

Comparing Bestseller Books in Japanese Public Libraries Managed by Outsourcing and by Local Governments

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Abstract—In Japan, local governments have long managed public libraries; however, organizations such as private enterprises began to take over their management with the introduction of an outsourcing system about 14 years ago. Now, whether local governments should apply this system to public libraries is under discussion, and many argue that it is inappropriate for public libraries.

In this study, to provide basic data for such discussions, the differences between public libraries managed by outsourcing (henceforth, “outsourcing libraries”) and those managed directly by local governments (henceforth “direct management libraries”) were examined, focusing on bestsellers. 435 books on the top-20 bestseller lists published from 1996 to 2015 inclusive was chosen as our sample bestseller books; and 413 outsourcing libraries’ and 2,619 direct management libraries’ holdings of them were investigated using the Calil API (a free Web service that can perform cross-library searches on libraries in Japan).

Results show that outsourcing libraries tend to hold fewer bestsellers than direct management libraries. It was also found that direct management libraries tend to hold many duplicates of bestsellers, and that, in many cases, many of those were not being borrowed in direct management libraries.

Keywords—bestseller books, book collection, Japanese public libraries, outsourcing

I. INTRODUCTION

IN Japan, local governments have long managed public libraries; however, in 2003, organizations including private enterprises took over their management with the introduction of an outsourcing system, namely the “designated administrator system.” Although the number of public libraries managed under this outsourcing system (henceforth “outsourcing libraries”) is increasing, whether local governments should apply this system to public libraries is under discussion. Many argue that it is inappropriate for public libraries and for their collection developments. Nevertheless, few studies have examined collections in outsourcing libraries.

This study investigates the difference between outsourcing libraries and “traditional” libraries managed directly by local governments (henceforth “direct management libraries”), with a focus on bestsellers. Some libraries in Japan hold tens of

duplicates of best-selling books (henceforth “bestsellers”), a practice that is criticized by the authors of bestsellers because it might decrease the total sales. Furthermore, some librarians and library and information science (LIS) researchers argue that public libraries should be the centers of knowledge or practical information for each local community rather than places for entertainment such as reading best-selling fiction. Within this context, we compared outsourcing libraries and direct management libraries in regard to: (a) the ratio of bestsellers to the overall book collection, (b) the number of duplicates of bestsellers per title, and (c) the number of duplicates versus the number of those being borrowed. We chose 435 books, which were on the bestseller lists published from 1996 to 2015 inclusive, as our sample bestsellers; and 413 outsourcing libraries’ and 2,619 direct management libraries’ holdings of them were investigated using an application programming interface (API) called ‘Calil [1]’ Calil is a free Web service that can perform cross-library searches concerning libraries in Japan. By using Calil, we also investigated the number of bestsellers being borrowed over a certain period.

Moreover, we classified libraries according to type, such as (a) whether they were main libraries or annexes, and (b) the type of municipality served. We also classified outsourcing libraries (c) according to the form of administrator, such as a private enterprise or an NPO, and (d) according to the specific administrator, such as *T company* and *H foundation*. For each category, we examined the differences between outsourcing libraries and direct management libraries.

II. RELATED STUDIES

Few studies have examined the collections of outsourcing libraries in Japan. In 2016, to examine whether controversial books were fairly held by public libraries, Ohba et al. [2] investigated the numbers of collections of books on the subject of “the right to collective defense” in 5,003 Japanese libraries. Along with many other results, they showed that the tendencies of outsourcing libraries and direct management libraries were almost the same in regard to holding such books. Ikezawa [3] analyzed 8,343 books that Ebina City Library (an outsourcing library) planned to acquire with its renewal. He concluded that there were some biases on book subjects, finding that the proportions of books on cooking and travel were relatively high and no books on law, education, mathematics, or physics were planned to be acquired.

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III. METHOD

In this section, we explain our selection of sample libraries and sample bestsellers, and the methods of comparison between outsourcing and direct management libraries.

A. Sample libraries

We used 3,032 public libraries that Calil can access as our sample libraries. We classified them as either outsourcing or direct management libraries based on the *Report on Public Libraries Managed by the Designated Administrator System in 2015* [4]. That report includes a list of outsourcing libraries, which we identified as the outsourcing libraries for our purposes. Those that were not on that list, we identified as direct management libraries.

Furthermore, we classified the libraries as either main libraries or annexes, and according to the type of municipality served: (1) prefectures, (2) ordinance-designated cities, (3) Tokyo special wards, (4) cities other than ordinance-designated ones, and (5) towns or villages. The classification was based on *Statistics on Libraries in Japan* [5]. We excluded from our sample for this type-wise analysis the libraries whose categories (i.e., main libraries or annexes and type of municipality) were not shown in the aforementioned annual. Because of this, the total numbers of samples shown in Table I were slightly different depending on the analysis.

In addition, we classified outsourcing libraries according to the corporate form of the administrator: (a) private enterprise, (b) NPO, (c) public corporation, or (d) other organization, using *Report on Public Libraries Managed by the Designated Administrator System in 2015* [4]. Next, we identified the top three predominant administrators (i.e., those managing the most libraries) using the *Survey on the Introduction of the Designated Administrator System* [6] conducted by the Ministry of Internal Affairs and Communications. Table I shows the total number of libraries in each category of our sample. The predominant administrators are also shown in Table I.

TABLE I. NUMBER OF SAMPLE LIBRARIES

		Outsourcing libraries	Direct management libraries
(All libraries)		413	2,619
Main vs. Annex	Main libraries	142	1,071
	Annexes	269	1,464
Types of municipality	Prefectural library	4	53
	Ordinance-designated cities	55	222
	Tokyo special wards	96	123
	Other cities	207	1,731
	Towns and villages	49	406
Corporate form of administrator	Private enterprise	320	/
	NPO	34	
	Public corporation	47	
	Other organization	12	
Predominant administrators	T Company	101	/
	V Company	17	
	H Foundation	11	

B. Sample bestsellers

We chose 435 bestsellers, which were ranked in the top-20 bestseller lists published from 1996 to 2015 inclusive, by Tohan Corporation [7]. Concerning these bestsellers, we investigated (1) which ones were being held and (2) which ones were being borrowed in our sample libraries from April to July 2016 inclusive. Furthermore, we regarded the bestsellers that were ranked in the abovementioned list from 2006 to 2015 inclusive, as “new bestsellers” and the others as “old bestsellers.” The numbers of these were 209 and 226, respectively.

C. Methods of comparison

As mentioned, this study investigates the differences between outsourcing libraries and direct management libraries, with a focus on bestsellers. Between these two types of libraries, we compared: (a) the ratio of bestsellers to the overall book collection, (b) the number of duplicates of bestsellers per title, and (c) the number of duplicates versus the number of those being borrowed. Below we explain each method.

First, we calculated each library's ratio of bestsellers to the overall book collection (R_{best}), defined as follows:

$$R_{\text{best}} (\%) = \frac{N_{\text{best}}}{N_{\text{all}}} \times 100 (\%)$$

where N_{best} is the total number of our sample bestsellers held by the library (including duplicates). N_{all} is the overall number of books held by the library; these numbers were obtained from *Statistics on Libraries in Japan* [5]. We excluded libraries from our sample for this analysis if the overall number of books was not shown in that report. For example, if a library holds 20 bestsellers and its overall number of books is 10,000, the R_{best} is 0.2 (%). We calculated the mean, median, maximum, minimum, and standard deviation (SD) of R_{best} of outsourcing libraries and direct management libraries, and compared them.

Next, we explain the aforementioned item (b), number of duplicates. To examine the tendencies for holding duplicates of bestsellers, we calculated the number of duplicates of bestsellers per title (D_{best}), defined as follows:

$$D_{\text{best}} = \frac{N_{\text{best}}}{N_{\text{title}}} \times \left(\frac{1}{N_{\text{all}}} \times 100,000 \right)$$

where N_{title} is the number of titles of bestsellers held by the library. Accordingly, $N_{\text{best}}/N_{\text{title}}$ represents the number of duplicates of bestsellers per title. However, the number of duplicates can easily change depending on library size: if a library is large, the number of duplicates might also be large. For this reason, we divided $N_{\text{best}}/N_{\text{title}}$ by N_{all} . Because N_{all} is usually a very large number, we multiplied by 100,000 so that D_{best} does not become too small. For example, if a library holds 30 bestsellers (including duplicates) and the number of

bestseller titles and the number of books in the overall collection are 10 and 200,000, respectively, D_{best} is 1.5 ($= (30/10) * (1/200,000 * 100,000)$). We calculated the mean, median, maximum, minimum, and SD of D_{best} for outsourcing libraries and direct management libraries, and compared them.

Finally, we explain the aforementioned item (c), the number of duplicates versus the number actually being borrowed. We made tables whose rows and columns were the numbers of duplicates and those being borrowed, respectively. In each cell of the table, we entered the following E_{mn} :

$$E_{mn} = \frac{1}{N} \sum_{i=1}^N B_{mni}$$

where N is the number of sample libraries (for instance, in the case of outsourcing libraries, N is 413). B_{mni} is the number of titles of bestsellers in i -th library whose (1) number of duplicates is m and (2) number of duplicates being borrowed is n . For example, if the i -th library had two titles of bestsellers whose total number of duplicates was five and three of them were being borrowed, $B_{53i}=2$. We made tables of E_{mn} for outsourcing and direct management libraries, and compared them.

IV. RESULTS

A. The ratio of bestsellers to the overall book collection

The ratios of bestsellers to overall book collections for (1) all sample bestsellers, (2) new bestsellers and (3) old bestsellers are shown in Tables II, III, and IV. These tables show the mean, median, maximum, minimum, and SD of the ratio of bestsellers to the overall book collections. The symbol n represents the number of libraries. “(All libraries)” represents the results for all the sample libraries. The results for each type of library (as mentioned in the Introduction) are shown in the rows below “(All libraries)”. The “*” and “**” in the “Mean” columns represent significant differences at the 0.05 and 0.01 levels, respectively, observed using Welch’s t test.

We first explain the results for all libraries. We can see in Table II that, for all bestsellers, the mean and median of outsourcing libraries were 0.271 and 0.236, respectively, and those of direct management libraries were 0.337 and 0.249. The mean for direct management libraries was larger than that for outsourcing libraries.

We can see in Table III that, for new bestsellers, the mean and median of outsourcing libraries were 0.158 and 0.139, respectively, and those of direct management libraries were 0.186 and 0.135. We can see in Table IV that, for old bestsellers, the mean and median of outsourcing libraries were 0.113 and 0.090, respectively, and those of direct management libraries were 0.150 and 0.104. There was a significant difference at the 0.05 level for the old bestsellers. These results suggest that outsourcing libraries tend to hold fewer bestsellers than direct management libraries, especially for old

bestsellers.

Next, we explain the results for each type of library. The means for outsourcing libraries were larger than those for direct management libraries for every type of bestseller (new, old, and all bestsellers), except for Tokyo special wards. Thus, the tendencies for all libraries previously mentioned hold for most types of libraries (i.e., without depending on library type).

B. The number of duplicates of bestsellers per title

The number of duplicates of bestsellers per title of (1) all sample bestsellers, (2) new bestsellers and (3) old bestsellers are shown in Tables V, VI, and VII respectively.

We can see in Table V that, for all bestsellers, the mean and median of outsourcing libraries were 1.86 and 1.38, respectively, and those of direct management libraries were 2.51 and 1.43. The mean for direct management libraries was larger than that for outsourcing libraries.

We can see in Table VI that, for new bestsellers, the mean and median of outsourcing libraries were 1.91 and 1.41, respectively, and those of direct management libraries were 2.56 and 1.46. Furthermore, we can see in Table VII that, for old bestsellers, the mean and median of outsourcing libraries were 1.76 and 1.25, respectively, and those of direct management libraries were 2.40 and 1.37. Significant differences at the 0.01 level were observed for every type of bestseller (new, old, and all bestsellers). These results suggest that outsourcing libraries tend to hold fewer duplicates of bestsellers than direct management libraries.

In addition, the means for outsourcing libraries were larger than for direct management libraries for every type of bestseller (new, old, and all bestsellers), except for ordinance-designated cities and Tokyo special wards. Significant differences were observed in some types of libraries. Thus, the tendencies for all libraries previously mentioned hold for most types of libraries (i.e., without depending on library type).

C. The number of duplicates and those being borrowed

The number of duplicates and those being borrowed in outsourcing and direct management libraries are shown in Tables VIII and IX respectively. We also made bubble charts, Fig. 1 and Fig. 2, to make the results shown in Tables VIII and IX visually recognizable. The sizes of the bubbles represent the values (larger bubbles represent larger values). A dotted line represents the line “the number of being borrowed” = “the number of duplicates” – 10. When there is a bubble under this line, it indicates that this is a case where the library had more than 10 duplicates of bestsellers that were not being borrowed.

These figures show that direct management libraries tend to have many duplicates (for instance, more than 30). In addition, while Fig. 2 (direct management libraries) has many bubbles under the dotted line, Fig. 1 (outsourcing libraries) does not. The sum of values of bubbles under the line in Fig. 1 (outsourcing libraries) is 0.0630, and that in Fig. 2 (direct management libraries) is 0.1810. These results show that, in direct management libraries compared to outsourcing libraries,

there were many titles of which there were many duplicates and many of those were not being borrowed.

We also divided these bubbles based on the type of bestseller (whether new or old bestseller). Fig. 3 and Fig. 4 are bubble charts for new bestsellers in outsourcing libraries and those in direct management libraries, respectively. Fig. 5 and Fig. 6 are bubble charts for old bestsellers in outsourcing

libraries and those in direct management libraries, respectively. Fig. 6 (old bestsellers in direct management libraries) shows that there were many cases where many duplicates were not being borrowed. We can safely say that direct management libraries tend to follow the above tendency, especially for old bestsellers.

TABLE II. RATIO OF BESTSELLERS TO OVERALL BOOK COLLECTION — ALL SAMPLE BESTSELLERS (%)

	Outsourcing libraries						Direct management libraries						
	n	Mean	Median	Maximum	Minimum	SD	n	Mean	Median	Maximum	Minimum	SD	
(All libraries)	406	0.271	0.236	1.648	0.000	0.194	2,456	0.337	0.249	91.314	0.000	1.852	
Main libraries	142	0.195	0.197	0.608	0.000	0.103	1,069	0.290	0.180	91.314	0.000	2.790	
Annexes	264	0.313	0.264	1.648	0.000	0.217	1,387	0.373	**	0.315	2.409	0.000	0.264
Prefectural library	4	0.030	0.030	0.035	0.027	0.003	53	0.039		0.035	0.174	0.000	0.030
Ordinance-designated cities	55	0.247	0.236	0.453	0.022	0.112	222	0.301	**	0.294	0.871	0.026	0.150
Tokyo special wards	96	0.254	*	0.238	1.648	0.000	110	0.213		0.203	0.632	0.000	0.106
Other cities	202	0.290	0.232	1.289	0.043	0.220	1,677	0.363		0.242	91.314	0.000	2.237
Towns and villages	49	0.274	0.246	1.051	0.000	0.184	394	0.320		0.280	1.451	0.000	0.193
Private enterprise	313	0.274	0.238	1.648	0.000	0.198	—	—	—	—	—	—	—
NPO	34	0.272	0.236	1.051	0.000	0.187	—	—	—	—	—	—	—
Public corporation	47	0.247	0.223	0.706	0.000	0.146	—	—	*	—	—	—	—
Other organization	12	0.301	0.238	0.829	0.000	0.232	—	—	—	—	—	—	—
T Company	99	0.251	0.228	0.879	0.043	0.134	—	—	*	—	—	—	—
V Company	17	0.274	0.261	0.587	0.168	0.096	—	—	—	—	—	—	—
H Foundation	11	0.179	0.192	0.320	0.022	0.106	—	—	**	—	—	—	—

TABLE III. RATIO OF BESTSELLERS TO OVERALL BOOK COLLECTION — NEW BESTSELLERS (%)

	Outsourcing libraries						Direct management libraries						
	n	Mean	Median	Maximum	Minimum	SD	n	Mean	Median	Maximum	Minimum	SD	
(All libraries)	406	0.158	0.139	1.292	0.000	0.111	2,456	0.186	0.135	53.452	0.000	1.083	
Main libraries	142	0.103	0.101	0.315	0.000	0.055	1,069	0.158		0.094	53.452	0.000	1.633
Annexes	264	0.188	0.168	1.292	0.000	0.122	1,387	0.209	*	0.181	1.279	0.000	0.143
Prefectural library	4	0.015	0.015	0.020	0.012	0.003	53	0.018		0.014	0.070	0.000	0.014
Ordinance-designated cities	55	0.163	0.144	0.389	0.002	0.091	222	0.196	*	0.188	0.664	0.015	0.102
Tokyo special wards	96	0.180	0.167	1.292	0.000	0.133	110	0.152		0.141	0.472	0.000	0.078
Other cities	202	0.154	0.126	0.670	0.018	0.109	1,677	0.199		0.130	53.452	0.000	1.308
Towns and villages	49	0.139	0.134	0.393	0.000	0.081	394	0.161		0.140	0.863	0.000	0.099
Private enterprise	313	0.164	0.144	1.292	0.000	0.118	—	—	—	—	—	—	—
NPO	34	0.142	0.123	0.359	0.000	0.081	—	—	—	—	—	—	—
Public corporation	47	0.127	0.117	0.341	0.000	0.067	—	—	*	—	—	—	—
Other organization	12	0.160	0.133	0.420	0.000	0.122	—	—	—	—	—	—	—
T Company	99	0.152	0.148	0.595	0.022	0.082	—	—	—	—	—	—	—
V Company	17	0.175	0.153	0.474	0.116	0.079	—	—	—	—	—	—	—
H Foundation	11	0.102	0.109	0.203	0.002	0.066	—	—	**	—	—	—	—

TABLE IV. RATIO OF BESTSELLERS TO OVERALL BOOK COLLECTION — OLD BESTSELLERS (%)

	Outsourcing libraries						Direct management libraries						
	n	Mean	Median	Maximum	Minimum	SD	n	Mean	Median	Maximum	Minimum	SD	
(All libraries)	406	0.113	0.090	0.759	0.000	0.103	2,456	0.150	*	0.104	37.862	0.000	0.771
Main libraries	142	0.092	0.089	0.293	0.000	0.052	1,069	0.132		0.083	37.862	0.000	1.157
Annexes	264	0.125	0.091	0.759	0.000	0.121	1,387	0.165	**	0.122	1.404	0.000	0.146
Prefectural library	4	0.015	0.015	0.016	0.013	0.001	53	0.021	*	0.019	0.104	0.000	0.017
Ordinance-designated cities	55	0.084	0.084	0.176	0.019	0.036	222	0.105	**	0.099	0.330	0.011	0.057
Tokyo special wards	96	0.075	*	0.067	0.356	0.000	110	0.062		0.059	0.160	0.000	0.033
Other cities	202	0.137	0.102	0.759	0.017	0.125	1,677	0.164		0.103	37.862	0.000	0.931
Towns and villages	49	0.135	0.113	0.693	0.000	0.109	394	0.160		0.136	0.888	0.000	0.108
Private enterprise	313	0.110	0.089	0.759	0.000	0.103	—	—	*	—	—	—	—
NPO	34	0.130	0.110	0.693	0.000	0.117	—	—	—	—	—	—	—
Public corporation	47	0.119	0.102	0.457	0.000	0.090	—	—	—	—	—	—	—
Other organization	12	0.141	0.085	0.409	0.000	0.121	—	—	—	—	—	—	—
T Company	99	0.099	0.089	0.607	0.021	0.075	—	—	**	—	—	—	—
V Company	17	0.099	0.105	0.171	0.036	0.046	—	—	**	—	—	—	—
H Foundation	11	0.077	0.083	0.147	0.019	0.042	—	—	**	—	—	—	—

TABLE V. NUMBER OF DUPLICATES OF BESTSELLERS PER TITLE — ALL SAMPLE BESTSELLERS

	Outsourcing libraries						Direct management libraries						
	n	Mean	Median	Maximum	Minimum	SD	n	Mean	Median	Maximum	Minimum	SD	
(All libraries)	400	1.86	1.38	17.84	0.10	1.97	2,420	2.51	**	1.43	377.33	0.05	8.29
Main libraries	138	0.97	0.96	3.17	0.10	0.49	1,051	1.42		0.86	377.33	0.05	11.63
Annexes	262	2.33	1.69	17.84	0.39	2.27	1,369	3.35	**	2.11	63.13	0.19	4.01
Prefectural library	4	0.15	0.15	0.18	0.10	0.03	52	0.22	*	0.18	0.69	0.05	0.13
Ordinance-designated cities	55	1.85	1.84	4.31	0.22	0.84	222	1.79		1.72	15.01	0.10	1.39
Tokyo special wards	94	1.73	1.42	15.26	0.34	1.59	109	1.54		1.38	7.14	0.20	0.97
Other cities	202	2.01	1.26	17.84	0.24	2.41	1,655	2.85	**	1.42	377.33	0.11	9.95
Towns and villages	45	1.64	1.26	8.21	0.55	1.36	382	2.05		1.48	17.31	0.42	1.92
Private enterprise	311	1.83	1.39	17.84	0.10	1.87	—	—	**	—	—	—	—
NPO	32	1.63	1.38	8.21	0.51	1.33	—	—	**	—	—	—	—
Public corporation	46	2.22	1.25	14.61	0.22	2.87	—	—		—	—	—	—
Other organization	11	1.86	1.31	5.53	0.47	1.52	—	—		—	—	—	—
T Company	99	1.70	1.23	17.84	0.25	1.97	—	—	**	—	—	—	—
V Company	17	1.86	1.62	4.73	1.00	0.88	—	—	*	—	—	—	—
H Foundation	11	1.85	2.32	2.87	0.22	0.80	—	—	*	—	—	—	—

TABLE VI. NUMBER OF DUPLICATES OF BESTSELLERS PER TITLE — NEW BESTSELLERS

	Outsourcing libraries						Direct management libraries						
	n	Mean	Median	Maximum	Minimum	SD	n	Mean	Median	Maximum	Minimum	SD	
(All libraries)	400	1.91	1.41	18.02	0.10	1.99	2,415	2.56	**	1.46	420.88	0.06	9.13
Main libraries	138	0.99	1.00	3.06	0.10	0.48	1,051	1.47		0.89	420.88	0.06	12.97
Annexes	262	2.39	1.82	18.02	0.39	2.29	1,364	3.40	**	2.17	63.13	0.18	4.05
Prefectural library	4	0.15	0.15	0.18	0.10	0.03	51	0.21	*	0.16	0.58	0.06	0.12
Ordinance-designated cities	55	1.87	1.98	4.31	0.26	0.87	222	1.90		1.82	14.76	0.11	1.41
Tokyo special wards	94	1.86	1.57	17.00	0.37	1.74	109	1.66		1.52	6.73	0.23	0.98
Other cities	202	2.04	1.27	18.02	0.25	2.40	1,651	2.90	**	1.44	420.88	0.11	10.97
Towns and villages	45	1.63	1.24	8.15	0.58	1.35	382	2.04		1.46	17.70	0.41	1.98
Private enterprise	311	1.90	1.46	18.02	0.10	1.90	—	—	**	—	—	—	—
NPO	32	1.63	1.37	8.15	0.46	1.32	—	—	**	—	—	—	—
Public corporation	46	2.14	1.22	14.92	0.26	2.89	—	—		—	—	—	—
Other organization	11	1.88	1.32	5.53	0.46	1.51	—	—		—	—	—	—
T Company	99	1.76	1.33	18.02	0.26	1.96	—	—	**	—	—	—	—
V Company	17	1.95	1.67	4.83	1.09	0.90	—	—	*	—	—	—	—
H Foundation	11	1.45	1.25	2.74	0.26	0.72	—	—	**	—	—	—	—

TABLE VII. NUMBER OF DUPLICATES OF BESTSELLERS PER TITLE — OLD BESTSELLERS

	Outsourcing libraries						Direct management libraries						
	n	Mean	Median	Maximum	Minimum	SD	n	Mean	Median	Maximum	Minimum	SD	
(All libraries)	400	1.76	1.25	16.99	0.09	1.91	2,406	2.40	**	1.37	329.23	0.05	7.31
Main libraries	138	0.95	0.92	3.30	0.09	0.51	1,048	1.36		0.85	329.23	0.05	10.17
Annexes	262	2.18	1.52	16.99	0.39	2.22	1,358	3.20	**	1.97	32.26	0.20	3.66
Prefectural library	4	0.14	0.15	0.18	0.09	0.04	51	0.22	*	0.19	0.80	0.05	0.14
Ordinance-designated cities	55	1.77	1.53	4.31	0.18	0.94	222	1.61		1.51	15.89	0.09	1.39
Tokyo special wards	94	1.45	1.15	11.14	0.31	1.23	108	1.30		1.14	7.79	0.15	0.97
Other cities	202	1.96	1.17	16.99	0.22	2.40	1,644	2.72	**	1.37	329.23	0.11	8.75
Towns and villages	45	1.64	1.23	8.25	0.52	1.38	381	2.06		1.51	17.16	0.41	1.90
Private enterprise	311	1.69	1.22	16.99	0.09	1.78	—	—	**	—	—	—	—
NPO	32	1.63	1.35	8.25	0.52	1.35	—	—	**	—	—	—	—
Public corporation	46	2.29	1.38	14.41	0.18	2.87	—	—		—	—	—	—
Other organization	11	1.80	1.31	5.53	0.49	1.54	—	—		—	—	—	—
T Company	99	1.58	1.06	16.99	0.24	1.92	—	—	**	—	—	—	—
V Company	17	1.69	1.40	4.35	0.80	0.86	—	—	*	—	—	—	—
H Foundation	11	2.25	2.72	4.00	0.18	1.04	—	—		—	—	—	—

TABLE VIII. NUMBER OF DUPLICATES AND NUMBER OF THOSE BEING BORROWED — OUTSOURCING LIBRARIES

		Number of duplicates being borrowed																				
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Number of duplicates	2	16.7143	5.8281	5.3366	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	3	2.7215	1.5884	1.0702	1.9855	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4	0.9831	0.4479	0.3801	0.2639	0.5738	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	5	0.2179	0.1985	0.0969	0.0678	0.0872	0.2760	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	6	0.1308	0.0993	0.0484	0.0315	0.0630	0.0533	0.1429	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	7	0.0436	0.0387	0.0242	0.0169	0.0121	0.0169	0.0048	0.0581	—	—	—	—	—	—	—	—	—	—	—	—	—
	8	0.0387	0.0073	0.0218	0.0097	0.0024	0.0048	0.0048	0.0145	0.0533	—	—	—	—	—	—	—	—	—	—	—	—
	9	0.0097	0.0218	0.0048	0.0048	0.0073	0.0024	0.0121	0.0048	0.0048	0.0218	—	—	—	—	—	—	—	—	—	—	—
	10	0.0073	0.0024	0.0073	0.0048	0.0048	0.0024	0	0.0024	0	0.0073	0.0121	—	—	—	—	—	—	—	—	—	—
	11	0.0097	0.0024	0	0.0048	0.0024	0.0024	0	0	0.0048	0.0024	0.0024	0.0024	—	—	—	—	—	—	—	—	—
	12	0.0024	0.0024	0.0024	0.0024	0	0.0024	0.0024	0.0024	0.0024	0	0	0.0024	0.0024	—	—	—	—	—	—	—	—
	13	0	0.0024	0	0	0	0	0	0	0	0	0.0024	0.0024	0	0	—	—	—	—	—	—	—
	14	0.0024	0	0.0024	0.0024	0	0	0.0024	0	0	0.0024	0	0	0	0	—	—	—	—	—	—	—
	15	0.0024	0	0	0.0024	0	0.0024	0	0.0024	0	0.0024	0	0	0	0.0048	0	0.0048	—	—	—	—	—
	16	0.0024	0	0	0.0024	0	0	0	0	0	0	0.0024	0	0	0	0.0024	0	—	—	—	—	—
	17	0	0	0	0	0	0	0	0	0.0024	0	0	0	0	0	0	0.0024	0	—	—	—	—
	18	0	0	0	0	0	0	0	0	0.0024	0	0	0	0	0	0	0	0.0024	0	—	—	—
	19	0	0	0	0	0	0	0	0	0	0.0024	0	0	0	0	0	0	0	0.0024	0	—	—
	20	0	0	0	0	0	0	0	0	0	0.0024	0	0	0	0	0	0	0	0	0	0.0024	—
	21+	0.0024	0	0	0	0	0	0	0	0	0.0024	0.0024	0	0	0	0	0	0.0024	0.0024	0.0024	0	0.0096

TABLE IX. NUMBER OF DUPLICATES AND NUMBER OF THOSE BEING BORROWED — DIRECT MANAGEMENT LIBRARIES

		Number of duplicates being borrowed																					
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21+
Number of duplicates	2	16.1665	4.9656	4.1058	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	3	2.9798	1.4173	0.8656	1.3929	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	4	1.0210	0.5097	0.3723	0.2749	0.5956	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5	0.2856	0.2142	0.1283	0.1157	0.1134	0.2868	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	6	0.1951	0.0985	0.0855	0.0577	0.0515	0.0515	0.1306	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	7	0.0550	0.0409	0.0328	0.0328	0.0218	0.0199	0.0244	0.0683	—	—	—	—	—	—	—	—	—	—	—	—	—	
	8	0.0485	0.0298	0.0286	0.0218	0.0187	0.0095	0.0137	0.0157	0.0355	—	—	—	—	—	—	—	—	—	—	—	—	
	9	0.0275	0.0153	0.0130	0.0137	0.0088	0.0065	0.0061	0.0099	0.0095	0.0279	—	—	—	—	—	—	—	—	—	—	—	
	10	0.0225	0.0084	0.0084	0.0095	0.0053	0.0076	0.0057	0.0038	0.0061	0.0057	0.0225	—	—	—	—	—	—	—	—	—	—	
	11	0.0126	0.0057	0.0046	0.0053	0.0053	0.0034	0.0019	0.0019	0.0015	0.0027	0.0046	0.0092	—	—	—	—	—	—	—	—	—	
	12	0.0336	0.0042	0.0042	0.0061	0.0015	0.0019	0.0038	0.0008	0.0015	0.0008	0.0015	0.0023	0.0088	—	—	—	—	—	—	—	—	
	13	0.0130	0.0019	0.0023	0.0023	0.0008	0.0004	0.0019	0.0004	0.0011	0.0019	0.0008	0.0008	0	0.0038	—	—	—	—	—	—	—	
	14	0.0080	0.0015	0.0019	0.0004	0.0019	0.0015	0.0008	0.0011	0	0.0004	0.0011	0.0004	0.0015	0.0004	0.0038	—	—	—	—	—	—	
	15	0.0061	0.0011	0.0015	0.0023	0.0008	0.0008	0.0023	0.0019	0.0011	0	0.0004	0.0004	0.0011	0.0008	0.0004	0.0050	—	—	—	—	—	
	16	0.0019	0.0023	0.0015	0	0.0008	0.0011	0.0015	0	0	0.0011	0	0	0.0004	0	0.0004	0.0008	0.0011	—	—	—	—	
	17	0.0027	0.0008	0.0019	0.0008	0.0008	0	0.0004	0.0004	0	0.0004	0.0011	0	0	0	0.0004	0.0008	0.0004	0.0023	—	—	—	
	18	0.0015	0.0008	0.0015	0.0008	0.0008	0	0.0008	0.0008	0	0.0008	0	0	0.0011	0	0	0.0019	0.0019	0.0011	0.0019	—	—	
	19	0.0004	0.0008	0.0004	0.0004	0.0008	0.0011	0.0004	0	0.0004	0	0	0.0004	0.0004	0.0011	0	0	0.0008	0.0008	0.0008	—	—	
	20	0	0	0.0008	0	0	0.0008	0	0	0	0.0008	0	0	0.0004	0	0	0	0	0.0004	0	0.0019	—	
	21+	0.0054	0.0031	0.0039	0.0016	0.0012	0.0004	0.0012	0.0012	0.0008	0.0016	0.0004	0.0004	0.0008	0	0.0004	0.0008	0.0008	0.0008	0	0.0020	0.0012	0.0172

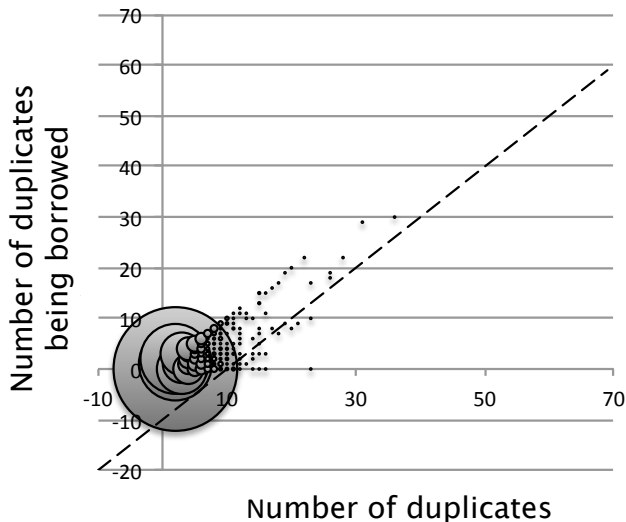


Fig. 1 Bubble chart for all bestsellers in outsourcing libraries

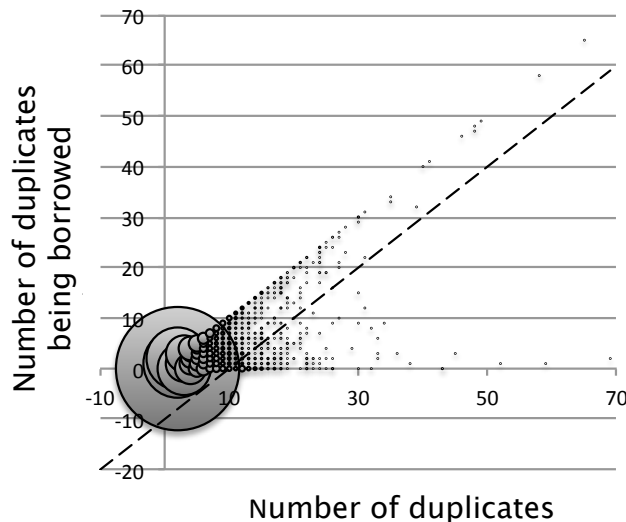


Fig. 2 Bubble chart for all bestsellers in direct management libraries

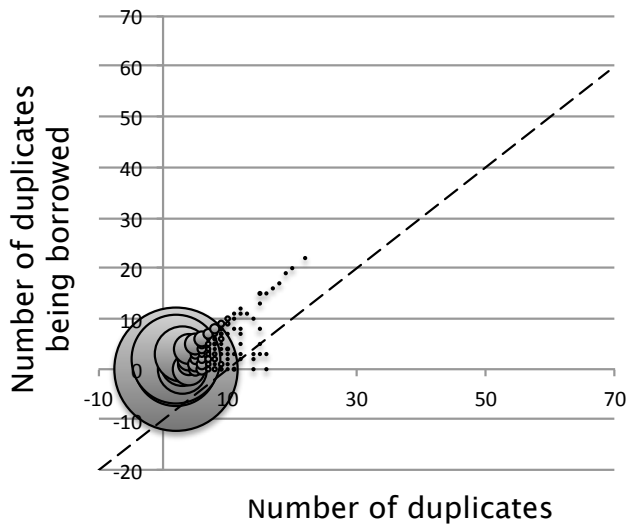


Fig. 3 Bubble chart for new bestsellers in outsourcing libraries

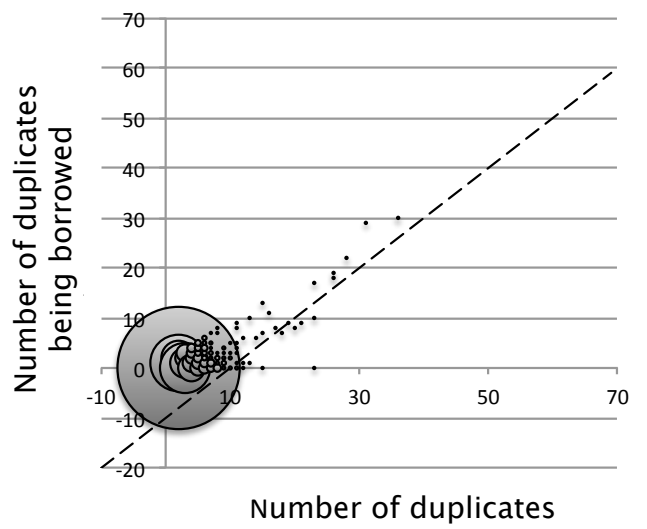


Fig. 5 Bubble chart for old bestsellers in outsourcing libraries

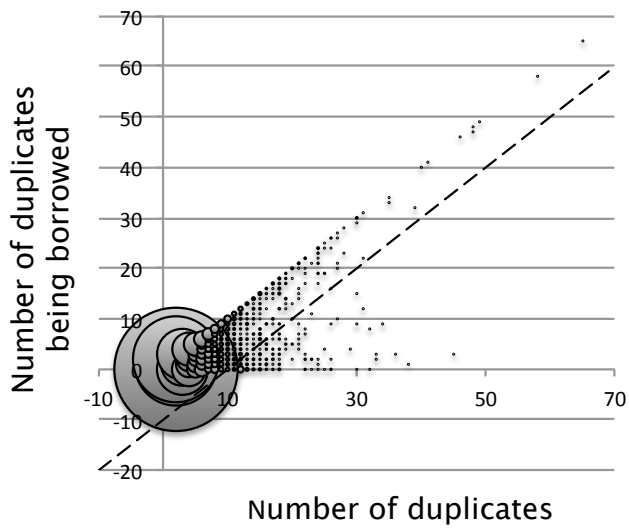


Fig. 4 Bubble chart for new bestsellers in direct management libraries

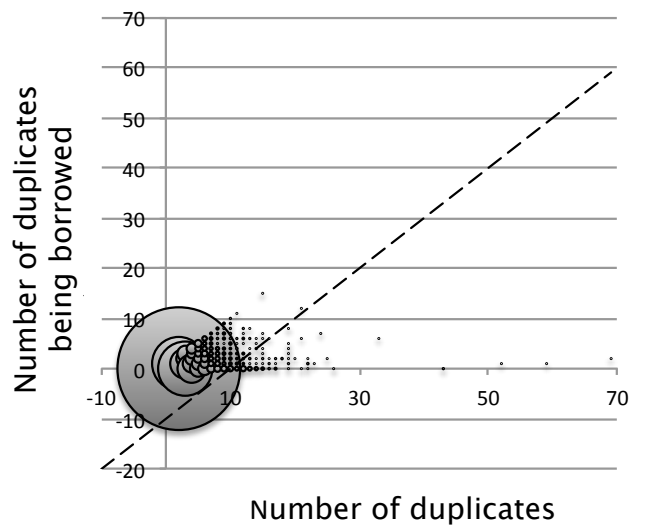


Fig. 6 Bubble chart for old bestsellers in outsourcing libraries

V. CONCLUSION

This study investigated the difference between outsourcing libraries and direct management libraries with a focus on bestsellers. We compared outsourcing libraries and direct

management libraries in regard to (a) the ratio of bestsellers to the overall book collection, (b) the number of duplicates of bestsellers per title, and (c) the numbers of duplicates and those being borrowed. It was found that outsourcing libraries tend to hold fewer bestsellers than direct management libraries. We also found that direct management libraries tend to hold many duplicates of bestsellers and that, in many cases, many of those duplicates were not being borrowed in direct management libraries.

In the future, we aim to examine the books other than bestsellers held in outsourcing and direct management libraries. Furthermore, we hope to focus not only on collection, but also on other library services, and clarify the impact of the switch to outsourcing by Japanese libraries.

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