Usage of ICT Products and Services for Research in Social Sciences at Aligarh Muslim University

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ABSTRACT

The paper is a finding of a study of the social sciences researchers' use of information and communication technologies (ICTs) in the Aligarh Muslim University (AMU). A well-structured questionnaire was used to collect the data. The study shows that researchers use a variety of ICT products and services for their research work as these products prove very helpful in finding needed information quickly and easily and also help the researchers to access, manage, integrate, evaluate, create, and communicate information more easily. The study also identifies lack of training and technical knowledge to use ICTs as the major hindrances faced by the researchers in AMU. The paper recommends proper training and guidance for use of ICT-based technologies for the optimum utilisation of these services by the researchers.

Keywords: ICT, information technology, Internet, researchers, AMU

1. INTRODUCTION

Academic libraries for centuries have played important role in supporting research in all subjects and disciplines within their host universities and colleges. But the last decade has brought a sea change in relationships between researchers and libraries. Information and communication technology (ICT)–enabled products and services, and the availability of online information resources have changed the way the services academic institutions and libraries now provide to their researchers. ICT is the integration of computer and communication technology used to process, store and disseminate information. It has changed the traditional practices of library and information centres in delivery of services to the end users. Now researchers can have access to a variety of information and scholarly journals online. It also helps the researchers to access, manage, integrate, evaluate, create, and communicate information more easily than ever. Significant developments in ICT have forever changed the way information is gathered, processed and disseminated. While processing, storage and retrieval facilities are provided by computers, telecommunications provide the facilities for the transfer or communication of data or information. Dilevko and Harris[2] have reported how the traditional library is undergoing significant changes due to the electronic

revolution, which in its various manifestations has affected nearly every aspects of information provision. The ICT has nowadays become an important technology in academic institutions as it plays a very important role in meeting information needs of the researchers and institution as a whole.

Aligarh Muslim University (AMU) is a residential academic institution of international repute and offering more than 250 courses in traditional and modern branch of knowledge. Modeled on the pattern of Oxford and Cambridge, the AMU was established in 1920. This is a premier Central University, which draws students from all corners of the world, especially Africa, West Asia and South East Asia. AMU is situated at a distance of 130 km South East of Delhi on Delhi-Calcutta railway and Grand Trunk road.[3]

The presence of the ICT at the AMU has changed the teaching, learning and research environment. ICT is playing a vital role in meeting information and communication needs of the research scholars of the university. Students have access to Internet at various points such as Maulana Azad Central Library, Computer Centre as well as the departments and departmental laboratories. Students and staff of the university can now access a wide range of journal databases in various

academic disciplines. Such access includes full-text journal articles, abstracting and indexing services. To access the scholarly literature, relevant URLs and passwords are provided as and when needed.

2. LITERATURE SURVEY

According to Kooganurmath and Jange[4] a majority of the users use Internet for communication followed by the access to information. More than 70 per cent of the users use Internet for higher studies and only 39 per cent use it for discussions with peer groups. The most used services of Internet are e-mail, the Web, discussion forums and FTP. Mishra, Yadav and Bisht[5] have shown in a study that 67.7 per cent of Internet users were male and 32.3 per cent were female students. Their study also showed that 61.5 per cent of the male and 51.6 per cent of the female used Internet for preparing assignments.

Shaheen Majid[6] investigated the relationship between computer literacy of academic staff and their use of electronic information sources. The impact of other factors such as age, gender and educational background on the use of electronic information sources was also investigated. They found statistically significant relationship between computer literacy and the use of electronic information sources and services. A significant relationship was also noted between the age of academics and their use of electronic information sources.

Amritpal Kaur[7] in her study revealed that more than 60 per cent of the respondents used Internet for primary information, 38 per cent for secondary, and only 15 per cent for consulting OPACs. A majority of the respondents, i.e., 75.6 per cent faced the problem of slow Internet connectivity. All respondents used search engines to browse the required information. More than one third of the respondents typed the web addresses directly, more than 80 per cent of the respondents felt that in comparison to traditional documents, Internet is time saving, easy to use, more informative, useful and more preferred.

Asemi[8] in a study reported that 55 per cent of respondents search for scientific information through Internet because their university library provides access to various databases and online journals. Internet was also used by the respondents for downloading software or text, chatting, discussion, e-mail services, and for finding related references. She also observed that the Google and Yahoo search engines were more widely used compared to other search engines. Her study revealed that 54 percent of Internet users always find useful information on the net. Thirty-one percent of respondents believed that quality information is available on the Internet and 35 per cent of the studied population used

print, online and offline form of information for updating their subject knowledge.

Adogbeji and Akporhonor[9] explored how students are increasingly using the Internet to support instruction and research needs in addition to e-mail usage. Their findings reveal that students are now coming to university with more technological background.

3. OBJECTIVES

The objectives of the study were:

(i) To find out the level of use and purpose of using various ICT products and services.

(ii) To know the frequency of use of ICTs and time spent.

(iii) To find out the level of expertise of users regarding the use of ICTs.

(iv) To determine how ICT has impacted research work.

(v) To find out the problems faced by the users while using ICTs.

4. METHODOLOGY EMPLOYED

This study used questionnaire to collect the data from researchers. Ninety questionnaires were personally distributed among the randomly selected researchers of the faculty of social sciences at the university campus, out of which 55 (61.11) filled questionnaires were received back. Overall 33 (60 per cent) respondents were male and 22 (40 per cent) female. The well structured questionnaire comprised the following questions: use of ICT products and services, purpose for which these ICT products and services was used, frequency of use of computer and Internet, place of use of Internet, their level of expertise in using ICT, preferred search engines, problems faced while using ICT, how they learned to use ICT and major impact of ICT on their research work. The collected data was analyzed, classified and tabulated by employing statistical methods.

5. FINDINGS

5.1 Use of ICT Products

Respondents were asked to express their level of use of various ICT products for their research work. Table 1 show that 93.33 per cent male and 90.90 per cent female researchers used computer for their research work. A majority of male (84.84 per cent) and female researchers (81.81 per cent) used Internet. As far as various application software are concerned, it was found that while 57.57 per cent male researchers used MS Word, 30.30 per cent used MS PowerPoint, and 33.33 per cent

Table 1. Use of ICT products

ICT Products	Total No. of Respondents (n=55)	
	Male (n=33)	Female (n=22)
Computer	31(93.93)	20 (90.90)
Laptop	7 (21.21)	9 (40.90)
Internet	28 (84.84)	18 (81.81)
MS-Word	19 (57.57)	15 (68.18)
MS-PowerPoint	10 (30.30)	6 (27.27)
MS-Excel	11 (33.33)	7 (31.81)
Printer	12 (36.36)	9 (40.90)
Scanner	7 (21.21)	10 (45.45)
DVD/CD/Pen Drive	20 (60.60)	17 (77.27)

MS Excel. In comparison 68.18 per cent female researchers used MS Word, 27.27 per cent MS PowerPoint, and 31.81 per cent MS Excel.

5.2 Purpose of Using ICT Products and Services

Researchers were asked to indicate the purpose for which they used various ICT products and services. Table 2 show that 84.84 per cent male researchers used e-mail and document exchange; 90.90 per cent for electronic journals; 84.84 per cent to locate and collect data; 78.78 per cent for online databases; 78.78 per cent for career development; 75.75 per cent for preparing manuscripts, proposals and papers; 87.87 per cent to update knowledge; 84.84 per cent for blogging; and 93.93 per cent for casual internet surfing. As far as female researchers are concerned 86.36 per cent used ICT products for e-mail and document exchange; 81.81 per cent for electronic journals; 72.72 per cent to locate and collect data; 68.18 per cent for online databases; 63.63 per cent for career development; 72.72 per cent for preparing manuscripts, proposals, and papers; 77.27 per cent to update knowledge; 31.81 per cent for blogging; and 90.90 per cent for casual internet surfing and other data. The less used services among both male and female researchers were Web OPAC/OPAC, blogging, and electronic books. The investigators feel that the researchers might not have got proper training/guidance and assistance from the staffs/librarians which is very necessary for the effective use of ICT products and services.

5.3 Frequency of Use of Computer and the Internet

To find out the frequency of use of internet the time gap was divided into five categories, viz., daily, two to

Table 2. Purpose of using ICT products and services

Questionnaire Item	Total No. of Respondents (n=55)	
	Male (n=33)	Female (n=22)
E-mail and document exchange	28 (84.84)	19 (86.36)
Electronic journals	30 (90.90)	18 (81.81)
Electronic books	13 (39.39)	7 (31.81)
Locate, collect data using Internet	28(84.84)	16(72.72)
Online databases	26 (78.78)	15 (68.18)
For career Development	26 (78.78)	14 (63.63)
Preparing presentations, documents	16 (48.48)	12 (54.54)
Preparing manuscripts, proposals, and papers	25 (75.75)	16 (72.72)
To update knowledge	29 (87.87)	17 (77.27)
Search Web OPAC/OPAC	18 (54.54)	11 (50)
Discussion Forums	17 (51.51)	12 (54.54)
Blogging	28 (84.84)	7 (31.81)
Casual Internet Surfing	31 (93.93)	20 (90.90)

three times, weekly, monthly, and occasionaly. Figure 1 shows that 42.42 per cent male and 45.46 per cent female researchers used internet daily; 18.19 per cent and 27.27 per cent male and female for two to three times in a week; and 24.24 per cent male and 9.09 per cent female weekly. A few researchers used it monthly and occasionally.

5.4 Place of Use of Internet

The AMU provides access to the Internet to its users at various places within the campus. Users are given Athens login for using the Internet. At the departmental lab they can access the Internet without login and password. At some places like library and university computer centre, this facility is provided at late night also. Table 3 indicates that 81.81 per cent male and 86.36 per cent female researchers of social sciences access internet at library. While 48.48 per cent male and 54.54 per cent female researchers use it at the university computer centre.

The reasons why the majority of the researchers of the Faculty of Social Sciences access Internet at the central library be the proximity of the library to the Faculty. Besides, majority of the departments in the Faculty of Social Sciences are not well equipped with this facility.
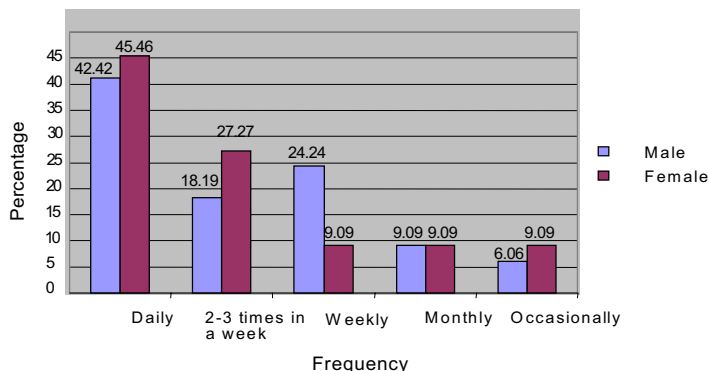
Figure 1. Frequency of use of computer and internet.

Table 3. Place of use of ICTs

Place	Total No. of Respondents (n=55)	
	Male (n=33)	**Female (n=22)**
At Library	27 (81.81)	19 (86.36)
At computer centre	16 (48.48)	12 (54.54)
At department	9 (27.27)	6 (27.27)
At cyber café	13 (39.39)	6 (27.27)
At home/hostel	7 (21.21)	6 (27.27)

5.5 Expertise in Using ICTs

The questionnaire asked the researcher to indicate their overall expertise in handling various types of ICTs. Figure 2 shows that only 18.18 per cent male researchers and 22.72 per cent female researchers indicated that they are very expert in using ICTs, while 27.27 per cent male and 22.72 per cent female indicated that they are expert users of ICT. Forty per cent male and 32 per cent female researchers indicated that they are average users of ICTs. The reasons for less expertise in using ICTs is that a majority of the researchers in the Faculty of Social Sciences do not have a formal knowledge or a computer training programme.
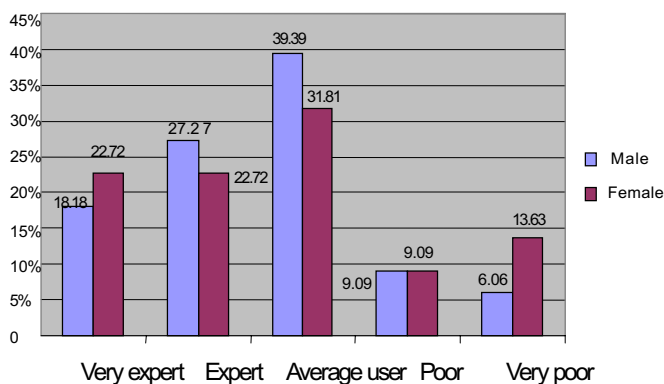

Figure 2. Expertise in using ICTs.

5.6 Preferred Search Engines

Regarding the use of search engines respondents were asked to indicate multiple answers according to their use. Table 4 shows that 100 per cent researchers both male as well as female use Google. Besides Google, 54.54 per cent male researchers also use MSN, 33.33 per cent Yahoo!, 18.18 per cent AltaVista, and 12.12 per cent Excite. In the case of female researchers no major differences were found as 54.54 per cent use MSN, 31.81 per cent Yahoo!, 13.61 per cent AltaVista, and 9.09 per cent Excite.

5.7 Problems Faced While Using ICTs

Researchers were asked to indicate the various problems faced while using various ICT products and services at different places in the AMU campus (Fig. 3)

The study revealed that major hindrances faced by the male researchers are lack of training (87.87 per cent), lack of technical knowledge (75.75 per cent) and limited number of computers (57.57 per cent). Female researchers indicated that they also faced same problems in terms of lack of training (90.90 per cent), lack of technical knowledge (77.27 per cent), and limited number of computers (63.63 per cent).

As far as awareness regarding the various ICT products is concerned 51.51 per cent male and 63.63 per cent female researchers indicated that lack of awareness of ICTs is also one of the major hindrances faced by the researchers to use the new technologies. Besides, financial constraints and lack of time in searching for information in the Internet as service is related to how you pay were some other problems researchers face while useing ICT-based products and services.

5.8 Learned to Use ICTs

The researchers were asked to indicate how they learned to use ICTs. Figure 4 indicates that 84.84 per cent

Table 4. Preferred search engines

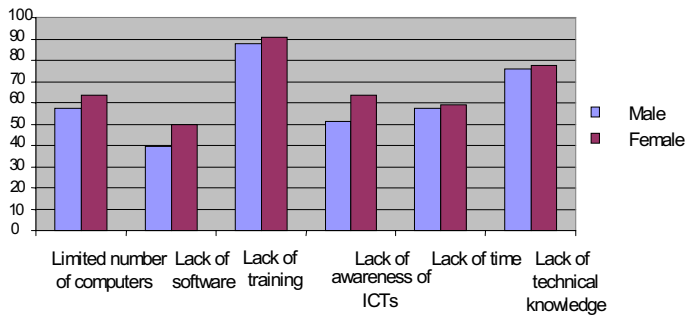| Search Engines Preference	Total No. of Respondents (n=55)	
	Male (n=33)	**Female (n=22)**
Google	33(100)	22 (100)
MSN	18(54.54)	12 (54.54)
Yahoo!	11(33.33)	7 (31.81)
AltaVista	6(18.18)	3 (13.63)
Excite	4(12.12)	2 (9.09)

Figure 3. Problems faced while using ICT.

of the male researchers learned to use ICTs by guidance from colleagues, 75.75 per cent by guidance from staff, 66.66 per cent by trial and error, and only 39.39 per cent have formal training. A good majority of 86.36 per cent female researchers also learned through guidance from colleagues, 77.27 per cent by guidance from staff, and 59.09 per cent by trial and error. Only 36.36 per cent female researchers have formal training. It is evident from the analyses that majority of the researchers learned to use ICTs through the guidance from colleagues and staff.

5.9 Impact of ICTs on Research Work

The ICT has proved to be a great asset to many of the social sciences researchers of AMU. Figure 5 shows that the impact of ICTs on research work and academic

efficiency of the researchers of the Faculty of Social Sciences. Majority of male as well as female researchers were of the view that ICTs have enhanced the access to current information, improved professional competence, access to wider range of information and quick access of information.

The researchers feel that the emergence of ICT has a great impact on every walk of research and has improved the quality of research.

6. CONCLUSION

The study investigated the use of ICT by the research scholars at the Faculty of Social Science at AMU. Study found that respondents used a variety of ICT products and services for their research work as it is helpful in finding information quickly and also helps the researchers to access, manage, integrate, evaluate, create, and communicate information more easily. The study reveals that 93.33 per cent male and 90.90 per cent female researchers use computer for their research work. The study identified that researchers are not getting proper training/guidance and assistance from the staffs/librarians, which is very necessary for the effective use of ICT products and services. The library should arrange and organise training programmes related to ICT.
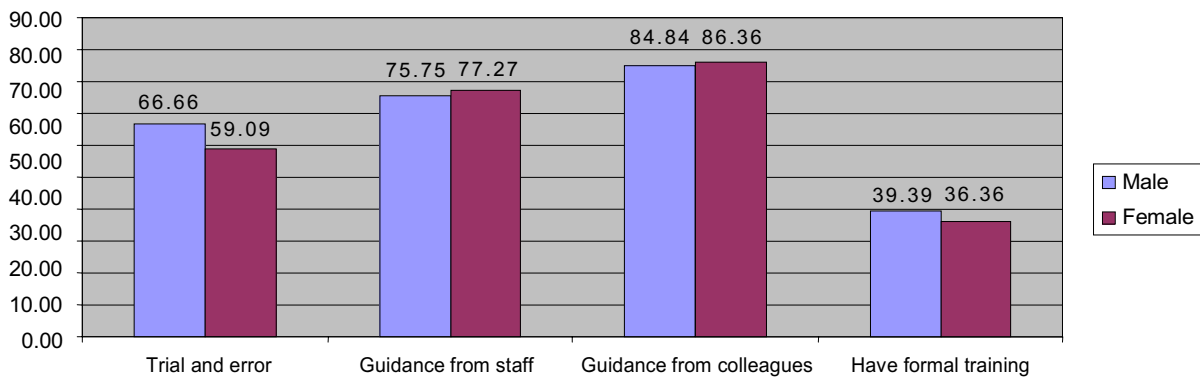

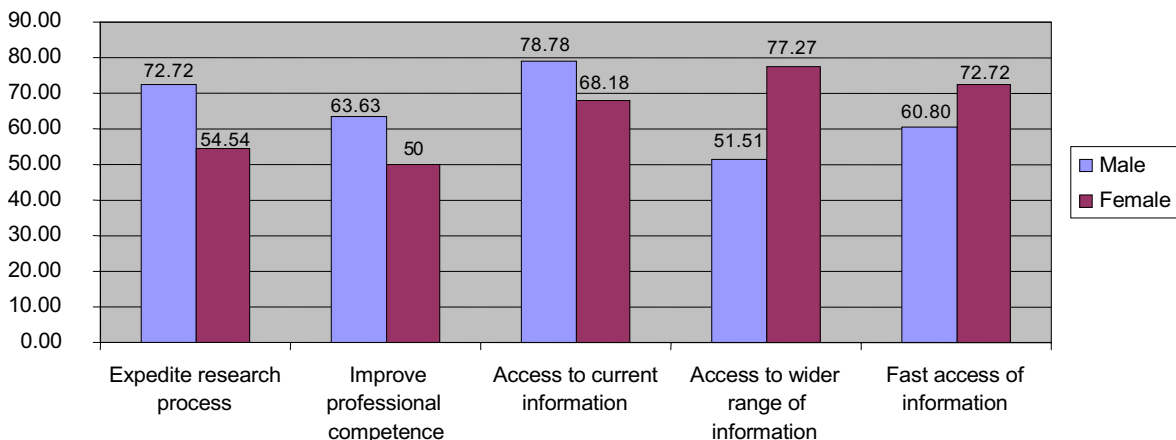**Figure 4. Learned to use ICT.**

Figure 5. Impact of ICT on research work.

The study also identifies that major hindrances faced by the male researchers as well as female researchers are lack of training, lack of technical knowledge and limited number of computers. It was further found that lack of awareness of ICTs is also one of the major hindrances to use the new technologies. Majority of the researchers learned to use ICTs through the guidance from colleagues and staff. Therefore, it is recommended that library should provide initial orientation workshops and training for the researchers on ICT-based services so that they can utilise these technologies to optimum level.

REFERENCES

1. Kumar, R.P. An overview of modern technologies application in Indian libraries. *Intern. Inform. Lib. Rev.*, 1994, **26**(1), 327-39.

2. Dilevko, J. & Harris, R.M. Information technology and social relations. *J. Ameri. Soc. Inform. Sci.*, 1997, **48**(8), 718-27.

3. CyberAMU.http://www.cyberamu.com/test.html.

4. Kooganurmath, M.M. & Jange, S. Use of Internet by social science research scholars: A study in academic libraries in the Internet era. *In* National Convention on Academic Libraries in the Internet Era, INFLIBNET, 18-20 February 1999, Ahemdabad, 478-83.

5. Mishra, O.P.; Yadava, N. & Bisht, K. Internet utilisation pattern of undergraduate students, *University News*, 2005, **43**(13), 8-12.

6. Shaheen Majid. Computer literacy and use of electronic information sources by academics: A case study of International Islamic University Malaysia. *Asian Libraries*, 1999, **8**(4), 100-11.

7. Kaur, A. Internet facility at GNDU: A survey. *In* National Seminar on Academic Libraries in the Modern Era, IASLIC, 4-6 December 2000, Bhopal, 119-24.

8. Asemi, A. Information searching habits of Internet users: A case study on the Medical Sciences University of Isfahan, Iran. *Webology*, 2005, **2**(1), Article 10. http://www.webology.ir/2005/v2n1/a10.html.

9. Adogbeji; Benson, Oghenevwogaga & Akporhonor, Blessings Amina. The impact of ICT (Internet) on research and studies: The experience of Delta State University Students in Abraka, Nigeria. *Lib. Hi-Tech News*, 2005, **22**(10), 17-21.