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The Perception of Library Network membership in Agricultural College Librarians in Maharashtra: A Survey

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Abstract:

The role of agricultural libraries in the networked digital era with the help of automation, digitization, resource sharing, Library Management software, Consortium for e-Resources in Agriculture (CeRA), and institutional repositories Krishikosh, AGRICAT, IDEAL eGranth project. The financial support provided by the Indian Council of Agricultural Research (ICAR) is a good initiative for the strengthening and development of agricultural libraries. Indian Council of Agricultural Research (ICAR) is encouraging e-learning for promoting the use of e-resource in agriculture. This survey study discusses the perception of membership of various library networks among agricultural college female and male academic librarians in agricultural college libraries in Maharashtra, India. Purposive sampling technique was used to select 40 librarians from a population of 57 librarians working in the Mahatma Phule Agricultural University and affiliated college libraries. The study examines the perception of library networks and reasons of joining various library networks. The results reveal that most of the librarians joined library networks for the Access of Union Catalogue, Inter Library Loan Services, Consortium Usage, Centralized Acquisition, and Document Delivery Service etc.

Keywords:- CeRA, AGRICAT, INFLIBNET, Library Network Membership, Agricultural Librarianship

1. Introduction

India is essentially an agrarian society and basically depends on agricultural outputs. It is therefore essentially that the technology thrust should lay greater emphasis on the transfer of scientific and technological information from the research institutes to its actual users. Libraries and Information Centres are playing a very important role in providing information to the users by building print and electronic collection. In India, direct application of computerized information systems to the farmers is not feasible in the present conditions.

In spite of some dark spots in the history of past 50 years of Indian agricultural libraries for different reasons, now they have sunny days and a bright future. The present trends of economic globalization have made agricultural globalization imminent and the second Green Revolution will be an event of near future. The agricultural libraries and information centres cannot be ignored and they will have to play a vital role in the service of the nation. It is emphasized again that ICAR, New Delhi planned to develop a nation-wide agricultural information network connecting all libraries of State Agricultural Universities and ICAR research institutes and it is being developed to all states of India. The ARIS cells will have connectivity with libraries also for bibliographic information¹.

The library and information networks have potential to improve library services in several ways. It brings down the cost of information products and services in the network environment in shared mode. It enables libraries to offer need-based services to the end users eliminating the limitation of size, distance and language barriers among them. With evolution in library networks, the emphasis has moved from the networks as physical entities to the resources available through the networks. These network-accessible resources include databases of library holdings, journal articles, electronic text, images, video and audio files, scientific and technical data and so on. There has been a voluminous growth of published documents in the recent past. As a result no library is able to procure process or store all documents that its users demand.

2. Significance of the Study

“It is difficult to anyone single library to acquire even one percent of the total document published in the world” due to one or more of the following reasons:

- a) Growth of Knowledge in different subjects.
- b) Rapid increase of literature and growth of publications.
- c) Increasing trend of new born subjects and specializations.
- d) Limitations of funds.
- e) Increase in the cost of publications.
- f) Increase in the number of members of user community teachers, scholars and students in universities.
- g) The information needs of academic community being wide in scope and varied in nature. Such information needs being often repetitive and recurring.
- h) Lack of environment to make use of available computer and communication technology for efficient and production use in libraries.²

Therefore some resource sharing is necessary between one library and another library to acquire more information in a specific subject with low cost as published records are increasing at an incredible rate and their prices are keeping pace, in such circumstances library cooperation will assume a pivotal role and resources sharing will become the focal point of cooperation. As indicated earlier, the past few decades have witnessed knowledge and information explosion the world over and inadequate financial resources to do the best in terms of dissemination of knowledge and information. Under these circumstances, resource sharing and cooperative functioning of libraries and information centers through networking becomes vital. Efficient resource sharing can be achieved by using recent advances in Information Technology, i.e. networking of libraries and information centers through Local Area Networks, Metropolitan Area Networks, and Wide Area Networks and so on.

3. Review of Literature

There is little in the library literature on networking, particularly among librarians at multi-campus institutions. Therefore, this literature review includes articles written by librarians as well as LISc professionals.

Jamaica Libraries Information Network (JAMLIN), College Library Information Network (COLINET), The Social and Economic Information Network (SECIN), Online Computer Library Centre (OCLC) software. Also they stated OCLC and The UWI Mona Library agreed to allow LIAJA to use the Question Point base management environment of the Library for six months to provide the support that was needed for librarians in Jamaica to practice and develop their competencies³. “Library Networking & Resource Sharing” define the concept of Networking, Objectives of the Library Network like to Improve resources utilization & services level, to enhance resource sharing to avoid duplication of the publication etc, also researcher highlighted the various international networks like UNESCO, IFLA, ARPANET,

National Level Networks like INFLIBNET, INSDOC, IISC, DELNET, CALIBNET, BONET etc its services & role in Resource sharing⁴. Document highlighted the historical development of networks between museums, libraries and archives, and on the opening in 2004 of the Art Libraries' Consortium (ALC), a union catalogue of art libraries based in the Tokyo metropolitan area which has been steadily expanding⁵. The varies networks in the country of Bangladesh like Bangladesh-INASP-PERI Consortium (BIPC), Library Consortium of Bangladesh (LiCOB), National Agricultural Information System (NAIS), Social Science Research Network (SSRN), Heath Literature, Library and Information Science Network (HELLIS), Development Information Network on South Asia (DEVINSA), National Science and Technology Information Policy (NASTIP), Bangladesh University Libraries Network (BULN), Bangladesh National Scientific and Library Information Network (BANSLINK) & Population Information Network (POPIN) in detailed & its role for the joint acquisition, digitization, for development of search engine, for establishment of e-journal center, & the development of digital resources jointly⁶. In the study stated that most of the respondents were unaware about library networking and resource sharing. Whenever they were explained about the merits of networking and resource sharing they were totally amazed and expected the library to take necessary initiatives regarding networking and resource sharing. Among the users, 20 % have given emphasis on establishing library networking and resource sharing system⁷. The concept of networking, ways for the networking among the Islamic Sharia Court (LAW) Libraries in Nigeria, & Areas of Networking in the areas the researcher stated cooperative acquisition, Inter library loan, reference & information services, technical services, exchange of staff, funding etc⁸. Introduced the SPACENET ISRO Libraries Network Developed by ISRO Libraries Branches spared over the India. Also in this paper stated that work flow of SPACENET, Infrastructure used for SPACENET, SPACENET Services etc⁹. while, describe the importance of Library Networks in present era in Pakistan with special reference to the Medical field. In Pakistan the MELAP (Medical Library Association of Pakistan) play a vital role for fulfillment of information need also the researcher stated that no any library are eligible to purchase the all documents published in the world in this situation library networks are most important to connect the libraries each other for the resources sharing¹⁰. However in his research document entitle "The Need for Networks among Public, Academic, and School Libraries in Metropolitan Sierra Leone" discussed the about library networks & its role in academic, public school libraries¹¹. However, the varies library networks in the field of business & economics. In this field the researchers discussed the role of following Networks for getting the information to the researchers, students & teachers those networks are Business Reference and Services Section (BRASS), Reference and User Services Association (RUSA), American Library Association (ALA) and The Business and Finance Division of the Special Libraries Association (SLA)¹².while, Networking as an activity to enhance one's career is not discussed. Also the researcher said the library networks are vital aspects in 21st century for the librarians specially branch & regional libraries¹³. The study entitle "Networking and Consortia Management Techniques" stated the role of OCLC in networking of the libraries also they have elaborate the functions of the library network in different stages like initial stage, intermediate stage & advanced stage with characteristics¹⁴. Network as "A network consist of two or more computers that are linked in order to share resources (such as printers and CD-ROMs,) exchange files, or allow electronic communication. The computers on a network may be liked through cables, telephone lines, radio waves or infrared light beams"¹⁴. However, Laxman Rao highlighted the Role of NISSAT promoted and tried to provide some financial assistance for developing these networks. They are ADINET (Ahmadabad Library Network), BALINET (Bangalore Library Network), BONET (Mumbai Library Network), CALIBNET (Calcutta Library Network), MALIBNET (Madras Library Network), MYLIBNET (Mysore Library Network), and DELNET (Developing Library Network)¹⁵.

4. Objectives

1. To assess the nature and quantum of Library Membership in various Library Networks.
1. To know the attitudes of the Librarians towards Library networking and Resource Sharing.
2. To assess the feasibility of developing a Library Network of Agricultural Colleges.
3. To identify the reasons of Library networking.

5. Hypothesis

1. There is a significant difference in membership of library networks among the libraries of 'constituents', and 'self-financing' institutions.
2. There is a significant difference in reasons for joining library networks among the libraries of 'constituents', and 'self-financing' institutions.

6. Scope and Limitations

The population of the study mainly comprised 40 Affiliated and Constituents Agricultural Colleges of Mahatma Phule Krishi Vidyapeeth, Rahuri,(MS) India which have responded to the questionnaire sent.

"Constituent Agriculture College" means a college which is under the direct management of an university, whether located at headquarter or elsewhere in the university jurisdiction of MPKV, Rahuri. (MCAER, 2011).

"Affiliated Agricultural College on permanently non-grant basis" means, a college sanctioned by the state council and affiliated to an university which shall not be entitled for any kind of grant in aid from the State Government (hereinafter) to referred as the affiliated college (NG).(MCAER, 2011).

Hence Affiliated Agricultural College on permanently non-grant basis referred as a Self Financed Colleges for the Present study.

7. Data Analysis

Collected data has been analyzed and presented in tabular as well as graphical form. In graphical form, bar charts, line graphs are used for presentation. For the purpose of analyzing the data collected, the fixed variables were user' constituent colleges of MPKV, Rahuri and self financed colleges in the Statistical software package (i.e. SPSS) have been used. In addition, some of the tools/techniques used for analyzing data include chi-square, P-Test, Ratio etc. Details regarding some of the tools/techniques used

Table No. 1 SEX Ratio of Respondent

Sr. No	Sex	No of Respondent	P- Test	P- Value
1	Male	28(70)	Test of p = 0.4 vs p < 0.4	0.129
2	Female	12(30)		

Note:-Test of p = 0.4 vs p < 0.4 P-Value= 0.129

Table no. 1 it is shows that out of 40 college librarians there is 28 (70%) are Male Librarians while 12 (30%) librarians are female. Also for testing of the null hypothesis i.e the P- Test also administered. There is p=0.4 vs p < 0.4 the parameter value is 0.129.

Table No. 2 Age Wise Distribution of Respondent

Sr. No	Age	No of Librarians	Percentage
1	25-30 years	9	22.5
2	31-35 years	13	32.5
3	36-40 years	10	25
4	41-45 years	4	10
5	46-50 years	2	5
6	51-55 years	1	2.5
7	56-60 years	1	2.5
	Total	40	100

The table 2 shows the Age of librarian in Agricultural college libraries. It is observed that 13 (32.5%) librarians are working in the range of 31-35 years, 10 (25%) librarians are working in the range of 35-40 years and 9 (22.5%) librarians in the range of 25-30 years. It is also shows that 4(10%) librarians are working in the range of 41-45 years. However 2(5%) librarians are working in the range of 46-50 years, while only 1 (2.5%) librarians are working in the age of 51-55 and 56-60 years.

Table No. 3 Experience in Year

Sr. No	Experience In Year	No of Librarians	Percentage
1	1 - 5 years	14	35
2	6 - 10 years	18	45
3	11 - 15 years	1	2.5
4	16 - 20 years	0	0
5	21 - 25 years	4	10
6	26 - 30 years	2	5
7	31- 35 years	1	2.5
	Total	40	100

The table 4.3.4 shows the experience in years of librarian in Agricultural college libraries. It is observed that 14 (35%) librarians are working in the range of 1-5 years, 18 (45%) librarians are working in the range of 6-10, However 4 (10%) librarians are working in the range of 21-25 and 2 (5%) librarians are working in the range of 26-30 years, While 1 (2.5%) librarian are working in the range of 31-35.

Table No. 4 Type of Management

Sr. No	Type of Management	No of Colleges	Percentage
1	University Management	6	15
2	Self-Finance	34	85
	Total	40	100

The data analyzed in the table 4 shows that highest number of Agricultural Colleges has Self Finance management i.e. 34 (85%) and under the university management is 6 (15%). It is well

established fact that private participation in Agricultural College Libraries is high compared to University Management.

Table No. 5 Accreditation Status

Sr. No	Accreditation Status	No of Colleges	Percentage
1	Ye	24	60
2	No	16	40
	Total	40	100

The table no.5 it is shows that out of 40 Agricultural Colleges 24 (60%) Accredited and 16 (40%) Colleges don't have accredited till.

Table no 5.1 Accreditation Status VS Category of Colleges

S r. No	Accreditation Status	Constituents Colleges (n=6)	Percentage	Self-Finance Colleges (n=34)	Percentage	Chi-Sq.	P-Value
1	Yes	6	100	10	29.41	10.588	0.001
2	No	0	0	24	70.59		

Note:-Note:-Chi-Sq = 10.588, DF = 1, P-Value = 0.001

The table 5.1 and graph 1 shows the number of Agricultural college libraries which have been Accreditation status. It is observed that all Constituents colleges 6 (100%) are accredited and only 10 (29.41%) self-financing colleges accredited, while 24 (70.59%) self Financed Colleges are not Accredited. Chi. Sq test is also administered to test the hypothesis that there is significant difference in Accreditation Status of 'Constituents Colleges' and 'Self-Finance colleges'

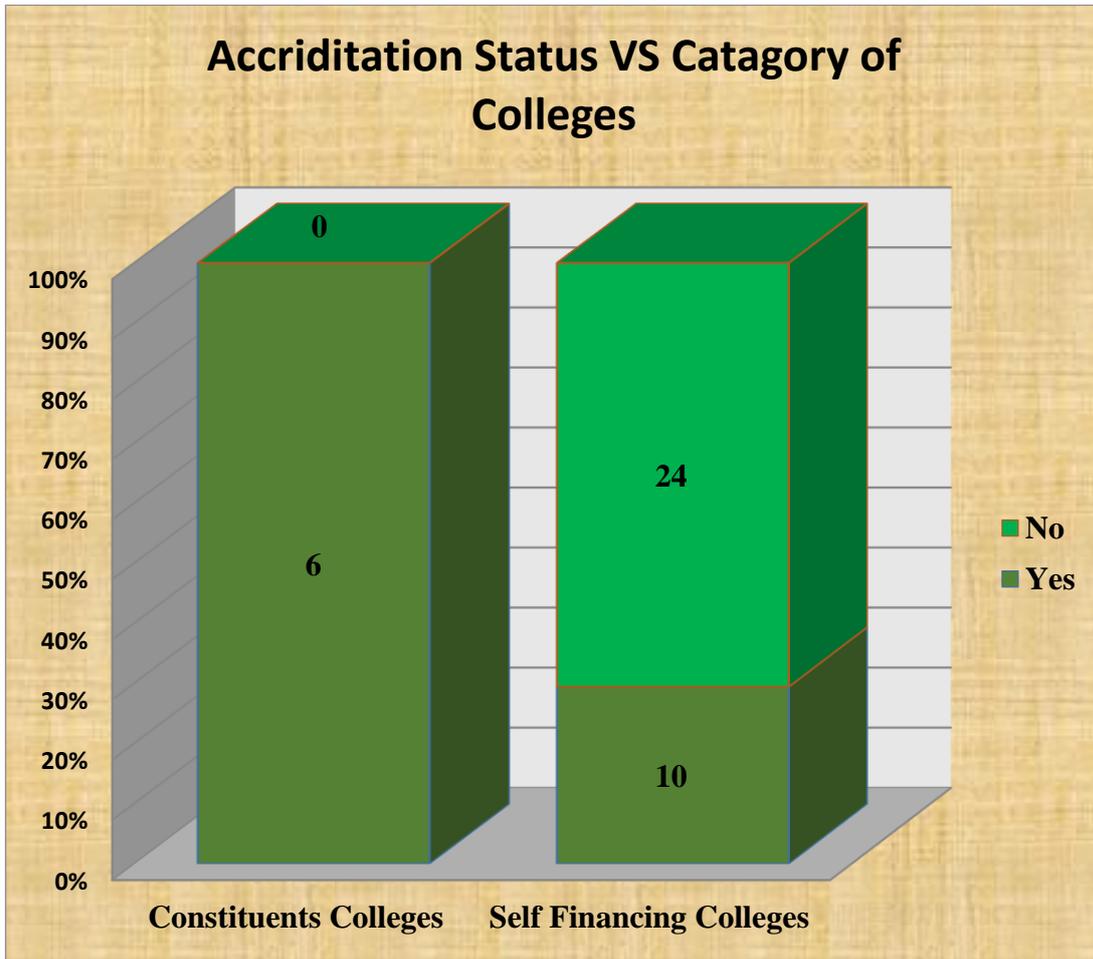


Fig.No. 1 Accreditation Status VS Category of Colleges

Table No. 6 Digital Library Area

Sr. No	Digital Library Area (Sq. fit.)	No of Libraries	Percentage
1	< 0	2	5
2	1-100	8	20
3	101-200	10	25
4	201-300	8	20
5	301-400	2	5
6	401-500	3	7.5
7	501-600	1	2.5
8	601-700	0	0
9	701-800	2	5
10	801-900	2	5
11	901-1000	0	0
12	1001-2400	1	2.5
13	2401-5500	1	2.5
	Total	40	100

The table 6 shows the distribution of digital library area (Sq. fit.) made available in the library. It is observed that, 10 (25%) libraries have in the range of 101-200 Sq. fit. area, Followed by 8(20%) libraries having in the range of 1-100 and 201-300 Sq. fit. Area, however only 1 (2.5%) libraries having in the range of 501-600 and 1001-2400, 2401-5500 Sq. fit. Area, it is also shows that only 2 (5%) libraries having in the range of 301-400, 701-800, 901-1000 Sq. fit. area.

Table No. 7 Membership of Library Network

Sr. No	Library Network	Yes	No
1	OCLC	6 (15)	34(85)
2	CeRA of ICAR	6 (15)	34(85)
3	Jgate Plus	6 (15)	34(85)
4	AGLINET	2(5)	38(95)
5	INDEST	2(5)	38(95)
6	JCCC HELINET	1(2.5)	39(97.5)
7	AGRICAT	6 (15)	34(85)
8	INFLIBNET/N-LIST	6(15)	34(85)
9	AGRIS	9(22.5)	31(77.5)
10	DELNET	7(17.5)	33(82.5)
11	Other	1(2.5)	39(97.5)

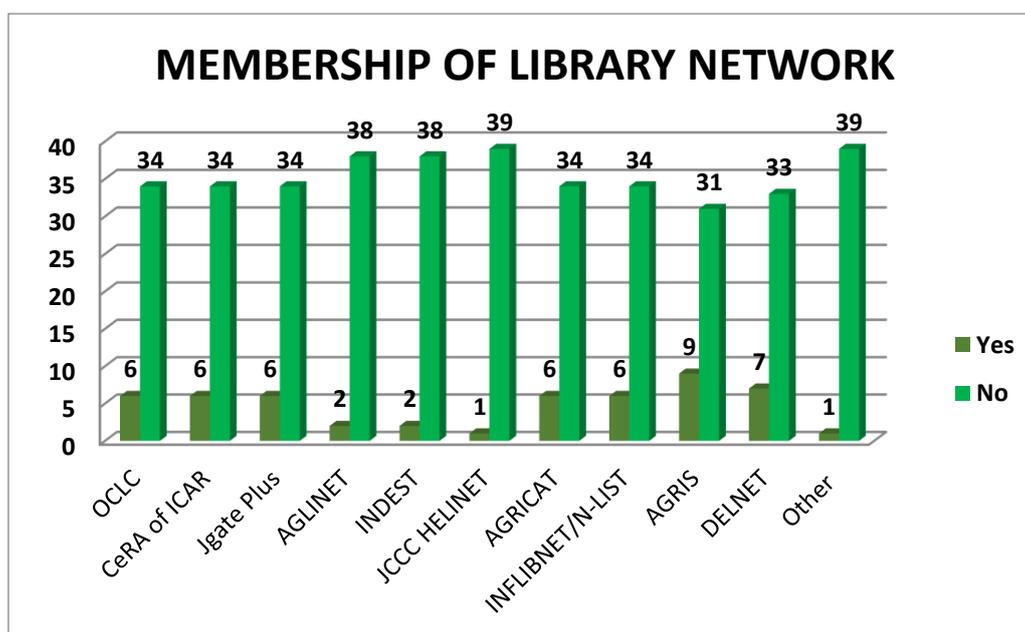


Fig. No. 2 Membership of Library Network

The table 7 and fig. no. 2 shows the Membership of Library Network. It is reveals that out of the total 40 libraries 6(15%) libraries having membership of OCLC, CeRA of ICAR, J-Gate Plus, INFLIBNET-NLIST and 34 (85%) have not members of this networks, However only 1(2.5%) libraries have membership of JCCC HELINET and 39 (97.5%) libraries have not members of this network.

Table No. 7.1 Membership of Library Network Vs Category of Colleges

Sr. No	Library Network	Constituents Colleges (n=6)		Self-Financed Colleges (n=34)		Chi-Sq.	P-Value
		Yes	No	Yes	No		
1	OCLC	6(100)	0(0.00)	0(0.00)	34(100)	136.021	0.000
2	CeRA of ICAR	6(100)	0(0.00)	0(0.00)	34(100)		
3	Jgate Plus	5(83.33)	1(16.67)	1(2.94)	33(97.06)		
4	AGLINET	1(16.67)	5(83.33)	1(2.94)	33(97.06)		
5	INDEST	1(16.67)	5(83.33)	1(2.94)	33(97.06)		
6	JCCC HELINET	0(0.00)	6(100)	1(2.94)	33(97.06)		
7	AGRICAT	6(100)	0(0.00)	0(0.00)	34(100)		
8	INFLIBNET/N-LIST	1(16.67)	5(83.33)	5(14.71)	29(85.29)		
9	AGRIS	6(100)	0(0.00)	3(8.82)	31(91.18)		
10	DELNET	3(50.00)	3(50.00)	4(11.76)	30(88.24)		
11	Other	1(16.67)	5(83.33)	0(0.00)	34(100)		

Note:-Chi-Sq = 136.021, DF = 1, P-Value = 0.000

The table 7.1 shows the membership of library networks vs Categories of the Colleges. It is found that out of the total 6 libraries Constituents college libraries All 6(100%) libraries having membership of OCLC and 34 (100%) self-financed libraries have not member of this network, followed by all 6(100%)constituents libraries having membership of CeRA of ICAR and 34 (100%) self financed libraries have not member of this network. however only 5(83.33%) constituents libraries having membership of JGate Plus and 1 (16.67%) libraries have not member of this network. It is found that all constituents libraries have membership of the networks followed by very few self financed libraries having membership of National level as well as international level networks.

The chi-square test is also administered to test the hypothesis that “There is a significant difference in membership of library networks among the libraries of ‘constituents ’, and ‘self-financing’ institutions. Level of significance (α) = 0.05, P-Value = 0.000 is less than level of significance. Hence hypothesis is valid

Table No. 8 Reasons for Joining Library Network

Sr. No	Reasons	Agree	Disagree
1	Access of Union Catalogue	40(100)	0(0)
2	Inter Library Loan Services	38(95)	2(5)
3	Consortium Usage	35(87.5)	5(12.5)
4	Centralized Acquisition	30(75)	10(25)
5	To save the time of Staff/Users	37(92.5)	3(7.5)
6	Document Delivery Service	33(82.5)	7(17.5)
7	Professional Communication among Group	34(85)	6(15)
8	Reduce Library Budget	29(72.5)	11(27.5)
9	Access to Institutional Repository	32(80)	8(20)

10	Training	36(90)	4(10)
11	To Develop Library Infrastructure	31(77.5)	9(22.5)

Note:-Strongly Agree: Agree Ratio = 5.76: 1

- **Agree ratio** = 375/65 5.76
- **Disagree ratio** = 65/65 1.00

In the table 8 found that the Reasons for joining Library Network. It is reveals that out of the total 40 libraries All 40(100%) libraries joined library network for Access of Union Catalogue, followed by 38 (95%) libraries joined library network for Inter Library Loan Services and 2 (5%) libraries have not joined this network for ILL service. However 36 (90%) libraries joined for training and 4 (10%) libraries have not joined, while 31(77.5%) libraries have joined for To Develop Library Infrastructure.

‘Disagree’ total 65 and ‘Agree’ total 375 have been divided by number of respondents (N: 65) and Agree to Disagree value has been calculated. The ratio between Agree: Disagree works out to 5.76:1 the disagree ratio (1) is negligible.

Table No. 8.1 Reasons for Joining Library Network Vs Category of Colleges

Sr. No	Reasons	Constituents Colleges (n=6)		Self-Financed Colleges (n=34)		Chi-Sq.	P-Value
		Agree	Disagree	Agree	Disagree		
1	Access of Union Catalogue	6(100)	0(0)	34(100)	0(0)	8.504	0.004
2	Inter Library Loan Services	6(100)	0(0)	32(94.12)	2(5.88)		
3	Consortium Usage	6(100)	0(0)	29(85.29)	5(14.71)		
4	Centralized Acquisition	6(100)	0(0)	24(70.59)	10(29.41)		
5	To save the time of Staff/Users	6(100)	0(0)	31(91.18)	3(8.82)		
6	Document Delivery Service	6(100)	0(0)	27(79.41)	7(20.59)		
7	Professional Communication among Group	6(100)	0(0)	28(82.35)	6(17.65)		
8	Reduce Library Budget	5(83.33)	1(16.67)	24(70.59)	10(29.41)		
9	Access to Institutional Repository	6(100)	0(0)	26(76.47)	8(23.53)		
10	Training	6(100)	0(0)	30(88.28)	4(11.76)		
11	To Develop Library Infrastructure	5(83.33)	1(16.67)	26(76.47)	8(23.53)		

Note:-Chi-Sq = 8.504, DF = 1, P-Value = 0.004

The table 8.1 shows the Reasons for joining library network VS Categories of the Colleges. It is reveals that out of the total 6 libraries Constituents college libraries all 6(100%) libraries have joined library network for Access of Union Catalogue, ILL Service, Consortium usage, save the time of users as well as staff, professional communication, access of IR, and Trainings. Followed by 100% self financed college libraries joined library network of access of union catalogue, followed by 32 (94.12%) joined for ILL service, 31 (91.18%) joined for save the time of users as well as staff.

The chi-square test is also administered to test the hypothesis that “There is a significant difference in reasons for joining library networks among the libraries of ‘constituents ’, and

'self-financing' institutions. Level of significance (α) = 0.05, P-Value = 0.004 is less than level of significance. Hence hypothesis is valid

8. Recommendation

1. As a prerequisite, there should be a union catalogue of library resources of all the Agriculture colleges' libraries.
2. Looking into the national efforts in the formation of consortia in some groups of subjects, there seems to be an immediate need for joining CeRA like national consortia so as to exploit the resources for the benefit of users.
3. State Government provides funds to the self financed Agricultural colleges as well as libraries for the development.
4. Agriculture Universities take initiative regarding development of the self financed affiliated institutions as well as libraries.

9. Conclusion

The library professional has never been exposed so much in past to the changing information scenario as it has been done now. In this age of information explosion, the technology has progressively replaced the old method of information collection, storage and retrieval. Today the walls of the library are giving way to electronic environments to establish links with information and virtual libraries that are getting shaped on the resource sharing and networking. Each individual library is acting as a place for storage and services to the users while the trend is to provide shared information to the users. Emphasis is given to access to information rather than owning it.

It is also possible to create their own institutional digital repositories by transforming their institutional publications which are in print. All this needs cooperation and support from the authorities of the colleges and active participate of library professionals.

Academic libraries in India have long desired one-stop shopping for their customers and in this electronic age their customers are demanding it to search from a single point at any physical location, and retrieve information from the library catalogue, citation form journal indexes and full text information electronic resources.

Academic libraries are facing increasing pressures from multiple sources. Libraries can no longer be expected to support research and development from their own resources due to the information explosion, increasing cost of library materials, shrinking library budgets etc. The global computer network providing access to online bibliographic information and full text delivery of request will change the way work is performed in the libraries. The most important advantage of the information age for libraries may be that the information is not limited to the items held by library rather than user can access any modern library in the world through the World Wide Web. Libraries must provide reliable, cost efficient access to information whether print or multimedia whether held locally or remotely. The need to provide information services that remove the barriers of distance and time become even more important. In earlier times libraries have always acquired and organized material so that the information is accessible more easily.

In view of the above points, it can be concluded that Resource sharing and networking is a great boon which needs to be implemented progressively and professionally in Agricultural Institutions in Maharashtra. This initiative will generate optimum satisfaction among users and also save considerable national resources.

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