Use of online and printed journals by research scholars of faculty of Life Science and Agricultural Science, AMU: a comparative study

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Abstract

The present study entitled **"use of online and printed journals by research scholars of faculty of life science and agricultural science, AMU: a comparative study"**. The main purpose of this study to know how best the research scholars of faculties of life science and agricultural science are using online and print journals for their researches. The investigators have collected the data using questionnaire method. The study reveals that most of the research scholars in AMU access online journals also besides consulting print journals.Moreover,most of the research scholars consider online journals very useful for their studies. The study also found that most of the research scholars read full text in print form. The data has been using questionnaire which has been supplemented by interview as per the requirements. The paper examines the purpose, frequency, place of accessibility, method of reading full-text, difficulties in accessing online journals and also the most preferred search engines used to access online journals.

KEYWORDS: online and printed journal, research scholar, life science and agricultural science

1. Introduction

The present study deals with the use of online and printed journals by research scholars of faculty of life science and agricultural science, AMU, Aligarh. The emergence of the Internet particularly the WWW as a new medium of information storage and delivery represents a revolution, which would have a lasting impact on the publishing and information delivery system in the 21st century. With the application of the IT particularly internet, there has been a shift from traditional print journals to online journals. Internet is emerging as a powerful tool to make information quickly available on network to all potential users located anywhere. Internet documents have the quality of all time accessibility (Mcknight and Sheila, 1990).

2. Background Information

The establishment of Mohammedan Anglo Oriental (MAO) College in 1875 marks one of the most important events in the educational and social history of modern India. Its establishment is considered as the first significant response of the Indian Muslims to the challenges of post 1857 era. It was an important catalyst in a process of social change among Muslims. The M.A.O. College was originally affiliated with Calcutta University,

and was transferred to the Allahabad University in 1885. It was also around this time that a movement began to have it develop into a university to stand on its own. In 1920, the Act of Indian Legislative Council elevated the Mohammedan Anglo Oriental College to the status of a Central University and it became the principal Muslim Institution in India. AMU,at present, has 12 faculties comprising a wide spectrum of academic disciplines (95 departments, 5 institution and 13 centers) and 18 halls of residence with 73 hostels. The University offers 325 courses.

List of faculties is given below

1. Faculty of Agricultural Sciences
2. Faculty of Arts
3. Faculty of Commerce
4. Faculty of Engineering And Technology
5. Faculty of Law
6. Faculty of Life Sciences
7. Faculty of Management Studies & Research
8. Faculty of Medicine
9. Faculty of Science
10. Faculty of Social Science
11. Faculty of Theology
12. Faculty of Unani Medicine

Faculty of Agricultural Science consists of the following departments.

A. Department of Post-Harvest Engineering & Technology

B. Department of Plant Protection

C. Department of Agricultural Economic & Business Management

D. Department of Agriculture Microbiology

Faculty of Life Science consists of the following departments.

A. Department of Bio-Chemistry

B. Department of Botany

C. Department of Museology

D. Department of Wild Life Science

E. Department of Zoology

F. Department of Home Science

3. Review of Related Literature

In the present study the researcher has reviewed only those studied which are related to the topic of the dissertation. The investigator reviewed only those studies, which were similar to the present study. Borrelli, Steve; Galbraith, Betty and E. Brady, Eileen (2009) had conducted a survey on "The Impact of Electronic Journals on Use of Print in Geology". This study examines the use of geology journals at Washington State University (WSU), before and after electronic access was provided, to determine if the use of the print collection increased as in the previous studies at WSU of three other science disciplines. The number and source of articles cited by WSU geologists from 1998 to 2004 is also examined to determine the impact of electronic access on citation patterns. Tenopir, Carol and others (2009) in their article discussed that by tracking the information seeking and reading patterns of science, technology, medical and social science faculty members from 1977 to the present, this paper seeks to examine how faculty members locate, obtain, read, and use scholarly articles and how this has changed with the widespread availability of electronic journals and alternatives. Moghaddam, Golnessa Galyani and Talawar, V.G. (2008) conducted study under the title "The use of scholarly electronic journals at the Indian Institute of Science: a case study in India". The purpose of this study is to investigate the use of scholarly electronic journals at the Indian Institute of Science. An attempt is made in this study to see how these resources are being used in a multi-disciplinary institute in India. Limiting its focus to one institute, this paper provides useful empirical evidence for library staff and the research community. Borrego, Angel and Barrios, Maite (2007) had conducted a survey on the use of electronic journals by the academic staff of the universities belonging to the Consortium of Academic Libraries of Catalonia (CBUC). The results show that a high proportion of teaching and research staff are aware of the collection of electronic journals and that there is an increasing preference for the electronic to the detriment of the printed format. The collection of electronic journals is highly valued and most users expect to increase their use of them during the next few years. The results also confirm the importance of discipline and age as explanatory factors of the use of electronic journals. Urbano, Cristobel and Borrego, Angel (2007) had conducted a study on faculty members, research scholars and students of the faculty of Chemistry at the University of Barcelona on their data consumption of 31 e-journals of American Chemical society. Data on sessions, articles downloaded and abstracts viewed were gathered and analyzed. The study also indicates to be a greater dispersion of the consumption of electronic information than of information on print journals. The study by Dulaymi, Sawsan Taha and others (2004) discusses the growth of e-journals since 1992. The study investigates the changes in electronic journal and printed journal's collection and acquisition in terms of number of titles, type of provisions and acquisition, budgets and costs between the years 1995 and 2000. Christie, Anne and others (2001) survey tried to draw on practical experiences that Oregon State University (OSU) libraries are committed to increase electronic access to information. In the study conducted by Mehtab and Iqbal (2012) the utilization of internet services by the faculty members of the same two faculties namely Life Science and Agricultural have been described.

4. Objectives of the Study

1. To find out the purpose of e-journals services used by the research scholars of faculty of life science and agricultural science in A.M.U., Aligarh.

2. To find out the frequency and time spent for accessing online journals.

3. To know the place from where research scholars access e-journals.

4. To find out the method of reading full text e-journals.

5. To ascertain the preferable search engines.

6. To ascertain the problems faced by research scholars while accessing online journals.

7. To know the awareness of online journal consortia.

8. To know the advantages of online journals over printed journals.

5. Hypotheses

1) Most of the research scholars in the faculty of life science and agricultural science, AMU are aware of online journals.

2) Most of the research scholars access online journals from their department labs.

3) Most of the research scholars are aware of online journal consortium.

4) Most of researchers are facing problems while accessing online journals.

5) Most of the research scholars preferred online journals over printed journals.

6. Methodology

A questionnaire has been framed to elicit the opinion of the research scholars and a pilot study has been conducted among the users. Notably, this questionnaire has been modified incorporating useful suggestions. Finally, 100 questionnaires were distributed among the research scholars. The total numbers of 75 filled-in questionnaires were returned by the research scholars of faculty of life science and agricultural science in A.M.U., Aligarh. However, 5 questionnaires were rejected due to incomplete information. Thus the investigators selected 70 for the analysis of data

7. Data Analysis and Interpretation

Table 1

Frequency of using online journals

S.No.	Frequency	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents

1	Daily	21	70.00	07	17.50
2	Weekly	04	13.33	25	62.50
3	Fortnightly	03	10.00	03	7.50
4	Monthly	02	6.67	05	12.50

The table 1 shows that a majority of respondents are regularly used online journals. In the faculty of agricultural science 70% respondents use online journals daily, 13.33% use weekly, 10% use fortnightly and 6.67%use monthly in the faculty of life science 17.50% respondents use online journals daily, 62.50%use weekly, 7. and 12.50%use monthly. 50%use fortnightly

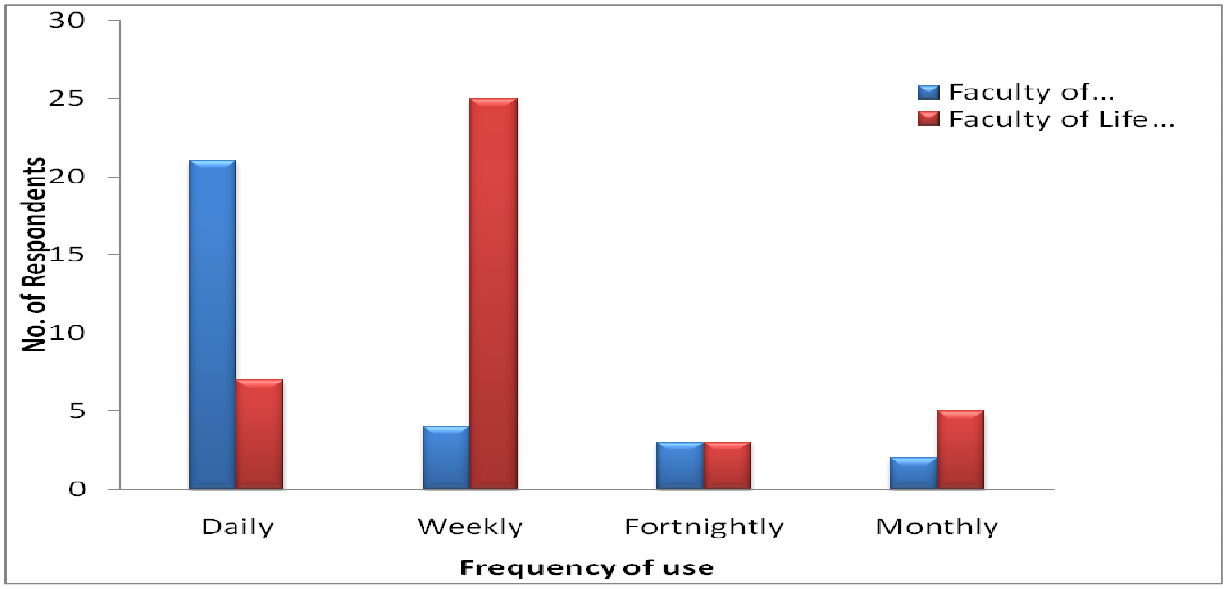

Table 2

Content of Online Journals used for Research

S.No.	Content	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents
1	Less than 25%	04	13.33	08	20.00
2	25-50%	10	33.33	13	32.50
3	50-75%	14	46.67	15	37.50
4	More than75%	02	6.67	04	10.00

The table2 shows that in the faculty of agricultural science 13.33% respondents use less than 25%, 33.33%respondents use 25-50%, 46.67% respondents use 50-75% and 6.67% respondents use more than 75% content of online journals. As compared to this in the faculty of life science 20% respondents use less than 25%, 32.50%respondents use 25-50%, 37.50% respondents use 50-75% and 10% respondents use more than 75% content of online journals.

Table 3

Sources of Information

S.No.	Sources	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents
1	Internet	23	76.67	22	55.00
2	Journals	02	6.67	09	22.50
3	Newspaper	0	0.00	05	12.50
4	Colleagues	05	16.67	04	10.00

The table 3 shows that majority of respondents are getting information about online journals from internet. In the faculty of agricultural science 76.67% respondents getting information about online journals from internet, 6.67%from journals, and 16.67% from colleagues. In the faculty of life science 55.00% getting information internet, 22.50% from journals, 12.50%from newspapers and 10% from colleagues.

Table 4

Mode of access online journals

S.No.	Mode of access	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents
1	Through Search engine	12	40.00	30	75.00
2	Through consortium	06	20.00	04	10.00
3	Publisher website	09	30.00	05	12.50

4	Link of e-database	03	10.00	01	2.50

The table 4 shows that in faculty of agricultural science 40% respondents search online journals through search engine, 20% through consortium, 30% through publisher website and 10% through link of e-database. And in the faculty of life science 75% respondents search online journals through search engine, 10% through consortium, 12.50% through publisher website and 2.50% through link of e-database.

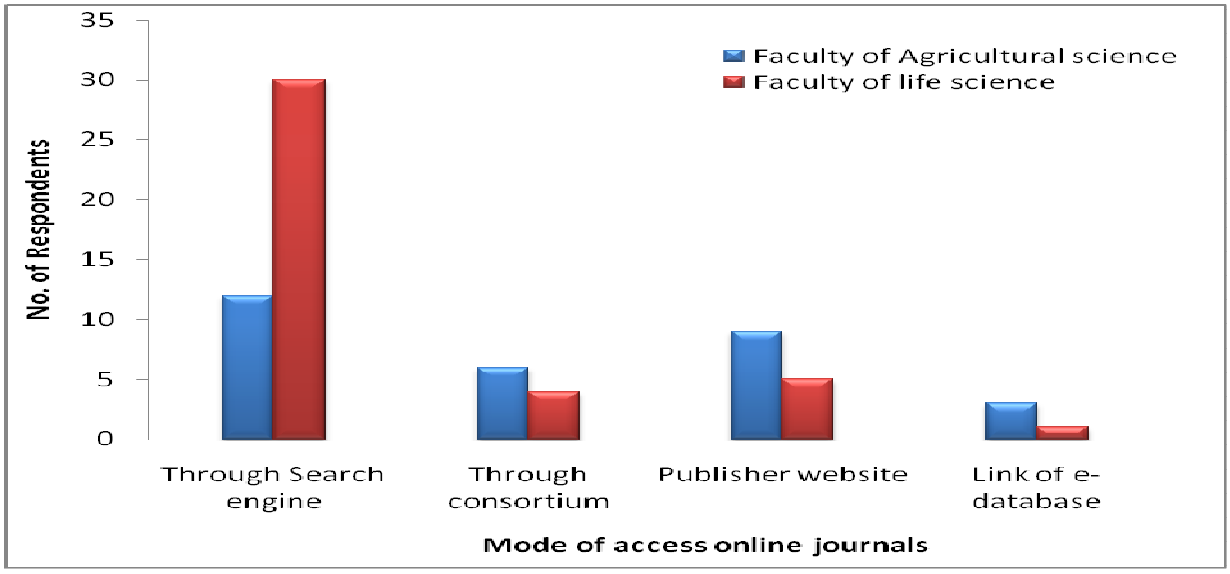

Table 5

Place of Access

S.No.	Place	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents
1	Departments labs	14	46.67	22	55.00
2	Computer centre	06	20.00	10	25.00
3	University Library	08	26.67	06	15.00
4	Other	02	6.67	02	5.00

The analysis of table 5 shows that in faculty of agricultural science 46.67%respondents use departments labs, 20% use computer centre, 26.67%use university library and 6.67% use other places for accessing online journals. Whereas in the faculty of life science 55%

respondents use departments labs, 25% use computer centre, 15%use university library and 5% use other places for accessing online journals.

Table 6

Use of Online Journal Consortium

S.No.	Consortium	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents
1	UGC INFONET	08	29.63	15	39.47
2	INDEST	02	7.40	05	13.16
3	FORSA	01	3.70	04	10.53
4	J-Gate	14	51.85	11	28.95
5	Other	02	7.41	03	7.89

The table 6 shows that in the faculty of Agricultural science 29.63% respondents use UGC INFONET, 7.40% use INDEST, 3.70% use FORSA,51.85% use J-Gate and 7.41% use other online journal consortium for accessing online journals . Whereas in the faculty of life science 39.47% respondents use UGC INFONET, 13.16% use INDEST, 10.53% use FORSA,28.95% use J-Gate and 7.89% use other online journal consortium for accessing online journals.

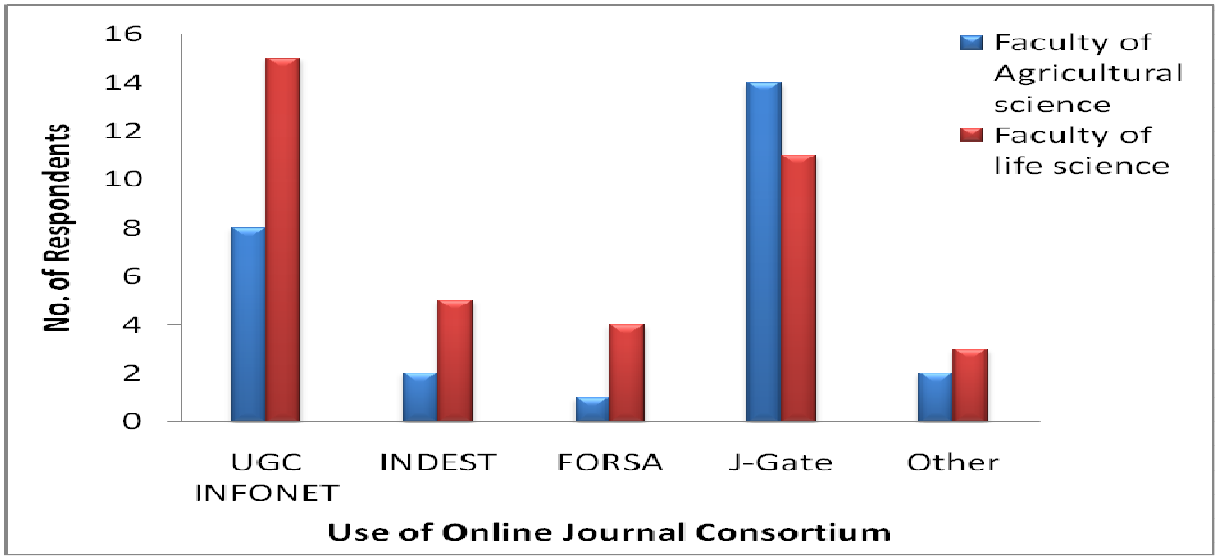

Table 7

Methods of Reading Online Journals

S.No.	Methods of reading	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents
1	On the screen	06	20.00	05	12.50
2	Print form	21	70.00	31	77.50
3	Downloading in CDs	02	6.67	03	7.50
4	Other	01	3.33	01	2.50

Table 7 shows various methods of reading online journals. In faculty of agricultural science 20% respondents read on computer screen, 70% read after taking print out on paper, 6.67% download the articles in CDs and 3.33% use other methods of reading. Whereas in the faculty of life science 12.50% respondents read on computer screen, 77.50% read after taking print out on paper, 7.50% download the articles in CDs and 2.50% use other methods of reading.

Table 8

Mostly use Search Engine

S.No.	Search Engine	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents
S.No.	Search Engine	No. of respondents	% of respondents	No. of respondents	% of respondents
1	Google	20	66.67	27	67.50
2	Yahoo	06	20.00	06	15.00
3	MSN	02	6.67	03	7.50
4	Looks Mart	01	3.33	02	5.00
5	Other	01	3.33	02	5.00

The table 8 shows that in faculty of Agricultural science 66.67% respondents use Google, 20% use Yahoo, 6.67% use MSN, 3.33% use Looks Mart and 3.33% use other method for searching online journals. Whereas in the faculty of life science 67.50% respondents use Google, 15% use Yahoo, 7.50% use MSN, 5% use Looks Mart and 5% use other method for searching online journals.

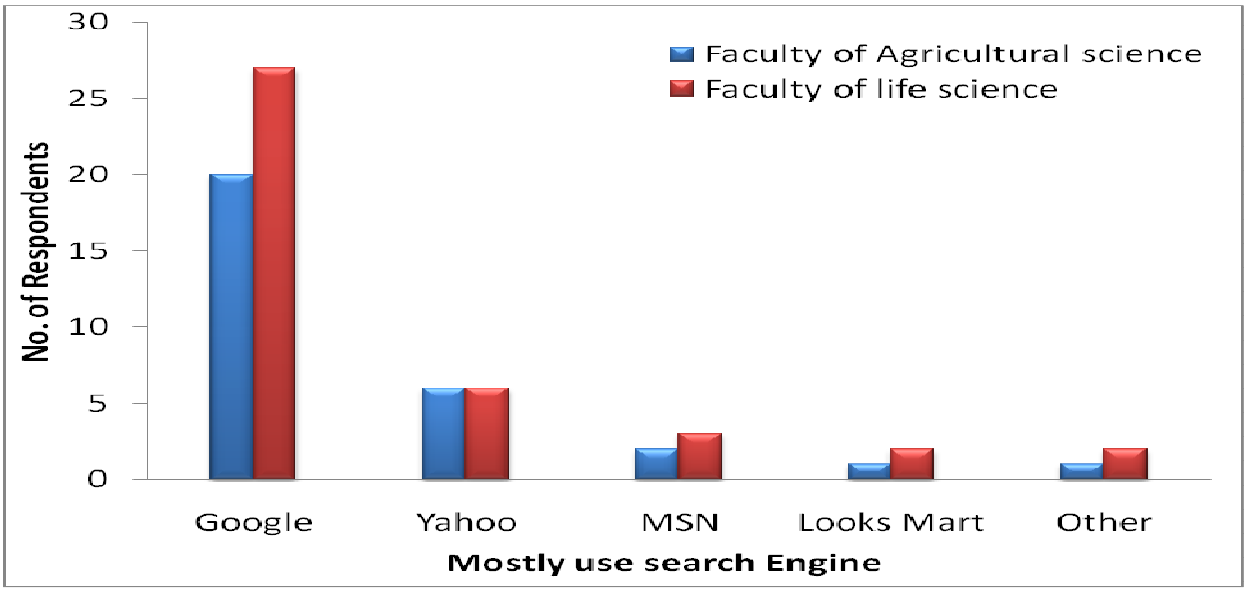

Table 9: Problem Faced While Searching

S.No.	Problem faced	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents
1	Yes	18	60.00	34	85.00
2	No	12	40.00	06	15.00

The table 9 shows that 60% respondents of the faculty of agricultural science face problem while searching online journals 40% respondents does not face any problem. And 85% respondents of faculty of life science face problem while searching online journals 40% respondents does not face any problem.

Table 10

Type of Problem

S.No.	Type of Problem	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents

1	Limited access terminals	04	13.33	25	62.50
2	Slow Speed	05	16.67	10	25.00
3	Internet Connectivity	06	20.00	03	30.00
4	Lack of training	03	10.00	02	5.00

The table 10 shows that 13.33% respondent of faculty of agricultural science faces the problem of limited access terminals, 16.67% faces problem of slow speed, 20% faces problem of Internet connectivity and 10% faces problem of lack of training. Whereas 62.50% respondents of faculty of life science faces the problem of limited access terminals, 25% faces problem of slow speed, 30% faces problem of Internet connectivity and 5% faces problem of lack of training.

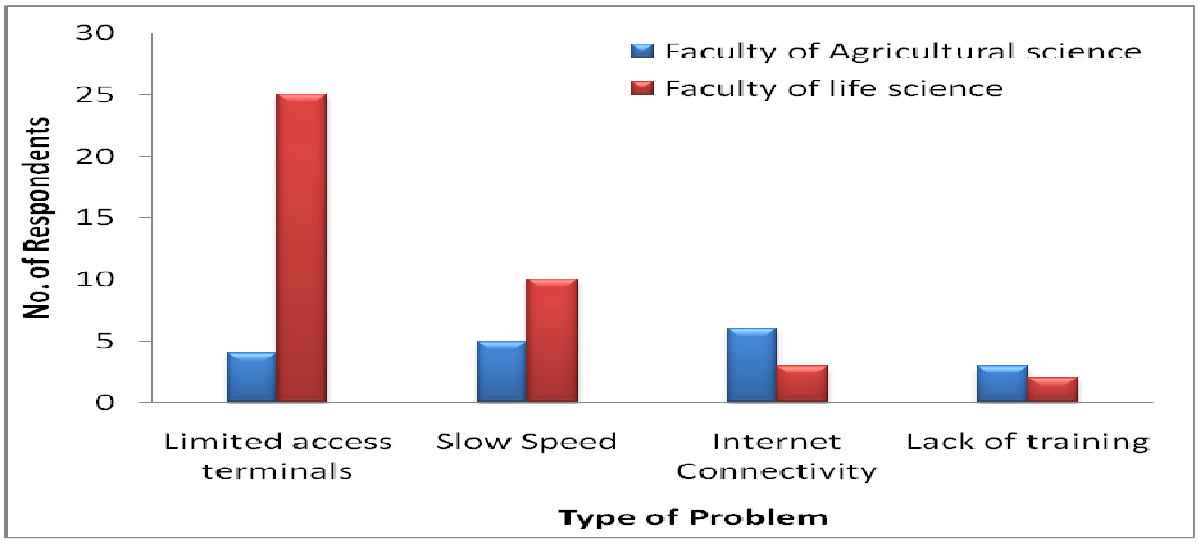

Table 11

Favorite form of journal

S.No.	Form of journal	Faculty of Agricultural science		Faculty of life science	
		No. of respondents	% of respondents	No. of respondents	% of respondents
1	Online	18	60.00	26	65.00
2	Print	12	40.00	14	35.00

The table11 shows that 60% respondents of faculty of agricultural science prefer online journals over printed journals. And 65% respondents of faculty of life science prefer online journals over printed journals.

8. Findings and Suggestions

The present study sought to examine the use of online journals and printed journals by research scholars of Faculty of Life Science and Agricultural Science in AMU, and the results show that most of the objectives are met satisfactorily. The study reveals that most of the research scholars in AMU are aware of online journals and they access them. Most of the research scholars consider online journals as useful and it is because of their timely access and searching capabilities. A large number of research scholars in AMU search articles through search engines. The study also found that most of the research scholars read full text on print out on paper. Most preferred format is PDF. Most of the research scholars in AMU face many problems at the time of accessing online journals.

8.1 Findings

The following are the major findings of the survey.

- Most of the research scholars of Faculty of Life Science and Agricultural Science in AMU are aware of online journals and access them. 97.14% of sample population is aware of online journals.
- 46.67% of research scholars of faculty of agricultural science access online journals in their respective departmental labs, 20% research scholars Computer lab, 26.67% research scholars use university library and some of them use other places like cyber cafe, home, etc. whereas 55% research scholars of faculty of life science access online journals in their respective departmental labs, 25% research scholars Computer lab, 15% research scholars use university library and some of them use other places like cyber cafe, home, etc.
- The study also found that PDF is the most preferred format for reading online journals.It was found that 40% research scholars of faculty of agricultural science search online journals through search engines, whereas 75% research scholars of faculty of life science search online journals through search engines.
- Google is the mostly used search engine followed by Yahoo. 66.67% research scholars of faculty of agricultural science use Google for searching articles, whereas 67.50% research scholars of faculty of life science use Google for searching articles.
- 76.67% research scholars of faculty of agricultural science take information about online journals from internet, whereas 55% research scholars of faculty of life science take information about online journals from internet, and others take information from other sources like journals, Newspaper and colleagues etc
- 94.29% research scholars are aware of online journal consortium. Notably,UGC-INFONET is the mostly used consortium used by research scholars and J-Gate is the second mostly used consortium used by research scholars. 30% research scholars of faculty of agricultural science use UGC-INFONET, whereas 40% research scholars of faculty of life science use UGC-INFONET.

- 60% research scholars of faculty of agricultural science face problem while searching online journals, whereas 85% research scholars of faculty of life science face problem while searching online journals.
- 13.33% research scholars of faculty of agricultural science face problem of limited access terminals, 16.67% face problem of slow speed, 20% face problem of Internet connectivity and 10% face problem of Lack of training, whereas 62.50%research scholars of faculty of life science face problem of limited access terminals, 25% face problem of slow speed, 30% face problem of Internet connectivity and 5% face problem of Lack of training.
- 36.40% research scholars realize that user training is necessary to maximize the use of online journals over printed journals.
- 70% research scholars are satisfied with online journal service provided by Maulana Azad library.
- 60% research scholars of faculty of agricultural science prefer online journals over printed journals, whereas 65% research scholars of faculty of life science prefer online journals over printed journals.

Tenability of Hypothesis

Hypothesis-I

"Most of the research scholar of faculty of life science and agricultural science, AMU are aware of online journals".

The analysis of the collected data reveals that most of the research scholars in the faculty of life science and agricultural science, AMU are aware of online journals. About 98%research scholars are aware of online journals.

So this hypothesis is proved.

Hypothesis-II

"Most of the research scholars access online journals from their department labs."

The analysis of the collected data reveals that 51.43% research scholar of faculty of life science and agricultural science, AMU access online journals from their department labs.

So this hypothesis is proved.

Hypothesis-III

"Most of the research scholars are aware of online journal consortium".

The analysis of the collected data reveals that 92.85% research scholar of faculty of life science and agricultural science, AMU are aware of online journal consortium.

So this hypothesis is proved.

Hypothesis-IV

"Most of research scholars are facing problems while accessing online journals".

The analysis of the collected data reveals that 77.28% research scholar of faculty of life science and agricultural science, AMU are face many problems while searching online journals.

So this hypothesis is proved.

Hypothesis-V

"Most of the research scholars prefer online journals over printed journals".

The analysis of the collected data reveals that 62.85% research scholar of faculty of life science and agricultural science, AMU are preferred online journals over printed journals.

So this hypothesis is also proved.

8.2 Suggestions

Based on the results and opinions of the respondents, the present study suggests the following:

- More number of terminals should be provided to the research scholars.
- As a backup support the well trained staff should be provided.
- The online journal labs in library and departments should provide printing facility to the research scholars free of cost or with minimal charges.
- To save the precious time of research scholars, the bandwidth should be increased.
- Feedback system should be introduced to know about various problems faced by research scholars and try to solve them immediately and effectively.
- User orientation programs should be introduced to solve the problems of the research scholars.
- Online journals having higher impact factor should also be subscribed.
- More number of online journals should be subscribed to fulfil the need of users.
- Departmental libraries should provide a list of online journals which can be accessed in the departmental labs.
- The faculty libraries should organize regular workshops to increase usage of online journals.

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