USE OF ELECTRONIC RESOURCES AND SERVICES BY MARINE SCIENCE FACULTY IN SOUTH INDIA

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ABSTRACT

The present study indicates the use of electronic resources and services by faculty members of marine science Departments in Universities and Fishery colleges in south India. A survey was carried out among faculty members of marine science and observations were made at the marine science libraries in south India. Information on varies aspects such as availability of electronic resources, use of electronic resources and services, place of access, the purpose of using e-resources, the rank values of use of e-resources in research and teaching, the users visit and time spent on use of e-resources and extent of users satisfaction with e-resources has been collected and analyzed to arrive at conclusion and suggestions have also been made to strengthen the existing e-resources.

***Keywords**: Electronic Resources, Marine Science libraries and User study*

1. Introduction

E-information is a key element for any research and development work. Presently scientists, engineers, technologists and faculty are getting their desired information easily and in a short time with the help of computer and Internet facilities. The faculty working in university departments and fishery colleges are also producers and users of information in their respective areas of science and technology.

The present study focuses on the use of e-resources and services by marine science faculty in south India, who are working in marine science university departments and fishery colleges in south India.

2. Need for the Study

Electronic resources represent a significant and growing part of an academic and research libraries, offer a way to identify the acceptance of e-resources, changes,usefulness, advantages and obstacles encountered while accessing e-resources. The present study necessitates the e-resources and services in tune with the that occur in marine science research and academic libraries in the present changing IT environment.

The main aim of the survey was to understand more about faculty and researchers usage of electronic resources, their experience with the electronic resources and their attitudes and expectation about technology based information resources. The study offers way to identify the acceptance of electronic resources and obstacles encountered while accessing e-resources.

3. Scope and Limitation of the Study

This research study is confined to the study of electronic resources and services with special reference to Marine scientists. Geographically it is bounded to the departments of Marine Science, Fisheries Colleges

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affiliated to Central Institute of Fisheries Education (CIFE) and Indian Council of Agricultural Research Institute (ICARI) Mumbai, India with special reference to South India. The study covers four states that includes Karnataka, Andhra Pradesh, Tamil Nadu and Kerala.

4. Objectives of the study

The following are the major objectives of the present study:

1. To study in detail about the e-resources and facilities available in Marine Science Libraries.
2. To determine the purpose for use of e-resources.
3. To find out the importance of e-resources.
4. To know the amount of time spent on use of e-resources.
5. To identify the level of user's satisfyaction with e-resources.
6. To find out the problems in use of e-resources.
7. To suggest the suitable measures to develop the collection of e-resources and to make use of e-resources and services at maximum extent.

5. Methodology

As the study is confined to the Universities/Fishery colleges affiliated to the Indian Council of Agriculture Research (ICAR), Central Institute of Fisheries Education (CIFE) and Council of Scientific and Industrial Research (CSIR) Institutions in India, The questionnaire method has been adopted. Further primary and secondary sources also have been used to collect the necessary information.

The research schedule was designed in two phases; the first schedule meant for users comprising, faculty, and the second schedule for librarians of marine science research institutes/universities/fisheries colleges in south India.

5.1 Method of data collection

A structural questionnaire was developed for the purpose of data collection and distributed. Some are distributed personally, some are by post and some are through e-mail among the marine scientists in the selected CSIR institutions. 197 questionnaires were distributed, out of which 126 questionnaires were received back with the response rate being 64%. The questionnaire covered five basic areas namely, users characteristics such as age, levels of education, field of specialization, institution affiliation and purpose of current research, and suggestions for the improvement of the existing information systems.

The study mainly consists of marine science scientists working in the six marine science which includes the university/fishery college faculty as well as research scientists of various levels. These potential users of marine science information have been categorized into four viz Professors, Associate Professors, Assistant Professors, and Lecturers as staffing pattern followed in CSIR and UGC.

5.2 Statistical techniques used

The collected data has been analyzed using the latest version of Statistical Package for Social Sciences (SPSS), (MS-Excel) for appropriate statistical procedures for the description (i.e., frequencies, percentage, means, and

standard deviations etc). Three-point scale and five-point scale have been adopted to get the weighted values and rank order.

5.3 Sample size and Data collection

A total of 197 structured questionnaires were distributed among marine science faculty of different marine science institutions/universities/fishery colleges, of which 126 were received and its accounts 64%.

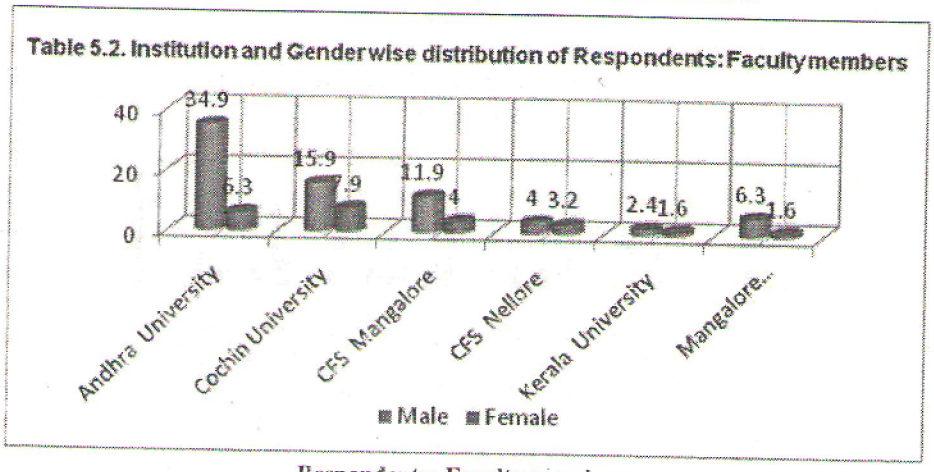
6. Results and discussion

6.1 Distribution of library users by Gender/Designation

To ascertain the use of e-resources by university faculty of marine science departments and fisheries sciences, data has been collected from different categories of faculty.

Figure 6.1, clearly show the institution wise and gender wise distribution of faculty. The sample population used in the present study contains more number of male faculty (75.4%) than female faculty (24.6%).

Figure 6.1. Institution and Gender wise distribution of



Respondents: Faculty members

Table 6.1. Availability of Electronic Resources in Library

Sl No	Electronic resources	Yes	No
1	Floppy Disks	08 (6.3)	118 (93.7)
2	CD-ROMs	119 (94.4)	07 (5.6)
3	Microforms	00 (0.0)	126 (100.0)
4	E-books	111 (88.1)	15 (11.9)
5	E-Journals	112 (88.9)	14 (11.1)
6	Online/CDROM databases	114 (90.5)	12 (9.5)
7	Cassettes	10 (7.9)	116 (92.1)

Table -6.1, reveals that a large number of respondents said 'yes' for availability of CD-ROMs (94.4%), Online/ CD-ROM database (90.5%), e-journals (88.9%) and e-books (88.1%). In case microforms (100%), floppy discs (93.7%) and cassettes (92.1%), large number of users said 'no' for the availability of e-resources.

It may be noted that since microforms, floppy discs and cassettes are getting outdated, perhaps, these sources are available in least number.

It may also be observed from figure 6.2 a large number of faculty members fully agreed that they used e-resources as means of communication with professionals (61.1%) followed by professional development (50.8%) and for writing of research project (31.7%). It is observed that a substantial number of faculty members also agree that, they use it for research/project writing (66.66%), placement (54%), accessing online database (46%) and downloading e-resources (45.2%).

To substantiate the results the study carried out by Doraswamy (2009) at Siddartha Engineering College, Vijayawada, found that 65.56% of the faculty members used e-resources for research purpose.

Since communication among university faculty is essential, the Internet could be an effective tool in this process. The data confirms that faculty is ready to face the challenges thrown by the technology.

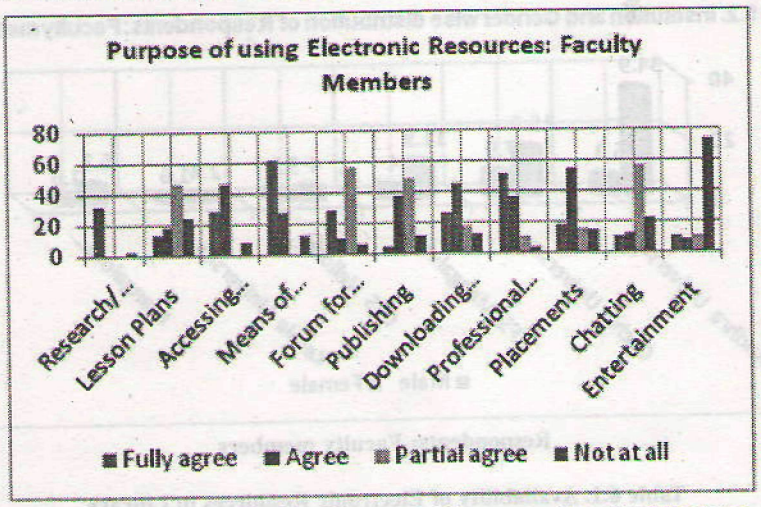


Figure 6.2. Purpose of using Electronic Resources: Faculty Members

To know the popular e-sources the respondents were shown a list of e-resources and were asked to indicate their importance; and the same is presented in figure 6.3, It clearly shows that, a majority of respondents (69.8%) amongst marine science faculty gave importance to search the database, it is followed by visit library website (65.97%) and online reference sources (62.7%). Further ranking table shows that visit the library website, Access full text articles and search the databases are highly utilized sources and ranked them first, second and third respectively. There is no doubt that the Internet has assumed the role of providing a medium of scientific information, and today users can no longer depend on conventional information sources to cope with the latest development in their respective fields.

On the same line of the study, a survey has been made by Kanniyappan and others (2008) at Anna University Library, Chennai. The study found that 53.33% of respondents used e-journals followed by www (35.35%),

books (8%) and databases (3.33%). Thus, the high use of e-resources by the faculty of marine science confirm to the general trend.

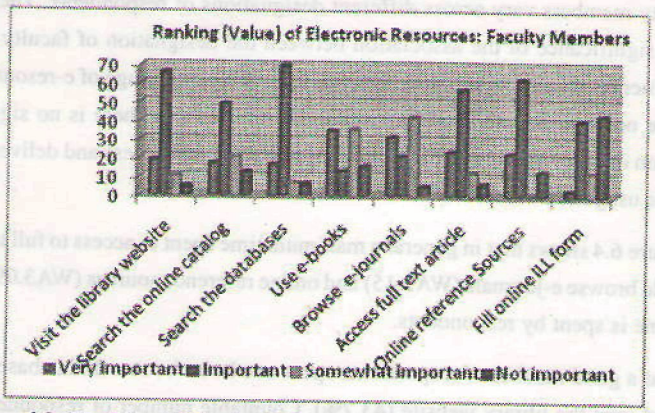


Figure 6.3. Ranking (Value) of Electronic Resources: Faculty Members

The e-information available on the Internet has been a great asset for many of the respondents. They have been able to keep themselves abreast of latest information and improve their professional competence. Besides this there are several reasons influenced for the use of e-resources.

In case of faculty members a large number of respondents mentioned as e-resources are fast access and delivery of information (81%), whereas 19% said 'No'. 76.2% accepted the scope for provision of accurate and current information, while 23.8% declined the same. 68.3% accepted that they would explore a wide area of information sources nearer to topic, whereas, 31.7% declined it. 51.6% said they could share information/ research with distant colleagues while 48.4% responded negatively. For very small percent of users, 'save the time' 5.6% and 'interact with my own resources (2.4%) are reasons for accessing e-resources

Table 6.2. Reasons for influencing e-resources: Faculty Members

SI No	Reasons	Professors =49		Reader/Asso.Prof=20		SSL/Asst. Prof=40		Lecturers =17		Total=126		χ^2
		Y	N	Y	N	Y	N	Y	N	Y	N	
1	Fast access and delivery of information.	40 (81.6)	09 (18.4)	16 (80.0)	04 (20.0)	32 (80.0)	08 (20.0)	14 (82.4)	03 (17.6)	102 (81.0)	24 (19.0)	0.072 (NS)
2	Provision of accurate and current information	36 (73.5)	13 (26.5)	14 (70.0)	06 (30.0)	31 (77.5)	09 (22.5)	15 (88.2)	02 (11.8)	96 (76.2)	30 (23.8)	2.019 (NS)
3	Exploring wider area of information sources nearer to your topic	31 (63.3)	18 (36.7)	13 (65.0)	07 (35.0)	29 (72.5)	11 (27.5)	13 (76.5)	04 (23.5)	86 (68.3)	40 (31.7)	1.523 (NS)
4	To share information/ research with distant colleagues	29 (59.2)	20 (40.8)	08 (40.0)	12 (60.0)	20 (50.0)	20 (50.0)	08 (47.1)	09 (52.9)	65 (51.6)	61 (48.4)	2.387 (NS)
5	Saves time my own communication (by using email) and search for information	00 (0.0)	49 (100)	00 (0.0)	20 (10.0)	05 (12.5)	35 (87.5)	02 (11.8)	15 (88.2)	07 (5.6)	119 (94.4)	8.984 ** Significant at 5% level
6	Interact with my own resources within and outside minus the help of librarians	00 (0.0)	49 (100)	00 (0.0)	20 (100.0)	03 (7.5)	37 (92.5)	00 (0.0)	17 (100.0)	03 (2.4)	123 (97.6)	6.607 ** Significant at 5% level

Note: 1. Y=Yes 2. N=No

The opinions of faculty members vary across different designations of respondents. Therefore, chi-test was performed to test the significance of the association between the designation of faculty members and their opinions about the influence of fast access and delivery of information on usage of e-resources. The chi-square value was found to be not significant. Therefore, it can be inferred that there is no significant association between the designation of respondents and their opinions about the fast access and delivery of information as a factor influencing the usage of e-resources.

It is apparent from figure 6.4 shows that in general a maximum time spent to access to full text articles with WA 3.18 is first rank. While browse e-journals (WA3.15) and online reference sources (WA3.09) are the sources, on which a maximum time is spent by respondents.

It is also observed that a good number of respondents spent one hour for search database (62.7%), fill online ILL form (44.4%) and visit the library website (43.7%). Countable number of respondents spent more than two hours for browse e-journals (41.3%), access to full text articles (31.7%) and use e-books and online reference sources (31% each).

The amount of time spent by scientists and faculty members is similar to the previous studies conducted by Biradar and Sampath Kumar (2005), which reveals that a large number of research scholars and faculty members used Internet for less than one hour and it is followed by one to three hours. Whereas a study of Lohar & Kumbar (2008), reveals that a large number of faculty members (39.86%) spent one to two hours for searching information on Internet followed by half an hour (30.41%).

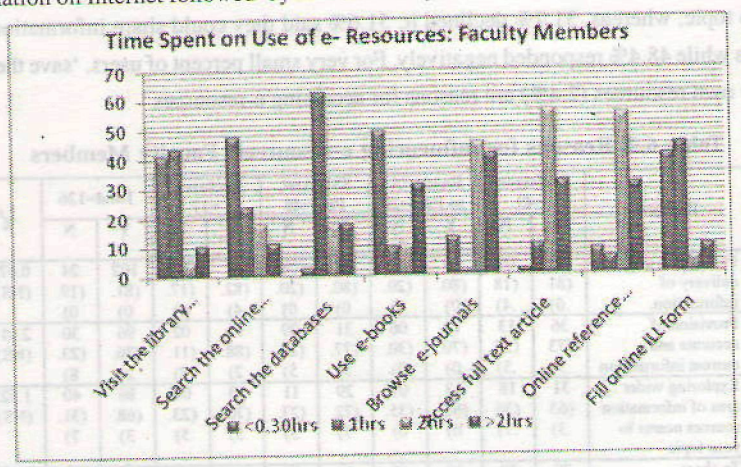


Figure 6.4. Time Spent on Use of e- Resources: Faculty Members

In general, a large number of faculty members are satisfied with full text data base (WA2.15) followed by e-journals and websites (WA2.25 each) and subject portals (WA2.66) they were ranked first and second and third respectively.

Researchers also tried to trace out the satisfaction level of the faculty members by sourcewise. A large number of faculty members were satisfied with full text database (66.7%), websites (53.2%) and e-journals (50%) (figure 6.5).

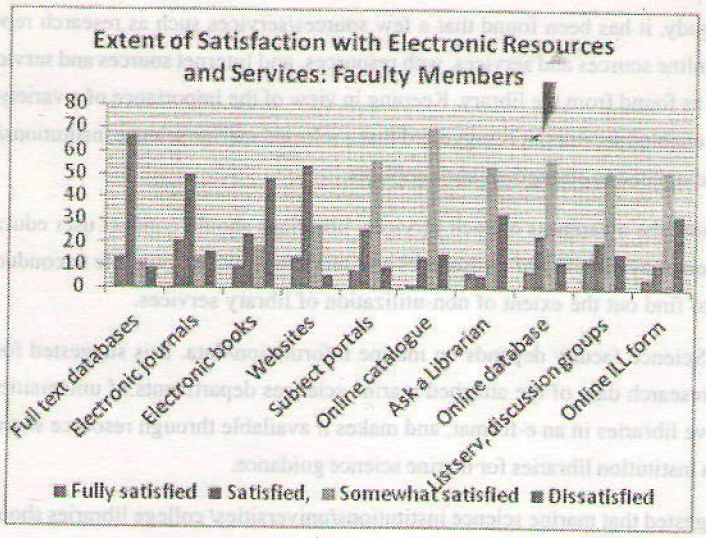


Figure6.5. Extent of Satisfaction with Electronic Resources and Services: Faculty Members

7. Major Findings

1. A large number of faculty members fully agreed that they used e-resources for communication with professionals (61.1%) followed by professional development (50.8%) and research project (31.7%). It is also observed that a substantial number of faculty members agree that, they use it for research/ project writing (66.66%), placement (54%), accessing, online database (46%) and downloading e-resources (45.2%).

2. A majority of respondents (69.8%) amongst marine science faculty gave importance to search the database. It is followed by visit library website (65.97%) and online reference sources (62.7%).

3. Maximum time spent to access to full text articles with WA 3.18 as first rank. While browse e-journals (WA3.15) and online reference sources (WA3.09) are the sources, on which maximum time is spent by respondents.

4. Good number of respondents spent one hour for search database (62.7%), to fill online ILL form (44.4%) and visit the library website (43.7%). A countable number of respondents spent more than two hours for browse e-journals (41.3%), access to full text articles (31.7%) and use e-books and online reference sources (31% each).

5. Full text database (WA 2.15) is ranked first, e-journals and websites (WA2.25 each) shared the second rank.

8. Suggestions to improve e-resources and services

Marine science education and research have drastically changed in their concept and character due to advances in marine science. These changes demand support from their respective libraries to collect, sort and recall the vide variety of information.

- In this study, it has been found that a few sources/services such as research reports, e-journals, e-books, online sources and services, web resources, and Internet sources and services are high ranked services as found from the library. Keeping in view of the importance of a variety of documentation and ICT enabled services, it is suggested that a selected marine science institutions/college libraries in south India, need to strengthen such services.
- To promote the awareness of such services, librarians should conduct user education programs for promotion of availability of e-resources and services. It is also possible to conduct periodically user studies to find out the extent of non-utilization of library services.
- Marine Science faculty depends on marine information/data. It is suggested for storing the entire marine research data of the attached marine sciences departments of universities/ colleges in their respective libraries in an e-format, and makes it available through resource sharing to other marine research institution libraries for marine science guidance.
- It is suggested that marine science institutions/universities/ college libraries should secure, preserve and disseminate information provided by marine science institution to faculty.
- It is found from this study that marine science faculty depend on informal information sources like discussions with colleagues, seminars/ conferences, means of communication and interactive meetings for marine science researches. It is suggested that universities/ college libraries which are electronic information resources and dissemination centers, should become a platform for informal information exchange. In this context, it is better if the library is renamed as electronic information resource center.

9. Conclusion

The study emphasizes the existing marine sciences departments of university libraries, fishery college libraries infrastructure in terms of collection of e-resources and services. Internet facilities are more to be strengthened. Because fishery colleges are suffering from financial constraints and the limited man power resources under the provision of effective information services.

No doubt electronic resources are popular and extensively used. Their popularity continues to increase with time. E-journals and e-books titles have already been related for print collections and continue to be used in their e-format. New journal titles in their online-only format, usually added to library collections in large quantity due to new acquisition strategies. Therefore Marine science research libraries should provide new and innovative document delivery services in accommodating the needs of their marine science faculty in electronic environment.

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