

# A Study on the Perception Among University Librarians towards Resource Sharing\*

자원공유에 대한 대학도서관 사서들의 인식에 관한 연구

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## ABSTRACT

As resource sharing becomes more active and complicated in academic libraries, a better understanding of how librarians—a key stakeholder—view the current level of resource sharing is needed. Using survey method, this study collected data regarding the perception of 78 librarians with regard to interlibrary loan, document delivery, union catalog construction, shared acquisition, and community building. Overall, the respondents evaluated well-established forms of resource sharing(interlibrary loan, document delivery, and union catalog construction) more positively than less-well developed ones(shared acquisition and community building). Correlation analysis between perception of library/individual characteristics was conducted. Barriers to each of the five areas of resource sharing are also identified in the study.

## 초 록

대학도서관에서의 자원공유가 활발해지고 고도화됨에 따라 이 업무를 담당하는 사서들이 자원공유에 대한 인식을 이해할 필요가 있다. 본 연구는 설문지에 기반한 연구방법을 사용하여 78명의 대학도서관 사서들로부터 상호대차, 원문복사, 종합목록구축, 분담수서, 그리고 인적교류와 관련된 인식과 평가에 관한 자료를 수집하였다. 설문결과는 사서들이 이미 잘 구축된 자원공유(상호대차, 원문복사, 종합목록구축)에 대해 그렇지 않은 형태의 자원공유(분담수서, 인적교류) 보다 더 긍정적으로 평가하는 것으로 나타났다. 서서들의 자원공유에 대한 인식과 도서관/개인 특성과의 상관분석이 수행되었고, 다섯 개 영역의 자원공유 각각에 대한 장애요인 또한 도출되었다.

Keywords: resource sharing, university libraries, interlibrary loan, document delivery, union catalogs, shared acquisition  
자원공유, 대학도서관, 상호대차, 원문복사, 종합목록, 분담수서

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## 1. Introduction

Libraries, university libraries in particular, are one of the most heavily networked entities. Here the word network refers to an interconnected system in which subsystems have a common method of sharing information and resources. Cataloging rules, the MARC (MACHine Readable Cataloging) formats, union catalogs, interlibrary loan, document delivery, consortia for purchasing electronic materials, and various regional and subject-based library cooperatives are all examples that show how pervasive networking and resource sharing have become in university libraries. This level of interconnectedness is hard to find in other types of institutions. It is important to remember that resource sharing is not something that was introduced with the diffusion of the web and information technologies, although they did help make resource sharing more efficient and grow in a much larger scale.

From the beginning, the goal of resource sharing was clear. It is so users can obtain what they want and have a choice in obtaining them. As information needs of academic library users become more complicated and diverse, libraries' effort to fulfill these needs has become more intense and elaborate.

The growth of resource sharing in libraries also stems from a very practical need in libraries. Even the largest library in the world cannot fulfill their users' information needs entirely on their own. Especially, continued explosion of publications, spiraling prices of serials, and overlapping library collections prompted the promotion of resource

sharing. Thus, libraries are increasingly dependent upon other libraries to meet user needs, various forms of resource sharing have been developed.

For any resource sharing scheme to work, it is crucial to have knowledgeable and energetic librarians with a vision for uninhibited information access by library users. Most well known resource sharing consortia started with the collaboration of several interested, forward looking librarians. Librarians are the most important stakeholders in resource sharing because they are the ones who have the primary responsibility to establish, execute, and manage resource sharing activities. However, reviewing studies of resource sharing published so far, attempts to understand how librarians view and evaluate resource sharing are markedly absent. This study attempts to fill in the gap by collecting data regarding librarians' perception of the current level of various resource sharing activities and perceived barriers to resource sharing. Specific research topics addressed in the article include: 1) librarians' view on the current state of resource sharing activities, 2) librarians' assessments of how resource sharing is recognized in their own libraries, 3) correlation between perception and library/individual characteristics, and 4) barriers to resource sharing as perceived by librarians.

## 2. Resource Sharing in University Libraries

In this section, the paper first examines various

forms of library cooperatives currently operating in academic libraries in which resource sharing activities are built. Then the paper reviews previous research on resource sharing.

## 2.1 Systems of Resource Sharing Operating in Korea

We can classify various kinds of resource sharing systems and cooperatives into roughly three types. The first type is regional cooperatives. Examples include Daegu-Kyungbuk Region University Library Association, Busan Region University Library Information Exchange Committee, and Seoul Metropolitan Area 5 Private University Libraries Scholarly Information Exchange Committee. The push for regional cooperatives came during the national financial crisis in 1997. Due to the exchange rate hike, many libraries were faced with dwindling budgets for collection development and the situation led to an attempt to expand shared acquisition and services related to it (interlibrary loan and document delivery). At the same time, two important developments started overshadowing regional cooperatives. One is the national interlibrary loan and document delivery service sponsored by Korea Education and Research Information Service (KERIS) and the other is Korean Electronic Site License Initiative (KESLI), a national consortium for purchasing electronic journals. Nonetheless, at least one regional cooperative (Daegu · Kyungbuk Region University Library Association) left an important mark in the area of shared acquisi-

tion even after the IMF crisis through effectively eliminating overlapping journal titles, which resulted in significant savings (Chung 1998). Although the initial impetus for these cooperatives has largely faded, the financial crisis provided a momentum to spur the creation of many regional coalitions of academic libraries operating today.

The second type of cooperative was built around the same subject fields or by the same parent institutional basis. These cooperatives were firmly established and have a much longer history than regional cooperatives. Examples of these cooperatives include the Korean Medical Library Association (KMLA), the Korean Private University Library Association, and the National and Public University Library Association. Among these, the KMLA has become an exemplary model for active resource sharing among member institutions and with foreign counterparts.

The third type of cooperative is a resource sharing scheme at the national level. This includes national bibliographic utilities, national site licensing consortium for electronic materials, and electronic theses and dissertations service among others. Two government entities-KERIS and KISTI (Korea Institute of Science and Technology Information)-spearhead many of these initiatives. KISTI provides a large scale interlibrary loan system based on its own print journal collection and operates the national site licensing consortium, KESLI (Korean Electronic Site License Initiative) that represents more than 380 institutions (<http://www.kesli.or.kr>). KERIS has most university li-

braries in Korea as its members and operates RISS (www.riss4u.net), a web-based union catalog and integrated interlibrary and document delivery system. In addition, KERIS hosts online librarian communities for academic librarians in five tracks: interlibrary loan, acquisition, computing, technical services, and reference.

Various forms of resource sharing activities are in existence. The most common are interlibrary loan and document delivery. Construction of a union catalog must precede these services. Shared acquisition is another form of resource sharing, although not as actively practiced as interlibrary loan or document delivery. Recently, various consortial arrangements to purchase electronic databases have become quite common. Another emerging trend is the sharing of electronic contents published by individual libraries. Currently, this sharing of local contents is limited to theses and dissertations (KERIS's dCollection service is a distributed collection and provision system for full-text electronic theses and dissertations from more than 200 universities in Korea). But it may expand to diverse formats of digital contents. Another area of resource sharing that interests many academic librarians is cooperative storage facilities (Kwack, Shim & Yoon 2007).

## 2.2 Literature on Resource Sharing

Over the last 30 years, numerous studies have been published on the model of scholarly information sharing and utilization. A not so small

number of research, however, was conducted either to propose or to support specific resource sharing systems and programs initiated by government agencies. Examples of this stream of studies include 『A study of consortium model development for the introduction of overseas scholarly databases』 published by KERIS (2000), 『A study on the model of foreign research information center for expanded sharing of scholarly information』 published by the Ministry of Education and Human Resource (2005), and 『Seoul Area Science and Technology Information Sharing Cooperation』 commissioned by KISTI in 2002. These kinds of research are beneficial in the sense that they propose specific solutions for resource sharing model. On the other hand, they typically lack the collection and analysis of pertinent data.

The most well-known quantitative analysis of resource sharing was about interlibrary loan service in American academic libraries. Published in 1998 by the Association of Research Libraries, 『Measuring the Performance of Interlibrary Loan Operations in North American Research and College Libraries』 provides a detailed analysis of various aspects of interlibrary loan service in terms of the cost, fill rate, service time, and user satisfaction. This approach heavily affected how interlibrary loan was to be evaluated, and similar research followed in northern European countries (Vattulainen 2001) and in Korea (KERIS 2003).

A keyword search in the National Assembly Library's scholarly information database returned 35 scholarly articles that directly address some

aspect of resource sharing in academic libraries even if one limits the publication date between 2000 and 2007.<sup>1)</sup> The most frequently studied area of resource sharing are interlibrary loan (12 out of 35) and union catalog (11). While studies of interlibrary loan most often deal with case studies (e.g., Lee & Park 2005, Park 2003, and Kim 2002), articles on union catalog are heavily skewed to addressing data quality and systems issues (e.g., Cho 2003, Choi 2001, and Yoon 2003). Four articles discuss activities in regional and subject-based library cooperatives (Lee et al. 2007, Shin 2007, Song 2002, and Song 2002). The topics addressed in the research include copyright issues (Hong 2005 and Park 2004), document delivery (Kim 2004, Joung and Hwang 2003), and shared acquisition (Kang 2003 and Song, Young-Hee 2002). There was at least one research that deals with librarians' community (Kim 2007) where the researcher applied content analysis to the written postings to the librarian communities in KERIS's RISS.

### 3. Data Collection

The survey method was chosen for data collection. The survey questionnaire contains the following components.

- The librarian's assessment of the level of resource sharing activities in terms of user demand, library's supply, and the recognition

of those activities within the libraries. Five areas of resource sharing are included in the study: interlibrary loan (ILL), document delivery (DD), construction of union catalogs, shared acquisition, and community building among academic librarians.

- Recognized barriers to resource sharing for each of the five resource sharing activities. The questionnaire provided an extensive list of possible barriers rather than letting respondents to come up with their own.
- Information on the respondents (age, work experience) and the institution (public vs. private, location, library volume, user population, and number of professional librarians)

Librarians' recognition of resource sharing was measured in two ways. The first set of questions deal with how respondents assess the extent of various resource sharing activities occurring in their institutions. This research obtained respondents' assessments of the level of user requests and the library's service level where end user service is available (interlibrary loan and document delivery). For the others (construction of union catalog, participation in shared acquisition, and librarian community building), we only asked how active each of these are. We also asked about the overall level of resource sharing as seen from the respondents' perspectives. The second set of questions asked how librarians regard the importance of each of

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1) keywords used: interlibrary loan, document delivery, shared acquisition, union catalog, library cooperation, and resource sharing.

the five resource sharing aspects. Again, we asked about the overall level of importance that they believe is assumed by their libraries with regard to resource sharing.

Respondents' evaluation of the current level of resource sharing is analyzed primarily against two factors: library characteristics (size of user population, collection size, and the number of librarians) and individual characteristic (the librarian's work experience in terms of years worked as a librarian).

A draft version of the survey was reviewed by two professional librarians. The survey was then sent to five university librarians with significant experience for feedback on the content and structure of the survey. The completed print survey was then mailed April 2007 to 175 libraries at four-year universities included in the Korea University Directory from Korean Educational Development Institute. Among the 175 universities, 150 were private institutions (86%). The researcher asked that the librarians who are responsible for reference services or interlibrary loan fill out the questionnaire. A total of seventy eight surveys were returned (response rate is 45%). The relatively low response rate poses a threat to the validity of the findings of the study. We can imagine that libraries that are more actively participating in resource sharing activities tend to have responded to the survey. It was possible that

some of the smaller, private libraries that are not actively engaged in resource sharing might not have participated in the study. But the fact that libraries in all geographic divisions are included in the study and the fact that libraries of varying sizes are represented<sup>2)</sup> should also bring to bear on the study sample and the validity of the study findings.

#### 4. Academic Librarians' Perception on Resource Sharing

Of seventy-eight completed surveys, fifty four (69%) were from private universities and twenty-three from national and public universities. The response rate shows a somewhat over-representation of national universities. Libraries in all metropolitan areas and provinces are represented in the completed surveys with the largest number of responses coming from academic libraries in Seoul (15).

This paper presents the descriptive findings of the survey results in terms of the respondents' perception of resource sharing. This section is divided into two areas in which the paper addresses both the perception of how actively various types of resource sharing are being carried out and of how importantly resource sharing is being recognized in the respondents' libraries. The next section deals with the issue of whether or not library and in-

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2) Out of seventy eight libraries responded to the survey, thirty eight had a collection size smaller than 400,000 and thirty four a user population less than 5,000. Also, thirty two responses came from libraries employing equal to or less than five full-time, professional librarians.

dividual characteristics help explain the differences in perception. Lastly, barriers to each resource sharing activity are analyzed and interpreted.

#### 4.1 Perception of Resource Sharing Activities

##### 4.1.1 Assessment of current level of resource sharing

Regarding the current state of interlibrary loan, respondents were asked to assess it on a 5-point scale where 0 indicates service not occurring and 5 very active. <Table 1> shows the frequencies of librarians' assessment in terms of both user demand and the service level which deals with how actively the library is fulfilling user requests. It is important to remind ourselves that the assess-

ment deals with the respondents' perception and is not to be equated with library's actual performance.

Librarians' evaluation of the level of interlibrary loan service came out higher (3.37 out of 5) than that of user demand for the service (2.85). The difference in the two mean scores is statistically significant as summarized in <Table 2>.

A cross tabulation of two assessment is provided in <Table 3>.

The grayed-out cells indicate where the respondents' assessments of user demand and the library's providing ILL service are identical. The non-zero cells above the diagonal cells indicate cases where respondents felt that library's fulfillment of ILL service is below what users demand for. There are six such instances. It is worthwhile

<Table 1> Perception of user demand for ILL and library service level

	Demand for ILL	Library's Service Level
	Frequencies (%)	Frequencies (%)
Not occurring (0)	2 (2,6%)	2 (2,6%)
Very low (1)	5 (6,4%)	2 (2,6%)
Low (2)	21 (26,9%)	10 (12,8%)
Moderate (3)	29 (37,2%)	27 (34,6%)
Active (4)	17 (21,8%)	25 (32,1%)
Very active (5)	4 (5,1%)	12 (15,4%)
Total	78 (100,0%)	78 (100,0%)

<Table 2> t-test between the means of ILL user demand and service level

	n	<u>M</u>	<u>SD</u>	t-value
User demand for ILL	78	2,85	1,08	-5,035***
Library's service level	78	3,37	1,13	

\*\*\* p < .001

<Table 3> Cross tabulation of perception between ILL user demand and service level

		ILL User Demand						Total
		None	Very low	Low	Moderate	Active	Very active	
Library Service Level	None	2	0	0	0	0	0	2
	Very low	0	2	0	0	0	0	2
	Low	0	1	6	3	0	0	10
	Moderate	0	0	9	15	3	0	27
	Active	0	1	6	9	9	0	25
	Very Active	0	1	0	2	5	4	12
	Total	2	5	21	29	17	4	78

to note that the gap between user demand and service level is not far off. In other words, three people responded that whereas the user demand is moderate, the library's service level is low, one notch below. On the other hand, there are a lot more cases where user demand falls short of the library's capabilities to fulfill interlibrary loan requests (see the non-zero cells below the grayed out cells). There are thirty four such cases. We can interpret that in these cases respondents assessed the library's fulfillment of interlibrary loan requests more favorably than user demand. In ten out of these thirty four cases, the gap between the li-

brarians' perception of user demand and library service level is far off (two or more points off).

The respondents' assessment of document delivery service is summarized in <Table 4>. The average score assigned by respondents' regarding user demand for document delivery service is calculated at 2.95, slightly higher than the demand for interlibrary loan request (2.85). This might reflect the fact that interlibrary loan is somewhat more restrictive than document delivery. Currently, interlibrary loan requests typically go out to a small number of libraries with which the institution has a prior arrangement, whereas institutions have a

<Table 4> Perception of user demand for DD and library service level

	Demand for Document Delivery	Library's Service Level
	Frequencies (%)	Frequencies (%)
Very low (1)	4 (5.1%)	1 (1.3%)
Low (2)	25 (32.19%)	17 (21.8%)
Moderate (3)	25 (32.19%)	22 (28.2%)
Active (4)	19 (24.4%)	29 (37.2%)
Very active (5)	5 (6.4%)	9 (11.5%)
Total	78 (100.0%)	78 (100.0%)

wider cooperative arrangements for document delivery.

Librarians' evaluation of the level of document delivery service came out higher (3.36 out of 5) than that of user demand for the corresponding service (2.95). The difference between the two mean scores is statistically significant <Table 5>.

Again this shows that practicing librarians evaluate their library's ability to provide document delivery service beyond the current level of user demand. The result can be interpreted in two ways. One is that the libraries are providing high quality, efficient document delivery service. The other is that the libraries are poised to handle higher volume of user requests. That is, there is a slack in the library's capacity in this area of user service.

Comparing librarians' perception of the level of interlibrary loan and document delivery, it can

be said that while their self assessments of their library's provision of these services are almost identical (3.37 and 3.36), they see a slightly higher level of user demand in document delivery (2.95) than in interlibrary loan (2.85).

A cross tabulation of two assessment is provided in <Table 6>.

Aside from interlibrary loan and document delivery, the questionnaire sought respondents' opinion on the current state of resource sharing activities in terms of union catalog construction, shared acquisition, and community building among university librarians. Union catalog is an integral part of library resource sharing and without it advanced forms of cooperation cannot take place. <Table 7> summarizes the scores assigned by the respondents on these 3 areas of resource sharing.

<Table 8> shows the distribution of responses

<Table 5> t-test between the means of DD user demand and service level

	n	<u>M</u>	<u>SD</u>	t-value
User demand for DD	78	2.95	1.02	-4.216***
Library's service level	78	3.36	1.00	

\*\*\* p<.001

<Table 6> Cross tabulation of perception between DD user demand and service level

		User Demand					Total
		Very low	Low	Moderate	Active	Very active	
Service Level	Very low	1	0	0	0	0	1
	Low	3	7	6	1	0	17
	Moderate	0	10	11	1	0	22
	Active	0	8	7	14	0	29
	Very Active	0	0	1	3	5	9
Total		4	25	25	19	4	78

regarding the perception on the current state of three aspects of resource sharing. Among the three, participation in union catalog construction received the most favorable mark of 3.48, a mid point between moderate and active. While there still seems to be room for further advancement in building more accurate and integrated union catalog for university libraries, the consensus is that this is an area where the cooperation among libraries is yielding significant mutual benefits allowing them to build complex schemes of exchanging materials.

The respondents' assessments of shared acquisition and personnel collaboration was not so favorable. As a matter of fact, these two areas

are identified as the most problematic aspects of resource sharing under investigation. The score for shared acquisition was negatively affected because more than 15% of respondents reported that their libraries are not participating in shared acquisition. Shared acquisition is a much more involved form of resource sharing as it dictates a direct change in the way libraries participating select and purchase collections. Unless properly planned and coordinated, shared acquisition might upset local users and leave a big hole in library collection that can be irrecoverable. A well publicized example of shared acquisition can be found in Daegu-Kyungbuk University Libraries Association during the IMF crisis in the late 1990's

<Table 7> Assessment of union catalog, shared acquisition and community building

	Valid Cases*	Min.	Max.	Mean	SD
Union catalog	77	0	5	3.48	1.1
Shared acquisition	77	0	5	2.04	1.3
Community building	77	1	4	2.40	1.0

\* One case was omitted from the analysis due to missing responses.

<Table 8> Perception of current level of union catalog, shared acquisition and community building

	Union Catalog	Shared acquisition	community building
	Frequencies (%)	Frequencies (%)	Frequencies (%)
Not occurring (0)	2 (2.6%)	13 (16.7%)	0 (0.0%)
Very low (1)	2 (2.6%)	15 (19.2%)	16 (20.5%)
Low (2)	7 (9.0%)	17 (21.8%)	24 (30.8%)
Moderate (3)	24 (30.8%)	21 (26.9%)	27 (34.6%)
Active (4)	30 (38.5%)	10 (12.8%)	10 (12.8%)
Very active (5)	12 (15.4%)	1 (1.3%)	0 (0.0%)
Missing Case	1 (1.3%)	1 (1.3%)	1 (1.3%)
Total	78 (100.0%)	78 (100.0%)	78 (100.0%)
Average	3.48	2.04	2.40

(Chung 1998).

While no respondent believes there is no community building among university librarians, over half of the surveyed (51.3%) expressed that the level of activity is low. Only ten out of seventy seven persons who responded to the question said there is significant activity or exchange among librarians. This seems to be a serious blow to any future endeavor to promote resource sharing because without solid human networking, we cannot expect more involved cooperation and collaboration. While community building or librarians' networking is not directly associated with resource sharing performance, meaningful progress in this area can only be achieved through active collaboration among librarians.

Asked to assess the overall level of resource sharing in their own libraries, the respondents gave a mediocre evaluation (2.82). The score came out quite close to the respondents assessment of interlibrary loan request and demand for document deliv-

ery (2.85 and 2.95 respectively) More than one third of those surveyed (37.2%) perceive that the level of sharing is either low or very low.

#### 4.1.2 Perception of the importance of resource sharing activities

The questionnaire asked the respondents how these five resource sharing activities are being recognized in their institutions. <Table 9> summarizes the responses in terms of frequencies and the mean score.

Among the five areas of resource sharing, respondents rated the perceived importance of shared acquisition and community building lower than that of the other three. This result reflects the practical challenges associated with bringing these aspects of resource sharing to fruition. Interlibrary loan, document delivery, and union catalog construction received more favorable marks in terms of their importance, again reflecting their status as well established practice among many academic libraries.

<Table 9> Distribution of scores on the importance of resource sharing

	Interlibrary loan	Document delivery	Union catalog	Shared acquisition	Community building	Overall
	Cases (%)	Cases (%)	Cases (%)	Cases (%)	Cases (%)	Cases (%)
Least important(1)	2(2,6%)	2(2,6%)	1(1,3%)	8(10,3%)	5(6,4%)	0(0,0%)
Not important(2)	12(15,4%)	6(1,7%)	9(11,5%)	19(24,4%)	17(21,8%)	13(16,7%)
Moderate(3)	16(20,5%)	19(24,4%)	17(21,8%)	28(35,9%)	19(24,4%)	17(21,8%)
Important(4)	31(39,7%)	34(43,6%)	33(42,3%)	17(21,8%)	30(38,5%)	35(44,9%)
Very important(5)	16(20,5%)	16(20,5%)	17(21,8%)	5(6,4%)	6(7,7%)	12(15,4%)
Missing Case	1(1,3%)	1(1,3%)	1(1,3%)	1(1,3%)	1(1,3%)	1(1,3%)
Total	78(100%)	78(100%)	78(100%)	78(100%)	78(100%)	78(100%)
Average	3,61	3,73	3,73	2,90	3,19	3,60

What stands out while examining the numbers summarized in <Table 9> is the respondents' overall assessment of the importance of resource sharing. Since they are the ones that deal with some aspect of resource sharing on a daily basis, it was expected that they would overwhelmingly push for more extensive resource sharing. However, the result can be interpreted in such a way that these librarians sense less than enthusiastic approval of resource sharing at their own institutions. Whether or not the score reflects the overall atmosphere in academic libraries towards resource sharing, it appears resource sharing may not be on the top list of local library agenda. Since the study has not collected comparative data, there is no way of verifying this claim.

#### 4.2 Correlation between Perception of Resource Sharing and Library/Individual Characteristics

One of the objectives of the analysis was to identify any correlation between librarians' perception of resource sharing and library/individual characteristics. As for the library's characteristics, the questionnaire included three components: size of user population (students and faculty), collection size and number of full-time professional librarians. As for the individual characteristic, the study used number of years worked as a librarian. The researcher hoped to find out whether these characteristics could shed some light on our understanding of differences in the respondents' perception of

resource sharing. The study used Spearman's correlation since the variables included in the analysis were ordinal measures. <Table 10> summarizes the correlations among variables.

On the correlation between three library characteristics and the perception of the current level of resource sharing, we observe that the larger the library is, the level of resource sharing perceived by respondents is more active. However, this study did not find such correlation for two areas of resource sharing: shared acquisition and community building. The librarian's experience is statistically correlated with the person's perception of how active current state of resource sharing is. In other words, the more experience one has, the more likely the person is to evaluate resource sharing activities favorably. But again, community building among librarians was an exception to this.

Interestingly, none of the library characteristics were found to be statistically correlated with how importantly resource sharing is being regarded in the respondents' libraries. Neither user population nor the size of the library seems to affect the librarians' evaluation of the importance of resource sharing activities. On the other hand, the amount of experience the librarian has (individual characteristic) is found to be correlated with the perception of importance in three areas of resource sharing.

Overall, the above results reinforce one important finding in the study; there is a division among five resource sharing areas. One group of resource sharing includes interlibrary loan, document delivery and union catalog. The other group

〈Table 10〉 Correlation between perception on resource sharing and library/librarian characteristics

	Library Characteristics			Individual Characteristic
	User Population	Collection Size	No. of Librarians	No. of Years Worked
Perception on the Level of Resource Sharing				
Interlibrary Loan Demand	.215	.276*	.335**	.175
Interlibrary Loan Supply	.229*	.243*	.291**	.236*
Document Delivery Demand	.338**	.397***	.412***	.275*
Document Delivery Supply	.353**	.378**	.337**	.297**
Union Catalog Construction	.334**	.327**	.365**	.351**
Shared acquisition	-.019	-.043	-.099	-.261*
Community Building	.216	.190	.191	.085
Overall Perception of the Level	.215	.265*	.232*	.241*
Perception on the Importance of Resource Sharing				
Interlibrary Loan	.162	.147	.217	.238*
Document Delivery	.119	.035	.153	.256*
Union Catalog Construction	.032	.018	.151	.282*
Shared acquisition	-.163	-.136	-.091	-.038
Community Building	-.076	-.161	-.038	.030
Overall Perception of Importance	-.164	-.209	-.074	.032

Spearman's correlation. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$   
Interval measure was converted into ordinal measure.

includes shared acquisition and community building. What divides the two groups? We can say that the types of resource sharing included in the first group are already well established. They have become main staple of academic library services complete with support systems, procedures, and standard protocols.

This is not the case for shared acquisition and personnel exchange. Save for a few exceptions,

academic libraries do not have a visible working model of shared acquisition. Many librarians are not sure whether shared acquisition, even in a limited scale, can be feasible and returns the expected benefits. As for community building, although there are several online and off-line venues for the exchange of ideas, knowledge, and experience—most notably KERIS's librarian community and Domeri<sup>3)</sup>—many academic librarians feel that there

3) Domeri (<http://www.domeri.or.kr>) is an online community and mailing list for librarians in Korea. Run by Dongeui University's Central Library, the mailing list is a major information sharing facility in the library circle.

has to be more. At the same time, the same people feel hesitant to commit time and effort to build stronger and more vibrant librarian communities enabling more active personal exchange.

To sum up, a close examination of the correlation between library/individual characteristics and the perception on resource sharing reveals that both library and individual characteristics are correlated with librarians' perception in several areas of resource sharing. Correlation seems to exist only with regard to well-established, highly visible examples of resource sharing. Librarians who were surveyed seem to respond differently to two types of resource sharing, one that is well-established and ongoing and the other that is still very much evolving and has an uncertain future.

### 4.3 Barriers to Resource Sharing

The questionnaire asked the respondents to identify factors that prevent more active resource sharing. Instead of letting respondents make up their own causes, the questionnaire listed probable barriers for each type of resource sharing and had the survey respondents to choose the three most important barriers.

One way to look at barriers to resource sharing is to classify them into ones that are discretionary and ones that are non-discretionary. Discretionary factors are the ones that the library has control over and non-discretionary factors are the ones beyond the library's control or capability. In reality, there is no absolute discretionary or non-discre-

tionary factor. Therefore, by discretionary factors, we mean the kinds of barriers over which the library has some influence. Examples of discretionary barriers include library budget (can be reallocated internally), marketing and user education. An example of non-discretionary barriers includes copyright regulations.

Another classification of barriers is also possible. Some of the barriers to resource sharing are related to internal resources or components of the local library or institution. Other barriers are external in their nature.

The most often cited barrier to interlibrary loan service is insufficient library personnel to handle and manage a large volume of interlibrary loan requests <Table 11>. Although the process of retrieving citation information and filling out the forms is automated to a large extent, a lot of work falls on the hands of librarians to locate and verify information. Interlibrary loan service is still a very labor intensive work. The reason why comparable academic libraries in the U.S. process so much more ILL requests is because more people are dedicated to it.

Another problem of interlibrary loans as far as the respondents are concerned has to do with the diversity of collections among university libraries. For interlibrary loan to work, the homogeneity of collections among participating libraries should not be too high. In other words, each library should have enough unique materials so that other libraries can utilize them. The fact that there aren't enough materials to be shared is not something that can

be solved by individual libraries but only by concerted effort among university libraries altogether.

One aspect in interlibrary loan where improvement is needed in marketing. A not so small number of librarians (15.6%) said libraries need to do a better marketing of the service. It is an area where libraries have been constantly called upon to make progress. But in the electronic library environment where most interactions between libraries and users occur online, it is a challenge to send out messages to potential users and effectively communicate with them.

The identified barriers to document delivery <Table 12> are almost identical to those of interlibrary loan with one notable exception: copyright restriction. The problem of copyright restriction is most noticeable with regard to electronic journals and databases. The current interpretation of the

copyright law spells that the sharing of electronic journals is illegal. In addition, electronic transmission of journal articles and database contents for the purpose of document delivery is prohibited. This is a double whammy for most academic libraries as turning to print-based acquisition of scholarly journals is no longer a viable option. An obvious solution is the relaxation of copyright regulation, which at the moment seems an unlikely break-through.

With regard to perceived barriers <Table 13> to constructing and sharing union catalogs, the respondents point to different data formats used by different union catalogs. Currently, two major union catalogs for university libraries are under full operation. One is run by KERIS and serviced through its RISS. The other union catalog is being hosted by KISTI through NDSL and is primarily

<Table 11> Barriers to interlibrary loan

Identified barrier	Count	% of Total Response
Insufficient library personnel	39	16.9%
Insufficient amount of resource	38	16.5%
Lack of user awareness and marketing	36	15.6%
Inadequate union catalog	26	11.3%
Insufficient library budget	23	10.0%

<Table 12> Barriers to document delivery

Identified barrier	Count	% of Total Response
Insufficient library personnel	39	17.0%
Copyright Restriction	35	15.3%
Insufficient amount of resource	34	14.8%
Lack of user awareness and marketing	32	14.0%
Insufficient library budget	20	8.7%

for scholarly journals. For libraries to port local holdings data to two organizations in two different formats is clearly a duplication of effort, and needs to be dealt with.

Lack of subject expertise is identified as the biggest hurdle in shared acquisition as shown in <Table 14>. Librarians perceive that advanced knowledge of academic disciplines is a pre-condition to shared acquisition. Shared acquisition can work only when each participating library has a specialized collection in a designated field. This requires a significant knowledge of the subject area itself and the information sources in it. Real or imagined, the issue speaks about a much broader issue of library education and hiring practice in academic libraries and is something that cannot be achieved in the near future. The other most cited barriers are the bundling of electronic journals

and the disparity of collection sizes among libraries. It seems as though shared acquisition is a unique creature among various schemes of resource sharing in that librarians cite lack of (government) incentives for it not being practiced. Sustainable shared acquisition is possible when libraries drop certain titles with the understanding that other libraries keep them and make them readily accessible. This trust can hardly come by accident. Librarians are saying that in addition to local shared acquisition agreements, the government should play a role to make sure such agreements are followed through with. Also, the current evaluation matrix that emphasizes the number of owned titles discourages libraries to actively adopt shared acquisition.

To build a more vibrant librarian community and to promote active personnel exchange, the sur

<Table 13> Barriers to union catalog construction and use

Identified barrier	Count	% of Total Response
Compatibility of data	59	28.6%
Insufficient library personnel	54	26.2%
Inadequate computing systems	34	16.5%
Not well defined use of union catalog data	34	16.5%
Lack of user awareness and marketing	23	11.2%

<Table 14> Barriers to shared acquisition

Identified barrier	Count	% of Total Response
Lack of subject expertise	49	22.2%
Bundled electronic database packages	38	17.2%
Imbalance of collection size among libraries	34	15.4%
Lack of incentives	33	14.9%
Insufficient acquisition budget	20	9.0%

veyed felt specific common goals and agenda need to be in place <Table 15>. This applies to both regional and national communities. External motivation (in the form of incentives) and internal motivation (interest) are also cited as important factors that can lead to community building. Other cited barriers include lack of institutional support, differences in organizational hierarchy and culture, and simply a lack of time.

## 5. Conclusion

This study set out to assess academic librarians' perception of resource sharing that is being conducted in university libraries. This study found that for already well established forms of resource sharing such as interlibrary loan, document delivery and construction of union catalogs, librarians exhibit positive assessments on the current level of these cooperative efforts. However, they show certain uneasiness towards shared acquisition and community building among librarians, due to the fact that these ventures are uncommon and not

widespread as yet. In other words, the librarians see more uncertainty in these endeavors.

Analysis was conducted to find any association between librarians' perception and plausible factors (library characteristics and individual characteristic). Both characteristics seem to explain differences in the perception on the common forms of resource sharing. However, this study could not find correlation between library/individual characteristics with the perception on less developed forms of resource sharing (shared acquisition and community building). Of the two explaining factors, only individual characteristic (number of years worked) seem to be related to the respondents' perception of how seriously resource sharing is taken in their institutions. But again this correlation applies to areas of interlibrary loan, document delivery and union catalog construction but not to shared acquisition and personal cooperation.

Overall, the librarians surveyed seem to exhibit a somewhat measured stance towards resource sharing. On one hand, they positively evaluate the current state of resource sharing. But on the other hand, they are weary about uncharted areas of re-

<Table 15> Barriers to personnel exchange

Identified barrier	Count	% of Total Response
Lack of specific goals and agenda	48	21,3%
Lack of incentives	34	15,1%
Lack of interest among librarians	28	12,4%
Lack of support at their own libraries	20	8,9%
Lack of a time Organizational differences Fixation of hierarchy among libraries	20 each	8,0% each

source sharing. Since the findings show markedly different attitudes among academic librarians towards well-established forms of resource sharing and less-developed areas of cooperation, future research on the perception of librarians will need to include additional forms of resource sharing such as consortial cooperation for purchasing electronic materials and cooperative storage facilities.

While this study produced some insights on how librarians view resource sharing, it does not explicitly explain how these perceptions influence

their behaviors. A more in-depth research would be needed that focuses on the link between librarians' perception and their behaviors in the area of resource sharing. It is hoped that this study provides a jumping-off point for future discussion on resource sharing and the librarian's role in it.

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