



USE OF E-RESOURCES BY THE AGRICULTURE SCHOLARS: A CASE STUDY OF CHAUDHARY CHARAN SINGH HARYANA AGRICULTURE UNIVERSITY, HISAR

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ABSTRACT

The major objectives of this paper are to analysis and evaluate the use of e-resources by the agriculture scholars of Haryana. The focus of study is known the various factors of e-resources usage such as purposes, problems, awareness, availability of various e-resources, methods of usage of e-resources, advantages and satisfaction with e-resources. A Survey method of research was applied to ascertain the present status of use of e-resources. A structured questionnaire was designed for the users to assess their need about electronic resources. 100 questionnaires were distributed among the respondents of this University and out of 100 questionnaires only 93 questionnaires were received back. The data so collected was analyzed and interpreted with the help of MS Excel. The study reveals that most of the users are aware of e-journals and using various types of e-resources. Some problems were also faced in using e-resources such as slow downloading, failed to access full text, uncomfortable in reading e-copy etc. The majority of the respondents were satisfied with using e-resources. The paper presents some constructive suggestions for improvement of e-resources.

KEY WORD: *E-Resources, Electronic Media, Agriculture University, Haryana, Agriculture Scholar, User Study.*

INTRODUCTION

In recent years, development of Information and Communication Technologies plays a very important role in Information Processing and retrieval systems. Today, all types of libraries are not only providing printed resources to the users but also they provide electronic as well as other Internet resources like e-journals, e-thesis/dissertation electronic newspaper and databases for fulfilling the everyday academic and research requirements of the library users. The impact of e-resources on libraries cannot be over emphasized because it has changed the concept of the library in its whole. The development in ICT should be improving the quality of learning and using to learning. Nowadays electronic and paper-based information sources are used alongside each other that have led to the concept of hybrid library



ICT gave birth to the electronic form of E-journal. The availability of electronic versions of journals on the worldwide web led to the emergence of new and modern e-journal service providers. The e-resources are also known by various synonymous terms, such as “online resources”, “paperless resources”, and “virtual resources”. Any resource can be called an e-resource, if its contents are produced and stored in electronic form. According to the online Dictionary of Library and Information Science by Reitz, e-resources are materials consisting of data and or computer program encoded for reading and manipulated by a computer or using a peripheral device directly connected to the

computer, such as the internet. The commonly available e-resources include e-journals, e-books, online databases, CD-ROM and OPAC. The modern users of library prefer increase access to databases of online journals and to the web. This is because they provide information that is current, up-to-date, and international in scope, and ease to accessibility. Accessibility is now a factor in the use of library resources, as such the user want only what is easily accessible in order to decrease the time spent on search for information (Constable, 2007). University libraries have observed a great metamorphosis in recent years both in their collection development and in their service structures. University libraries are now using ICT to improve the management of scholarly information and speed access to scholarly information not held locally like the library consortium (Sharma, Singh, and Sharma, 2011).

SCOPE OF THE STUDY

The scope of the study is confined to assess the present status and trend of electronic resources used by the Agriculture Scholars of the Haryana Agriculture University, Hisar India. The study focused on the awareness, preference in using e-databases, type of e-resources, this University offered to their academic scholars.

OBJECTIVES

The main objective of the study was to investigate and analysis the use of e-resources by the agriculture scholar of the Haryana agriculture University along with their various sources, purpose, problems. Some of the imperative aims and objectives were as follows:

1. To find out the frequency of use of e-resources by the scholars.
2. To study the various types of e-resources used by them.
3. To identify the different purposes for which the e-resource are used by scholars.
4. To find out the awareness of e-resources.
5. To find out the problems faced by research scholars while using electronic resources
6. To examine usage and satisfaction with e-resources.

REVIEW OF LITERATURE

Khan and Khanam (2014) conducted a study on use of Web Resources and Services by Social Science and Arts Faculty Members and found that most of the faculty members used web resources for study and research work whose number was 48(65%) in Social Science and 48(82%) in Arts for improving knowledge. 36(49%) faculty members of total members and 24(36%) faculty members of Art faculty used web resources daily. Keywords were used by 29(39%) members of social science faculty. 24(41%) Arts faculty members used it for searching web resources on internet whereas 16(21%) Social Science faculty members and 18(31%) Arts faculty members were using Boolean logic. Emerald was most consulted e-Journal followed by J-gate and JSTOR. **Elavazhagan and Udayakumar (2014)** examined the Use of E-resources in the BITS Pilani and found that the 20% of the respondents were using e-resources daily. Most of the respondents preferred to use the e-resources in the campus & library and few of them preferred to use them at home. Most of them were using e-resources for their research and education purpose. 27% of respondents faced problem to get the relevant information in using the e-resources and 40% of respondents faced slow internet speed and 51% of the respondents collected the search information/research papers through e-mail. Most of the respondents were satisfied with the different formats of e-resources and most of the respondents felt that the e-resources were time saving, easy to use & handle. **Mohsin and Others (2014)** investigated the Use of E-resources by the Faculty Members of Sir Saryed College Aurangabad and found that the 21(35%) of the respondents use the internet every day and 93(48.38%) opined that the internet was for study and research. 43(71.66%) were aware of e-resources and 17(28.34%) were not aware of this. The e-resources and e-database were the most used resources by respondents as seen from their numbers which were 55(23.81%) and 48(20.77%) respectively. The study revealed that 33.34% indicated the purpose of using e-resources for study and teaching followed by 42(25.45%) for research work. Maximum respondents were of the opinion that the main advantage of accessing e-resources was easy accessibility and majority of 47 respondents (78.33%) had knowledge regarding the copyright and IPR issues. **Manjunath and Others (2014)** conducted a study on Use of Internet Resources and Services by Faculty of Technical Institution in Mysore

and found that more than 85% of respondents use the internet every day. 95.92% of the respondents used internet for academic purpose. E-journals and e-books were most preferred types of internet resources. Among the various internet services, e-mail (95.41%) and world wide web 99.35% are most preferred. **Mishra and Others (2014)** conducted a study on Awareness and Use of E-journal among the Research Scholars of Bansthali Vidyapith and found that research scholars were almost equally get aware of e-journals by University faculty members and library professionals and most of the research scholars utilized both the forms of journals (electronic and print). The maximum research scholars 39.58% used internet for hour or more than 4 hour and maximum research scholars (71.88%) access e-journals whenever required.

RESEARCH METHODOLOGY

Survey method of research was applied to ascertain the present status of use of e-resources. The structured questionnaire was designed for the users to assess their need about electronic resources. The questionnaire included different types of questions in the form multiple choices. The investigator personally visited library and departments for taking response through the questionnaire. Random sampling process was followed for data collection. Total 100 questionnaires were distributed among the respondents of the University and out of 100 questionnaires only 93 questionnaires were received back. The data so collected was tabulated and analyzed with the help of MS Excel and observation made during the study. The quantitative data collected with the help of questionnaire was analyzed with the help on percentage method.

DATA ANALYSIS

The data from the users were checked and numerically coded and entered on to a spreadsheet i.e. Microsoft Excel to obtain frequencies, percentage etc. The results were created and presented in tables and graphs form. The major results of the study present as follows.

Table-1
Gender wise Distribution of Respondents

Gender	HAU Hisar	Percentage
Male	62	66.66
Female	31	33.33
Total	93	100

Source: Table compiled from the data collected from the questionnaire.

Table-1 shows the population taken for the survey. The total population surveyed was 93 research scholars from agriculture university of Haryana. This population included 62 (66.66%) male respondents and 31 (33.33%) female respondents.

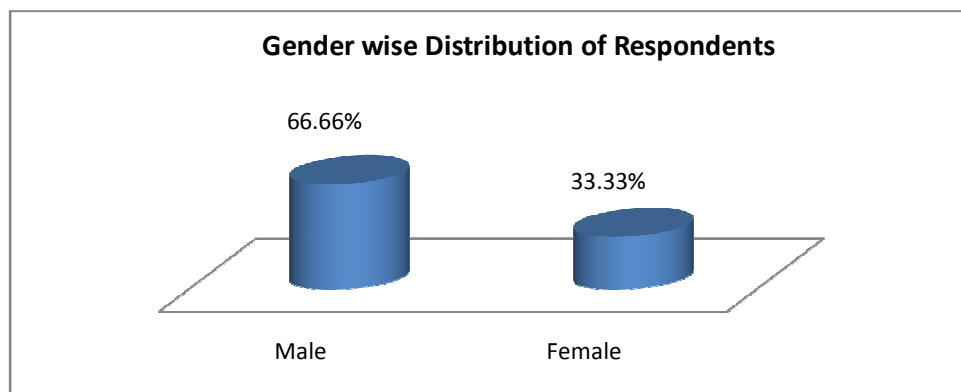


Table- 2
Frequency of Using of E-resources

Frequency	Total	Percentage
Daily	40	43.02
Twice/thrice a week	17	18.27
Weekly	14	15.05
Occasionally	29	31.82
Total	93	100

Source: Table compiled from the data collected from the questionnaire.

Table-2 highlights the frequency of using e-resources by the research scholars. A total of 37.2% respondents were using e-resources daily followed by twice/thrice a week 18.27%. 15.05% research scholars replied that they weekly use the e-resources and 31.82% stated occasionally. Table indicated the slight difference in frequency of usage of electronic resources between research scholars

Table- 3
Awareness of E-resources

Awareness of e-resources	Total	Percentage
Yes	91	97.85
No	2	2.15

Source: Table compiled from the data collected from the questionnaire.

Table-3 depicts the awareness of e-resources by respondents and shows that 97.02% of the research scholars are aware about the e-resources whereas only 2.15% research scholars indicated they are not aware.

Table- 4
E-resources Access Place

Access point	Total	Percentage
Library	60	64.51
Cybercafé	7	7.52
Home	43	46.23
Computer lab	22	23.65
Others	5	5.37

Source: Table compiled from the data collected from the questionnaire.

Table- 4 exhibits the use of e-resources through internet/intranet or any other media which could be accessed at various places within the university or outside the university. It can be revealed by the evaluation of the services from the library, home, and Computer lab, cybercafé inside the campus and from home. It has been found that 64.51% research scholar access the e-resources in the library, followed by 46.23% at home. 23.65% respondents access the e-resources in the computer lab. The result depicts that the cybercafé was used less in accessing the e-resources as compared to other places.

Table- 5
Prefer to use E-resources through

Prefer	Total	Percentage
Mobile Phone	56	60.21
Laptop	52	55.91
PC	27	29.03
Tablet	0	0
Others	2	2.15

Source: Table compiled from the data collected from the questionnaire.

Table-5 shows that mobile is widely preferred by the respondents i.e. 60.21% followed by laptop i.e. 55.91%. Only 29.03% respondents responded that they prefer PC for use e-resources and 2.15% prefer others. It is clear that as mobile phone is very user friendly so its graph is very high.

Table- 6
Use of Information E-resources

Institute	E-resources	Preference		
		Frequently	Sometime	Never
HAU	E-Books	30 (32.25)	51 (54.83)	7 (7.52)
	E- Journal	38 (40.86)	32 (34.40)	12 (12.90)
	E-lecture notes	43 (46.23)	27 (29.03)	19 (20.43)
	E-Reference books	29 (31.18)	63 (67.74)	16 (17.20)
	E-Magazine	22 (23.65)	37 (39.78)	25 (26.88)
	E-Databases	20 (21.50)	40 (43.01)	27 (29.03)
	E-Newspaper	40 (43.01)	30 (32.25)	23 (24.73)
	E-Thesis/dissertation	24 (25.80)	41 (44.08)	27 (29.03)

Source: Table compiled from the data collected from the questionnaire

Table-6 highlights that the 54.83% respondents of used e-books sometime whereas 32.25% respondents used it frequently. Less than a majority of respondents 40.86% respondents were using e-journal frequently whereas 23.65% respondents of were using e-magazines and 43.01% respondents were used e-newspaper frequently. Table also reveals that 67.74% respondents sometime using e-reference books and 31.18% respondents were using e-reference books frequently. Table also indicates that 44.08% respondents were using e-thesis/dissertation sometime whereas 22.80% respondents were used e-thesis/dissertation frequently whereas 29.03% respondents never used e-thesis/dissertation.

Table- 7
Preference of Using E-databases

E-databases	Total	Percentage
CeRa	67	72.04
E-Krishishikshe	25	26.88
Krishikose	46	49.46
Indian Science Abstract	22	23.65
CABI	29	31.18
Agricola	25	26.88
Biological Abstract	14	15.05

Source: Table compiled from the data collected from the questionnaire.

Table- 7 indicates preference of using e-databases by the respondents. It can be noted that 72.04% respondents were using CeRa, followed by 49.46% respondents used Krishikose, 31.18% respondents used CABI, 26.88% respondents use Agricola, 26.28% respondents used Krishishikshe. The table also indicates that 23.65% respondents used the Indian science abstract.

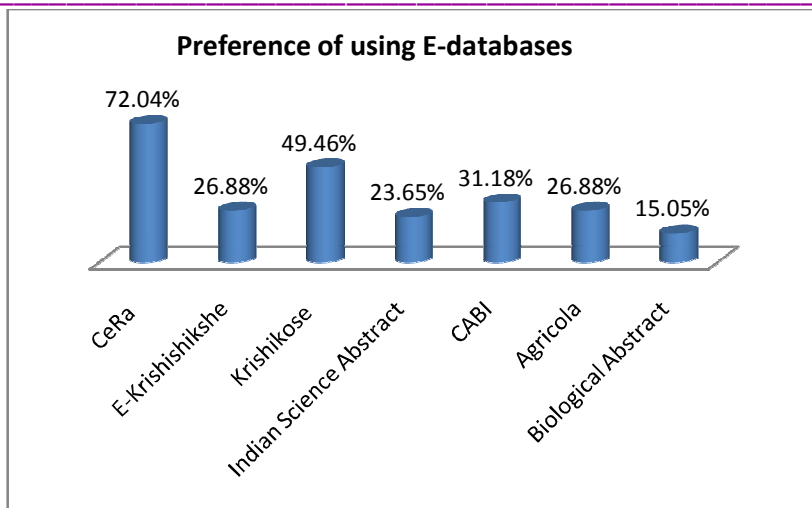


Table- 8
Methods of using and Learning of E-resources

Methods	Total	Percentage
Own learning	70	75.26
With the help of friends	42	45.16
Trial and error	11	11.82
Help of library staff	12	12.90

Source: Table compiled from the data collected from the questionnaire.

Table-8 The use of various electronic resources requires specific skills. The scholars are asked how they become able to use the e-resources and it has been found that own learning and with the help of friends were the most popular methods adopted by the maximum scholars as maximum scholars 75.26% answered own learning followed by with the help of friends methods 45.16% as shown in table. Some scholars i.e. 12.90% were also guided by library staff.

Table- 9
Training to use Electronic Resources by Research Scholars

Training required	Total	Percentage
Yes	28	30.10
No	65	69.89

Source: Table compiled from the data collected from the questionnaire.

Table 9 reveals that 30.10% of the respondents need training to use e-resources while 69.89% of the respondents replied that they do not need training to use e-resources. When asked about methods of training, table (10 B) indicate that 11.82% stated lecture methods should be adopted for training of electronic resources while 7.52% stated one to one method and 11.82% respondents that workshop method should be organized to train scholars in using e-resources.

Table- 9 (B)
Training Methods of Using of E-resources

Methods	Total	Percentage
Lecture	11	11.82
Tutorial	6	6.45
Workshop	11	11.82

One to one	7	7.52
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Source: Table compiled from the data collected from the questionnaire.

Table- 10
Advantages of E-resources

Advantages	Total	Percentage
Time saving	46	49.46
More informative	34	36.55
Easy to use	46	49.46
More useful	18	19.35
Others	7	7.52

Source: Table compiled from the data collected from the questionnaire.

Table-10 Thescholars were asked to mention the advantage of e-resources over print documents. Table indicates that most of the scholar believed in using electronic resources due to their advantages over print materials. The table indicates that 49.46% scholars say its time saving adventure followed by 36.55% says it's more informative. 19.35% respondents used the e-resources because these are easy to use.

Table- 11
Purpose of using Information E-resources

Purpose	Total	Percentage
Academic	63	67.74
Literature Search	41	44.08
For career development	32	34.40
Research work	58	62.36
Project and assignment	30	32.25
To update knowledge	48	51.61
Others	2	2.15

Source: Table compiled from the data collected from the questionnaire

The **table 11** clearly reveals that the maximum scholars showed their interest in both: academic and research work. 67.74% respondents used the e-resources for academic purpose and 62.36% respondents used e-resources for research work. Table also shows that 44.08 % respondents used e-resources for literature search. It also indicates that 51.61% respondents used the e-resources for update knowledge.

Table- 12
Problems in Information E-resources

Problems	Total	Percentage
Lack of time	19	20.43
It is waste of time	0	0
It much information retrieved	6	6.45
Slow downloading/internet speed	27	29.03
Information overload	11	11.82
High maintenance cost	10	10.75
Time consuming	13	13.97
Failed to access full text	35	37.63
Uncomfortable in reading e-copy	24	25.80
Lack of money	6	6.45
Lack of IT skill	11	11.82
Lack of awareness	20	21.50
Others	3	3.22

Source: Table compiled from the data collected from the questionnaire

Table-12 reveals that 20.43% respondents faced problem of lack of time whereas 37.63% respondents faced problem of failed to access full text. The table also indicates that 29.03% respondents faced problem of slow downloading speed whereas 25.80% respondents faced problems of uncomfortable in reading e-copy. The 21.50% respondents state that lack of awareness of e-resources while 11.82% respondents faced the problem of lack of IT skill

Table- 13
Satisfaction with Information E-resources

Level of Satisfaction	Total	Percentage
Highly satisfied	19	20.43
Satisfied	47	50.53
Partially satisfied	20	21.50
Not satisfied	7	7.52
Total	93	100

Source: Table compiled from the data collected from the questionnaire

Table-13 respondents were asked about their satisfactory level with the using the e-resources. Table 8 reveals that as 50.53 respondents were satisfied. 21.50% respondents were partially satisfied. 20.43% respondents were highly satisfied. Not satisfaction level of respondents much lower as compared to satisfaction.

SUGGESTIONS

In order to strengthen the research activity in the university, it is suggested that more online databases need to be subscribed. These are also the research scholars expectations. Different faculty-wise user education program should be arranged for research scholars. The research scholars should refer to more electronic journals for getting the latest information. More e-journals should be provided and the full text of the documents should be made available to the users. The library should update the services frequently. Library should organize workshop, orientation programme on regular basis to enhance usage of e-resources. Library should install more computer terminal and increase networks accessibility. Internet speed downloading should be extended to research scholars. Some journal cites are not accessible to the scholars. Update of website regularly and it should be easily accessible. More efficient technical staff should be appointed and they should be present in the Internet section for expert advice.

CONCLUSION

The use of ICT and sharing of knowledge can never be overemphasized. Electronic library resources will become more prevalent and sophisticated as the web becomes common place throughout the world, and to be successful players in the e-world. The survey has revealed that study university libraries in India are lagging behind in providing web forms to users in different electronic library resources, which are effective tools for library user interaction and communication. The study concludes that electronic information resources are highly desirable and it has lead to increased productivity of work, learning and research. Hence it has diversified the ways of communication, storage and retrieval of information, demands of users and information management system in the University libraries. The survey was attempted to evaluate the use of electronic resources by the research scholars of agriculture university of Haryana, the developed state of India. E-books, E-thesis/dissertation, e-journals, e-reference books and e-databases were found most popular e-resources. The majority of the respondents were using CeRa, Krishikose, CABI, and E-Krishishikshe e-databases. It has been observed that CeRA and Krishikose are biggest used by the scholars. The latest techniques of ICT like Mobile phone, Laptop etc. were also used. The frequency of using electronic resources was quiet high maximum user using it daily or twice/thrice days a week. Majority of research scholars involved to complete their academic and research work with the use of e-resources. Easy to use, time saving, more informative, more useful were found important features of electronic resources. 97.85% respondents were aware about the e-resources; most of them desired to avail training to use the available resources through

lecture and workshop methods. Some problems in using e-resources were also encountered like lack of time, slow downloading speed, failed to access full text and uncomfortable in reading e-copy etc. 50.53% respondents were satisfied with using e-resources.

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