
**PATTERN OF USAGE OF INFORMATION RESOURCES BY RESEARCH
SCHOLARS IN PUNJAB AGRICULTURE UNIVERSITY
LIBRARY, LUDHIANA: A STUDY**

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Abstract

In this paper an attempt has been made to describe a survey of the use of information resources by the research scholars as the users of Punjab Agriculture University Library, Ludhiana. A questionnaire method is used to identify the impressions of research scholars towards the awareness of library services, adequacy of library resources, and their views on library services. The paper also examines the satisfaction levels of users about Internet, CD-ROM databases, online databases, e-resources, etc. and services provided by the library. Further an attempt has also been made to highlight the findings of the study and a few suggestions have been given based on the analysis of the data.

Keywords: Information Resources, Databases, Punjab Agricultural University, Punjab

1. Introduction

Agriculture has been the first and most ancient occupation of mankind. Agriculture began probably six thousand to ten thousand years ago somewhere in the area between the Nile in Egypt and the valley of the Indus River Western India [1]. India is mainly an agricultural country and farmers are backbone of our country. Agriculture provides the basic where with all of existence in the form of food, clothing, and work to the people and income for those who work. Therefore it is true that man can live without manufacturing industries, but not without agriculture. One can dispense with industrial goods, but not with food. Therefore, to a great many people on the globe farming is still a way of life. Also, much of the material abundance that characterized developed countries is due to the past and current contributions of agriculture. Hence the prosperity of country and the welfare of the vast majority of the population are intertwined with the efficient harnessing of agriculture. Agriculture information supply is vital for the development of agriculture community. Rapid accumulation and dissemination of information will be the important feature of 21st century. Agricultural scientists cannot afford to lag behind in this technology. Therefore a well-equipped and enrich resources to provide better services to library users is must to every agriculture university, since it is the nerve center of all-educational and research program.

In view of the transition stage from print media to electronic media, information seeking pattern of users particularly research scholars are likely to change. The present study was undertaken with an objective to ascertain as to what extent electronic as well as other traditional resources are being used in Punjab Agriculture University Library, Ludhiana. The analysis was focused to determine the use of the basic information resources in research particularly electronic resources. No university can claim to promote research without the provision of adequate and well balanced collection of books and periodicals related to the research needs of the university both immediate and potential and without rendering a promote and effective service to its research scholars. Hence there is need to study the attitude of research scholars towards library resources and services because user's attitudes are essential considerations in the design of library service.

1. Background of the University

The University was established under Punjab Agriculture University Act 1961 for the development of agriculture in the state of Punjab. The Act was amended by the central government under section 72 of the Punjab Reorganization Act, 1966 with the objective of developing agriculture in the state of Punjab, Haryana, the Union Territory of Chandigarh and the territories added to Himachal Pradesh under subsection (2) of section 5 of the Punjab Reorganization Act, 1966. The Punjab Agriculture University started functioning from October 1962 with three constituent colleges. The university was formally inaugurated by Pandit Jawahar Lal Nehru on 8th July 1963. Owing to the dedicated efforts of P.N. Thapar and the enthusiastic support of the Chief Minister Karion, the university made rapid progress. The Punjab Agriculture University provides graduate and postgraduate instruction in Agriculture, Veterinary, Animal Science, Agriculture Engineering, Home Science, Basic Sciences and the Humanities. The university has earned the distinction of being the Asia's largest farmer-training centre. Every year, over 250 training courses are organised for farmers, dairymen poultry-keepers, young farmers, farm women and extension workers. Specialized training courses in farm machinery, poultry, dairy farming, piggery, fruit and vegetable cultivation and preservation are also organised.

On February 2, 1970 two separate Agriculture University were established in place of Punjab. Agricultural University under the Haryana and Punjab Agriculture University Act 1970. The Palampur Campus and other research stations/substations located in the state of Himachal Pradesh university with effect from July 22, 1970. The university is modeled on the pattern of Land Grant Institution of USA [2].

2. Mohinder Singh Randhawa Library

The University Library was initially started in the college of Agriculture with a meager collection of 200 books in 1959. Dr. M.S. Randhawa, former Vice-Chancellor took initiative to build a spacious and beautiful, modular five story library building which was completed in 1972. In order to honour its founder-the ex Vice-Chancellor, the PAU library was re-named as Mohinder Singh Randhawa Library. However, at present this great temple of learning with this five story building, centrally air-conditioned and surrounded by lush green lawns and pollution free environment has grown into one of the best libraries of the region-a-place of pilgrimage for scholars and faculty members from all over the country[3].

M.S. Randhawa Library is a library system with a central library at the main campus and more than 100 departmental and research station libraries, managed by a staff of 137 including one university librarian, two Deputy Librarians and ten Assistant Librarian. A part from the main library at Ludhiana, all the Regional Research Stations have their own libraries. Additionally different colleges and departments have their own reading rooms, libraries and book banks. Since its inception, the PAU Library has continued to function as a traditional library. However in view of the phenomenal development in the field of information technology, computerization and communication technology, it has become inevitable to modernize the library for speedy dissemination of information as well as to provide its readers the benefits of modern technology through automation and networking. The computer section of the library is equipped with CD Network station and is also providing services like online journals, Internet, CD-ROM/online databases, online union databases, etc. to its members for advanced learning. The band width of 512 Kbps 1:1 connectivity through wireless link is available in the library. SOUL software package used to computerize in house activities like updating of database, production of catalogue cards etc. Today library has collection of 2,08,010 books, 14, 144 gratis, 18, 987 thesis, 97,730 bound volumes of journals, 348 audio-visual and 591 CD's and total number of collection is 3,39, 810. There is a provision of 39 research carrels for teachers engaged in serious research work. Total number of reader is 1617. The library subscribes to 453 current journals, 15 CD-ROM Databases, 3 online databases, 34 online journals and access to more than 500 electronic journals.

3. Need for the Study

The present study focuses on the information seeking behaviour of the research scholars of Punjab Agriculture University Library, Ludhiana. In which an attempt has been made to know the true complexion of the existing situation, facilities, resources and services of M.S. Randhawa library and its utilization by the research scholars. And also to find out the extent to which the existing library has organised and disseminated information to satisfy the needs of the research scholars.

4. Objectives of the Present Study

The present library survey has following specific objectives

- a. To find out the information needs of the research scholars.
- b. To ascertain the resources of information used by them.
- c. To determine the extent to which the available library and information services satisfy their information needs.
- d. To suggest the ways and means for the improvement of the library services.

5. Methodology

For this study to collect the comprehensive and relevant data, a questionnaire method was applied. A list of questions was formulated keeping in view, the objectives of the study and personally distributed to the research scholars of Punjab Agriculture University Library, Ludhiana. The population of the sample is research scholars at M.Sc./M.Tech. and Ph.D. Only those students from M.Sc./M.Tech. level were approached to fill up the questionnaires who were engaged in writing dissertations and are expected to use various sources of information almost similar to Ph.D. students. Totally 80 questionnaire were distributed, out of which 60 were received back, with response.

6. Scope and Limitation

The scope of the present study is confined to only the research scholars. The study population limited to 60 researchers of agriculture science faculty. Which consist of the research scholars working in the departments like Agriculture, Veterinary and Animal Science, Agriculture Engineering, Home Science, etc. of Punjab Agriculture University, Ludhiana.

7. Analysis and Interpretation of the Data

Table : 1 Age-Wise Distribution of Respondents

Age in Year	No. of Research Scholar	% of Respondents
21-25	37	61.67
26-30	20	33.33
31-35	03	05.00
Total	60	100.00

Table 1 shows the age-wise distribution of research Scholars. Table shows that majority of respondents, i.e. 61.67% belongs to age group of 21-25 years, followed by 33.33% respondents lie in the age group of 26-30 years. Only 5% of the research scholars are in the age group of 31-35 year. It is quite evident from the table that majority of respondents are young research scholars.

Table : 2 Duration of Research

Research Duration	No. of Research Scholar	% of Respondents
One year	03	05.00
Two year	31	51.67
Three year	15	25.00
More than three year	11	18.33
Total	60	100.00

In the above table, the study population has been divided into 4 groups viz., 1 year, 2 years, 3 years and more than three years. It is found that majority of respondents are doing research since in two years (51.67%), followed by three years (25%), followed by more than three years (18.33%). It is clear from the above table that only 03 respondents (5%) are having research experience of one year.

7.1 Purpose of Library Visit

Purpose of the visit to the library gives necessary information to the library authorities on the documents and the type of information that the library users are interested in. This helps them in developing need based collection development and also in developing other services and facilities to give better service to its reader.

Table : 3 Purpose of Library Visit

Sr. No.	Purpose	No. of Responses	% of Responses
1.	Borrow books	48	80
2.	Consult Periodicals	33	55
3.	Consult reference sources	48	80
4.	To use thesis/dissertation	54	90
5.	Use reports/conference proceedings	30	50
6.	To browse Internet	42	70
7.	To use CD-ROM data bases	51	85
8.	To access online databases	54	90
9.	To read news papers	24	40

* Multiple responses allowed

Nine aim were clearly identified for the user for coming to the library. The survey revealed that 90% scholars came for consult thesis/dissertation and access to online data bases 85% scholars came for use to CD-ROM data bases, 80% scholars came for borrowing/return of books and consult reference tools, 70% scholars came for surfing/borrowing Internet, 55% scholars came for consult periodicals, 50% scholars came for use reports/conference proceedings and 40% scholars came for news paper reading. It seems that scholars have a tendency to come to the library, the aim may be different.

7.2 Library Service

The most important function in university library is to provide service to its users and fulfill the aims of the present institution. Library service is concerned with users and their needs. It is also concerned with the utilization of resources. The modern agriculture libraries should use modern information techniques and services.

Table 4 : Awareness of Library Services

Sr.No.	Awareness of Services	Yes	No	Not responded
01	Circulation Service	60 (100)	—	—
02	Inter Library Loan	6 (10)	24(40)	30(50)
03	Reservation of Documents	15(25)	36(60)	9(15)
04	Current Awareness Service	03(5)	57(95)	—
05	SDI Service	—	54(90)	6(10)
06	Abstracting/Indexing Service	45(75)	12(20)	03(05)
07	Bibliographic Service	51(85)	9(15)	—
08	Online Service	36(60)	15(25)	9(15)
09	Reference Service	57(95)	—	03(05)
10	Reprographic Service	60(100)	—	—
11	Internet Service	60(100)	—	—
12	Online Database Service	42(70)	15(25)	03(05)
13	CD-ROM Database Service	57(95)	03(05)	—
14	Translation Service	—	—	60(100)
15	Multimedia Service	18(30)	42(70)	—

Above table indicates that almost all the services, which are introduced for the benefit of the user community, are aware by the scholars and they are making use of those services frequently. A few services are unaware by scholars, such as SDI, CAS, translation, Inter library loan, multimedia and reservation of documents, etc. which can be rectifying by train them through user education programmes.

7.3 Library Collection

In modern age no library can be self-sufficient, however it may rich. But to a greater extent all the libraries are trying their level best to fulfill the information requirements of their user community. The opinion of the research scholars regarding the library collection in various categories because an adequate collection play a significant role in its use. Therefore it is necessary to know whether the existing collection of M.S. Randhawa Library is adequate enough to meet the information requirement of its scholars in their research development and publication work.

Table 5: Adequacy of Library Collection

No.	Type of collection	Adequate	Partially	Inadequate	Not responded
01	Text Books	12(20)	36(60)	12(20)	—
02	Reference Documents	36(60)	12(20)	—	12(20)
03	General Encyclopedia	24(40)	36(60)	—	—
04	Subject Encyclopedia	18(30)	24(40)	6(10)	12(20)
05	General Dictionary	36(60)	24(40)	—	—
06	Agriculture Dictionary	18(30)	18(30)	12(20)	12(20)
07	Agricultural Journals	12(20)	24(40)	18(30)	6(10)

08	Research Reports	6(10)	18(30)	18(30)	18(30)
09	Thesis/Dissertations	18(30)	24(40)	6(10)	12(20)
10	Project Reports	30(50)	30(50)	—	—
11	Audio/Video Materials	—	—	—	60 (100)
12	Abstracting/ Indexing Journals	6(10)	12(20)	18(30)	24(40)
13	Handbooks/Manuals/ Year books	36(60)	24(40)	—	—
14	Bibliographical Databases on CD-ROM	36(60)	18(30)	6(10)	—
15	Online Databases	12(20)	6(10)	24(40)	18(30)
16	E-Books	—	—	—	60(100)
17	E-Journals	12(20)	18(30)	24(40)	6(10)
18	Newspapers	12(20)	36(60)	—	12(20)

Collection of each and every library is going to play a vital role in users career, without which they cannot obtain their required information for their study and research.

Table 5 presents the opinion about the collection of the library. Table reveals that textbooks in library are adequate (20%), 60% partially adequate, and 20% inadequate. About reference documents 60% adequate, 20% partially adequate and 20% not responded. In case of general encyclopedia 40% researchers said adequate and 60% partially adequate. Regarding subject encyclopedia 40% researchers said partially adequate, 30% adequate, 10% inadequate and 20% not responded. In case of general dictionary and handbook/manual/year books 60% said adequate and 40% partially inadequate. Regarding agriculture dictionary 30% scholars thought they were adequate and 30% partially adequate, 20% inadequate and 20% not responded. Regarding agricultural journals 40% were found partially adequate, 20% were found adequate, 30% were found inadequate and 10% were found not responded. In case of research reports 10% researchers said adequate, 30% partially adequate, 30% inadequate and 30% not responded. Regarding thesis/dissertation 40% partially inadequate, 30% adequate, 10% inadequate and 20% not responded. In case of project reports 50% researchers said adequate and 50% said partially adequate. In case of Audio/Video material and E-books 100% researchers were found silent. Regarding abstracting and indexing journals 40% not responded, 30% inadequate, 20% partially adequate and 10% adequate. In case of bibliographical databases on CD-ROM 60% adequate, 30% partially adequate, and 10% inadequate. Regarding online databases 40% inadequate, 30% not responded, 20% adequate and 10% partially adequate. In case of e-journals 40% inadequate, 30% partially adequate, 20% adequate and 10% not responded. Regarding newspapers 60% scholars said partially adequate, 20% adequate and 20% not responded.

7.4 Satisfaction of Library Services

University play a major role in the contribution to growth and development of human resources by conserving, interpreting and advancing knowledge. The library is the heart of all university's work, directly so as regards its research work, and indirectly as regards its education work, which derives its life from research work.

Table 6 : Rating of Satisfaction with the Library Services

Sr.No.	Awareness of Services	Yes	No	Not responded
01	Circulation service	54(90)	—	6(10)
02	Reference Service	54(90)	6(10)	—
03	Reprographic Service	30(50)	15(25)	15(25)
04	Inter-library Loan	6(10)	—	54(90)
05	Translation Service	—	—	60(100)
06	Abstracting/Indexing Service	18(30)	24(40)	18(30)
07	Current Awareness Service	—	—	60(100)
08	SDI Service	—	—	60(100)
09	Online Service	15(25)	15(25)	30(50)
10	Internet Service	18(30)	30(50)	12(20)
11	CD-ROM Database Service	45(75)	12(20)	3(05)
12	Online Database Service	24(40)	30(50)	6(10)
13	Multimedia Service	6(10)	12(20)	42(70)
14	OPAC	9(15)	36(60)	15(25)

From the above table the majority of researcher's were of the opinion that circulation, reference, reprographic and CD-ROM database services were satisfactory to meet their needs. The study clearly shows that the researchers were of the opinion that OPAC, Online database, Internet, Indexing/Abstracting and multimedia services were unsatisfactory to meet their needs. CAS, SDI, translation and Inter-library loan services were not responded. It is, therefore suggested that documentation services like SDI, CAS, and translation services etc. should be started as early as possible to save the precious time of research scholars.

8. Suggestions and Conclusion

Keeping in view the results obtained by the investigation of this study, the following viable suggestions are made. It would be appropriate to consider the suggestions for adoption and implementation.

1. A majority of respondents visit the library with the purpose of consulting thesis/dissertation, access to online databases, use to CD-Rom databases, borrowing/return of books, consult reference tools, surfing/browsing Internet and consult periodicals. It is, therefore suggested that library should be developed as need-based collection.
2. The result of the present study revealed that most of the researchers of university library are not aware of the Selective Dissemination of Information (SDI), Translation service, Current Awareness Service (CAS), Inter Library Loan (ILL), Reservation of documents and multimedia service. It is, therefore, suggested that proper orientation/education should be provided to the researchers so that they remain fully aware of the latest know how of the tools and techniques of the library.
3. Talking to researchers and also through the questionnaire, it came to notice that certain areas of library collection are not strong enough to support their research needs. It is, therefore suggested that journals in print form as well as E-journals, Online databases, Newspaper, E-books, Audio/ Video materials and reference tools should be strengthened to support their research work.

4. The result of the present study revealed that most of the researchers of M.S. Randhawa Library do not use periodicals in non-conventional form. Therefore, it is suggested that proper orientation/training should be provided to the researchers so that the use of non-conventional forms can be optimized.
5. The result of the present study revealed that CAS is not being provided in any form in M.S. Randhawa Library. CAS keep the researcher abreast with the latest development in their respective fields. It endeavour to keep the clientele informed promptly of all the nascent thoughts/developments created in their field of work and related fields. It is, therefore, suggested that CAS should be initiated by university library through library bulletins, announcement of research in progress and clipping service.
6. The result of the present study revealed that SDI is also not provided to researchers in the library. SDI is the user-oriented service, which intends to keep the researcher abreast with the latest developments in the exclusively restricted area of his interest. It is, therefore suggested that SDI should be initiated through proper maintenance of database.
7. User studies may be carried out from time to time with a view to determine the need of research scholars, and providing better services to them.

9. References

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