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BARRIERS IN SHARING LIBRARY RESOURCES IN INDIA: A STUDY

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Abstract:-

Purpose – College and University Libraries in India are a privileged type of libraries with comparatively sound collections. They spend a large portion of their funds on developing in-house collections. In spite of the prevailing ICT, there is hardly any practice of sharing collections in a formal manner. The article aims to explore the challenges in sharing library resource in libraries.

Design/methodology/approach – Using a survey method, the survey followed a qualitative design based on an interview technique of data collection. Forty librarians from the state of Maharashtra India were interviewed. Structured interview were conducted at the 40 librarians' workplaces/ on telephone during 2014-2015.

Findings – The study is trying to situate India's position in Networking and resource sharing. The data analysis of the present study revealed that various technical, procedural, psychological, behavioral, legal, barriers in achieving planned collection sharing programs. It suggests analyzing the possibilities, opportunities, and challenges of networking and resource sharing in libraries in the emerging paradigm. The study recommends more focused and integrated research approach from Indian researchers.

Research limitations/implications – Present study is limited to 40 libraries those are responded positively.

Originality/value – This is the first study focused on barriers in resource sharing and networking in libraries in Maharashtra (India).

Keywords: Resource Sharing; Library Cooperation; Collection Sharing. Networking in libraries, Collection Development, Need of the Users, Resource Sharing Model.

Introduction:-

Library cooperation, resource sharing and networking are used interchangeably as synonymous terms for collaborative efforts of information exchange among libraries¹.

Resource sharing is not a new concept in the field of libraries. The concept that goes by the term ‘library co-operation’ has been in use all along among those who had been working in libraries or had anything to do with the development of libraries. The term, however has been replaced by a new coinage —‘Resource Sharing’— which sounds more attractive and makes better sense in this age of inflation and budgetary reduction. Thus resource sharing in libraries has become a necessity, and has gained worldwide acceptance. Networking is information/resource sharing through computers and telecommunication links which transmit information or data from one library to another².

“Networking is more structured type of cooperation in which definite regions or areas or definite organizations are connected by electronic or other means to promote inter-library loaning of materials, in-service training and other sharing of resources³.”

Review of Literature:-

For the present study research oriented practical papers referred as supporting documents i.e Agricultural College Library Budget: A Statistical Overview⁴. ICT Infrastructure Facility in Agricultural College Libraries in Maharashtra: A Study⁵. ICT Skills among Agricultural College Librarians: A Comparative Study⁶. Status of Library Automation in Agricultural College Libraries⁷. Resource Sharing and Networking in Agricultural College Libraries Under Jurisdiction of Mahatma Phule Krishi Vidyapeeth: A Study⁸. Status of Services in Agricultural Libraries: Special Reference to Maharashtra State⁹. Purchasing Policy of Print Resources in University Libraries of Maharashtra¹⁰. Use of the Online Public Access Catalogue in Agricultural University¹¹. Barriers in Collection Sharing among Libraries of Pakistan: University Library Managers’ Viewpoint¹². All referred papers documents acknowledged in references.

Objectives of the Study

1. Discover the prevailing status of Resource sharing in the Agricultural College libraries of Maharashtra (India),

2. Find the reasons libraries are not participating in Resource Sharing plans but continuing to work in isolation, and finally
3. Suggest possible ways of Resource sharing.

Research Methodology

This study is based on a survey. The survey followed a qualitative design based on an interview technique of data collection.

Data Analysis and Interpretation

Table No. 1 Opinion on Resource Sharing & Networking Programme

Sr. No	Description	Yes	No
1	Resource sharing models are adequate for Libraries	30 (75)	10(25)
2	Resource sharing and Network activity in increasing becoming important into next Generation Libraries	38 (95)	2(05)
3	Would you like to share you Resources under Networking Programme	39(97.5)	1(2.5)

The table 1 shows the Opinion on Resource Sharing & Networking programme. It is reveals that out of the total 40 libraries 30(75%) respondents says Resource sharing models are adequate for Libraries and only 10 (25%) says its not adequate for libraries, however 38 (95%) librarians agree on the opinion of Resource sharing and Network activity in increasing becoming important into next Generation Libraries and only 2(05%) respondents are not agree, while 39 (97.5%) respondents like to share Resources under Networking Programme and 1 (2.5%) respondents disagree with this opinion not agree with the opinion of Resource sharing models are adequate for Libraries. It is also observed that the out of the total 34self financed colleges 25 (73.53%) libraries agree with Resource sharing models are adequate for Libraries and 9 (26.47%) libraries not agree, However 32 (94.12%) libraries said Resource sharing

Table No. 1.1Opinion on Resource Sharing & Networking Programme VS Category of Colleges

Sr. No	Opinions	Constituents Colleges (n=6)		Self-Financed Colleges (n=34)		Chi-Sq.	P-Value
		Yes	No	Yes	No		
1	Resource sharing models are adequate for Libraries	5 (83.33)	1(16.67)	25(73.53)	9(26.47)	0.611	0.435
2	Resource sharing and Network activity in increasing becoming important into next Generation Libraries	6(100)	0(0)	32(94.12)	8(5.88)		
3	Would you like to share you Resources under Networking Programme	6(100)	0(0)	33(97.6)	1(2.94)		

Note:-Chi-Sq = 0.611, DF = 1, P-Value = 0.435

The table 1.1 shows the Opinion on resource sharing & Networking programme VS Categories of the Colleges. It is reveals that All 6 (100%) constituents college libraries said Resource Sharing and Network activity in increasing becoming important into next Generation Libraries and they would like to share Resources under Networking Programme. It is also shows that 5 (83.33%) libraries say Resource sharing models are adequate for Libraries, while only 1 (16.67%) respondents and Network activity in increasing becoming important into next Generation Libraries and 8(5.58%) said it's not helpful to the next generation libraries. The chi-square test is also administered to test the hypothesis that "There is a significant difference in opinion of resource sharing activities among the libraries of 'constituents ', and 'self-financing' institutions. Level of significance (α) = 0.05, P-Value = 0.435 is greater than level of significance. Hence the hypothesis is Invalid.

Table No. 2 Willingness to Share Print Resources

Sr. No	Print Resources	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Books	32(80)	6(15)	1(2.5)	0(0)	1(2.5)
2	Reference Sources	22(55)	17(42.5)	0(0)	1(2.5)	0(0)
3	Current Periodicals	22(55)	11(27.5)	3(7.5)	3(7.5)	1(2.5)
4	Back Volumes	20(50)	14(35)	5(12.5)	1(2.5)	0(0)
5	Thesis/Dissertations	14(35)	14(35)	4(10)	5(12.5)	3(7.5)
6	Reprints/Preprints	10(25)	11(27.5)	8(20)	7(17.5)	4(10)
7	Patents	7(17.5)	6(15)	7(17.5)	11(27.5)	9(22.5)
8	Standards	8(20)	7(17.5)	7(17.5)	11(27.5)	7(17.5)

Note:- Strongly Agree: Agree: Neutral: Disagree: Strongly Disagree Ratio = 5.4:3.44:1.4:1.56:1

- Strongly Agree ratio = 135/25 = 5.4
- Agree ratio = 86/25 = 3.44
- Neutral ratio = 35/25 = 1.4
- Disagree ratio = 39/25 = 1.56
- Strongly Disagree ratio = 25/25 = 1

The table 2 shows the Wiliness to share print resources. "Strongly Disagree' total 25 and 'Strongly Agree' total 135 have been divided by number of respondents (N: 25) and Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree value has been calculated. The ratio between Strongly Agree: Agree: Neutral: Disagree: Strongly Disagree works out to 5.4:3.44:1.4:1.56:1 the strongly disagree ratio (1) is negligible. Therefore it seems that the most of librarians prefer for sharing of resources under networking programme of libraries.

Table No. 2.1 Willingness to Share Print Resources Vs Category of Colleges

Sr. No	Print Resources	Constituents Colleges (n=6)					Self-Financed Colleges (n=34)					Chi-Sq.	P-Value
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
1	Books	6 (100)	0(0)	0(0)	0(0)	0(0)	26(74.47)	6(17.65)	1(2.94)	0(0)	1(2.94)	5.092	0.278
2	Reference Sources	5(83.33)	1(16.67)	0(0)	0(0)	0(0)	17(50.00)	16(47.06)	0(0)	1(2.94)	0(0)		
3	Current Periodicals	2(33.33)	1(16.67)	0(0)	2(33.33)	1(16.67)	20(58.82)	10(29.39)	3(8.82)	1(2.94)	0(0)		
4	Back Volumes	4(66.67)	2(33.33)	0(0)	0(0)	0(0)	16(47.06)	12(35.29)	5(14.71)	1(2.94)	0(0)		
5	Thesis/Dissertations	2(33.33)	2(33.33)	0(0)	1(16.67)	1(16.67)	12(35.29)	12(35.29)	4(11.76)	1(2.94)	2(5.88)		
6	Reprints/Preprints	2(33.33)	3(50.00)	0(0)	0(0)	1(16.67)	8(23.53)	8(23.53)	8(23.53)	7(20.29)	3(8.82)		
7	Patents	1(16.67)	1(16.67)	1(16.67)	1(16.67)	2(33.33)	6(17.65)	5(14.71)	6(17.65)	10(29.39)	7(20.29)		
8	Standards	2(33.33)	1(16.67)	1(16.67)	1(16.67)	1(16.67)	6(17.65)	6(17.65)	6(17.65)	10(29.39)	6(17.65)		

Note:-Chi-Sq = 5.092, DF = 4, P-Value = 0.278

The chi-square test is also administered to test the hypothesis that “There is a significant difference in willingness to share print resources among the libraries of ‘constituents’, and ‘self-financing’ institutions. Level of significance (α) = 0.05, P-Value = 0.278 is greater than level of significance. Hence the hypothesis is Invalid.

Table No. 3 Willingness to Share E-Resources

Sr. No	E-Resources	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	E-Books	22(55.00)	9(22.50)	5(12.50)	3(7.50)	1(2.50)
2	E-Journals	20(50.00)	10(25.00)	7(17.50)	2(5.00)	1(2.50)
3	E-Theses/Dissertations	19(47.50)	6(15.00)	12(30.00)	1(2.50)	2(5.00)
4	CD's/DVD's ROM	19(47.50)	11(27.50)	6(15.00)	4(10.00)	0(0.00)
5	E-Full Text Databases	17(42.50)	5(12.50)	13(32.50)	5(12.50)	0(0.00)
6	E-Bibliographical Databases	16(40.00)	6(15.00)	13(32.50)	3(7.50)	2(5.00)
7	E-Learning Services	14(35.00)	7(17.50)	13(32.50)	3(7.50)	3(7.50)
8	Institutional Repositories	12(30.00)	8(12.00)	16(40.00)	3(7.50)	1(2.50)
9	E-Project Reports	17(42.50)	7(17.50)	8(12.00)	4(10.00)	4(10.00)

Note:- Strongly Agree: Agree: Neutral: Disagree: Strongly Disagree Ratio = 11.14:4.93:6.64:2: 1

- **Strongly Agree ratio =** 156/14 11.14
- **Agree ratio =** 69/14 4.93
- **Neutral ratio =** 93/14 6.64
- **Disagree ratio =** 28/14 2.00
- **Strongly Disagree ratio =** 14/14 1.00

In the table No. 3 calculate the ratio between the 'Strongly Disagree' total 14 and 'Strongly Agree' total 156 have been divided by number of respondents (N: 14) and Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree value has been calculated. The ratio between Strongly Agree: Agree: Neutral: Disagree: Strongly Disagree works out to 11.14:4.93:6.64:2: 1 the strongly disagree ratio (1) is negligible. Therefore it seems that the most of librarians prefer for sharing of e-resources in networking of libraries.

Table No. 3.1 Willingness to Share E-Resources Vs Category of Colleges

Note:-SA= Strongly Agree; A= Agree; N= Neutral; D= Disagree; SD= Strongly Disagree.

Sr. No	E-Resources	Constituents Colleges (n=6)					Self-Financed Colleges (n=34)					Chi-Sq.	P-Value
		SA	A	N	D	SD	SA	A	N	D	SD		
1	E-Books	2(33.33)	2(33.33)	1(16.67)	0(0)	1(16.67)	20(58.82)	7(20.59)	4(11.76)	3(8.82)	0(0)	62.681	0.000
2	E-Journals	2(33.33)	2(33.33)	1(16.67)	0(0)	1(16.67)	18(52.94)	8(23.53)	6(17.65)	2(5.88)	0(0)		
3	E-Theses/Dissertations	2(33.33)	2(33.33)	1(16.67)	0(0)	1(16.67)	17(50.00)	4(11.76)	11(32.35)	1(2.94)	1(2.94)		
4	CD's/DVD's ROM	3(50.00)	2(33.33)	0(0)	1(16.67)	0(0)	16(47.06)	9(26.47)	6(17.65)	3(8.82)	0(0)		
5	E-Full Text Databases	4(66.67)	1(16.67)	1(16.67)	0(0)	0(0)	13(38.24)	4(11.76)	12(35.29)	5(14.71)	0(0)		
6	E-Biblio. Databases	2(33.33)	1(16.67)	1(16.67)	0(0)	2(33.33)	14(41.18)	5(14.71)	12(35.29)	3(8.82)	0(0)		
7	E-Learning Services	2(33.33)	0(0)	1(16.67)	1(16.67)	2(33.33)	12(35.29)	7(20.59)	12(35.29)	2(5.88)	1(2.94)		
8	IR	3(50.00)	2(33.33)	0(0)	0(0)	1(16.67)	9(26.47)	6(17.65)	16(47.06)	3(8.82)	0(0)		
9	E-Project Reports	1(16.67)	1(16.67)	0(0)	0(0)	4(66.67)	16(47.06)	6(17.65)	8(23.53)	4(11.76)	0(0)		

Note 1:-Chi-Sq = 62.681, DF = 4, P-Value = 0.000

The chi-square test is also administered to test the hypothesis that “There is a significant difference in willingness to share e-resources 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 the hypothesis is valid.

Table No. 4 Methods for Resource Sharing Vs Category of colleges

Sr. No	Methods	Constituents Colleges (n=6)		Self-Financed Colleges (n=34)		Chi-Sq.	P-Value
		Yes	No	Yes	No		
1	Face to Face	1(16.67)	5(83.33)	6(17.65)	28(82.35)	0.672	0.412
2	Postal/ Currier	3(50.00)	3(50.00)	22(64.71)	12(35.29)		
3	Web Bases	6(100)	0(0)	18(52.94)	16(47.06)		

Note:-Chi-Sq = 0.672, DF = 1, P-Value = 0.412

The table 4 shows the Methods for Resource Sharing VS Categories of the Colleges. It is reveals that out of the total 6 libraries only 1(16.67%) library preferred Face to Face method and 5(83.33%) libraries have not preferred this method, 3 (50%) libraries preferred postal/ currier method and 6 (100%) libraries preferred web based method for the resource sharing. The chi-square test is also administered to test the hypothesis that “**There is a significant difference in resource sharing methods 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 Invalid**”

Table No. 5 Barriers of Resource Sharing

Sr. No	Barriers of Resource Sharing	Yes	No
1	Competitiveness of institutions convert move for centralization	21(52.5)	19(47.5)
2	Urgency of users requirement	31(77.5)	9 (22.5)
3	Local self- sufficiency goals and ownership paradigm	26 (65)	14 (35)
4	Autonomy of actions desired by librarians	20(50)	20 (50)
5	Size and status consciousness of established libraries	25(62.5)	15(37.5)
6	Psychological and egoistic barriers from users, librarians & staff	18(45)	22(55)
7	Discouragement from past experience	17(42.5)	23(57.5)
8	Traditional/ Institutional barriers	20(50)	20(50)
9	Physical and geographical barriers	26(65)	14(35)
10	Discouragement from past experience	24(60)	16(40)

The table 5 shows the Barriers of Resource Sharing. It is reveals that out of the total 40 libraries only 21(52.5%) respondents face the barrier competitiveness of institutions convert move for centralization, 31(77.5%) libraries face Urgency of user’s requirement, 17 (42.5%) libraries have Discouragement from past experience and 23 (57.5%) libraries have not, While 24 (60%) libraries face the barriers of discouragement from past experience.

Table No. 5.1 Barriers of Resource Sharing VS Category of Colleges

Sr. No	Barriers of Resource Sharing	Constituents Colleges (n=6)		Self-Financed Colleges (n=34)		Chi- Sq.	P-Value
		Yes	No	Yes	No		
1	Competitiveness of institutions convert move for centralization	4(66.67)	2(33.33)	17(50.00)	17(50.00)	2.163	0.141
2	Urgency of users requirement	4(66.67)	2(33.33)	27(79.41)	7(20.59)		
3	Local self- sufficiency goals and ownership paradigm	3(50.00)	3(50.00)	23(67.65)	11(32.35)		
4	Autonomy of actions desired by librarians	4(66.67)	2(33.33)	16(47.06)	18(52.94)		
5	Size and status consciousness of established libraries	4(66.67)	2(33.33)	21(61.76)	13(38.24)		
6	Psychological and egoistic barriers from users, librarians & staff	1(16.67)	5(83.33)	17(50.00)	17(50.00)		
7	Discouragement from past experience	1(16.67)	5(83.33)	16(47.06)	18(52.94)		
8	Traditional/ Institutional barriers	1(16.67)	5(83.33)	19(55.88)	15(44.12)		
9	Physical and geographical barriers	2(33.33)	4(66.67)	24(70.59)	10(29.41)		
10	Legal, Political and administrative barriers	5(83.33)	1(16.67)	19(55.88)	15(44.12)		

Note:-Chi-Sq = 2.163, DF = 1, P-Value = 0.141

The table 5.1 shows the Barriers of Resource Sharing Vs Category of Colleges. It reveals that out of the total 6 constituents college libraries only 4 (66.67%) libraries have faced the barrier like Competitiveness of institutions convert move for centralization, Urgency of user’s requirement, Autonomy of actions desired by librarians and Size and status consciousness of established libraries. The chi-square test is also administered to test the hypothesis that “There is a significant difference in barriers towards resource sharing among the libraries of ‘constituents’, and ‘self-financing’ institutions. Level of significance (α) = 0.05, P-Value = 0.141 is greater than level of significance. Hence hypothesis is Invalid

Table No. 6 Barriers of Networking

Sr. No	Barriers of Networking	Yes	No
1	Lack of ICT Infrastructure	28(70)	12(30)
2	Lack of Budget	28(70)	12(30)
3	Lack of Trained staff	30(75)	10(25)
4	Lack of Management support	20(50)	20(50)
5	Lack of ICT applications training	29(72.5)	11(27.5)
6	Lack of Awareness of the networking programme	29(72.5)	11(27.5)
7	Lack of co-operation & Co-ordination	17(42.5)	23(57.5)
8	Lack of Legislative measures	28(70)	12(30)

In the table 6 it is found that the Barriers towards Networking. Out of the total 40 libraries 28(70%) libraries faced the barriers like Lack of ICT Infrastructure, and lack of budget, 12 (30%) libraries have not faced this problem, and 30(75%) libraries face the Lack of Trained staff, 17 (42.5%) libraries have Lack of co-operation & Co-ordination, While 28 (70%) libraries have Lack of Legislative measures towards networking in the libraries.

Table No. 6.1 Barriers of Networking Vs Category of colleges

Sr. No	Barriers of Networking	Constituents Colleges (n=6)		Self-Financed Colleges (n=34)		Chi-Sq.	P-Value
		Yes	No	Yes	No		
1	Lack of ICT Infrastructure	1(16.67)	5(83.33)	27(79.41)	7(20.59)	89.574	0.000
2	Lack of Budget	0(0)	6(100)	28(82.35)	6(17.65)		
3	Lack of Trained staff	0(0)	6(100)	30(88.24)	4(11.76)		
4	Lack of Management support	0(0)	6(100)	20(58.82)	14(41.18)		
5	Lack of ICT applications training	0(0)	6(100)	29(85.29)	5(14.71)		
6	Lack of Awareness of the networking programme	0(0)	6(100)	29(85.29)	5(14.71)		
7	Lack of co-operation & Co-ordination	0(0)	6(100)	17(50.00)	17(50.00)		
8	Lack of Legislative measures	2(33.33)	4(66.67)	28(82.35)	6(17.65)		

Note:-Chi-Sq = 89.574, DF = 1, P-Value = 0.000

The table 6.1 shows the Barriers of Networking VS Category of Colleges. It is reveals that out of the total 6 constituents college libraries only 2 (33.337%) libraries faced the barriers like lack of legislative measures and followed by 1 (16.67%) libraries have faced Lack of ICT Infrastructure otherwise all the libraries don't faced the barriers of the networking like lack of budget, lack of trained staff, lack of training, lack of management support and etc.. In this table It is also shows that out of the 34 self financed libraries 30 (88.24%) libraries faced the Lack of

trained staff, followed by 29 (85.29%) faced Lack of ICT applications training and lack of awareness of the networking technologies, it is also seen that 28 (82.35%) respondents faced Lack of budgets and lack of legislative measures barriers also 27 (79.41%) libraries have lack of ICT Infrastructure problems for the implementation of the Networking. The chi-square test is also administered to test the hypothesis that “There is a significant difference in barriers towards networking 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.

Conclusion:-

This study demonstrates that there are strong technical, procedural, and psychological barriers in developing formal Resource Sharing and networking in agricultural college libraries in Maharashtra (India). Despite pleading the concept in literature and discussions, librarians find it difficult to implement it in practical terms. With the emerging digital paradigm, however, facilities exist to bring positive results in this regard. There remains a dire need to motivate, train, and devise a protocol for Resource Sharing at the local and national levels. With librarians’ initiative, surely the situation can change.

References

1. Mannan, S.M. & Bose, M.L. Resource Sharing And Information Networking Of Libraries In Bangladesh: A Study On User Satisfaction. *Malaysian Journal of Library & Information Science*, 1998, 3 (2), 67-86.
2. Kaula, P.N. Towards resource sharing in libraries. Planning in library resource sharing. edited by A.S. Chandel & Veena Saraf. Lucknow : 1986, Print House: 1-15.
3. Zhang, Qiaoqiao. Agricultural libraries and information centers in China: cooperation, resource sharing and networking. (Ph.D.dissertation). 1990, London: The City University.
4. Athavale Subhash, Kalbande, D.T. & Hemke Digambar. Agricultural College Library Budget: A Statistical Overview. “*Knowledge Librarian*” An International Peer Reviewed Bilingual E-Journal of Library and Information Science. 2018, 5 (2), 177-192.
5. Kalbande, D. T & Chavan, S. P. ICT Infrastructure Facility in Agricultural College Libraries in Maharashtra: A Study. *International Journal of Digital Library Services*. 2017, 7 (4), 45-55.
6. Kalbande, D. T & Chavan, S.P. ICT Skills among Agricultural College Librarians: A Comparative Study. *International Research: Journal of Library & Information Science*. 2017, 6 (4), 674-682.
7. Kalbande, D. T & Chavan, S. P. Status of Library Automation in Agricultural College Libraries. *Knowledge Librarian*. Special Issue, 2018, 364-371.
8. Kalbande, D. T. Resource Sharing and Networking in Agricultural College Libraries Under Jurisdiction of Mahatma Phule Krishi Vidyapeeth: A Study. *International Research: Journal of Library & Information Science*, 2018, 8 (1), 100-113.
9. Kalbande, D. T. Status of Services in Agricultural Libraries: Special Reference to Maharashtra State. *International Research: Journal of Library & Information Science*. 2018, 8 (3), 440-451.

10. Salve R., Kalbande, D.T. & Chavan,S.P. Purchasing Policy of Print Resources in University Libraries of Maharashtra. *Research Direction*. 2018, 6 (4), 57-66.
11. Salve R., Kalbande, D.T. & Chavan,S.P. Use of the Online Public Access Catalogue in Agricultural University. "*Knowledge Librarian*" *An International Peer Reviewed Bilingual E-Journal of Library and Information Science*. 5 (2), 275-282.
12. Kanwal Ameen. Barriers in Collection Sharing among Libraries of Pakistan: University Library Managers' Viewpoint. *LIBRES Library and Information Science Research Electronic Journal*. 2008, 18 (1), 1-11.