Speaking Out

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Citation patterns in organization and management journals: Margins and centres

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Abstract
Citations tell us something about the patterns of knowledge exchange around a particular journal. To examine this network, one can use Thomson Reuters' Journal Citation Reports database and derive three basic citation relationships: the numbers of articles citing (and thus influenced by) a journal, articles cited by (thus influencing) a journal, as well as the self-citation rate of the journal. In this article we examine the patterns relating to 27 selected journals in organization and management. The article proposes an influence metric with a citing and cited pair. The metric is applied to develop a taxonomy which classifies journals into one of four types of influence network, and comments on the way in which this sort of citation data locates Organization clearly on the margins in a number of important ways. We also comment on whether marginalization is an effect of interdisciplinarity, and political and methodological heterodoxy.

Keywords
citing and cited patterns, impact factor, influence metric, journal citation, self citation

Judgements concerning the 'quality' of research publication are increasingly important to tenure and promotions for academics around the world.[1] Scholars are encouraged to publish highly-cited articles in particular journals, but this is only part of a wider process of ranking which implicates academics, publishers, professional institutions and universities (Parker and Thomas, 2011). An interest in global institutional ranking began in 2003 with the publication of Shanghai Jiaotung University's annual *Academic Ranking of World Universities* (Shanghai Ranking Consultancy,

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2012) which uses six criteria—including the number of alumni winning Nobel Prizes and Fields Medals; the number of staff winning Nobel Prizes and Fields Medals; the number of articles published in *Nature* and *Science*; the number of articles indexed in Science Citation Index-Expanded (SCIE) and Social Science Citation Index (SSCI) (Thomson Reuters, 2012); and the number of highly cited researchers in 21 broad subject categories. Whilst, by definition, a highly-cited article is difficult to guarantee, having a article published in an indexed journal nowadays is relatively easy because there are more and more journals publishing more and more articles, 144 listed under the heading 'Management' alone in the Thompson Reuters index. One way of making distinctions between the tens of thousands of articles published every year is to use some sort of list, such as those provided by the UK Association of Business Schools (ABS, 2012), or the even more restrictive FT 45 (*Financial Times*, 2012). The number of articles published in these journals affects the research rank of a business school in the Global MBA and EMBA rankings. For this reason, some schools now promote or tenure their faculty members only if they publish articles in these places. Whilst there is plenty of debate about the merits of such rankings (Rowlinson et al., 2011; Willmott 2011), this article is more concerned to show what sort of influence patterns they reflect. In other words, what can we discover about the centrality and marginality of particular journals to a particular field?

In order to approach this question, we consider the impact factor (IF) of journals, which turns citations into a key currency for authors and editors. As the IF (Garfield, 2012) becomes more important in these calculations so are some editors of indexed journals starting to respond with 'gaming' strategies. They often demand, implicitly in editorial statements or explicitly in revise and resubmit letters, that their authors cite their journals in order to inflate their impact factors. Nonetheless, this practice can be easily detected by looking into the self-citation patterns of any given journal in Thomson Reuters' *Journal Citation Report* (JCR) database (Thomson Reuters, 2012). From this database we can also derive two other citation relationships: the number of articles cited by a journal and the amount of citation from other journals. This latter measure is particularly important because it tells us something about the breadth of research communities which a journal reaches. That is, the wider the network of citations, the greater the influence (in a citation sense) of a journal.

In this article, we attempt to understand the citation patterns of SSCI journals in the broad area of organization and management (OM). Specifically, we address the following questions. First, what are the impact-factor patterns of OM journals? This means understanding how often these OM journals are cited by other journals as well as how often OM journals cite other journals. It also means looking at, and to some extent discounting, the self-citation patterns of these OM journals. Secondly, we will investigate which OM journals are most influenced by work which happens outside OM, on the basis of their spread of citations, as well as which OM journals have the most influence on other areas of enquiry. For the purposes of this article, we will use *Organization* as an illustration of the data, and hence the issues which the article is raising. That is to say, what position does this journal have in the citation networks of OM journals?

That being said, there are obviously limitations to this sort of study. For example, the Journal Citation Reports Database does not contain information on citations to and from books, edited collections and grey literature. This means that tracing patterns of influence to and from areas of the social sciences and humanities which are less dominated by journal output becomes problematic. It is also worth remembering that when we use words like 'influence', we are using them primarily in a statistical sense, and any inferences about social influence more broadly need to be treated with caution. As is fairly obvious, citing happens for complex reasons, not simply because an author has read something and has had their thinking altered in some way. In any case, as Baum (2011) and Li

(2009) argue, there are many reasons to be suspicious of the IF as a measure of research quality. Finally, the selection of journals in this article does not include many that readers of *Organization* might consider important—*Gender, Work and Organization, Culture and Organization, Work, Employment and Society* and so on. This is not to suggest that these journals are irrelevant to the argument made here, but our selection reflects the US dominance of journals in the organization and management area (Grey, 2010). The inclusion of *Harvard Business Review*, for example, might seem controversial for readers of *Organization* but for those outside the narrow subfields that journals such as this one represents, it is simply the most well-known management and organization publication. Unsurprisingly, we will conclude that *Organization* barely counts at all when compared to *HBR*, but also that there are several other ways in which a journal like this one can be seen not to count. But then, if it did, we might ask just how well it was doing at reflecting its espoused editorial values. Marginalization is, we will argue, both a condition and consequence for a journal such as *Organization*. If the journal did not show a particular pattern of influence, we could easily be suspicious of its claims to heterodoxy and interdisciplinarity. At the same time, however, this means it is unlikely to have much influence, in a narrow sense, on the scholarship of other more central journals.

Methods and data

To collect the research data, we searched the 2010 Journal Citation Reports online database (Thomson Reuters, 2011) under the subject category of 'Management'. From that category we selected 27 journals for this study because the other journals are either not publishing OM-related articles or were only recently included in the 2010 index, resulting in insufficient data. Table 1 shows the 27 journals sorted in sequence by their 2010 IF values. The rightmost column indicates the IF value of each journal after removing the self-citation count. In order to analyse the impact-factor pattern, in Table 2 we also show the annual percentage increase in the IF value.

In order to find out how often these OM journals are cited by other journals, we examined the cited tables in the JCR database. Table 3 gives the values of total cited counts from 2001–2010. The total cited count is the number of times all articles published in all SCIE/SSCI journals each year cited those articles published in a target OM journal. For example, the total cited count for *Organization* is the number of times (1154) that articles published in 2010 cited articles published in *Organization* since its first issue in 1994. The numbers tell us something about the level of citation influence this particular journal has. As you can see, the top cited journal has about 17 times as many citations as *Organization*.

To investigate how often the OM journals in this study cite other journals, we reviewed the citing tables in the JCR. Table 4 gives the numbers of articles and the total citing counts in the references sections of all articles published each year by the selected OM journals from 2001 to 2010. For example in 2010, *Organization* published 35 articles which made a total of 2409 citations. By looking at what these citations were, we can say something about the sorts of journals which influence the authors who get published in *Organization*.

The self-citation patterns of the selected OM journal are presented in Table 3. For example in 2010, the self-cited count in the table indicates that 80 of the total 1154 times *Organization* is cited happen in *Organization*'s own articles; that is to say, other journals have cited *Organization* 1074 times. We will call this latter figure the 'other-cited count'. Likewise for the citing counts from *Organization* in Table 4, 80 citations refer to *Organization* itself and 2329 (i.e. 2409 minus 80) citations are citing other sources. The latter is hereafter called the "other-citing count".

Table 1. Impact factor values of selected journals from 2001–2010

Journal Title	Journal ID	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 without self-cites
Academy of Management Review	AMR	3.157	3.699	4.415	3.717	4.254	4.515	6.446	6.125	7.867	6.720	6.493
Academy of Management Journal	AMJ	2.831	2.544	3.343	2.647	2.200	3.353	5.017	6.079	6.483	5.250	4.821
Research in Organizational Behavior	ROB	2.562	1.625	0.688	1.312	3.000	0.889	–	2.444	4.375	4.833	4.000
Organizational Research Methods	ORM	–	–	1.121	1.000	1.103	1.525	2.548	3.019	2.471	4.423	3.789
Journal of Management Studies	JMS	0.634	0.856	1.104	1.180	1.326	2.000	1.926	2.558	2.805	3.817	2.771
Organization Science	OrgSci	2.058	1.605	2.372	2.295	1.989	2.815	3.130	2.575	3.126	3.800	3.287
Journal of Management	JM	1.306	1.744	1.652	1.241	1.535	1.954	2.000	3.080	4.429	3.747	3.389
Administrative Science Quarterly	ASQ	3.980	2.630	2.721	3.405	2.719	2.455	2.912	2.853	3.842	3.684	3.447
Strategic Management Journal	SMJ	2.682	3.092	2.723	1.980	1.897	2.632	2.829	3.344	4.464	3.583	3.165
Organizational Behavior and Human Decision Processes	OBHDP	1.269	1.556	1.427	1.473	1.275	1.514	1.847	2.740	2.549	2.480	2.327
Academy of Management Perspectives	AMP	–	–	–	–	–	–	0.594	1.118	1.405	2.470	2.197
Group & Organization Management	GOM	0.730	0.838	0.553	0.865	0.622	0.846	0.787	2.000	1.923	2.415	1.283
Journal of Organizational Behavior	JOB	0.855	–	1.431	1.386	1.388	1.959	1.981	2.441	1.990	2.351	2.180
Organization Studies	OS	0.899	1.227	1.634	0.882	1.278	1.583	2.042	1.857	2.124	2.339	1.771
Harvard Business Review	HBR	2.465	2.028	1.371	1.148	1.404	1.505	1.323	1.793	1.655	1.873	1.873
California Management Review	CMR	1.352	0.982	1.241	1.345	1.018	1.429	0.945	1.109	1.983	1.706	1.608
Human Relations	HR	0.858	1.042	0.878	0.898	0.817	0.670	1.103	1.372	1.637	1.701	1.425
Organization	Org	0.607	0.792	0.826	0.929	1.280	1.329	1.169	1.039	1.352	1.488	1.209
MIT Sloan Management Review	SMR	–	0.900	1.311	1.013	0.719	0.888	0.849	1.100	1.141	1.452	1.411
Journal of Management Inquiry	JMI	0.520	0.375	0.511	0.333	0.778	0.456	1.338	1.000	0.615	1.283	0.943
Management Learning	ML	0.644	0.447	0.568	0.872	0.952	0.711	0.738	1.020	1.133	1.206	0.809
Journal of Organizational Behavior Management	JOBM	1.176	1.267	1.793	0.105	1.074	0.429	0.818	0.600	0.680	0.963	0.407
Journal of Occupational and Organizational Psychology	JOOP	–	–	1.308	0.810	1.259	1.910	1.629	1.361	1.205	0.882	0.800
Organizational Dynamics	OD	0.841	0.532	0.621	0.627	0.712	0.667	0.345	0.690	0.607	0.862	0.741
Systems Research and Behavioral Science	SRBS	0.263	0.387	0.274	0.169	0.375	0.351	0.467	0.689	0.415	0.706	0.477
Journal of Organizational Change Management	JOCM	0.250	0.157	0.368	0.237	0.307	0.479	0.360	0.520	0.600	0.650	0.512
Review of Industrial Organization	RIO	0.323	0.350	0.307	0.462	0.388	0.425	0.411	0.352	0.441	0.529	0.414

Source: Adapted from Thomson Reuters (2012).
– indicates the datum is not available.

Table 2. Annual percentage increase of impact factor values in the journals from 2001– 2010

Journal ID	2002	2003	2004	2005	2006	2007	2008	2009	2010
AMJ	–10.14%	31.41%	–20.82%	–16.89%	52.41%	49.63%	21.17%	6.65%	–19.02%
AMP	n/a	n/a	n/a	n/a	n/a	n/a	88.22%	25.67%	75.80%
AMR	17.17%	19.36%	–15.81%	14.45%	6.14%	42.77%	–4.98%	28.44%	–14.58%
ASQ	–33.92%	3.46%	25.14%	–20.15%	–9.71%	18.62%	–2.03%	34.67%	–4.11%
CMR	–27.37%	26.37%	8.38%	–24.31%	40.37%	–33.87%	17.35%	78.81%	–13.97%
GOM	14.79%	–34.01%	56.42%	-28.09%	36.01%	–6.97%	**154.13%**	–3.85%	25.59%
HBR	–17.73%	–32.40%	–16.27%	22.30%	7.19%	–12.09%	35.53%	–7.70%	13.17%
HR	21.45%	–15.74%	2.28%	–9.02%	–17.99%	64.63%	24.39%	19.31%	3.91%
JM	33.54%	–5.28%	–24.88%	23.69%	27.30%	2.35%	54.00%	43.80%	–15.40%
JMI	–27.88%	36.27%	–34.83%	**133.63%**	–41.39%	**193.42%**	–25.26%	–38.50%	**108.62%**
JMS	35.02%	28.97%	6.88%	12.37%	50.83%	–3.70%	32.81%	9.66%	36.08%
JOB	n/a	n/a	–3.14%	0.14%	41.14%	1.12%	23.22%	–18.48%	18.14%
JOBM	7.74%	41.52%	**–94.14%**	**922.86%**	**–60.06%**	90.68%	–26.65%	13.33%	41.62%
JOCM	–37.20%	**134.39%**	–35.60%	29.54%	56.03%	–24.84%	44.44%	15.38%	8.33%
JOOP	n/a	n/a	–38.07%	55.43%	51.71%	–14.71%	–16.45%	–11.46%	–26.80%
ML	–30.59%	27.07%	53.52%	9.17%	–25.32%	3.80%	38.21%	11.08%	6.44%
OBHDP	22.62%	–8.29%	3.22%	–13.44%	18.75%	21.99%	48.35%	–6.97%	–2.71%
OD	–36.74%	16.73%	0.97%	13.56%	–6.32%	–48.28%	**100.00%**	–12.03%	42.01%
ORG	**30.48%**	**4.29%**	**12.47%**	**37.78%**	**3.83%**	**–12.04%**	**–11.12%**	**30.13%**	**10.06%**
OrgSci	–22.01%	47.79%	–3.25%	–13.33%	41.53%	11.19%	–17.73%	21.40%	21.56%
ORM	n/a	n/a	–10.79%	10.30%	38.26%	67.08%	18.49%	–18.15%	79.00%
OS	36.48%	33.17%	–46.02%	44.90%	23.87%	29.00%	–9.06%	14.38%	10.12%
RIO	8.36%	–12.29%	50.49%	–16.02%	9.54%	–3.29%	–14.36%	25.28%	19.95%
ROB	–36.57%	**–57.66%**	90.70%	**128.66%**	**–70.37%**	n/a	n/a	79.01%	10.47%
SMJ	15.29%	–11.93%	–27.29%	–4.19%	38.75%	7.48%	18.20%	33.49%	–19.74%
SMR	n/a	45.67%	–22.73%	–29.02%	23.50%	–4.39%	29.56%	3.73%	27.26%
SRBS	47.15%	–29.20%	–38.32%	**121.89%**	–6.40%	33.05%	47.54%	–39.77%	70.12%

Note: Each entry is derived from Table 1 by subtracting the impact factor of year 2 with that of year 1, and then divided it by the impact factor of year 1.

To understand which OM journals are most influenced by other academic fields and which OM journal has the most influence outside organization and management, we examined the journal counts on the cited and citing tables of each OM journal. In these tables, Thomson Reuters breaks down the citations by journal source. Each table indicates the journal sources (rows) on the table and the number of citations coming from each source in each year. This information allows us to derive the citing/cited journal count of each OM journal. Table 5 presents the numbers of other journals citing and being cited by each OM journal from 2001–2010. For example in 2010, 342 other journals cited *Organization* whilst a total of 1450 other journals are cited by *Organization*. Compare this to *AMR* and you have a very different pattern, with 1176 journals citing, against 1175 being cited. These numbers indicate the level that *Organizatio*n's authors in 2010 influence or are influenced by other journals, as well as providing some indication of the insularity or permeability of the influence network associated with a particular journal.

Table 3. Frequencies of OM journals being cited by all indexed journals during 2001–2010

Journal ID	2001		2002		2003		2004		2005	
	Selfcited	Totalcited	Selfcited	Totalcited	Selfcited	Totalcited	Selfcited	Totalcited	Selfcited	Totalcited
AMJ	349	4568	311	5213	239	5565	285	6033	391	6944
AMR	207	3874	143	4517	214	4989	138	5317	224	6387
SMJ	668	4152	684	4676	702	5220	796	5826	659	6137
ASQ	217	4140	209	4713	139	5037	126	5181	211	5906
OrgSci	129	1778	170	2169	142	2551	158	2550	186	3142
HBR	16	3571	6	3849	9	4058	3	4161	1	4475
JM	105	1524	108	1717	71	1897	140	2112	114	2562
OBHDP	164	2712	206	3143	249	3124	184	3292	182	3482
JOB	44	375	–	–	141	1362	119	1438	107	1816
JMS	87	894	77	970	183	1211	182	1290	219	1622
HR	89	1754	79	1909	85	1999	100	1961	139	2140
OS	96	744	100	837	136	950	104	1006	203	1187
CMR	22	947	21	1050	22	1175	26	1247	39	1274
ROB	22	1003	15	1072	–	1042	30	1197	19	1213
JOOP	–	–	–	–	42	589	43	500	38	662
ORM	–	–	–	–	12	155	29	220	17	277
OD	11	488	9	468	10	516	25	518	16	566
GOM	4	384	23	379	10	422	25	422	26	467
ORG	**43**	**177**	**38**	**230**	**87**	**299**	**80**	**361**	**83**	**507**
SMR	2	6	4	30	19	90	11	173	10	173
JOCM	20	100	19	126	63	188	27	198	43	269
ML	48	129	44	156	70	204	75	205	69	246
JMI	12	107	17	107	22	159	18	149	35	218
RIO	30	168	41	200	19	219	29	263	28	255
AMP	–	–	–	–	–	–	–	–	–	–
SRBS	9	48	23	70	13	71	42	98	35	115
JOBM	122	181	150	190	110	197	39	93	156	220

Source: Adapted from Thomson Reuters (2012).
– indicates the datum is not available.

2006		2007		2008		2009		2010	
Selfcited	Totalcited	Selfcited	Totalcited	Selfcited	Totalcited	Selfcited	Totalcited	Selfcited	Totalcited
413	8199	640	9555	508	12285	497	15082	608	17239
333	7532	444	8341	328	11613	195	14649	247	15782
624	8163	878	9512	891	13703	943	16843	892	15626
184	6799	155	7123	164	9086	216	11261	122	11539
189	4172	372	5137	229	6556	435	8404	452	9120
8	4913	4	5295	3	7429	2	9342	2	9000
123	3180	133	3755	162	4912	304	6291	217	7184
191	3952	191	4402	187	5462	200	6381	159	6391
140	2116	111	2494	173	3262	271	4026	204	4747
262	1981	263	2279	311	3175	338	4035	368	4457
113	2304	190	2600	133	3058	184	3836	187	4234
206	1492	263	1719	241	2325	255	2864	393	3353
54	1634	42	1705	44	2359	47	3085	44	3019
–	1336	–	–	48	1726	–	2067	54	2179
82	951	93	1018	67	1262	60	1402	108	1763
41	448	60	615	87	922	86	1268	121	1737
9	634	12	678	18	980	29	1165	18	1291
28	548	21	580	85	795	93	1014	126	1159
61	**516**	**85**	**611**	**98**	**814**	**102**	**1092**	**80**	**1154**
23	301	19	341	11	590	14	787	19	1038
45	275	76	326	64	454	58	578	62	638
61	231	104	329	96	411	212	640	156	637
26	253	91	335	66	371	25	447	78	585
18	276	15	324	39	458	22	584	32	576
3	10	8	28	16	87	43	205	25	351
52	149	56	213	98	256	71	364	111	348
175	246	89	173	112	231	92	198	116	253

Table 4. Frequencies of citations in references sections during 2001–2010

Journal ID	2001		2002		2003		2004		2005	
	No. of articles	Totalciting	No. of articles	Totalciting	No. of articles	Totalciting	No. of articles	Totalciting	No. of articles	Totalciting
AMJ	73	4734	70	4074	49	2359	56	3102	60	3919
AMP	–	–	–	–	–	–	–	–	–	–
AMR	27	2610	26	2386	34	3044	29	2895	37	3791
ASQ	16	2050	17	1818	8	1463	8	1449	13	2242
CMR	31	753	27	934	28	787	28	825	28	1118
GOM	5	274	19	2127	18	1136	27	1519	25	1484
HBR	108	75	116	74	114	47	104	53	114	36
HR	65	3842	50	2808	48	2586	57	3695	58	3691
JM	33	2576	36	3093	34	2294	43	4326	44	3090
JMI	21	1078	26	1113	22	1307	23	1105	34	1270
JMS	48	3361	48	3749	80	6186	58	4501	66	5178
JOB	52	2058	50	–	51	3061	47	3269	50	3290
JOBM	18	620	11	850	8	577	17	267	11	915
JOCM	32	1630	36	1343	40	1461	35	1647	38	1957
JOOP	34	–	31	–	27	1818	31	1821	36	1865
ML	24	1253	20	1212	19	1213	23	1424	22	1427
OBHDP	41	2372	55	2573	55	2700	36	1939	38	2333
OD	26	243	26	282	35	436	31	501	29	355
ORG	**43**	**1691**	**26**	**1557**	**44**	**2091**	**38**	**2195**	**35**	**2456**
OrgSci	43	3219	43	2809	45	3154	48	3162	44	3320
ORM	16	–	17	–	18	1326	21	863	19	1057
OS	28	2529	24	2386	55	4614	60	3856	67	4773
RIO	66	1301	48	1072	22	644	37	1258	36	1188
ROB	8	1366	8	820	8	–	9	1322	9	1103
SMJ	61	4168	69	4127	78	4580	67	4881	66	4475
SMR	30	365	31	418	46	627	50	540	39	661
SRBS	40	1512	44	1415	33	1104	39	1330	35	1191

Source: Adapted from Thomson Reuters (2012).
– indicates the datum is not available.

2006		2007		2008		2009		2010	
No. of articles	Totalciting	No. of articles	Totalciting	No. of articles	Totalciting	No. of articles	Totalciting	No. of articles	Totalciting
61	4573	65	5497	55	4746	57	5194	63	6172
32	1018	36	1257	43	1151	23	1403	25	1321
49	5407	55	6526	43	5170	32	2905	27	3360
13	1871	12	1664	16	2120	17	2087	12	1322
27	1054	37	1277	23	920	28	919	29	1297
22	1580	20	1520	28	2026	25	1729	24	1838
109	50	113	42	110	49	126	49	119	47
59	4061	62	4375	62	4515	65	4794	79	5294
38	3359	37	3882	40	4229	55	5489	56	5646
31	1253	32	1346	33	1639	20	926	29	1453
69	5676	69	5196	59	4903	50	4940	60	6034
55	4044	47	3747	57	4081	54	4152	49	4640
11	806	14	288	11	409	16	650	19	729
51	2213	47	2757	43	2306	37	2276	41	2533
34	2007	38	2398	40	2388	45	2920	53	3830
20	1448	31	1657	29	1580	39	1804	29	1919
47	2909	49	3239	42	2621	56	4015	37	2620
29	299	29	376	27	354	31	382	36	460
36	**2184**	**40**	**2476**	**48**	**1963**	**38**	**2482**	35	**2409**
48	3489	58	4800	53	4678	62	5638	71	5925
23	1585	30	1772	38	1973	33	1702	37	2390
77	5029	84	4974	61	4384	57	4080	62	5071
37	958	24	657	34	1197	36	1069	37	1117
9	–	0	–	8	2357	13	–	8	3187
63	4405	68	5210	70	5281	69	5411	74	5596
47	474	43	529	35	401	38	445	32	264
57	1791	46	1736	60	2779	49	2027	46	348

Table 5. The numbers of other journals each OM journal is citing or being cited during 2001–2010

Journal ID	2001		2002		2003		2004		2005
	Being cited	Citing	Being cited	Citing	Being cited	Citing	Being cited	Citing	Being cited
HBR	591	58	601	63	649	37	624	47	656
OBHDP	483	771	534	861	534	861	597	672	631
AMR	419	1032	440	1104	470	1175	497	1308	571
ASQ	502	929	557	807	545	661	582	729	623
AMJ	395	1455	452	1297	442	737	477	929	515
HR	465	2009	493	1640	486	1518	497	1939	536
OrgSci	274	1358	307	1248	307	1248	328	1336	372
JM	253	863	281	892	471	713	307	1213	345
SMJ	318	1154	329	1113	330	1271	356	1246	377
JOB	233	936	241	1052	258	944	291	1064	335
JMS	212	1712	206	1824	222	2507	234	1878	256
CMR	238	450	262	560	277	529	289	491	284
OS	207	1327	192	2359	192	2359	222	1958	228
ORM	n/a	n/a	n/a	n/a	72	480	90	381	134
ROB	241	584	266	439	267	n/a	294	606	304
JOOP	167	913	167	543	169	760	164	652	212
OD	164	187	170	285	170	285	172	311	170
ORG	55	1187	71	1305	71	1305	77	1285	110
GOM	124	137	135	817	153	505	147	641	161
SMR	2	260	21	307	47	371	81	379	88
RIO	74	659	85	505	92	324	99	587	102
JOCM	49	1056	49	912	64	854	77	1046	79
JMI	42	743	44	723	72	767	58	736	72
ML	34	801	43	727	65	762	61	728	72
AMP	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SRBS	31	1011	24	1005	25	778	32	909	30
JOBM	34	208	24	288	24	240	32	131	43

Source: Derived from Thomson Reuters (2012).

2006		2007		2008		2009		2010		
Citing	Being cited	Citing	Being cited	Citing	Being cited	Citing	Being cited	Citing	Being cited	Citing
32	740	41	774	36	1080	44	1343	45	1233	44
729	709	853	774	948	979	793	1129	1146	1178	703
1582	616	1914	675	2189	911	1878	1154	1023	1176	1175
965	666	767	684	692	927	935	1152	851	1130	553
1158	610	1288	649	1552	850	1154	1058	1573	1085	1658
1757	568	2056	611	2051	776	2187	942	2036	946	1942
1254	412	1349	494	1570	676	1465	858	1703	832	1605
1064	442	984	483	1083	651	1199	789	1223	831	1479
1178	420	1527	492	1275	709	1216	901	1242	770	1194
1109	350	1459	415	1327	517	1285	618	1124	690	1357
2240	297	2021	343	1817	505	1402	618	1411	632	1587
661	327	585	334	750	507	553	640	596	595	692
2202	270	2357	316	2333	432	2111	582	1922	591	2181
534	189	608	228	642	317	728	443	611	533	953
533	326	n/a	n/a	n/a	469	924	524	n/a	519	1303
672	253	876	275	816	365	795	413	1033	443	1037
254	203	202	233	248	341	226	402	261	398	331
1440	103	1358	155	1491	197	1240	298	1297	342	1450
557	185	712	206	652	259	809	327	582	326	684
385	131	292	135	363	233	286	430	302	320	159
513	122	493	149	363	197	554	256	466	250	513
1141	110	1360	124	1540	192	1312	235	1318	226	1508
769	97	633	99	773	130	856	185	534	201	770
875	67	801	104	975	134	817	190	807	173	989
n/a	4	654	12	579	52	606	97	642	145	607
891	46	1041	66	1137	99	1518	135	1160	133	1315
349	30	328	48	119	56	190	56	332	72	279

Results and discussion

Impact factors and self-citation

In 2010, the top five journals in terms of impact factor rankings were: *AMR* (IF = 6.72), *AMJ* (IF = 5.25), *ROB* (IF = 4.833), *ORM* (IF = 4.423), and *JMS* (IF = 3.817). If we take the impact factor without the self-cited count, the right-most column of Table 1 reveals that among the 27 journals, *GOM* has the largest drop of IF value (1.132), from 2.415 to 1.283. That is to say, almost half its citations come from within the journal. Those journals having IF values drop more than 0.5 include *JMS* (1.046), *ROB* (0.833), *ORM* (0.634), *OS* (0.568), *JOBM* (0.556), and *OrgSci* (0.513). *Organization* drops 0.279 (from 1.488 to 1.209). As we have noted, it could well be that high levels of self-citation tell us something about the small size or tight network associated with a journal, however, for general management and organization journals this would seem to be a difficult claim to sustain. Indeed, you might expect that, on this measure, a journal like *Organization* would have a higher self-citation count since it would reflect the density of the 'invisible college' associated with the journal (Jones et al., 2006). The data doesn't bear this out, however, so we are left with either claiming that journals with high self-citation rates publish particularly citable articles, or that the gaming of editors and authors is visible in these numbers.

The variation of the impact factors within each journal seems to have no specific pattern. Almost all of them go up and down during the 10-year period, except for the IF value of *AMP* which has quadrupled from 0.594 to 2.47 since it was first included in the SSCI in 2007. According to Table 2, some journals have doubled their IF values in two consecutive years (100% or more), while others had experienced a drop of more than half of their IF values (-50% or worse). For example, the impact factor of *JOBM* exhibits substantial ups and downs in IF values. Specifically, between 2003–2007, its IF values fell from 1.793 to 0.105, went back up to 1.074, dropped down again to 0.429, then went up again to 0.818 in 2007. Likewise, *ROB* experienced a large drop from 1.625 to 0.688 in 2003, jumped to 1.312, jumped again to 3.0, then dropped to 0.889 in 2006. Such fluctuation might calls for observing both journals for a few more years to ensure the stability of their quality, or it might suggest that the IF is not a particularly reliable measure, since it can oscillate wildly.

Five journals had more than doubled their impact factor values in some years; *GOM* jumped 154.13% in 2008; *JOCM* increased 134.39% in 2003; *OD* was up 100% in 2008; *SRBS* jumped 121.89% in 2005. Surprisingly, *JMI* had increased substantially three times; once by 133.63% in 2005, by 193.42% in 2008, and by 108.62% in 2010. As shown in Figure 1, the ten leading OM journals all experienced fluctuations in IF values in the ten-year period, with *AMR* in the leading position during the last nine years, while *AMJ* was right behind *AMR* and ranked above the other journals during the last five years. *Organization* is in last place in this race during the last five years, but is also unaffected by any large fluctuations. There have been no sharp rises or falls in its citation rates, and instead a gradual rise, which seems to suggest that it is a journal which is relatively uninfluenced by either gaming strategies or general citation inflation. It might also be the case that it simply publishes articles of lower quality or less interest, and hence receives fewer citations for that reason.

Based on the cited counts in Table 3, *AMJ* (17239), *AMR* (15782) and *SMJ* (15626) are the three most cited journals in 2010, far ahead of *ASQ* (11539), *OrgSci* (9120), *HBR* (9000), *JM* (7184) and *OBHDP* (6391) which are in the fourth to eighth places. Once again, *Organization* is significantly behind these journals in cited counts with a figure of 1154. In part, this difference might be explained by the fact that *Organization* is a relatively new journal, commencing publication in 1994. The youngest leading journal is *OrgSci* which began publishing in 1990, while *SMJ* (1980),

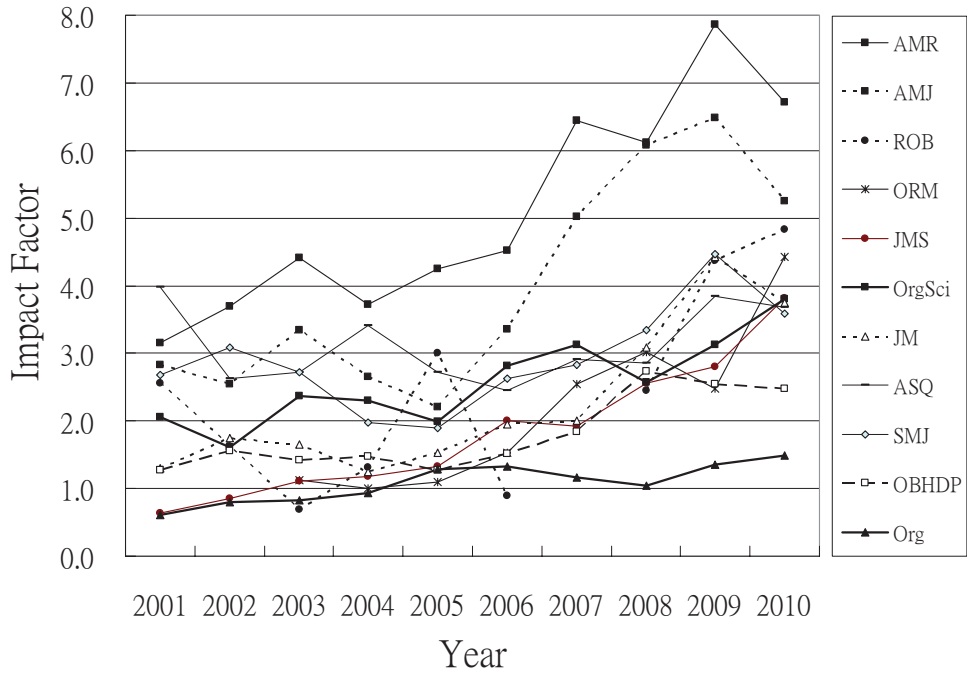

Figure 1. Impact factor values of *Organization* and the top ten OM journals

JM (1975), *AMR* (1976), *OBHDP* (1966), *AMJ* (1958), *ASQ* (1956) and *HBR* (1923) are much older. In addition, some journals publish more issues and articles than others, hence providing more citable material. In 2010 *OrgSci* published twice as many articles (71 versus 35) as *Organization*, suggesting that it will continue to pull ahead on raw citation counts.

As for self-cited counts, Figure 2 reveals that the self-citation percentages of all the top ten journals have been below 15% since 2004 and dropped further to 10% or lower since 2008. *Organization* followed suit in 2006 and 2009 after going through relatively large fluctuations and high self-citation percentages during 2001–2005, which is the period that Jones *et al* 2006 were commenting on in terms of a predictable network of people and institutions. In 2010 *ASQ* (1.06%), *CMR* (1.46%), *OD* (1.39%), *AMR* (1.57%) and *SMR* (1.83%) had less than 2% self-citations. At the opposite end (see Table 6), the journal having the highest self-citation percentage in 2010 is *JOBM* (45.85%). Throughout the 10-year period, this journal has self-citation percentages ranging from 41.94% to 78.95%. Its impact factors have been affected significantly by these self-citation percentages, as evidenced by the drop of its impact factor in 2010 from 0.963 to 0.407. Likewise, two other journals which have relatively high self-citation percentages are *SRBS* and *ML*. While *SRBS* has a range between 18.31% and 42.86, *ML* ranges from 23.36% to 37.21%%. Without the self-citations, the impact factor of *SRBS* in 2010 decreases from 0.706 to 0.477, while *ML* decreases from 1.206 to 0.809. Again, this could be interpreted in a variety of different ways, since *ML* does fall into the category of a fairly specific (not generalist) journal. Overall, the self-citation patterns of most journals stay within a narrow range of 15%, meaning that seven out of eight citations is to material from other journals.

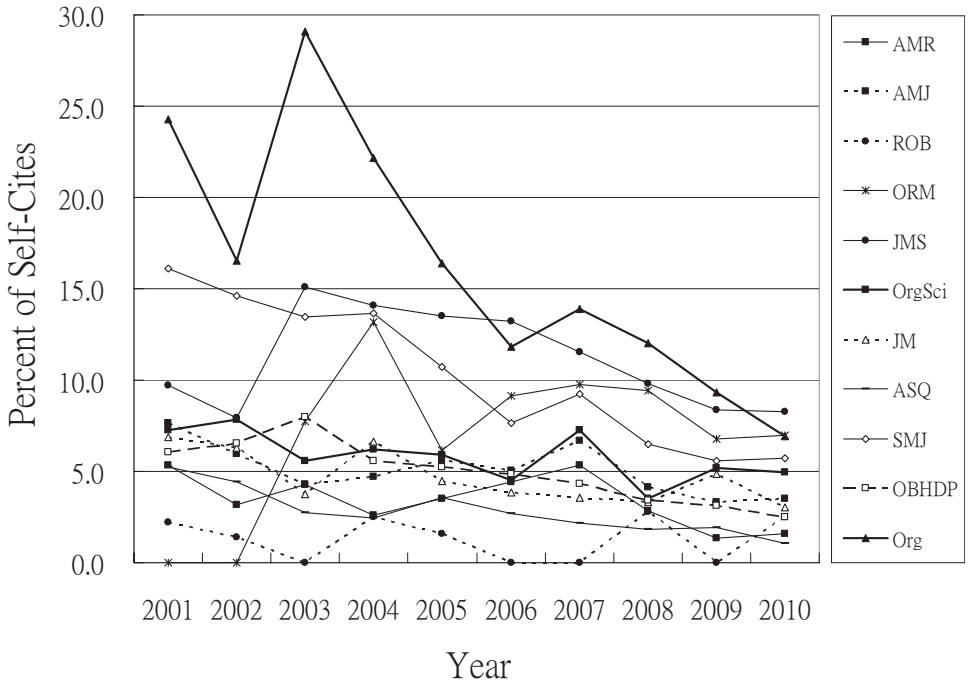

Figure 2. Percent of self-citations of *Organization* and the top ten OM journals

The citing counts provided in the JCR database are the number of citations in the references sections of the articles published each year by an SSCI journal. Table 4 demonstrates that seven OM journals, namely, *AMJ* (6172), *HR* (5294), *JM* (5646), *JMS* (6034), *OrgSci* (5925), *OS* (5071) and *SMJ* (5596), have over 5000 citations in their references sections in 2010. However, because these journals publish different numbers of articles each year, we divided the total count by the article number to come up with the average number of citations in a references section for each journal as shown in Table 7. The table shows that the higher citers are *AMR, ASQ, JM* and *ROB*; all have over 100 citations in each article. In particular, *ROB* is an outlier which has 398 citations in each article on average in 2010. On the other side, the lower citers include *HBR, OD*, and *SMR*; all have on average less than 20 citations in each article. As expected, *HBR* is an outlier with a mean citation count of 0.39; that is, approximately one out of three articles has a citation. Excluding the two outliers (*ROB* and *HBR*), the average citing count is 61 citations in a references section. *Organization* is just below this number, having citing counts range from 39 to 70 with a mean value of 57. It is unclear exactly what high numbers of references signify, because they could mean a variety of different things, but it seems fairly clear that most journals are seeing a gradual rise in the length of the references section. Perhaps this tells us something general about the rise in a perceived importance of citations, either for legitimating articles or journals, but there are also variations between journals which are likely to be significant in themselves.

Examining the percentages of self-citing counts allows us to see which journals have unusual patterns of citations in their references sections. Table 8 shows that most journals have self-citing percentages ranging from 3% to 8%; the mean value is 5.72%. A scrutiny of the table reveals that

Table 6. Percent of self–cited count during 2001–2010

Journal ID	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AMJ	7.64%	5.97%	4.29%	4.72%	5.63%	5.04%	6.70%	4.14%	3.30%	3.53%
AMP	n/a	n/a	n/a	n/a	n/a	30.00%	28.57%	18.39%	20.98%	7.12%
AMR	5.34%	3.17%	4.29%	2.60%	3.51%	4.42%	5.32%	2.82%	1.33%	1.57%
ASQ	5.24%	4.43%	2.76%	2.43%	3.57%	2.71%	2.18%	1.80%	1.92%	1.06%
CMR	2.32%	2.00%	1.87%	2.09%	3.06%	3.30%	2.46%	1.87%	1.52%	1.46%
GOM	1.04%	6.07%	2.37%	5.92%	5.57%	5.11%	3.62%	10.69%	9.17%	10.87%
HBR	0.45%	0.16%	0.22%	0.07%	0.02%	0.16%	0.08%	0.04%	0.02%	0.02%
HR	5.07%	4.14%	4.25%	5.10%	6.50%	4.90%	7.31%	4.35%	4.80%	4.42%
JM	6.89%	6.29%	3.74%	6.63%	4.45%	3.87%	3.54%	3.30%	4.83%	3.02%
JMI	11.21%	15.89%	13.84%	12.08%	16.06%	10.28%	27.16%	17.79%	5.59%	13.33%
JMS	9.73%	7.94%	15.11%	14.11%	13.50%	13.23%	11.54%	9.80%	8.38%	8.26%
JOB	11.73%	n/a	10.35%	8.28%	5.89%	6.62%	4.45%	5.30%	6.73%	4.30%
JOBM	67.40%	78.95%	55.84%	41.94%	70.91%	71.14%	51.45%	48.48%	46.46%	45.85%
JOCM	20.00%	15.08%	33.51%	13.64%	15.99%	16.36%	23.31%	14.10%	10.03%	9.73%
JOOP	n/a	n/a	7.13%	8.60%	5.74%	8.62%	9.14%	5.31%	4.28%	6.13%
ML	37.21%	28.21%	34.31%	36.59%	28.05%	26.41%	31.61%	23.36%	33.13%	24.49%
OBHDP	6.05%	6.55%	7.97%	5.59%	5.23%	4.83%	4.34%	3.42%	3.13%	2.49%
OD	2.25%	1.92%	1.94%	4.83%	2.83%	1.42%	1.77%	1.84%	2.49%	1.39%
ORG	**24.29%**	**16.52%**	**29.10%**	**22.16%**	**16.37%**	**11.82%**	**13.91%**	**12.04%**	**9.34%**	**6.93%**
OrgSci	7.26%	7.84%	5.57%	6.20%	5.92%	4.53%	7.24%	3.49%	5.18%	4.96%
ORM	n/a	n/a	7.74%	13.18%	6.14%	9.15%	9.76%	9.44%	6.78%	6.97%
OS	12.90%	11.95%	14.32%	10.34%	17.10%	13.81%	15.30%	10.37%	8.90%	11.72%
RIO	17.86%	20.50%	8.68%	11.03%	10.98%	6.52%	4.63%	8.52%	3.77%	5.56%
ROB	2.19%	1.40%	n/a	2.51%	1.57%	n/a	n/a	2.78%	n/a	2.48%
SMJ	16.09%	14.63%	13.45%	13.66%	10.74%	7.64%	9.23%	6.50%	5.60%	5.71%
SMR	33.33%	13.33%	21.11%	6.36%	5.78%	7.64%	5.57%	1.86%	1.78%	1.83%
SRBS	18.75%	32.86%	18.31%	42.86%	30.43%	34.90%	26.29%	38.28%	19.51%	31.90%

Note: Each entry is derived from dividing the self–cited count by the total cited count in Table 3.

two journals have unusual increases which might affect their impact factor values; one is *JOBM* in 2007 (30.9%) and the other is *SRBS* in 2010 (31.90%). The self-citing percentages of *Organization* are between 2.44% and 4.99% which are below the mean value, indicating that its sources of knowledge are mostly from other publications.

Influence networks

The number of non OM journals being cited by an OM journal is an indicator of the sources of knowledge which influence that particular journal. Adopting the assumption that each OM journal is usually citing or being cited by the other 26 OM journals, we can subtract 26 from each entry in Table 5 to get the number of non-OM journals citing or being cited by any particular OM journal. As the patterns of influence are relative in nature, the use of the original numbers in Table 5 will not affect the pattern. Close inspection of the table reveals that most OM journals are citing more

Table 7. Average number of citations in a reference section during 2001–2010

Journal ID	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AMJ	65	58	48	55	65	75	85	86	91	98
AMP	–	–	–	–	–	32	35	27	61	53
AMR	97	92	90	**100**	**102**	**110**	**119**	**120**	91	**124**
ASQ	**128**	**107**	**183**	**181**	**172**	**144**	**139**	**133**	**123**	**110**
CMR	24	35	28	29	40	39	35	40	33	45
GOM	55	**112**	63	56	59	72	76	72	69	77
HBR	0.69	0.64	0.41	0.51	0.32	0.46	0.37	0.45	0.39	0.39
HR	59	56	54	65	64	69	71	73	74	67
JM	78	86	67	**101**	70	88	**105**	**106**	**100**	**101**
JMI	51	43	59	48	37	40	42	50	46	50
JMS	70	78	77	78	78	82	75	83	99	**101**
JOB	55	55	60	70	66	74	80	72	77	95
JOBM	34	77	72	16	83	73	21	37	41	38
JOCM	51	37	37	47	52	43	59	54	62	62
JOOP	61	43	67	59	52	59	63	60	65	72
ML	52	61	64	62	65	72	53	54	46	66
OBHDP	58	47	49	54	61	62	66	62	72	71
OD	9	11	12	16	12	10	13	13	12	13
ORG	**39**	**60**	**48**	**58**	**70**	**61**	**62**	**41**	**65**	**69**
OrgSci	75	65	70	66	75	73	83	88	91	83
ORM	–	–	74	41	56	69	59	52	52	65
OS	90	99	84	64	71	65	59	72	72	82
RIO	20	22	29	34	33	26	27	35	30	30
ROB	**171**	**103**	–	**147**	**123**	–	–	**295**	–	**398**
SMJ	68	60	59	73	68	70	77	75	78	76
SMR	12	13	14	11	17	10	12	11	12	8
SRBS	38	32	33	34	34	31	38	46	41	8

Note: Each entry is derived from dividing the total citing count by the number of articles in Table 4.
– indicates the datum is not available.

than being cited by other journals, supporting Oswick and colleagues' (2011) suggestion that organization theory is a discipline which borrows its concepts from elsewhere. Sure enough, the mean value of citing other journals is 961, while that of being cited by other journals is 356. Looking at the opposite flow, Figure 3 shows the influence patterns of the top ten cited OM journals. *HBR* has the most influence on journals in non OM areas with citations in over 1000 journals every year in the last three years, followed by *OBHDP, AMR, ASQ*, and *AMJ*. Most of these top journals exhibit steady growth during the past 10 years. *Organization* exhibits the same growth pattern though it is not as frequently cited by the other journals.

In a previous study into the citation patterns of information system journals, Li (2009) suggested scrutinizing the ratio between the number of journals that cited a given journal and the number of journals being cited by that journal. In the same vein, we here propose a similar ratio at the article and journal level, the ratio between the cited count and the citing count. Both ratios tell us something about the influence patterns of each journal at two different levels: journal and

Table 8. Percent of self–citing count during 2001–2010

Journal ID	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AMJ	7.37%	7.63%	10.13%	9.19%	9.98%	9.03%	11.64%	10.70%	9.57%	9.85%
AMP	n/a	n/a	n/a	n/a	n/a	0.29%	0.64%	1.39%	3.06%	1.89%
AMR	7.93%	5.99%	7.03%	4.77%	5.91%	6.16%	6.80%	6.34%	6.71%	7.35%
ASQ	10.59%	11.50%	9.50%	8.70%	9.41%	9.83%	9.31%	7.74%	10.35%	9.23%
CMR	2.92%	2.25%	2.80%	3.15%	3.49%	5.12%	3.29%	4.78%	5.11%	3.39%
GOM	1.46%	1.08%	0.88%	1.65%	1.75%	1.77%	1.38%	4.20%	5.38%	6.86%
HBR	21.33%	8.11%	19.15%	5.66%	2.78%	16.00%	9.52%	6.12%	4.08%	4.26%
HR	2.32%	2.81%	3.29%	2.71%	3.77%	2.78%	4.34%	2.95%	3.84%	3.53%
JM	4.08%	3.49%	3.10%	3.24%	3.69%	3.66%	3.43%	3.83%	5.54%	3.84%
JMI	1.11%	1.53%	1.68%	1.63%	2.76%	2.08%	6.76%	4.03%	2.70%	5.37%
JMS	2.59%	2.05%	2.96%	4.04%	4.23%	4.62%	5.06%	6.34%	6.84%	6.10%
JOB	2.61%	3.64%	4.61%	3.64%	3.25%	3.46%	2.96%	4.24%	6.53%	4.40%
JOBM	19.68%	17.65%	19.06%	14.61%	17.05%	21.71%	30.90%	27.38%	14.15%	15.91%
JOCM	1.23%	1.41%	4.31%	1.64%	2.20%	2.03%	2.76%	2.78%	2.55%	2.45%
JOOP	2.14%	1.93%	2.31%	2.36%	2.04%	4.09%	3.88%	2.81%	2.05%	2.82%
ML	3.83%	3.63%	5.77%	5.27%	4.84%	4.21%	6.28%	6.08%	11.75%	8.13%
OBHDP	6.91%	8.01%	9.22%	9.49%	7.80%	6.57%	5.90%	7.13%	4.98%	6.07%
OD	4.53%	3.19%	2.29%	4.99%	4.51%	3.01%	3.19%	5.08%	7.59%	3.91%
ORG	**2.54%**	**2.44%**	**4.16%**	**3.64%**	**3.38%**	**2.79%**	**3.43%**	**4.99%**	**4.11%**	**3.32%**
OrgSci	4.01%	6.05%	4.50%	5.00%	5.60%	5.42%	7.75%	4.90%	7.72%	7.63%
ORM	n/a	n/a	0.90%	3.36%	1.61%	2.59%	3.39%	4.41%	5.05%	5.06%
OS	3.80%	4.19%	2.95%	2.70%	4.25%	4.10%	5.29%	5.50%	6.25%	7.75%
RIO	2.31%	3.82%	2.95%	2.31%	2.36%	1.88%	2.28%	3.26%	2.06%	2.86%
ROB	1.61%	1.83%	n/a	2.27%	1.72%	n/a	n/a	2.04%	n/a	1.69%
SMJ	16.03%	16.57%	15.33%	16.31%	14.73%	14.17%	16.85%	16.87%	17.43%	15.94%
SMR	0.55%	0.96%	3.03%	2.04%	1.51%	4.85%	3.59%	2.74%	3.15%	7.20%
SRBS	0.60%	1.63%	1.18%	3.16%	2.94%	2.90%	3.23%	3.53%	3.50%	31.90%

Note: Each entry is derived from dividing the self–cited count in Table 3 by the total citing count in Table 4.

article. We exclude self-citations from the citation network and consider only the other-cited count and the other-citing count. This reduced network is hereafter called the "influence network". We use a directed graph or digraph (Bang-Jensen and Gutin, 2009; Bondy and Murty, 1976) to represent an influence network. Each journal is a point with the other-cited count being its indegree, while the other-citing count is its outdegree. In a digraph, each point can be labeled with an indegree-outdegree pair in parentheses, such as (1085, 1658) for AMJ in 2010 at the journal level. Following this convention, we can define the influence metrics as follows:

$$IM_a = (\text{Article indegree, Article outdegree});$$

$$IM_j = (\text{Journal indegree, Journal outdegree}).$$

Using this method, we can say that *Organization* has the metric IM_j (Org) with a value pair of (342, 1450) in 2010. That is to say that 342 journals cite *Organization* while *Organization* articles

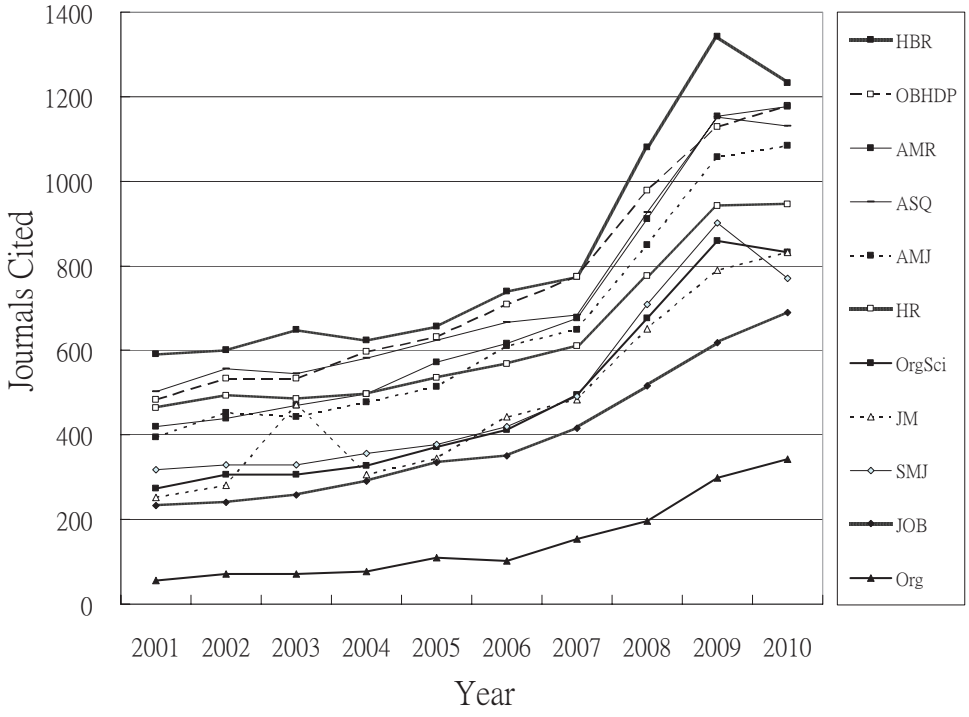

Figure 3. Numbers of journals citing the top 10 cited journals and *Organization*

cite 1450 different journals. Likewise, the metric IM_a (Org) is (1074, 2329), after subtracting a self-citation count of 80 from the total citation counts of 1154 in Table 3 and 2409 in Table 4. This means that 1074 articles cite *Organization* articles whilst Organization cites 2329 different articles in other journals. Although such metrics can be derived for each journal year by year, the fluctuation of citation and journal counts prevents us from making a meaningful comparison between journals. We therefore take the five-year average of IM values as the basis of comparison. The choice of five-year average is consistent with the five-year impact factor reported in JCR database.

Table 9 shows the IM values of 2010 and the five-year average for journal and article counts, and allows us to see some pretty clear patterns.

In terms of 2010 IM_j, *ASQ* (1130, 553), *HBR* (1233, 44), and *OBHDP* (1178, 703) have more other-cited count than other-citing count, while *AMJ* (1085, 1658), *OrgSci* (832, 1605), and *OS* (591, 2181) have the opposite; and *AMR* (1176, 1175) and *OD* (398, 331) are somewhat balanced. *Organization* (342, 1450) falls in the high-outdegree group, which is to say that it cites much more than it is cited. When looking at the five-year average, most journals have higher outdegree, except *ASQ* (912, 760), *HBR* (1034, 42), *OBHDP* (954, 889), and *OD* (315, 254). At the article level, the IM_a patterns between 2010 and the five-year average are mostly the same, except that *SRBS* changes from balanced to high-outdegree. Taking *Organization* as an example, its citation network can be visualized as shown in Figure 4.

To visualize these influence patterns, we created two XY charts as shown in Figures 5 and 6; the former from the five-year averages of IM_j and the latter from five-year averages of IM_a. The

Table 9. Influence metrics of 2010 and five–year average

Journal ID	2010 IM_j	Five–year average IM_j	2010 IM_a	Five–year average IM_a
AMJ	(1085, 1658)	(850, 1445)	(16631, 5564)	(11939, 4703)
AMP	(145, 607)	(62, 618)	(326, 1296)	(117, 1211)
AMR	(1176, 1175)	(906, 1636)	(15533, 3113)	(11274, 4365)
ASQ	(1130, 553)	(912, 760)	(11417, 1200)	(8994, 1645)
CMR	(595, 692)	(481, 635)	(2974, 1253)	(2314, 1047)
GOM	(326, 684)	(261, 688)	(1033, 1712)	(748, 1668)
HBR	(1233, 44)	(1034, 42)	(8990, 45)	(7190, 43)
HR	(946, 1942)	(769, 2054)	(4046, 5107)	(3045, 4447)
JM	(831, 1479)	(639, 1194)	(6965, 5429)	(4876, 4333)
JMI	(201, 770)	(142, 713)	(507, 1375)	(341, 1266)
JMS	(632, 1587)	(479, 1648)	(4089, 5666)	(2877, 5042)
JOB	(690, 1357)	(518, 1310)	(4543, 4436)	(3149, 3953)
JOBM	(72, 279)	(52, 250)	(137, 613)	(103, 459)
JOCM	(226, 1508)	(177, 1408)	(575, 2471)	(393, 2356)
JOOP	(443, 1037)	(350, 911)	(1654, 3722)	(1197, 2627)
ML	(173, 989)	(134, 878)	(481, 1763)	(324, 1556)
OBHDP	(1178, 703)	(954, 889)	(6232, 2461)	(5132, 2895)
OD	(398, 331)	(315, 254)	(1273, 442)	(933, 357)
ORG	**(342, 1450)**	**(219, 1367)**	**(1074, 2329)**	**(752, 2218)**
OrgSci	(832, 1605)	(654, 1538)	(8668, 5473)	(6343, 4571)
ORM	(533, 953)	(342, 708)	(1616, 2269)	(919, 1805)
OS	(591, 2181)	(438, 2181)	(2960, 4678)	(2079, 4436)
RIO	(250, 513)	(195, 478)	(544, 1085)	(419, 975)
ROB	(519, 1303)	(460, 1114)	(2125, 3133)	(1776, 2721)
SMJ	(770, 1194)	(658, 1291)	(14734, 4704)	(11923, 4335)
SMR	(320, 159)	(250, 280)	(1018, 245)	(594, 406)
SRBS	(133, 1315)	(96, 1234)	(237, 237)	(188, 1658)

Note: The first entry of influence metric is the number of other-cited count; the second is the number of other-citing count; both entries do not include self-citations.

coordinate of (457, 1017) in Figure 5 are the mean IM_j values of all OM journals. Likewise, the coordinate of (3331, 2485) in Figure 6 are the mean IM_a values of all OM journals. In order to interpret the patterns, we divide the plane into four quadrants using the mean point as the origin, similar to a Cartesian coordinate system. Journals in the first (I) quadrant have higher indegree and outdegree numbers than the average while those in the third (III) quadrant have lower indegree and outdegree than the average.

According to social network analysis, a journal in the first quadrant should possess high *degree centrality* (Freeman, 1979) because its outdegree and indegree are both relatively high. That is, the span of its citation network is relatively large. This seems to suggest that such a journal exerts a high and wide degree of influence, especially when it falls in the first quadrant of both charts. Specifically, five journals have type-I journal networks as well as type-I article networks, *AMJ, AMR, JM, OrgSci* and *SMJ*. We could say that they are both knowledge producers and knowledge consumers, and have central roles in the reproduction and distribution of organization and management knowledge. Journals in quadrant III are simply less important, in terms of the raw numbers

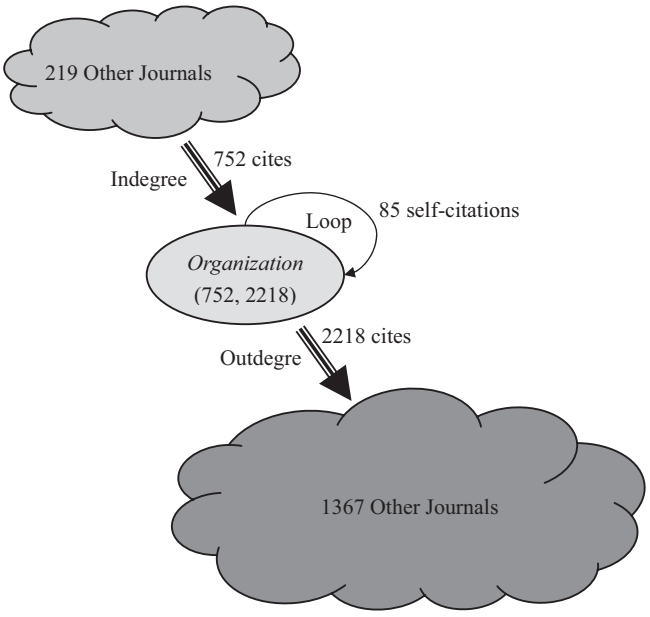

Figure 4. Citation network of Organization with five-year average IM_j (219, 1367) and IM_a (752, 2218)

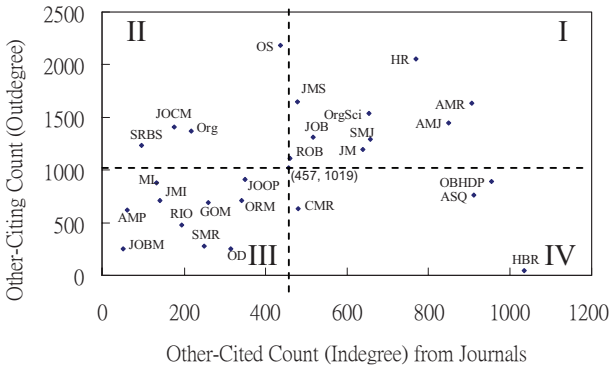

Figure 5. Five-year average influence patterns at the journal level

of citations. In contrast, *ASQ* and *HBR* consistently have unbalanced networks at both journal and article levels. They are more of a knowledge producer than a knowledge consumer, with more incoming citations than outgoing, which seems to indicate a certain detachment from the field, but considerable levels of influence.

Meanwhile, *Organization* has a type-II journal network and a type-III article network, that is to say that the coordinates are located to the left of the mean point. Because of its type-II journal network, this journal is more of a knowledge consumer than a knowledge producer. That is to say, authors who publish in *Organization* are more influenced by work coming from outside OM, and have relatively little impact on OM citations networks. Finally, those journals which remain in the

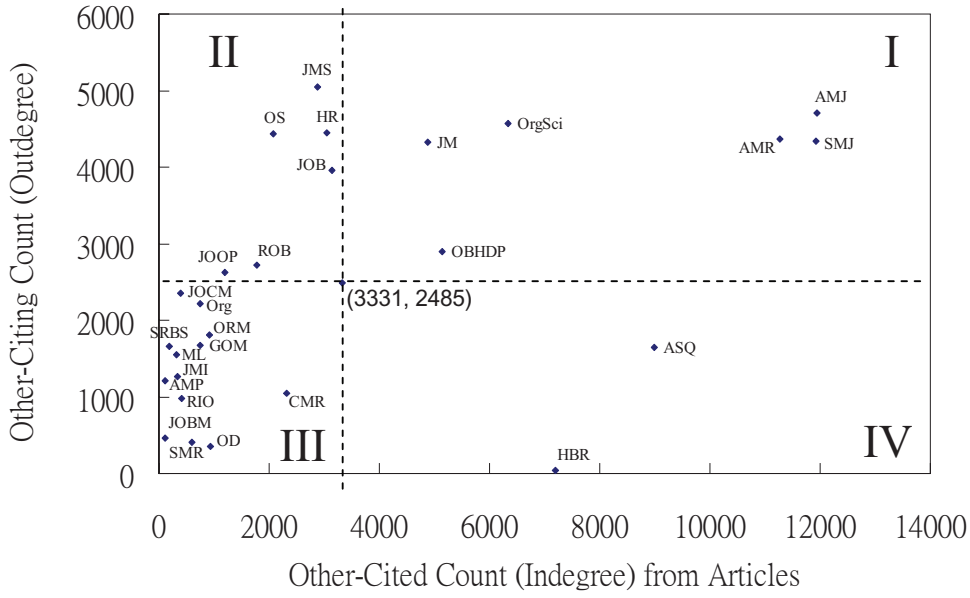

Figure 6. Five-year average influence patterns at the article level

third quadrant are creating as well as consuming knowledge to a lesser extent, with a smaller citation network and lesser degree of influence on the knowledge community. Essentially, the difference between type I journals and type III is influence in citation terms. The former have it, whilst the latter don't.

Conclusions

So what does this sort of analysis tell us about the centrality and marginality of journals within this field? We are assuming here that journal citation patterns reflect the influence of a journal on other journals, and also that the citations are relevant to the article (Li, 2009). Then again, even 'ceremonial' or 'legitimatory' citations are relevant in a broad sense, since they indicate what counts in a particular field and hence what needs to be referenced. What is clear from the data is that flows of citations can show us something about where a journal stands within, in this case, OM.[2] Some journals are central to the field, both in terms of volume of citations and the places that their citations come from and go to. Other journals are less important, based on volume of citations, and yet others are both less important and more marginal, in terms of citing more outside the field. On this basis, *Organization* is a small and marginal journal in OM.

We'll consider the broad implications of this position at the end of this conclusion, but cover a few other matters first. First, although self-citations could be easily manipulated by journal editors to increase IF values, we found no suspicious sharp increases in self-citations for all the OM journals selected for this study. Any steep jumps of IF we found during the 10-year period were not caused by sharp increases in self-citations. There certainly were high levels of self-citation in some journals, but they didn't seem to be related to changes in IF. Of course, if an editor or professional association had influence over two or more related journals, they could encourage the author of an article in one journal to cite pieces from the related journal. Indeed, it might that this is precisely

how an author could establish the centrality of their contribution. Such practices could not be detected by the self-citation counts provided in the JCR database.

Second, more and more authors in other areas are citing OM journals. In this study, we found that both the numbers of articles published and the numbers of citations in the references sections remain relatively stable each year in each OM journal. Yet, the rise in the number of citations from other journals outside these 27 might suggest that OM is becoming an increasingly important reference discipline since 2009 with top journals receiving citations from over 1000 non-OM journals. Whether these journals are outside the field of business and management in general is another matter, and it would be interesting to know just how many of these citations come from the social sciences more widely, or even the arts and humanities. That being said, as Oswick et al. (2011) argue, most organization theory ideas seem to be 'foreign' rather than 'domestic', with most OM journals citing more than they are cited.

Third, journals with high impact factor values tend to have a type-I journal network or article network, and vice versa. The only exception is *ORM* which has a type-III journal network and a type-III article network. Since the self-citation percentage of ORM in 2010 is less than 10%, this is probably caused by its dramatic increase in the cited count from other journals, resulting in a steep ascent of impact factor in 2010 (from 2.471 to 4.423). It reconfirms the validity of using the five-year average of IM values to classify and compare the influence patterns of different journals. In general though, the higher the IF, the more central in citation terms a journal is to the field of OM.

In terms of the broader lessons for a journal like *Organization*, it seems clear enough that it is small and marginal. That is to say, in scale, it is a journal which is cited less often, which cites less often, which publishes relatively few articles and hasn't been going for that long. Indeed, in the US journal field it barely registers in comparison to the large and older journals. Given its editorial policy (Parker and Thomas 2011), this is exactly what we would expect, and in some sense it is a measure of success at positioning itself on the margins. If a journal claims to be 'critical', then we should expect that (if this terms means anything) that it will publish work which is critical of the dominant assumptions of the centre, and hence be seen as irrelevant or objectionable. In other words, we would expect fewer citations to a journal which was less involved with the core problems of a particular intellectual field.

What is also interesting is the sense in which *Organization* is an 'interdisciplinary' journal in terms of its citations. It appears to be looking outside OM much more often than inside for its inspiration and legitimation, which again could be both a cause and effect of its marginality. That is to say, any journal which looks outside its field for an influence network is very unlikely to be central to that field, simply because it is not centrally involved in its reproduction. This is also the case for any journal based outside North America, unless it makes huge efforts to become more North American in personnel and orientation (Grey, 2010). Of course, given the political and epistemological critiques which *Organization* has developed over the past twenty years, this isn't surprising, and has often enough been noted in the pages of the journal. Perhaps what this article contributes is some evidence about the nature and features of that partly self-imposed marginalization.

We conclude by asking whether a journal could be critical of a field and still be central to it in citation terms. It seems unlikely, simply because it seems to need to reflect disciplinary orthodoxies (in method, epistemology and politics) in order to become an institution which reproduces a field, in terms of citation influence. In some sense then, the cost of heterodoxy is the likelihood that work will not be read as much, cited as much, and count for ranking exercises. None of this might matter if the values of authors, readers and editors over-ride more instrumental considerations, yet

the question of influence still nags. Entirely beyond the scope of this article, but implied by it in any critical project, is the question of wider forms of influence, perhaps on the configuration and legitimacy of intellectual fields such as OM. What seems clear is that the audience for such writing is likely to lie outside the centre, which means that marginality and interdisciplinarity should be understood as strategic positions, not indicators of the failure to play a particular game.

Notes

1 This research is partially supported by the National Science Council of Taiwan under the grant NSC-99-2410-H-004-157-MY3. We would like to thank Dr Felix L.W. Chen of National Kaohsiung Normal University for his assistance in collecting the research data, and Robyn Thomas and Hugh Willmott for their comments on an earlier draft.

2 In methodological terms, the influence metric proposed in this study is parsimonious and robust. The Cartesian coordinate system used to classify journals into four types based on the influence metric could be a useful tool to visualize the citation patterns of various journals at an aggregate level. The metric can be adapted further to measure citation patterns at either the journal level or the article level for a citation network of any size. Although more sophisticated measures such as degree centrality (Freeman, 1979), betweenness centrality (Freeman et al., Borgatti, and White, 1991), Q-measure (Flom et al., 2004), among others, are available in the literature, the original information about cited and citing counts can then be lost in the mathematical detail. The simple metric using indegree and outdegree measures proposed here could be easier to understand and use.

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