Scientist’s Awareness of Electronic Resources in IARI: A Study

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Abstract

Developments in information technology have helped libraries to provide timely information to the users. The role of library is to acquire, organize information and make available to the library users. Electronic resources are the most important entity in research library and used to meet the information quickly to the users. E-resources are going to continuously increased in library. IARI library is a national library and has reach collection of electronic resources in the field of agricultural research and education. In this paper we have discusses the scientist’s awareness of electronic resources in Indian Agricultural Research Institute, New Delhi.

Keywords: Scientists, awareness, electronic resources, ICT, E-journals, E-books, internet, web-based resources CeRA, Agriculture, IARI.

1. Introduction

Today information communication technology (ICT) has been playing an important role in every area and change in conventional library to electronic library. This has result to emerging the electronic resources and services. Electronic resources are defined as resources which require computer access or any electronic product and this may be delivered on CD –ROM or via internet and so on. The many types of electronic resources (E-journals, E-books, CD-Roms/Online Databases, E-thesis, OPAC, Archives, Internet & Web-based resources etc.) are available in the library. E–resources are essential to research library for research requirements to the library users. These types of resources are easily accessible and research scientists prefer to use the electronic resources, because, they require information very quickly and readily format.

The study is based on the survey of scientists employed who are especially involved in research works in the Indian Agricultural Research Institute (IARI), New Delhi. The IARI was responsible for the research leading to the "Indian Green Revolution" of the 1970s. In fact, the
green revolution was born in the fields of IARI and our graduates constitute the core of the quality human resource in India's agricultural research and education. The Institute has been making concerted efforts to address the numerous challenges facing Indian agriculture. The goal of ensuring food security to the teeming millions of India has been one of its priorities. The institute has a strong force of scientists to meet the research activities. IARI rightly deserves the sobriquet "Mother Institute" as its alumni form the backbone of research management of agriculture in the country. The contribution of IARI towards human resource development for the national and international agricultural research is unparallel. The website of IARI is http://www.iari.res.in for electronically access of information.

2. **Review of Literature**

Review of literature is in some respects exploratory in nature and that often focus on developing hypothesis, based on previous research that may suggest further research. Therefore, the investigator focuses due attention to the studies related to present investigation.
Salaam, M. O. & Aderibigbe, Nurudeen A. (2010) studied on awareness and utilization of The Essential Electronic Agricultural Library by academic staff: A case study of university of agriculture, Abeokuta, Nigeria. This study examines the awareness and utilization of The Essential Electronic Agricultural Library (TEEAL) database resources by the academic staff at the University of Agriculture, Abeokuta, Nigeria. The findings show that 57.8% of the respondents were aware of TEEAL and that 33% used it when necessary. The study also identifies electricity problem and poor internet connectivity as hindrances to their utilization of this electronic resource.

Mohanty, Sisir Kumar (2011) studied on use and impact of e-resources by agricultural scientists at CRRI & CIFA: a case study. The study knows about the awareness, frequency of use and impact of e-resources among the scientists and researchers of CRRI & CIFA.

Prema, C. (2011) carried out survey on awareness of CeRa (Consortium for e-Resources in Agriculture) among the faculty members and research scholars of Tamilnadu Agricultural University: a case study. The study is analyzed about awareness, motivating factor, gender wise usage, problems faced.

Srinivasa, V.; Papegowda, M. & Boraiah, M. (2011) surveyed on use awareness of internet at university of agricultural sciences, Bangalore: a study. The study is demonstrated of internet usage, awareness, purposes, favorite search engines and satisfaction of infrastructural facility provided to use the internet.

Parmar, Seema (2012) studied on use of e-journals and CD-ROM databases by fraternity of CCSHAU, Hisar, India. A finding of study shows that is the faculty members are aware of e-journals and databases.

Tripati, Harish & Raj, Hans (2012) studied on user’s awareness about e-resources in agriculture sector: a case study of ICAR libraries at Delhi. The study reveals that majority of users (52%) prefer to use electronic resources for retrieving their required information, however (48%) user shown their interest in print resources.

3. Objectives of the Study

In the light of the theme of the investigation, the study aims to focus on the following objectives.
1. To know about the availability of different types of electronic resources in IARI.
2. To study the scientists awareness of electronic resources.
3. To study the scientists awareness about CeRA.
4. To study sources of awareness with electronic resources.

4. **Hypothesis**
   1. The scientists of the IARI are aware about the electronic resources.
   2. The scientists of the IARI are aware about CeRA.

5. **Methodology**
   The methodology will include survey method. Survey method is used extensively in library and information science to assess attitudes and characteristics of a wide range of subjects, from the quality of user-system interfaces to library user reading habits. The questionnaire is designed keeping in view the aspects of the research problem. The data for study will be collected from scientists of the Indian Agriculture Research Institute (IARI), New Delhi (ICAR). But, whenever necessary, interview and observation methods may also be utilized. The survey was anonymous and it has been taking place from July 2011 to March 2012. During this period researcher visited the Indian Institute of Agriculture Research, New Delhi and also collected data through Email. The total number of scientists is 404 in IARI. Only 263 questionnaires duly filled-in were received through email and also collected through my personal visit to IARI, New Delhi. Secondary sources are also used for data collection mainly include annual reports, official records, library websites and other published documents, etc.

6. **Data Analysis**
   The relevant data collected on the basis of survey (questionnaire, interview and observation) has been analyzed and inference drawn to get the results under different objectives. The data collected were processed in Microsoft Office – Excel software.

6.1. **Availability of Different Types of Electronic Resources in IARI**
IARI library is national library in the field of agricultural research and development. It has rich collection of electronic resources in the field of agricultural research. On the basis of filled in Questionnaire – I of information of library, the different types of e - resources as found available in IARI library which can be seen in the following tables:

Table 6.1.1: Availability of Different Types of Electronic Resources in IARI, Library

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Types of Electronic Resources</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CD –ROMs/Online Databases</td>
<td>Yes</td>
</tr>
<tr>
<td>2.</td>
<td>Online Journals</td>
<td>Yes</td>
</tr>
<tr>
<td>3.</td>
<td>E – Books</td>
<td>Yes</td>
</tr>
<tr>
<td>4.</td>
<td>E – Thesis</td>
<td>Yes</td>
</tr>
<tr>
<td>5.</td>
<td>Library Catalogue (OPACs)</td>
<td>Yes</td>
</tr>
<tr>
<td>6.</td>
<td>Internet / Web-based Resources</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The above Table 6.1.1 shows that that IARI library has six types of electronic resources. These are (1) CD –ROMs/Online Databases, (2) Online Journals, (3) E – Books, (4) E – Thesis, (5) Library Catalogue (OPACs), (6) Internet / Web-based Resources.

Table 6.1.2: Membership of Different Types of Electronic Resources Consortia in IARI, Library

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Electronic Resources Consortia</th>
<th>Founder Organization</th>
<th>Membership of the Consortia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Consortium for e – Resources in Agriculture (CeRA)</td>
<td>ICAR &amp; NAIP through IARI</td>
<td>Yes</td>
</tr>
<tr>
<td>2.</td>
<td>UGC-INFONET</td>
<td>UGC through INFLIBNET</td>
<td>No</td>
</tr>
<tr>
<td>3.</td>
<td>INDEST</td>
<td>MHRD through IIT, Delhi</td>
<td>No</td>
</tr>
<tr>
<td>4.</td>
<td>CSIR E-journal Consortia</td>
<td>CSIR</td>
<td>No</td>
</tr>
</tbody>
</table>
Table 6.1.2 indicates that IARI library has membership of two electronic resources consortia that is (1) Consortia of e – Resources in Agriculture (CeRA) and (2) DELNET. The study also shows that that CeRA is focal centre at IARI, Library.

### Table 6.1.2: Membership of IARI Library in Electronic Resources Consortia

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Consortia Description</th>
<th>通过NISCAIR</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>Others (DELNET)</td>
<td>DELNET</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table 6.1.3 shows that six agriculture CD-ROM/ Online databases are available in the IARI library. These are (1) CAB Abstracts, (2) AGRIS, (3) AGRICOLA, (4) FSTA, (5) Derwent Biotechnology Abstract (6) Zoological Records.

### 6.2 Respondents Profile Analysis (Cadre & Gender)

The total population of scientists working in IARI is 404 and out of this only 263 returned back the duly filled in Questionnaire – II. The percentage of respondents is 65.09% of total population of the study. The analyses of respondents were carried out on the cadre and gender basis.

### 6.2.1 Cadre- wise Distribution of the Respondents
The personal details section of the questionnaire-II provided information regarding the cadre of scientists (designation). We can see the cadre wise distribution of respondents from Table 6.2.1.

Table 6.2.1: Cadre - wise Distribution of the Respondents

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Cadre of Scientists (Designation)</th>
<th>No. of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Principal Scientists</td>
<td>93</td>
<td>35.36%</td>
</tr>
<tr>
<td>2.</td>
<td>Senior Scientists</td>
<td>119</td>
<td>45.25%</td>
</tr>
<tr>
<td>3.</td>
<td>Scientists</td>
<td>51</td>
<td>19.39%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>263</td>
<td></td>
</tr>
</tbody>
</table>

Figure 6.1

Table 6.2.1 reveals that maximum respondents (45.25%) are Senior Scientist’s cadre as per distribution of the respondents. Principal Scientists are in second position with (35.36%) and Scientists are in third position with (19.39%) as per cadre - wise data analysis of respondents.

6.2.1 Gender -wise Distribution of the Respondents
The personal details section of the questionnaire provides information of gender of the scientists as can be seen from Table 6.2.1.

Table 6.2.1: Gender-wise Distribution of the Respondents

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Scientists (Gender)</th>
<th>No. of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Male</td>
<td>204</td>
<td>77.57%</td>
</tr>
<tr>
<td>2.</td>
<td>Female</td>
<td>59</td>
<td>22.43%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>263</td>
<td></td>
</tr>
</tbody>
</table>

Figure 6.2

It is shown in Table 6.2.1, that is 204 (77.57%) of respondents were male and only 59 (22.43%) respondents were female as per gender-wise analysis of respondents. The study shows that there is less number of females in comparison to male in the field of agricultural research.

6.3 Scientist’s Awareness of Electronic Resources in IARI

Scientists views regarding electronic resources at IARI and whether they are aware of the existing electronic resources. The responses of scientists are shown in following tables.
6.3.1 Scientist’s Awareness of Various Types of Electronic Resources

The scientists of IARI were asked if they were aware of various types of electronic resources. The views of the respondents on this are presented in Table 6.3.1.

Table 6.3.1: Scientists Awareness of Various Types of Electronic Resources

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Types of Electronic Resources</th>
<th>Aware (No. of Respondents)</th>
<th>Not Aware (No. of Respondents)</th>
<th>Total No. of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CD – ROMs/Online Databases</td>
<td>263</td>
<td>0</td>
<td>263</td>
<td>100%</td>
</tr>
<tr>
<td>2.</td>
<td>Online Journals</td>
<td>263</td>
<td>0</td>
<td>263</td>
<td>100%</td>
</tr>
<tr>
<td>3.</td>
<td>E – Books</td>
<td>257</td>
<td>6</td>
<td>263</td>
<td>97.72%</td>
</tr>
<tr>
<td>4.</td>
<td>E – Thesis</td>
<td>255</td>
<td>8</td>
<td>263</td>
<td>96.96%</td>
</tr>
<tr>
<td>5.</td>
<td>Library Catalogue (OPACs)</td>
<td>260</td>
<td>3</td>
<td>263</td>
<td>98.86%</td>
</tr>
<tr>
<td>6.</td>
<td>Internet / Web-based Resources</td>
<td>263</td>
<td>0</td>
<td>263</td>
<td>100%</td>
</tr>
</tbody>
</table>

Graph: Awareness of Various Types of Electronic Resources

- **Aware (No. of Respondents)**
- **Not Aware (No. of Respondents)**
Figure 6.3

Table 6.3.1 reveals the awareness of various types of electronic resources among the respondents. It is found that 100% of the scientists are aware of (1) CD-ROM/On-line databases (2) On-line journals and (3) Internet/Web-based resources. Study also shows that scientists of IARI are aware of OPACs (98.86%), E-books (97.72%) and E-thesis (96.96%).

6.3.2 Scientist’s Awareness of Consortium for e-Resources in Agriculture (CeRA)

The scientist’s awareness of Consortium for e-Resources in Agriculture (CeRA) is presented in the Table 6.3.2.

Table 6.3.2: Scientist’s Awareness of Consortium for e-Resources in Agriculture (CeRA)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Electronic Resources Consortium</th>
<th>Aware (No. of Respondents)</th>
<th>Not Aware (No. of Respondents)</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Consortium for e - Resources in Agriculture (CeRA)</td>
<td>261</td>
<td>2</td>
<td>99.24%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.76%</td>
</tr>
</tbody>
</table>
Table 6.3.2 shows that awareness of Consortium for e-Resources in Agriculture (CeRA). The result reveals that 99.24% of respondents are aware about CeRA and only 0.76% respondents are not aware about the CeRA. The study shows that CeRA is more popular agriculture consortia among the scientists of IARI.

6.4 Sources of Awareness with Electronic Resources

It is noted that there are different sources through which the scientists come to know about the electronic resources. The scientists of IARI were asked the multiple question, How are you aware with electronic resources? The responses of the total respondents (263) on this have been analysed in the Table 6.4.

Table 6.4: Sources of Awareness with Electronic Resources

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sources of Awareness</th>
<th>No. of Responses</th>
<th>Percentage of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Through Institute/Library Website</td>
<td>124</td>
<td>47.15%</td>
</tr>
</tbody>
</table>
2. Through Information Brochure of Library, Library Notice & Training  & 127  & 48.29%  
4. Through Colleagues  & 112  & 42.59%  
6. Through Own Knowledge & Experience  & 115  & 43.73%  

![Sources of Awareness with Electronic Resources](image)

**Figure 6.5**

Analysis of the Table 6.4 indicates that 127 (48.29%) of scientists of IARI came to know about electronic resources through information brochure of library, library notice & training. The other sources through which they came to know about the electronic resources were institute/library website 124(47.15%), through colleagues 112 (42.59%) and through own knowledge & experiences 115 (43.73%).

7. **Findings of the Study**

The findings of the study are as follow:

- The study showed that IARI library has six types of electronic resources available in it. These are (1) CD-ROMs/Online Databases, (2) Online Journals, (3) E-Books, (4) E-Thesis, (5) Library Catalogue (OPACs), (6) Internet / Web-based Resources.
The study showed that IARI library is a founder member of agricultural consortia i.e. “Consortia of e–Resources in Agriculture (CeRA ).”

The study showed that many agriculture CD-ROM/Online databases are available in the IARI library. These are (1) CAB Abstracts, (2) AGRIS, (3) AGRICOLA, (4) FSTA, (5) Derwent Biotechnology Abstract (6) Zoological Records.

The gender-wise study showed that the strength of female scientists was very low in comparison to male scientists working in IARI.

The study clearly indicated that (100%) scientists of IARI are aware about the three types of electronic resources that is (1) CD-ROM/On-line databases (2) On-line journals and (3) Internet/Web-based resources. Most of scientists of IARI are aware about OPACs (98.86%), E-books (97.72%) and E-thesis (96.96%). It showed that majority of the scientists of IARI are aware about the electronic resources.

The study showed that majority of scientists (99.24%) of IARI is “aware about Consortium for e-Resources in Agriculture (CeRA )”.

Study showed that maximum i.e. 127 (48.29%) scientists of IARI came to know about electronic resources “through information broucher of library, library notice & training”.

8. Conclusion

The age of current scenario is electronic. Most of person is aware about internet & electronic resources. They are using electronic information resources in their day to day life. The scientists have got the right information at right time, easily and quickly of his research work. The Indian Agricultural Research Institute (IARI) is India’s premier national institute and leading for agricultural research, education and extension. The institute library is working as national library in the field of agricultural research and education. Institute library is fully equipped with modern ICT facilities and have rich collections of agricultural electronic resources. The studies found that majority of the scientists of IARI are aware with electronic resources.
References


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