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# Satisfaction and Influence on use of Electronic Information Resources among Scientific and Technical staff of the Libraries of ICAR Institutions of South India.

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**ABSTRACT**

*An attempt is made to study about satisfaction and influence of use of EIRs on scientific and technical staff of the libraries of ICAR Institutions in South India. A questionnaire was used to find the answer of questions about the use of CeRA, satisfaction and influence of use of EIRs among user, to identify the level of satisfaction, level of influence of use of EIRs on their research and development activities. Also to find out the challenges which are faced by the user? The study found that both scientific and technical respondents use all the journals to the level of score 4. Few journals like AAAS and ASA are used up the level of 5. i.e. to the level always use and both scientific and technical respondents are satisfied with the use of EIRs of E-Journals, E-Reference sources, E-databases, ETDs, E-Proceedings, consortia and websites. Both scientific technical respondents are felt agreed that the use of EIRs are influence on their research outputs, it has expanded their research possibility*

**Keywords:** Indian Council of Agriculture Research, Electronic Information Resources, Satisfaction, Users Influence

## 1.0 INTRODUCTION:

Agriculture plays a vital role in development of our nation. The research and developments activities are encourage and support agricultural related programs. In the meantime using of information and communication technology in the field of agriculture research is developing day by day. In India 1929 Indian Counseling Agriculture Research (ICAR) was established for the purpose of coordinating, guiding and managing research and education in agriculture including horticulture, fisheries and animal sciences in the entire country.

Electronic information resources offer today's students and researchers different opportunities from their predecessors. Brophy (1993) details the advantages of networking for the user as being: the information needed can be delivered from the most appropriate source to the user; the user can re-specify his or her needs dynamically; the information is obtained when it is wanted, so becomes "just in time" rather than "just in case"; the user selects only the information needed to answer the specific question and, finally, the information is only stored

should the user wish. Electronic information can therefore provide a number of advantages over traditional print based sources.

## 1.1 OBJECTIVES

1. To study the use of CeRA in by scientific and technical staff of ICAR libraries.
2. To study satisfaction on use of Electronic Information Resources by scientific and technical staff of ICAR libraries.
3. To study the influence on use of Electronic Information Resources by scientific and technical staff of ICAR libraries.
4. To study the challenges faced while using Electronic Information Resources by scientific and technical staff of ICAR libraries.

## 1.3 METHODOLOGY

The present study was carried out by Survey method by using Questionnaire tool for data collection. A structured questionnaire was prepared in view of objectives and 320 questionnaires were distributed among scientific staff and 300 among technical staff of ICAR Institutions and i.e. 91.88% filled in questionnaire were received from scientific and 86.67% from technical staff.

## 1.4 RESULTS AND DISCUSSIONS

**Table 1: Use of CeRA by scientific respondents:**

| | | Never | | Rarely | | Sometime | | Most of the times | | Always | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No | % | No | % | No | % | No | % | No | % | No |
| 1 | AAAS | 0 | 0.00 | 12 | 4.08 | 36 | 12.24 | 87 | 29.59 | 159 | 54.08 | 294 |
| 2 | ASA | 0 | 0.00 | 0 | 0.00 | 11 | 3.74 | 109 | 37.07 | 174 | 59.18 | 294 |
| 3 | ASM | 0 | 0.00 | 16 | 5.44 | 28 | 9.52 | 87 | 29.59 | 163 | 55.44 | 294 |
| 4 | BioOne | 0 | 0.00 | 21 | 7.14 | 45 | 15.31 | 94 | 31.97 | 134 | 45.58 | 294 |
| 5 | CABI | 0 | 3.06 | 41 | 13.95 | 74 | 25.17 | 91 | 30.95 | 88 | 29.93 | 294 |
| 6 | CSIRO | 9 | 0.00 | 38 | 12.93 | 48 | 16.33 | 66 | 22.45 | 133 | 45.24 | 294 |
| 7 | SPRINGER | 0 | 0.00 | 15 | 5.10 | 25 | 8.50 | 80 | 27.21 | 174 | 59.18 | 294 |
| 8 | IWA | 0 | 0.00 | 12 | 4.08 | 30 | 10.20 | 120 | 40.82 | 132 | 44.90 | 294 |
| 9 | ISHS | 0 | 0.00 | 18 | 6.12 | 29 | 9.86 | 138 | 46.94 | 109 | 37.07 | 294 |
| 10 | OUP | 0 | 0.00 | 14 | 4.76 | 33 | 11.22 | 96 | 32.65 | 151 | 51.36 | 294 |
| 11 | T&F | 0 | 0.00 | 29 | 9.86 | 18 | 6.12 | 92 | 31.29 | 155 | 52.72 | 294 |
| 12 | ELSEVIER | 0 | 0.00 | 24 | 8.16 | 66 | 22.45 | 67 | 22.79 | 137 | 46.60 | 294 |
| 13 | NPG | 0 | 0.00 | 47 | 15.99 | 62 | 21.09 | 66 | 22.45 | 119 | 40.48 | 294 |

It is observed from the table no. 2.35 indicates that among all the journals ASA is used by more than 95 percent of Scientific respondents i.e. ASA [96.25% (always 59.18% ; 37.07%), apart from this journal, more than fourth-fifths of scientific respondents are used SPRINGER [86.39% (always 59.18% ; most of the time 27.21%), ASM [85.03% (always 55.44% ; most of the time 29.59%)], IWA [85.72% (always 44.90% ; most of the time 40.82%)]. ISHS [84.01% (always 37.07% ; most of the time 46.94%)], OUP [84.01% (51.36% ; 32.65%)], T&F [84.01% (always 52.72% ; most of the time 31.29%)] and AAAS [83.67% always 54.08% ; most of the time 29.59%)].

It is also observed that one-fourths of scientific respondents are used some time only the journals CABI (25.17%), this is followed by ELSEVIER (22.45%) and NPG(21.09%).

**Table 2 : Use of CeRA by technical respondents:**

| | | Never | | Rarely | | Sometime | | Most of the times | | Always | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No | % | No | % | No | % | No | % | No | % | No |
| 1 | AAAS | 0 | 0.00 | 3 | 1.15 | 22 | 8.46 | 97 | 37.31 | 138 | 53.08 | 260 |
| 2 | ASA | 0 | 0.00 | 0 | 0.00 | 32 | 12.31 | 96 | 36.92 | 132 | 50.77 | 260 |
| 3 | ASM | 0 | 0.00 | 25 | 9.62 | 23 | 8.85 | 58 | 22.31 | 154 | 59.23 | 260 |
| 4 | BioOne | 0 | 0.00 | 11 | 4.23 | 32 | 12.31 | 106 | 40.77 | 111 | 42.69 | 260 |
| 5 | CABI | 0 | 0.00 | 32 | 12.31 | 63 | 24.23 | 97 | 37.31 | 68 | 26.15 | 260 |
| 6 | CSIRO | 9 | 3.46 | 12 | 4.62 | 52 | 20.00 | 71 | 27.31 | 116 | 44.62 | 260 |
| 7 | SPRINGER | 0 | 0.00 | 13 | 5.00 | 27 | 10.38 | 58 | 22.31 | 162 | 62.31 | 260 |
| 8 | IWA | 0 | 0.00 | 12 | 4.62 | 54 | 20.77 | 90 | 34.62 | 104 | 40.00 | 260 |
| 9 | ISHS | 0 | 0.00 | 21 | 8.08 | 50 | 19.23 | 92 | 35.38 | 97 | 37.31 | 260 |
| 10 | OUP | 0 | 0.00 | 17 | 6.54 | 21 | 8.08 | 86 | 33.08 | 136 | 52.31 | 260 |
| 11 | T&F | 0 | 0.00 | 25 | 9.62 | 16 | 6.15 | 77 | 29.62 | 142 | 54.62 | 260 |
| 12 | ELSEVIER | 0 | 0.00 | 21 | 8.08 | 45 | 17.31 | 75 | 28.85 | 119 | 45.77 | 260 |
| 13 | NPG | 0 | 0.00 | 49 | 18.85 | 63 | 24.23 | 51 | 19.62 | 97 | 37.31 | 260 |

The table 2.36 reveals that among all the journals under CeRA consortia AAAS is used by more than 90 percent of technical respondents i.e. AAAS [90.39% (always 53.08% ; most of the time 37.01%). It is also observed that more than three-fourths of technical respondents are used ASA [87.69% (always 50.77%, most of the time 36.92%)], OUP [85.39% (always 52.31% ; most of the time 33.08%)], SPRINGER [84.62% (always 62.31% ; most of the time 22.31%), T&F [84.24% (always 54.62%, most of the time 29.62%)], BioOne [83.46% (always 42.69% ; most of the time 40.77%)], ASM [ 81.54% (always 59.23% ; most of the time 22.31%).

It is also observed that, one-fourths of technical respondents are use some only from the consortia are CABI(24.23%), NPG (24.23%), IWA (20.77%) and SPRINGER (20%).

**Table 3 : Statistical comparison of use of CeRA between scientific and technical respondents:**

| | EIRs | Scientific | | Technical | | Z value | Result |
|---|---|---|---|---|---|---|---|
| Sl. No. | | Mean | SD | Mean | SD | Z value | |
| 1 | AAAS | 4.34 | 0.98 | 4.42 | 0.82 | 1.14275 | NS |
| 2 | ASA | 4.55 | 0.69 | 4.38 | 0.85 | 2.55188 | S |
| 3 | ASM | 4.35 | 1.00 | 4.31 | 1.14 | 0.42481 | NS |
| 4 | BioOne | 4.16 | 1.08 | 4.22 | 0.95 | 0.69092 | NS |
| 5 | CABI | 3.77 | 1.19 | 3.77 | 1.12 | 0.04452 | NS |
| 6 | CSIRO | 3.94 | 1.32 | 4.05 | 1.19 | 1.03939 | NS |
| 7 | SPRINGER | 4.40 | 0.98 | 4.42 | 1.00 | 0.17166 | NS |
| 8 | IWA | 4.27 | 0.93 | 4.10 | 1.02 | 1.98545 | S |
| 9 | ISHS | 4.15 | 0.96 | 4.02 | 1.09 | 1.48714 | NS |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 10 | OUP | 4.31 | 0.98 | 4.31 | 1.01 | 0.6375 | NS |
| 11 | T&F | 4.27 | 1.10 | 4.29 | 1.10 | 0.25185 | NS |
| 12 | ELSEVIER | 4.08 | 1.16 | 4.12 | 1.12 | 0.46259 | NS |
| 13 | NPG | 3.87 | 1.29 | 3.75 | 1.32 | 1.08337 | NS |

The mean value table 2.38 shows that both scientific and technical respondents use all the journals to the level of score 4. Few journals like AAAS and ASA are used up the level of 5. i.e. to the level always use. The hypothesis test shows that the Z value for all the EIRs except ASA and IWA, is lesser than the critical value of 1.96. Therefore the null hypothesis that there is no significant difference in the use of journals under CeRA consortia between scientific and technical respondents is accepted. But in the cases of ASA, IWA, the null hypothesis is rejected as the Z value of these journals are greater than the critical value 1.96 at the 5% level of significance.

**Table 4: Satisfaction of EIRs of scientific respondents:**

| **Sl. No.** | **EIRs** | **Not at all satisfied** | | **Least Satisfied** | | **Somewhat satisfied** | | **satisfied** | | **Highly satisfied** | | **Total (N=294)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | % | No. | % | No. | % | No. | % | No. | % | No. |
| 1 | E Book | 0 | 0.00 | 12 | 4.08 | 79 | 26.87 | 72 | 24.49 | 131 | 44.56 | 294 |
| 2 | E-Journals | 0 | 0.00 | 0 | 0.00 | 13 | 4.42 | 73 | 24.83 | 208 | 70.75 | 294 |
| 3 | E-Newspapers | 0 | 0.00 | 14 | 4.76 | 77 | 26.19 | 69 | 23.47 | 134 | 45.58 | 294 |
| 4 | E-Zines | 0 | 0.00 | 17 | 5.78 | 46 | 15.65 | 102 | 34.69 | 129 | 43.88 | 294 |
| 5 | E-Reference sources | 0 | 0.00 | 9 | 3.06 | 25 | 8.50 | 44 | 14.97 | 216 | 73.47 | 294 |
| 6 | E-Databases | 0 | 0.00 | 12 | 4.08 | 43 | 14.63 | 82 | 27.89 | 157 | 53.40 | 294 |
| 7 | ETDs | 0 | 0.00 | 0 | 0.00 | 6 | 2.04 | 58 | 19.73 | 230 | 78.23 | 294 |
| 8 | E-Proceedings | 0 | 0.00 | 14 | 4.76 | 53 | 18.03 | 46 | 15.65 | 181 | 61.56 | 294 |
| 9 | Consortia | 0 | 0.00 | 13 | 4.42 | 5 | 1.70 | 39 | 13.27 | 237 | 80.61 | 294 |
| 10 | OPAC | 0 | 0.00 | 16 | 5.44 | 32 | 10.88 | 38 | 12.93 | 208 | 70.75 | 294 |
| 11 | Websites | 0 | 0.00 | 0 | 0.00 | 14 | 4.76 | 45 | 15.31 | 235 | 79.93 | 294 |
| 12 | Internet | 0 | 0.00 | 0 | 0.00 | 6 | 2.04 | 23 | 7.82 | 265 | 90.14 | 294 |

As this context respondents were asked about their level of satisfaction towards EIRs. The table no. reveals that the resources with which maximum number of respondents are satisfied with internet [97.96% (highly satisfied 90.14% ; satisfied 7.82%)] and ETDs [97.96% (highly satisfied 78.23% ; satisfied 19.73%)]. This is followed by websites [93.88% (highly satisfied 79.93% ; satisfied 13.27%)]. It is also observed that more than fourth-fifths of scientific respondents are satisfied towards E-Reference sources [88.44% (highly satisfied 73.47% ; satisfied 14.97%)], OPAC [83.68% (highly satisfied 70.75% ; satisfied 12.93%)], E-Databases [81.29% (highly satisfied 53.40% ; satisfied 27.89%)]. This is followed by E-Zines [78.27% (highly satisfied 43.88% ; satisfied 34.69%)], E-Proceedings [77.21% (highly satisfied 61.56% ; satisfied 15.65%)] and E-News papers [69.05% (highly satisfied 45.58% ; satisfied 23.47%)].

**Table 5 : Satisfaction of EIRs of technical respondents:**

| Sl. No. | EIRs | Not at all satisfied | | Least Satisfied | | Somewhat satisfied | | satisfied | | Highly satisfied | | Total (N=260) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | % | No. | % | No. | % | No. | % | No. | % | No. |
| 1 | E Book | 0 | 0.00 | 14 | 5.38 | 46 | 17.69 | 71 | 27.31 | 129 | 49.62 | 260 |
| 2 | E-Journals | 0 | 0.00 | 5 | 1.92 | 51 | 19.62 | 58 | 22.31 | 146 | 56.15 | 260 |
| 3 | E-Newspapers | 0 | 0.00 | 7 | 2.69 | 31 | 11.92 | 83 | 31.92 | 139 | 53.46 | 260 |
| 4 | E-Zines | 0 | 0.00 | 15 | 5.77 | 49 | 18.85 | 88 | 33.85 | 108 | 41.54 | 260 |
| 5 | E-Reference sources | 0 | 0.00 | 13 | 5.00 | 43 | 16.54 | 55 | 21.15 | 149 | 57.31 | 260 |
| 6 | E-Databases | 0 | 0.00 | 9 | 3.46 | 70 | 26.92 | 69 | 26.54 | 112 | 43.08 | 260 |
| 7 | ETDs | 0 | 0.00 | 2 | 0.77 | 55 | 21.15 | 36 | 13.85 | 167 | 64.23 | 260 |
| 8 | E-Proceedings | 0 | 0.00 | 10 | 3.85 | 70 | 26.92 | 34 | 13.08 | 146 | 56.15 | 260 |
| 9 | Consortia | 0 | 0.00 | 3 | 1.15 | 26 | 10.00 | 79 | 30.38 | 152 | 58.46 | 260 |
| 10 | OPAC | 0 | 0.00 | 6 | 2.31 | 12 | 4.62 | 36 | 13.85 | 206 | 79.23 | 260 |
| 11 | Websites | 0 | 0.00 | 4 | 1.54 | 14 | 5.38 | 19 | 7.31 | 223 | 85.77 | 260 |
| 12 | Internet | 0 | 0.00 | 0 | 0.00 | 7 | 2.69 | 5 | 1.92 | 248 | 95.38 | 260 |

Table 2.24 indicates that the level of satisfaction of technical respondents towards EIRs. It is clear from the table that EIRs with which more than 90 percent technical respondents are highly satisfied and satisfied are internet [97.30% (highly satisfied 95.38% ; satisfied 1.92%)], websites [93.08% (highly satisfied 85.77% ; satisfied 7.31 %)] and OPAC [93.08% (highly satisfied (79.23% ; satisfied 13.85%)]. This is followed by with which more than three-fourths of technical respondents are highly satisfied and satisfied about consortia [86.84% (highly satisfied (highly satisfied 58.46% ; satisfied 30.38%)], E-Journals [78.46% (highly satisfied 56.15% ; satisfied 22.31%)], E-News papers [85.38% (highly satisfied 53.46% ; satisfied 31.92%)], E-reference sources [78.46% (highly satisfied 57.31% ; satisfied 21.15%)], ETDs [78.08% (highly satisfied 64.23% ; satisfied 13.85%)], E-Books [76.93% (highly satisfied 49.62% ; satisfied 27.31%) and E-Zines [75.39% (highly satisfied 41.54% ; satisfied 33.85%)].

**Table 6 : Statistical comparison of level of satisfaction of EIRs between scientific and technical respondents**

| | EIRs | Scientific | | Technical | | Z value | Result |
|---|---|---|---|---|---|---|---|
| Sl. No. | | Mean | SD | Mean | SD | Z value | |
| 1 | E Book | 4.10 | 1.08 | 4.21 | 1.06 | 1.27923 | NS |
| 2 | E-Journals | 4.53 | 1.30 | 4.33 | 0.99 | 2.08819 | S |
| 3 | E-Newspapers | 4.10 | 1.09 | 4.36 | 0.92 | 3.07499 | S |
| 4 | E-Zines | 4.17 | 1.03 | 4.11 | 1.05 | 0.62266 | NS |
| 5 | E-Reference sources | 4.59 | 0.89 | 4.31 | 1.06 | 3.34843 | S |
| 6 | E-Databases | 4.31 | 1.00 | 4.09 | 1.05 | 2.44353 | S |
| 7 | ETDs | 4.70 | 0.96 | 4.42 | 0.97 | 3.45866 | S |
| 8 | E-Proceedings | 4.34 | 1.08 | 4.22 | 1.12 | 1.33287 | NS |
| 9 | Consortia | 4.70 | 0.82 | 4.46 | 0.83 | 3.39431 | S |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 10 | OPAC | 4.49 | 1.03 | 4.70 | 0.77 | 2.74553 | S |
| 11 | Websites | 4.75 | 0.65 | 4.77 | 0.71 | 0.36859 | NS |
| 12 | Internet | 4.88 | 0.47 | 4.93 | 0.43 | 1.20944 | NS |

In the table 2.21, it was observed the EIRs were considered useful to the level of score 4 and 5. As was said earlier, usefulness leads to satisfaction. Thus, it can be observed from table no. 2.26 that both scientific and technical respondents are felt satisfied towards all the EIRs to the mean level of score 4 and 5. Further the Z value of EIRs of E-Journals, E-Reference sources, E-databases, EYDs, E-Proceedings, consortia and websites is greater than the critical value of 1.96 at 5 % level of significance, hence null hypothesis that there is no significant difference in the level of satisfaction towards EIRs between scientific and technical respondents is rejected . further the Z value of E-Books, E-Newspapers, E-Zines, OPAC and internet is lesser than the critical value. Hence, null hypothesis in these cases are accepted.

**Table 7 : Influence of use of electronic information resources use on your research outputs: scientific**

| Sl. No | | Strongly disagree | | Disagree | | No opinion / uncertain | | Agree | | Strongly agree | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | % | No. | % | No. | % | No. | % | No. | % | No. |
| 1 | It improves my research outputs | 0 | 0.00 | 0 | 0.00 | 27 | 9.18 | 50 | 17.01 | 217 | 73.81 | 294 |
| 2 | It makes effective research | 0 | 0.00 | 0 | 0.00 | 25 | 8.50 | 109 | 37.07 | 160 | 54.42 | 294 |
| 3 | It has expanded my research possibility | 0 | 0.00 | 0 | 0.00 | 28 | 9.52 | 95 | 32.31 | 171 | 58.16 | 294 |
| 4 | It reduces my research outputs | 148 | 50.34 | 146 | 49.66 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 294 |
| 5 | Using electronic resources is a waste my time | 257 | 87.41 | 37 | 12.59 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 294 |

The table no. clears that, more than 90 percent of the scientific respondents are felt agreed that the use of EIRs are influence on their research outputs. They agreed that it makes effective research [91.49% (strongly agree 54.42%; agree 37.07%)] and it improves my research outputs [90.82% (strongly agree 73.81%; agree 17.01%0] it is also followed by it has expanded my research possibility [90.47% (58.16% strongly agree; agree 32.31%)].

It is also observed that, 100 percent of the scientific respondents are felt disagree that it reduces my research outputs [100% (strongly disagree 50.34%; disagree 49.66%)] this is followed by using EIRs is a waste my time [100% ( strongly disagree 87.41; disagree 12.59%)].

**Table 8 : Influence of use of electronic information resources use on your research outputs: Technical**

| Sl. No | | Strongly disagree | | Disagree | | No opinion / uncertain | | Agree | | Strongly agree | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | % | No. | % | No. | % | No. | % | No. | % | No. |
| 1 | It improves my research outputs | 0 | 0.00 | 0 | 0.00 | 18 | 6.92 | 46 | 17.69 | 196 | 75.38 | 260 |
| 2 | It makes effective research | 0 | 0.00 | 0 | 0.00 | 20 | 7.69 | 98 | 37.69 | 142 | 54.62 | 260 |
| 3 | It has expanded my research possibility | 0 | 0.00 | 0 | 0.00 | 10 | 3.85 | 87 | 33.46 | 163 | 62.69 | 260 |
| 4 | It reduces my research outputs | 126 | 48.46 | 134 | 51.54 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 260 |
| 5 | Using electronic resources is a waste my time | 237 | 91.15 | 23 | 8.85 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 260 |

The table no. shows that, more than 90 percent of the technical respondents are felt agreed that the use of EIRs are influence on their research outputs. They agreed that it has expanded my research possibility [96.15% (strongly agree 62.69%; agree 33.46%)], it improves my research outputs [93.05% (strongly agree 75.38%; agree 17.69%)] it is followed by it makes effective research [92.31% (strongly agree 54.62%; agree 37.69%)].

It is also observed that, 100 percent of the technical respondents are felt disagree that using EIRs, is waste my time [100% ( strongly disagree 91.15%; disagree 8.85%)]. This is followed by it reduces my research outputs [100% (strongly disagree 48.46%; disagree 51.54%)]

**Table 9 : Challenges faced while using EIRs by the libraries of ICAR Institutions:**

| Challenges | Scientific (N=294) | | Technical (N=260) | |
|---|---|---|---|---|
| | No. | % | No. | % |
| In-sufficient electronic resources | 51 | 17.35 | 54 | 20.77 |
| Limited access | 83 | 28.23 | 58 | 22.31 |
| Poor network connectivity | 21 | 7.14 | 97 | 37.31 |
| Slow downloading | 70 | 23.81 | 142 | 54.62 |
| Poor archive access | 112 | 38.1 | 97 | 37.31 |
| Computer literacy problem | 33 | 11.22 | 27 | 10.38 |
| Incompatible user interface to library website | 90 | 30.61 | 32 | 12.31 |
| Improper orientation & lack of awareness | 64 | 21.77 | 120 | 46.15 |
| Lack of management of information | 130 | 44.22 | 92 | 35.38 |
| Not finding appropriate subject terms | 118 | 40.14 | 86 | 33.08 |

| | | | | |
|---|---|---|---|---|
| Advanced searching techniques | 180 | 61.22 | 154 | 59.23 |
| Uncooperative attitude of library staff | 42 | 14.29 | 32 | 12.31 |

Majority of the respondents from each category are faced some challenges while using EIRs in advance searching techniques i.e. scientific (61.22%), technical respondents (59.23%) . It is also related with all the respondents are used 100 percent only simple search in field while using search retrieval. it is also observed that from the scientific respondents, the two-fifths of respondents are faced lack of management of information (44.22%), this is followed by not finding appropriate subject terms (40.14%). More than one-fourths of scientific respondents are faced poor archive access problem (38.1%), this is followed by incompatible user interface to library websites (30.61%) and limited access (28.23%) problems are faced while using EIRs.

The table also shoes that from technical respondents, half of the respondents are faced slow downloading problem (54.62%), this is followed by improper orientation and lack of awareness (46.15%), poor network connectivity (37.31%) and poor archive access (37.31%), lack of management of information (35.38%) and not finding appropriate subject terms (33.08%).

According to this table reveals that majority of the respondents from each category are faced problems while using EIRs in the cases of advanced searching techniques, not finding appropriate subject terms, improper orientation and lack of awareness, lack of management of information, poor network connectivity and limited access problems. Although they are facing these types' problems they well aware, well usage, high fullness, high level satisfaction. It shows their level of competency and interest towards EIRs.

## 1.5 RESEARCH FINDINGS

1. Among all the journals ASA is used by more than 95 percent of Scientific respondents i.e. ASA [96.25% (always 59.18% ; 37.07%), apart from this journal, more than fourth-fifths of scientific respondents are used SPRINGER [86.39% (always 59.18% ; most of the time 27.21%).

2. More than 90 percent of technical respondents i.e. AAAS [90.39% (always 53.08% ; most of the time 37.01%). It is also observed that more than three-fourths of technical respondents are used ASA [87.69% (always 50.77%, most of the time 36.92%)],

3. Both scientific and technical respondents use all the journals to the level of score 4. Few journals like AAAS and ASA are used up the level of 5. i.e. to the level always use. The hypothesis test shows that the Z value for all the EIRs except ASA and IWA, is lesser than the critical value of 1.96. Therefore the null hypothesis that there is no significant difference in the use of journals under CeRA consortia between scientific and technical respondents is accepted. But in the cases of ASA, IWA, the null hypothesis is rejected as the Z value of these journals are greater than the critical value 1.96 at the 5% level of significance.

4. Majority of the scientific respondents are felt that highly satisfied and satisfied with internet, ETDs and websites. Very meagre scientific respondents i.e. below 20 percent least satisfied with E-Zines (5.78%), OPAC (5.44%), E-Newspapers (4.76%), E-Proceedings

(4.76%), consortia (4.42%), E-Books (4.08%), E-Databases (4.08%) and E-Reference sources (3.06%).

5. The majority of the technical respondents are highly satisfied and satisfied with internet, websites and OPAC. Also more than 70 percent of respondents felt satisfaction about rest of EIRs except E-databases and E-Proceedings.

6. Both scientific and technical respondents are felt satisfied towards all the EIRs to the mean level of score 4 and 5. Further the Z value of EIRs of E-Journals, E-Reference sources, E-databases, EYDs, E-Proceedings, consortia and websites is greater than the critical value of 1.96 at 5 % level of significance, hence null hypothesis that there is no significant difference in the level of satisfaction towards EIRs between scientific and technical respondents is rejected . further the Z value of E-Books, E-Newspapers, E-Zines, OPAC and internet is lesser than the critical value. Hence, null hypothesis in these cases are accepted.

7. More than 90 percent of the scientific respondents are felt agreed that the use of EIRs are influence on their research outputs. They agreed that it makes effective research (91.49%) and it improves my research outputs (90.82%), it is also followed by it has expanded my research possibility (90.47%).

8. .More than 90 percent of the technical respondents are felt agreed that the use of EIRs are influence on their research outputs. They agreed that it has expanded my research possibility (96.15%) it improves my research outputs (93.05%) and it is followed by it makes effective research (92.31%).

9. Majority of the respondents from each category are faced problem using EIRs in advance searching techniques i.e. scientific (61.22%), technical respondents (59.23%) .

## 1.6 CONCLUSION

Library and information centres are playing vital role in ICAR institutions to develop research and related activities in the field of agriculture and related sciences. Main users of these libraries are scientific and technical staff of ICAR institutions. CeRA consortia is also highly reached to all users with 100 percent well aware opinion. Always aware leads to use, usage leads to usefulness, when those EIRs are highly useful then leads to satisfaction of use of EIRs. When the users are highly satisfied it leads to positive influence in their research and development work. The present study reveals that scientific and technical respondents are felt satisfied towards internet, websites, OPAC, ETDs. The result of satisfaction leads to influence in their research. So both scientific and technical respondents are felt that use of EIRs is influenced in improve their research, it makes effective research and it has expanded their research possibility. So library and information centres are attached to ICAR institutions are providing very useful EIRs and well services to its users to fulfil users' needs and requirements in their research and guidance .

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