

UTILIZATION OF CERA E-JOURNALS BY THE RESEARCH SCHOLARS AND TEACHERS OF UNIVERSITY OF AGRICULTURAL SCIENCES, BENGALURU

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Abstract:

Consortium for e-Resources in Agriculture (CeRA) grants access to around 2,900 literatures and research papers, which contains nearly 300 veterinary science papers, and other journals on related topic, for example, biotechnology, dairy science, and fisheries. This paper focuses on presenting the outcomes of the research on the utilization of CeRA by Faculty and Research Scholars and of University of Agricultural Sciences Bangalore, India. A questionnaire survey was conducted to collect data, with a response rate of 95%. Various factors are evaluated in the survey such as user awareness of CeRA, purpose of using CeRA, search options to access articles, sources of information about consortium, users' opinion about significance of consortium, limitation of using CeRA etc. Also, the need for adopting appropriate measures to promote the use of CeRA is also discussed.

Key Words: *CeRA E-Journal, University of Agricultural Sciences, Bengaluru, Utilization of CeRA*

I. Introduction

With the advent of Electronic publication and distributing, the format and quantity of recordable knowledge has grown rapidly. Libraries are undergoing significant changes in working methodology and administrations. Thus the libraries are experiencing difficult times, where they have to deal with the increasing number of information resources along with growing demands from the users. On the other hand, financial crisis are making it unfeasible for any library to buy or subscribe to all published literature pertinent for its users.

In order to meet the modern day requirements, most national and international publications are now supporting online journal publications. Moreover, electronic-journals are more widely preferred in current technical foundation. The academic and research activities of an institution is strongly determined by the availability and access to research materials. However, high Dollar rate,

constricting funds and expensive journals are making it unfavorable to subscribe the journals. With the development of information and communication technologies, new opportunities are available for resource sharing, which resulted in numerous national and international library networks and consortiums.

The new symbol of resource sharing has turned out to be a boon to overcome numerous restrictions with the information access beyond the economical province of libraries at the individual level. Few apex academic bodies were setup to provide knowledgeable information to the academia, such as All India Council of Technical Education (AICTE), University Grants Commission (UGC), Indian Council of Agricultural Research (ICAR), etc. These bodies have emphasized on creating an alternate channel for the current collection of individual institutes through consortia of e-resources. (Okorie, C. N., & Agboola, I.O. (2012)

Consortium for e-Resources in Agriculture (CeRA)

The Indian Council of Agricultural Research (ICAR) has established few networks of Institutes and State Agricultural universities (SAUs), with an objective of granting access to significant journals to researchers and faculty of National Agricultural Research System.

In order to realize this objective, the Consortium for e-Resources in Agriculture (CeRA) was setup at the Indian Agricultural Research Institute (IARI) in 2007. An online survey was conducted to choose the journals which have to be included in the consortium. Over 70 institutions took part in the survey and proposed numerous journals for CeRA. If a journal was suggested by more than 8 different institutions, then the expert committee would consider subscribing that journal under various fields of Agricultural Sciences. (Satpathy, S. K., & Rout, B. 2010)

CeRA offers round-the-clock access to about 2900 journals, from various topics, such as, Biomedical Sciences, Agricultural and Biological Sciences, Basic Sciences, Arts and Humanities, etc. Apart from these, there are over 300 journals in dairy science and technology, veterinary sciences, fisheries, biotechnology, etc., which were published by renowned publishers including Springer, Annual Reviews, CSIRO Publishing, Elsevier, Oxford Journals, Taylor & Francis, Nature Publishing Group, American Society of Agronomy, etc. (<http://cera.jccc.in/Search/QuickSearch.asp>). CeRA supports access to library-subscription, consortia-subscription and open access journals. In order to promote the utilization of CeRA, the host institution has organized numerous awareness programs and workshops. (Sinha, M. K., Singha, G., & Sinha, B 2011)

1.1 Research Objectives

- To study the significance of using CeRA by faculty and research scholars.
- To explore the opinion and suggestions of research scholars and faculty members about the impact of using the CeRA

II. Literature Review---

Various studies have been conducted on utilization of e-resources and consortiums at the national and international level. A selective review of available literature relevant to the study is given below.

As said by the Dhingra, N.J, in recent years, the usage of e-journals has gained more popularity compared to traditional printed journals. This is due to the mass acceptance of journals in electronic form. Faculty is reviewing these journals at their conserved departments more as compared to the library. (Dhingra, N.J, 2013)

Scholars such as Agber, Tsokura&Agwu, AgwuEkwe conducted a study on the evaluation of online resources usage by faculty and research members of Agricultural Science background of tertiary institutions in Benue State of Nigeria. They had discovered that the researchers are using various types of electronic resources, more often than any other printed materials, such as e-book, journals, synopses, videos, images, search engines, webpedia, etc. The authors have credited the socio-economic and institutional factors on enhancing the usage of electronic resources. (Agber, Tsokura&Agwu, AgwuEkwe, 2013)

Scholars such as Kumar, G.H. Hemantha & Subramanyam, have carried out a study on the use and awareness of internet at University of Agricultural Sciences, Bangalore. In this study, the authors have discussed various factors that influences the usage of internet at the university, such as, knowledge on using internet, applications of using internet, understanding about internet services, hurdles faced by the users, preferred search engines, and gratification of ample infrastructure offered for the use of the internet. (Kumar, G.H. Hemantha & Subramanyam, N., 2012)

Dinesh K. Gupta, carried out a study on the use pattern of print and electronic journals at the Kurukshetra University, India. The results from the study have shown that the subscriber's users preferred e-journals over conventional printed journals. Nevertheless, they highly relied on open-source materials than materials available in UGC

INFONET. The subscriber's users felt the need of training to use the e-resources. Over the past few years, the use of e-resources, such as e-journals, is growing rapidly, mainly in developing countries. This study, among others, focuses on highlighting the hurdles encountered by the users, and to promote the utilization of e-resources. (Dinesh K. Gupta, 2011)

III. Research Methodology

For the purpose of evaluating the usage of CeRA, a questionnaire survey was carried out in the University of Agricultural sciences, Bangalore. The survey was conducted after thorough review of related literature. Thirty three faculty members and research scholars were chosen as sample population based on the proportionate sampling scheme. The survey questionnaire was handed over in person to the participating members in their respective departments. The questionnaires were then collected after a week, once it is duly answered by the members. A total of 33 questionnaires were duly filled and collected for result analysis. The responses are analyzed through MS-Excel after some relevant computations. The results are tabulated.

IV. Results and Discussions

An effort has been made to examine the research data accumulated from research scholars and

faculty members from University of Agricultural sciences, Bangalore and interpret the outcomes revealing their awareness among the use of CeRA. The data is analyzed in view to the objectives mentioned in the research as follows:

Status of the participants

Table 4.1 Status of the participants

Status	Frequency	Percentage
Faculty Members	10	30%
Research Scholar	23	70%
	33	100

Table 4.1 demonstrates that, 70% of the participants were research scholars and remaining 30% were faculty members of the University of Agricultural Sciences, Bangalore.

Awareness of E-Journals

Table 4.2 –Awareness of E-Journals

Awareness of E-Journals	Frequency	Percentage
Yes	33	100%
No	0	0%
Total	33	100

Table 4.2 shows that, 100% of the participants were aware of the E-Journals accessible in the library.

E-journals/Databases

Table 4.3 – E-journals/Databases

E-Journals and Databases	Not at all		To a very little extent		to some extent)		To a great extent		To a very great extent	
	Fq	%	Fq	%	Fq	%	Fq	%	Fq	%
A A S	2	6%	2	6%	9	27%	4	12%	7	21%
A S M	3	9%	2	6%	8	24%	3	9%	0	0%
A S A	5	15%	3	9%	6	18%	5	15%	3	9%
Annual Reviews	0	0%	1	3%	11	33%	8	24%	6	18%
BioOnBe	2	6%	3	9%	6	18%	2	6%	2	6%
Cabi	2	6%	1	3%	5	15%	5	15%	0	0%
CSIRO	4	12%	1	3%	4	12%	7	21%	3	9%
Elsevier	0	0%	0	0%	9	27%	9	27%	10	30%
ISHS	1	3%	1	3%	4	12%	10	30%	2	6%
IWA	1	3%	2	6%	7	21%	5	15%	2	6%
Indian Journals	1	3%	1	3%	9	27%	6	18%	11	33%

NPG	1	3%	1	3%	5	15%	4	16%	6	18%
OUP	2	6%	2	6%	8	24%	4	10%	5	15%
Springer	1	3%	1	3%	4	12%	9	27%	9	27%
Taylor & Francis	2	6%	1	3%	10	30%	5	15%	4	12%

AASS (American association for the advancement of science), **ASM**(American Society for Microbiology), **ASA**(American Society of Agronomy), **ISHS** (International Society for Horticultural Science), **IWA**(International Water Association), **NPG**(Nature Publishing Group), **OUP**(Oxford University Press)

Table 4.3 depicts that 27% of the participants are accessing and making use of E-journal published by American Association for the Advancement of Science (AAAS) 'to some extent', while 24% of the of the participants are accessing and making use of E-journal published by American Society for Microbiology and 18% of the participants are accessing and making use of E-journal published by American Society of Agronomy, 33% of the participants are accessing and making use of E-journal published by Annual reviews, 18% of the participants are accessing and making use of E-journal published by BioOneBe. It is seen that 'to a great extent', 15% of the participants are accessing and making use of E-journal published by Cabi, 21% of the participants are accessing and making use of E-journal published by CSIRO, whereas 27% of the participants are accessing and making use of E-journal published by Elsevier. 30% of the participants are accessing and making use of E-journal published by International Society for Horticultural Science 'to a greater extent', 21% of the participants are accessing and making use of E-journal published by International water Association, 33% of the participants are accessing and making use of E-journal published by Indian Journals, and 18% of the participants are accessing and making use of E-journal published by Nature Publishing Group. 24% of the participants are accessing and making use of E-journal published by Oxford University Press to some extent, 27% of the participants are accessing and making use of E-journal published by Springer, and 30% of the participants are accessing and making use of E-journal published by Taylor and Francis to some extent.

It is apparent from the study that faculty members and research scholars and are using A A S, ASM, Annual Reviews, BioOnBe, Elsevier, OUP, Indian

Journals, Springer, Taylor & Francis publication journals.

Location of Accessing E-Journals

Table 4.4 – Location of Accessing E-Journals

Location of Accessing E-Journal	Frequen cy	Percenta ge
Library	15	45%
Computer Centre in the Campus	3	9%
Department	10	30%
Any other	5	15%

Table 4.4 represents that 45% of the participants are accessing E-journals from library, 30% of the participants accessing E-journals from the department, 15% are accessing e-journals through their personal computers and laptops and only few participants are accessing e-journals from computer hub in the campus. It is clear from the analysis that Library and Department is the main hub where faculty members and research scholars are frequently accessing the E-journals.

Locating articles in the E-journals

Table 4.5 – Locating articles in the E-journals

Locating articles in the E-journals	Freque ncy	Percent age
Directly from the publishers website	16	48%
From the CeRA project Website	18	54%
Subject list located on CeRA Project website	10	30%
Link provided by the library intranet website	11	33%

Table 4.5 points out that majority i.e. 54% of the participants find the essential articles in the E-journals straightforwardly from the CeRA project Website and publishers website, 33% of the

participants access it from the link given by the library intranet website and 30% of them are accessing it from subject list placed on CeRA Project website. Results shows that CeRA project websites and Publisher's website are the most accessed links to obtain vital articles in E-journals.

Availability of Journals in CeRA

Table 4.6 - Availability of Journals in CeRA

Availability of Journals in CeRA	Frequency	Percentage
Yes	23	70%
No	10	30%
Total	33	100

Table 4.6 represents that, 70% of the participants agreed that they are getting all the significant journals in CeRA respect to their discipline and rest 30% of the participants disagreed that they are not getting all the essential journals in their area of subject. A result shows that more journals which are relevant to their particular disciplines are to be added to the CeRA consortium.

Format of CeRA E-Journal

Table 4.7 - Format of CeRA E-journal

Format of CeRA E-journal	Frequency	Percentage
PDF	29	88%
HTML	4	12%
Any other	0	0%

Table 4.7 demonstrates that, 88% of the participants are making use of PDF format of CeRA E-journals and rest 12% are making use of HTML format. It is clear from the analysis that PDF format is the pretty well-known format and most of the research scholars and faculty members are largely making use of PDF format of CeRA E-journal.

Search Query Options

Table 4.8 – Search queries Options

Search quires	Frequency	Percentage
Title	11	33%
Journal Name	3	9%
Author	9	27%
Publisher Name	7	21%

Subject	13	39%
Boolean Operator	3	9%
Key word	15	45%

Table 4.8 describes that, 45% of the participants are prefer to use "Key words" as search query, 39% of the participants are prefer to use "subject" as search query and 33% of them are prefer to use "Title" as search query and again 27% of them are prefer to use "Author" as search query and 21% of them are prefer to use "publisher name" as search query and rest 9% of them are prefer to use journal name and Boolean operator's search queries. Results shows that key word and subject are the most preferable search queries used by the research scholars and faculty members.

Document Delivery Request

Table 4.9 - Document Delivery request

Document Delivery Request	Frequency	Percentage
Yes	30	91%
No	3	9%
Total	33	100

Table 4.9 represent that 91% of the participants were requested for the reprint of the articles which is not subscribed by the library under Inter library lending and rest 9% of them were not requested. A result shows that majority of the research scholars and faculty members are requesting for the reprint of the articles which is not subscribed by your library under Inter library lending.

Information about added new e-journal

Table 4.10 - Information about added new e journal

Info about added new e-journal	Frequency	Percentage
Through Library Staff	17	51%
CeRA website	15	45%
Library notice board	11	33%
Library Web Page	10	30%
Alert Service from publishers	4	12%

Table 4.10 demonstrates that 51% of the participants come to know about the new E-journals

added in the CeRA project from library staff, 45% of them are getting to know through CeRA Website, 33% of them are getting known through library notice board, 30% of them are getting now through library web page and only few are getting to know through alert service from publishers. A Result shows that library staff and CeRA websites are playing vital role spreading information to faculty members and research scholars about adding new-journal.

Required orientation to access CeRA E-journal

Table 4.11 Orientation to access CeRA E-journal

Orientation to CeRA E-journal	Frequen cy	Percenta ge
Yes	30	91%
No	3	9%
Total	33	100

Table 4.11 describes that, 91% of the participants are encouraging to have orientation for the successful use of CeRA E-journals and rest 9% of the participants have not shown any concern to have orientation on effective make use of CeRA E-journals.

Result shows that most of the researches scholars and faculty members are in need of orientation with regard to the make use of CeRA E-journal to prevail over the complexities while using CeRA E-Journals.

Constraints in accessing the CeRA E-journals

Table 4.12 Constraints in accessing the CeRA E-journals

Constraints in accessing the CeRA E-journals	Freque ncy	Perce ntag e
Yes	25	76%
No	8	24%
Total	33	100

Table 4.12 points out that, 76% of the participants agreed that they are facing complications at the time of accessing and making use of CeRA E-journals and rest 24% participants said that they are not facing any difficulties. It is apparent from the analysis that most of the faculty members and research scholars are facing complications using

CeRA E-journals and this can be overcome through an effective orientation program.

Problems while accessing CeRA E-journals

Table 4.13 problems while accessing CeRA E-journals

Problem while accessing CeRA- journals	Frequ ency	Perce ntage
Lack of computer knowledge to use it	3	9%
No proper assistance by library staff	4	12%
Do not understand the process involved in using CeRA	12	36%
Problem with the connectivity	11	33%
Difficulty in finding relevant information	10	30%

Table 4.13 demonstrates that, 36% of the participants are coming across with the many complications at the time of accessing and using CeRA E-Journal as they do not understand the process involved in making use of CeRA whereas 33% of the them are facing problem with the internet connectivity and again 30% of the participants are facing complexity in getting pertinent data and 12% of the participants are facing complications as they are not getting an appropriate help by library staffs and rest 9% of the participants facing difficulties because of lack of computer familiarity to make use of it.

It is clear from the analysis that most of the research scholars and faculty members are coming across with problems as they do not understand the process involved in using CeRA and also facing technical issues as there is no good internet connectivity. Hence it can be recommended that orientation program is essential to rise above these complexities.

Satisfaction level about e-journal infrastructure

Table 4.14 - Satisfaction level about e-journal infrastructure

Satisfaction about e-journal infrastructure	Freque ncy	Percent age
Cannot Say	3	9%
Very poor	1	3%
Poor	2	6%
Insufficient	2	6%

Sufficient	25	76%
Total	33	100

Table 4.14 depict that, 76% of the participants were satisfied with the infrastructure facility available in the campus for using the E-journals and rest participants were neutral and said poor infrastructure. A result shows that Faculty members and research scholars are feeling sufficient about infrastructure facility provided in the campus for using the E-Journals.

V. Major Findings

The following are the key observations based on the research:

- The study indicates that majority of the participants were aware of the E-Journals available in the library
- The study revealed that faculty members and research scholars are using A A S, ASM, Annual Reviews, BioOnBe, Elsevier, OUP, Indian Journals, Springer, Taylor & Francis publication journals.
- The study found that Library and Department is the main hub where faculty members and research scholars are frequently accessing the E-journals
- The study shows that CeRA project websites and Publisher's website are the most accessed links to obtain vital articles in E-journals.
- The study reveals that more journals which are relevant to their particular disciplines are to be added to the CeRA consortium
- The study found that PDF format is the pretty well-known format and most of the research scholars and faculty members are largely making use of PDF format of CeRA E-journal.
- The study indicates that word and subject are the most preferable search queries used by the research scholars and faculty members.
- The study reveals that majority of the research scholars and faculty members are requesting for the reprint of the articles which is not subscribed by your library under Inter library lending.
- The study found that library staff and CeRA websites are playing vital role spreading information to faculty members and research scholars about adding new-journal.
- The study indicates that most of the researches scholars and faculty members are in need of

orientation with regard to the make use of CeRA E-journal to prevail over the complexities while using CeRA E-Journals

- The study reveals that most of the faculty members and research scholars are facing complications using CeRA E-journals and this can be overcome through an effective orientation program
- The study found that most of the research scholars and faculty members are coming across with problems as they do not understand the process involved in using CeRA and also facing technical issues as there is no good internet connectivity. Hence it can be recommended that orientation program is essential to rise above these complexities.
- The study indicates that Faculty members and research scholars are feeling sufficient about infrastructure facility provided in the campus for using the E-Journals.

VI. Conclusion

CeRA is an extremely large effort on the part of Indian Council of Agricultural Research (ICAR) to offer a single window access to e-journals to the faculties, research scholars, scientists and students of Agricultural Universities all over India. This has allowed the libraries of these institutions/universities to make easy access to scholarly information to their users devoid of any local financial compulsion. This study brings about the conclusion that majority of the faculty members and research scholars are well aware about accessing and using CeRA e-journals and still majority of them are still facing some problem. At this institutional level, it is very important to conduct orientation as well as awareness programs to allow users practice with CeRA and to educate them on the various features of the consortium. Although the CeRA users' handbook is available on the library's website, circulation of hardcopies to users for their reference can be a praiseworthy enterprise to endorse their use of the consortium. At a higher level, the ICAR has to support CeRA member institutions to act in response on time to article requests. As a final point, it should be taken into account that the current study is limited to faculties and research scholars of University of Agricultural Sciences Bangalore only and CeRA E-journals is being used resourcefully by faculty

members and research scholars of University of Agricultural Sciences Bangalore.

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