muslim University. *DESIDOC Journal of Library & Information Technology*, 38(3), 208-212.

4. Bellary, R. N., & Surve, S. (2019). E-Resources are boon for the teaching and research work of an academic institute: A survey on usage and awareness of e-resources by the NMIMS (Deemed University) engineering faculties, Mumbai. *Library Philosophy and Practice*, 1-12.
5. Gautam, A. S., & Sinha, M. K. (2017). Use of electronic resources among research scholars and faculty members of university of Allahabad, Uttar Pradesh, India: A survey. *Library Progress (International)*, 37(2), 182-201.
6. Hamza, U. M., Aliyu, A., Maryam, B. Y., & Abbas, H. (2015). Use of electronic databases by the academics of faculty of Sciences Umaru Musa Yaradua University, Katsina, Nigeria. *Journal of Humanities and Science*, 20(50), 51-56.
7. Kwadzo, G. (2015). Awareness and usage of electronic databases by geography and resource development information studies graduate students in the University of Ghana. *Library Philosophy and Practice*, 1-28.
8. Larson, A. G. (2017). Faculty awareness and use of Library subscribed online databases in the University of Education, Winneba. Ghana: A survey. *Library Philosophy and Practice*,
9. Natarajan, M. (2017). Use and impact of electronic resources by information science students at Jimma University, Jimma, Ethiopia. *Collection Building*, 36(4), 163-171.
10. Nazir, T. (2015). Use and adequacy of e-resources by the research scholars and students of the University of Kashmir in science & social science faculties: a case study. *Brazilian Journal of Information Science: Research Trends*, 9(1).
11. Nwokedi, V. C., Nwokedi, G. I., Chollom, K. M., & Adah, J. E. (2017). Assessment of online usage patterns of Elsevier database amongst academics of Environmental Sciences, University of Jos, 5(3), 83-91.
12. Parmar, S. (2019). Utilization of E-Resources and Databases in Agricultural and Veterinary Universities of Hisar, Haryana. *Library Philosophy and Practice*, 1-10.
13. Singh, K., & Varma, A. K. (2017). Use of e-resources by the students and researchers: with special reference to faculty of arts, BHU, Varanasi. *Knowledge Librarian*, 4(4), 35-47.
14. Singh, V. K. (2013). Use of E-Resources and Services by Users at Indian Institute Of Management Shillong: A Study. *International Journal of Humanities and Social Science Invention*, 2(10), 6-20.
15. Velmurugan, C. (2013). Awareness and utilization of e-resources by faculty members with special reference to an engineering college, Chennai, Tamilnadu, India: A case study. *Journal of Advances in Library and Information Science*, 2(2).

