

Use of Collection and Services by P.G. Students and Research Scholars in GBPUAT Library, India

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ABSTRACT

The aim of this study is to find out the use of Govind Ballabh Pant University of Agriculture & Technology (GBPUAT) library collection and services by postgraduate students and research scholars. The scope of the study was limited to the use of library collection and services as well as the postgraduate students and research scholars. Questionnaires were administered randomly among 250 students. A total 137 useable questionnaires were taken for analysis and interpretation. The Likert's scale was also used for designing questionnaire. The findings showed that from the library's collection (books/monographs, reference materials, research reports/bulletins, CD-ROMs, newsletters, periodicals, thesis/dissertations, book reviews and seminars/conference proceedings/workshops) whereas library services (photocopying, CD-ROM database, online, catalogue, indexing and abstracting, CAS, bibliographical, reference, and lending/circulation) were the most used among the P.G. students and research scholars for different purposes like (research work, project work, study, personal work). It was also observed that CD-ROM databases, e-journals and online databases were the most highly used e-resources. Moreover, electronic and online databases such as *AGRIS*, *AGRICOLA*, *CAB Abstract and Agriculture & Natural Resources* were the most highly used databases among the PG students and research scholars. The study puts forward its recommendations in regards to enhancing the use of collection and services.

Keywords: Library collection and services, e-resources, agricultural university, Govind Ballabh Pant University of Agriculture & Technology

1. INTRODUCTION

The first five year plan in April 1951 was launched for improving irrigation facilities, encouraging the use of fertilizers, improving varieties of seeds, and implementing machinery and institutional credit. It happened when India encountered a severe food shortage and was confronted with mounting inflation. At present, agriculture has become the backbone of India's economy for 70 % of the Indian population.¹

After independence, India has observed green, yellow, white, and golden revolution. The application of cutting edge science and technology, positive policies support, and hard work of farmers made all this possible. India's 1st agriculture university (now G.B. Pant University of Agriculture & Technology) was established at Pantnagar 1960. At present, the National Agricultural Research System has about 30,000 scientists/teachers in 47 Central Institutes, 5 National Bureaus, 12 Project Directorates, 33 National Research Centers, 91 All India Coordinated Research Projects, 440 Krishi Vigyan Kendras (i.e., Farm Science Centers), 120 Zonal Agricultural Research Stations, 10 Trainers Training Centres, 44

Agriculture Technology Information Centres, numerous regional research centres, 40 State Agricultural Universities, 5 Deemed to be Universities and 1 Central Agricultural University.^{2,3} The agricultural library and information systems (ALISs) have contributed significantly in increasing the yield level of crops, and alleviating the economic status. Currently, the application of information communication technologies (ICTs) in agricultural university libraries has given a new outlook to the function, services, methods and techniques used for collection, processing and dissemination of information.⁴

At present, a total of 46 agricultural universities and their libraries by the support of centre/state government in different parts of the country are playing a vital role in teaching, learning, research, and extension.^{5,6} With their limited fund and resources, the libraries have to develop their collections and to satisfy their user's needs.

During 1947-60, the very slow growth of agricultural universities was noticed. The historical development of agricultural university libraries in India started with the green revolution, a dream of Pandit Jawaharlal Nehru, the first Prime Minister of

India. He laid the foundation of G.B. Pant University of Agriculture and Technology (GBPUAT), Pantnagar, on 17 November 1960⁷. Since then, the library has been providing quality collection and services to the users' community, supporting teaching, research and extension programmes of the university by adopting ICTs. The library has a highly specialised collection of 3.9 Lakh⁸ information sources such as books, theses, periodicals, standards, reprints, maps, toposheets, globes, microfilms, microfiches, records, tapes & CD-ROMs in the field of agriculture and its allied areas. The aim of the present study is to examine the use of GBPUAT library collection and services by P.G. students and research scholars.

2. LITERATURE REVIEW

As this is the era of the technological revolution, knowledge and information is growing in leaps and bounds. In this challenging scenario, the libraries have to meet the diverse needs of the users by developing good collections and effective services. To know the use of collection and services, a number of studies have been conducted. Therefore, an extensive body of literature exists on the usage of collection and services. Ocholla⁹ indicated the use of information resources in the following order of frequencies: journals, textbooks, research reports, and conference literature. In another study, Shokeen¹⁰ revealed that periodicals were the most frequently used and the first preferred source of information followed by books. A study by Singh¹¹ showed that periodicals, reference books and textbooks were the most used categories of documents. Similarly, Ogbomo & Adomi¹² found that all the respondents consulted text books in the library. Periodicals were the most widely used information sources by the research scholars and agricultural scientists.^{13,14} Singh & Satija¹⁵ showed that scientists preferred to use indexing and abstracting periodicals, and primary periodicals, while Majid, Anwar & Eisenschitz¹⁶ found that research scientists preferred using primary sources of information, particularly journals and review articles.

The study by Kannappanavar & Swamy¹⁷ showed that the user's opinion regarding the reference collection was relevant for the study and many of the users accessed the national/international databases. Lohar & Kumbar¹⁸ showed that the library catalogue for collecting information about the documents was the most used service in any library. It was also revealed by Singh¹¹ that the majority of users visited the library to update their professional knowledge, to consult documents for research use and to borrow/return documents. Circulation, photocopy, and reference were the most helpful and very popular services. Khot & Patil¹⁹ indicated that the opinions of the majority of the research scholars regarding reference and circulation services were satisfactory and a large number of researcher were satisfied

with all reading material arrangements, excluding the textbook. In their study, Shokeen & Kaushik¹⁰ found that browsing was the most preferred method of searching for required information applied by physiologists and sociologists. Keshava, Savanur & Kiran²⁰ also revealed that reprographic service quality, charges and the time taken was satisfactory for users.

In addition of adequacy of collection, Singh & Singh¹³ stated that most research scholars found the library collection as adequate, especially in e-form. Ikhizama & Oduwole¹⁴ in their study stated that most of the agricultural scientists adjudged library collections as fair, while Khot & Patil¹⁹ indicated that the library collections are not adequate to meet the information needs of research scholars.

3. OBJECTIVES OF THE STUDY

The main aim of this study was to find out the use of GBPUAT library collection and services by P.G. students and research scholars. The objectives of the present study are to:

- Determine how frequently the students make use of different categories of information sources and services in the library
- Know the purpose of usage of different categories of information sources and services in the library
- Identify the type of e-resources used by the students in the library
- Assess the use of different forms (print or electronic) of library collection and services
- Find out the adequacy level of print and electronic collection in the library
- Assess the level of satisfaction in using the collection and services by the students and to suggest suitable solutions

4. METHODOLOGY

The total registered population of students at GBPUAT library is 24427. Since the registered population size was large, random sampling technique was applied and 250 (10.25 %) registered students of GBPUAT library as accessible or sample population were selected. A questionnaire was administered among 250 students of GBPUAT. A total 143 (57.2 %) questionnaires were returned. Finally, 137 (54.8 %) useable questionnaires were selected. For analysing and presenting the collected data, the techniques and tools such as Likert's scale, frequency distribution, percentage, mean scores & ranking, MS-Word, and MS-Excel were used for calculations.

5. ANALYSIS AND FINDINGS

Out of 137 respondents, 90 (65.69 %) were P.G. students and 47 (34.31 %) were research

scholars. The collected data was analysed and finding were drawn.

5.1 Use of Collection and Services

In the library, users use different types of collection and services for their information needs. The whole library collection and services has been categorised into various information sources and services.

The mean use ranking of these information sources showed that books/monographs, reference materials, research reports/bulletins, CD-ROMs, newsletters, periodicals, thesis/dissertations, book reviews and seminars/conference proceedings/workshops were the most used sources of information among the majority of P.G. students and research scholars. It was also observed that microfiches/records/tapes, standards/patents/specifications and reprints/maps/globes are very less used among P.G. students and research scholars of the university. These observations were seen from Table 1.

It was also noticed from Table 2 that the maximum percentage of P.G. students and research scholars used photocopy, catalogue, lending/circulation, CD-ROM database, CAS, reference, and indexing & abstracting (I&A) services, respectively. Online and bibliographical services are also frequently been used by the students but services like inter-library loan (ILL), microfilm, and document delivery service (DDS) are used less compared to the other services.

5.2 Purpose of Use of Collection and Services

To determine the purpose of using different types

of library collection and services under study, the respondents were asked to state any one or more than one, out of five purposes listed as research work purpose, project work purpose, study, personal work purpose, and no response.

As stated in the Table 1, majority of the P.G. students and research scholars revealed that books/monographs, theses/dissertations, seminars/conference/workshops proceedings, research reports/bulletins, and periodicals were the most used sources for the different purposes which were research work, project work, study, and personal work. Newsletters, reprints/maps/globes, reference materials, CD-ROMs, and microfiches/records/tapes were also used by the majority of the research scholars. Information sources such as microfiches/records/tapes, standards/patents/specifications, book reviews, newsletters, CD-ROMs, reference materials, and reprints/maps/globes were not much used by the students while book reviews and standards/patents/specifications were least used by them.

It was observed from the mean score and ranking of Table 2 that lending/circulation, online, CD-ROM database, photocopy, CAS, catalogue, I&A, bibliographical, and reference were the most used library services by the students, whereas bibliographical, CD-ROM database, online, I&A, photocopy, catalogue, lending/circulation, and reference were among the most used by the majority of research scholars for their different purposes. In addition, DDS, ILL, and microfilm were also very less used library services among the P.G. students and research scholars.

Table 1. Usage, purpose and satisfaction levels in using collections in the GBPUAT Library

Library collection	Usage		Purpose		Satisfaction	
	P.G. students N=90	Research scholars N=47	P.G. students N=90	Research scholars N=47	P.G. students N=90	Research scholars N=47
	M (R)	M (R)	M (R)	M (R)	M (R)	M (R)
Books/Monographs	3.27 (1)	3.65 (1)	3.41 (1)	3.26 (1)	3.09 (2)	3.28 (3)
Reference Materials	3.08 (2)	3.36 (2)	1.91 (7)	2.11 (7)	3.17 (1)	3.02 (6)
Periodicals	2.48 (6)	3.00 (4)	2.06 (5)	2.40 (5)	2.84 (5)	2.62 (9)
Research Reports/Bulletins	2.68 (3)	2.91 (5)	2.26 (4)	2.45 (4)	2.98 (3)	2.85 (7)
Theses/Dissertations	2.42 (7)	2.64 (7)	2.69 (2)	2.96 (2)	2.92 (4)	3.32 (2)
Seminars/Conference/Workshops Proceedings	2.11 (9)	2.43 (8)	2.49 (3)	2.62 (3)	2.66 (6)	2.68 (8)
Book Reviews	2.32 (8)	2.66 (6)	1.66 (10)	1.89 (10)	2.63 (7)	3.06 (5)
Reprints/Maps/Globes	1.76(11)	1.55(10)	1.98 (6)	2.15 (6)	1.96 (8)	2.04(11)
News Letters	2.62(5)	3.00 (4)	1.68 (9)	2.40 (5)	2.98 (3)	3.26 (4)
Standards/Patents/Specifications	1.78(10)	1.87 (9)	1.58 (11)	1.89 (10)	1.94 (9)	2.34 (10)
Microfiches/Records/Tapes	0.68(12)	1.23(11)	0.78 (12)	2.02 (9)	1.64(10)	1.83(12)
CD-ROMs	2.64 (4)	3.06 (3)	1.78 (8)	2.06 (8)	2.84 (5)	3.34 (1)

(M=Mean, R=Rank); (Figures within parenthesis are rank)

Table 2. Usage, purpose and satisfaction levels in using library services in GBPUAT Library

Library services	Usage*		Purpose**		Satisfaction**	
	P.G. students N=90	Research scholars N=47	P.G. students N=90	Research scholars N=47	P.G. students N=90	Research scholars N=47
	(%)	(%)	M (R)	M (R)	M (R)	M (R)
Lending/circulation	72 (80)	41 (87.23)	2.93 (1)	2.60 (7)	2.24 (7)	2.47 (7)
Inter-library loan	4 (4.44)	0 (0)	2.08 (11)	0.98 (11)	1.08 (10)	1.38 (10)
Reference	63 (70)	25 (53.19)	2.30 (9)	2.15 (8)	2.41 (6)	2.74 (6)
Bibliographical	42 (46.67)	37 (78.72)	2.33 (8)	3.70 (1)	2.48 (5)	2.79 (5)
Current awareness services	52 (57.78)	34 (72.34)	2.71 (5)	1.43 (9)	2.09(9)	2.36 (8)
Document delivery services	22 (24.44)	16 (34.04)	2.01 (12)	0.64 (12)	0.89 (11)	1.02 (11)
Indexing and abstracting	45 (50)	33 (70.21)	2.58 (7)	2.66 (4)	2.14 (8)	2.13 (9)
Photocopy	82 (91.11)	47 (100)	2.76 (4)	2.64 (5)	3.20 (1)	3.09 (2)
Microfilm	6 (6.67)	5 (10.64)	2.16 (10)	1.32(10)	0.71 (12)	0.87 (12)
Catalogue	84 (93.33)	46 (97.87)	2.59 (6)	2.62 (6)	2.57 (4)	3.00 (3)
CD-ROM database	60 (66.67)	44 (93.62)	2.83 (3)	3.28 (2)	2.91 (2)	3.19 (1)
Online	33 (36.67)	38 (80.85)	2.89 (2)	3.02 (3)	2.71 (3)	2.91 (4)

M=Mean, R=Rank; *Under the usage heading figures within parenthesis are percentage; ** Figures within parenthesis are rank

5.3 Satisfaction Level in Using Collection and Services

The aim is to analyse the viewpoint of P.G. students and research scholars on satisfaction level related to the use of collection and services.

It was found from Table 1 that most of the P.G. students were highly satisfied with reference materials, books/monographs, research reports/bulletins, newsletters, thesis/dissertations, periodicals, CD-ROMs, seminars/conference proceedings/workshops and book reviews. Similarly, most of the research scholars were satisfied with CD-ROMs, thesis/dissertations, books/monographs, newsletters, book reviews, reference materials, research reports/bulletins, seminars/conference proceedings/workshops, and periodicals respectively. The P.G. students and research scholars were very less satisfied with microfiches/records/tapes, reprints/maps/globes, and standards/patents/specifications due to uneasy or direct access to them. According to mean score and ranking from Table 2, P.G. students were highly satisfied with photocopy, CD-ROM database, online, catalogue, I&A, and CAS respectively. In the same way, research scholars were highly satisfied with the services such as the CD-ROM database, photocopy, catalogue, online, I&A, and CAS. Moreover, P.G. students and research scholars were also satisfied with bibliographical, reference, and lending/circulation services. It was also revealed that P.G. students and research scholars were not satisfied with microfilm, DDS, and ILL services because of their time consuming nature, lack of direct access, and discouraging nature of library staff.

5.4 Use of E-resources

Table 3 shows the mean use score and ranking and indicates that CD-ROM databases, e-journals, and online databases were the most highly used e-resources among most of the P.G. students and research scholars. It was also observed that the e-format of dictionaries, encyclopedias, and books were the very less used due to lack of skills/instructions, and poor number of computers (poor facility).

Companies around the world are publishing scientific data electronically in the field of agro-biological sciences. Some international prominent electronic and online databases as mentioned above for searching the latest research literature on agriculture were subscribed by the library.

According to mean use frequency score and ranking of electronic and online databases from the Table 4, *AGRIS*, *AGRICOLA*, *CAB Abstract* and *Agriculture & Natural Resources* were the most used databases among the P.G. students and research scholars. However, BIOSIS with a mean of 1.23 was also one of the most used databases by the students.

It is also observed that e-resources are becoming an important part of an agricultural university library in fulfilling the demands of users for their required information.

5.5 Evaluation of the Library Collection

It was observed from Table 5 that P.G. students and research scholars opined that the print collection was more adequate than electronic. Thus, the result revealed that there existed significant difference in

Table 3. Use of e-resources

E-resources	P.G. students N=63	Research scholars N=45
	M (R)	M (R)
E-books	1.05 (4)	1.47 (4)
E-journals	2.63 (2)	3.22 (1)
CD-ROM databases	3.14 (1)	3.13 (2)
Online databases	1.43 (3)	2.07 (3)
E-dictionaries	0.73 (6)	1.27 (6)
E-encyclopedias	1.11 (5)	1.29 (5)

(M=Mean, R=Rank)(Figures within parenthesis are rank)

terms of adequacy of the library collection. It has also been observed that print collection was playing a vital role in fulfilling the demands of the student community in the library.

6. CONCLUSIONS

The study reveals that the library collection, such as books/monographs, reference materials, research reports/bulletins, CD-ROMs, newsletters, periodicals, thesis/dissertations, book reviews and seminars/conference proceedings/workshops were the most used sources of information among the P.G. students and research scholars to satisfy their different purposes. Moreover, the library services as photocopy, CD-ROM database, online, catalogue, indexing and abstracting, CAS, bibliographical, reference, and lending/circulation are most frequently used services by the students. It was observed that CD-ROM databases, e-journals, and online databases were most used e-resources among the students. Electronic and online databases such as *AGRIS*, *AGRICOLA*, *CAB Abstract* and *Agriculture & Natural Resources* were the most used databases among the P.G. students and research scholars. Finally, it was also observed that the collection and services in e-format have become the most used medium and an important part of the agricultural university library in fulfilling the demands of the user community for required information. In this regard, the library is playing an important role in transferring the scientific and technological information to the users by stocking a good amount of print and e-collection in agriculture and other related subjects.

It has brought to light some of the inadequacies and drawbacks on the use of collection and services of the library and helped to identify areas which need improvement. Some of the recommendations suggested are mentioned below:

- Number of copies of most utilised books should be increased so that more users can use them at the same time.
- The library should develop a better network with all the famous national and international

Table 4. Use of databases

Databases	P.G. students N=60	Research scholars N=44
	M (R)	M (R)
<i>AGRIS</i>	2.92 (1)	3.43 (2)
<i>AGRICOLA</i>	2.63 (2)	3.11 (4)
<i>Agriculture & Natural Resources</i>	2.47 (4)	2.32 (3)
<i>Biotechnology</i>	1.53 (5)	1.95 (6)
<i>CAB Abstract</i>	2.50 (3)	3.57 (1)
<i>FSTA</i>	1.53 (5)	1.61 (7)
<i>Water Resource Abstract</i>	0.97 (8)	1.32 (9)
<i>Zoological Records</i>	1.20 (7)	1.43 (8)
<i>BIOSIS</i>	1.23 (6)	2.00 (5)

(M=Mean, R=Rank) (Figures within parenthesis are rank)

Table 5. Adequateness of library collection

Library Collection	P.G. students N=90	Research scholars N=47
	M (R)	M (R)
Print collection	1.5 (1)	1.43 (1)
Electronic collection	1.28 (2)	1.34 (2)

(M=Mean, R=Rank) (Figures within parenthesis are rank)

agricultural organisations/libraries to use their resources and services.

- Due to the information and technological revolution, the library needs to subscribe to more number of e-resources and should also purchase more number of networked computers on which the searching and browsing for needed information could be done effectively.
- The library should strengthen and accelerate their awareness campaigns concerning the use of print and electronic information sources through the latest promotion methods such as e-mail alert/pop up system, text messages, workshops, prizes, etc.
- The library services must be user focused and enhanced.
- Librarian and library staff need to improve their knowledge and skills by attending more training program on effective searching and retrieval in order to train its users more effectively; and for optimum utilisation of available information sources.
- The library must provide orientation assistance to the users and one compulsory user education or information literacy program
- Latest or revised editions/volumes/issues should be acquired more frequently for optimum utilisation.

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