

RESEARCH NOTES AND COMMUNICATIONS

THE DEVELOPMENT OF STRATEGIC MANAGEMENT: JOURNAL QUALITY AND ARTICLE IMPACT

RICHARD H. FRANKE, TIMOTHY W. EDLUND and FREDERICK OSTER, III
The Sellinger School, Loyola College in Maryland, Baltimore, Maryland, U.S.A.

Quality ratings of strategic management journals by experts correlate closely with objective quality measures of current article impact and cumulative journal influence. In part, journal quality seems determined by editors' research stature. Over 12 years, scholarly influence of strategic management periodicals has grown nearly three-fold, as two new journals directed to conceptual development of management as a whole have risen to prominence. Expansion of strategic management research and growth of its influence may be in response to challenges posed by the continuing crisis of managerial and business performance.

INTRODUCTION

The field of management, especially as directed to managerial performance and strategic management, has entered a period of crisis. Dramatic declines in American business productivity, profitability, and international competitiveness call for attention of business scholars, practitioners, and policy-makers (cf. Allman, 1983; Baily, 1986; Baily and Gordon, 1988; Banks and Wheelwright, 1979; Denison, 1984; Franke, 1989; Hayes and Abernathy, 1980; Schlefer, 1989; Thurow, 1985).

In response to the challenge posed by this crisis, management scholarship has begun to deal with the problems of business, economics, and organizations in three ways:

1. by recognition of management's dependence upon underlying sciences (Neeley, 1981; Sharplin and Mabry, 1985; Salancik, 1986);
2. by recognition of a need to move beyond parochial, common-sense, and intuitive appraisals of comprehensive management issues (Simon, 1979; Camerer, 1985; Huff and Reger, 1987);
3. by development of a 'paradigm of strategic behavior' (Ansoff, 1987) and the concomitant

formation of a scholarly organization which publishes an influential, scientifically based business policy journal (Schendel and Hofer, 1979: vii; Fahey and Christensen, 1986; Huff and Reger, 1987).

To gauge this scholarly development, our study analyzes the influence of management and business policy publication between 1977 and 1988. We use empirical measures of the growth of the field and find major shifts in journal influence, through appraisal of seventeen management journals which were identified as 'significant in business policy or strategic management' by accomplished management scholars (MacMillan and Stern, 1987). To these experts' personal evaluations of journal quality, we add objective measures which show current and cumulative influence of strategic management journal articles upon further scholarship published each year by several thousand social science and management periodicals. These statistics cover the years 1977-88, and make it possible to describe the scholarly development of strategic management and to appraise some of the factors determining the influence of the field's journals.

MacMillan and Stern (1987) chose a panel of experts through a recursive procedure designed

to include highly qualified scholars. In 1986 these experts identified and rated seventeen management and three economics or finance journals which they considered appropriate publication vehicles for business policy scholars, repeating a similar evaluation made in 1984. Chief among the 1986 panel's findings was the rapid rise of *Strategic Management Journal* to the position of best in the field, at that time only six years after the journal had begun publication.

Initially we viewed this ranking with scepticism. Quality builds slowly in most scholarly journals, and recognition of quality follows even more slowly. Moreover, expert panels, however well chosen, might arrive at conclusions of limited validity. Thus we sought independent confirmation of the quality ratings in MacMillan and Stern's 1987 report.

WHAT IS JOURNAL QUALITY?

To rate quality, it must be defined. Journal quality can be identified with the quality of articles published, which in turn can be related to the impact of these articles—how many people read them and utilize the concepts and conclusions described. Articles may be written for practitioners, students, scholars, or for mixed audiences. While it is difficult to obtain measures of impact upon some of these, for articles directed to scholars there are objective measures of influence upon further research and application by the most active persons in the field—those who do and publish research. The impact which journal articles have on this key group of active scholars is investigated in the present study.

Impact of articles upon other scholars can be identified through measurements of use, since important work is cited in subsequent work. Counts of citations have long been considered important indicators of article quality, of authors' influence, and of the stature of journals in which the articles appeared (Garfield, 1972, 1979). But in any discipline fielding numerous journals, the task of counting is so tedious and subject to error as to preclude thoroughgoing application.

Fortunately, citation statistics are available for articles published in thousands of journals in the sciences, social sciences and management, and in the arts and humanities. Strategic management and related areas are covered by the *Social*

Sciences Citation Index of the Institute for Scientific Information. Yearly issues list all citations in indexed journals by source journal, as well as by each cited author and article. For indexed journals two broad measures of quality are provided:

1. *Current article impact*, which sums this year's citations to a journal's articles from the prior two years and divides by the total number of those articles. This 'impact factor', the ratio of current uses per recent article, is a measure of current article quality (Garfield, 1979: 149).
2. *Cumulative journal influence*, or total citations this year to all articles ever published in a journal. The more articles of quality published, the higher should be this count. Cumulative influence thus is likely to be increased by the age of a journal. This index shows the journal's total present influence, exerted by all the articles ever published in it as they continue to contribute to scholarship (Garfield, 1979).

ANALYTICAL FRAMEWORK

A sample of seventeen management/business policy journals, 1984 and 1986 expert assessments of journal quality, and an index of expert familiarity with each journal were obtained from MacMillan and Stern (1987). Three further journals in their sample, from the fields of economics and finance, were not included in this study since most of their articles and citations do not deal with managerial issues. Initial year of journal publication was obtained from the Library of Congress (1973, 1976, 1986). The *Journal Citation Reports* about the social science and management publications covered by the *Social Sciences Citation Index*, which have been published by the Institute for Scientific Information for 1977 to 1987, were consulted to obtain current article impact and cumulative journal influence measures for each journal in each year for which data are available. Some unpublished data were provided by Mears (1988).

For early years, ratings could not be obtained for certain journals. Some had begun publication only recently, some were published erratically, and some were not indexed because their early influence was very low. In addition, monitoring of the *Academy of Management Review* may have

been delayed because review periodicals were treated separately for a time. The *Journal of Business Strategy* was monitored but had too few citations to its articles to be included in any tabulations.

EXPERT AND OBJECTIVE MEASURES OF JOURNAL QUALITY

Table 1 compares expert and objective data for seventeen journals, ten of which have complete

data sets. These journals had been published for between 7 and 65 years in 1987, and were familiar to between 52 and 100 percent of the experts in 1986. Coefficients of variation for expert evaluations in 1984 and in 1986 are about 20 percent (ratios of standard deviations to means), while coefficients of variation are 50–80 percent for objective measures of current article impact and 80–130 percent for cumulative journal influence. Although scale characteristics limit some of these observations, it appears that strategic

Table 1. Journal data (in order of quality ranking by MacMillan and Stern's experts)

Length of journal publication*	Expert familiarity 1986	Journal quality measures						
		Expert evaluations		Current article impact		Cumulative journal influence		
		1984	1986	1985	1987	1985	1987	
<i>SMJ</i> †	7	96	3.33	3.48	0.909	1.983	206	556
<i>ASQ</i>	31	100	3.69	3.39	2.855	1.796	1866	2072
<i>AMJ</i>	29	100	3.41	3.21	1.558	1.626	1100	1448
<i>MS</i>	33	93	3.36	3.19	0.886	0.901	2747	2733
<i>HBR</i>	65	100	3.11	3.08	1.243	1.653	1504	1655
<i>AMR</i>	11	96	2.96	2.91	1.536	1.965	815	1136
<i>SMR</i>	27	100	2.81	2.77	0.423	0.877	141	304
<i>JMS</i>	26	63	2.23	2.47	0.400	0.719	136	199
<i>CMR</i>	29	100	2.33	2.40	0.482	0.513	195	255
<i>OS</i>	7	52	—	2.36	0.184	0.459	49	93
<i>JBS</i>	7	85	2.32	2.22	—	—	—	—
<i>OD</i>	15	85	—	2.20	1.282	0.789	202	223
<i>JM</i>	12	63	—	2.18	0.429	0.676	45	118
<i>DS</i>	17	81	2.22	2.05	—	0.443	—	339
<i>LRP</i>	19	85	1.97	2.00	0.261	0.193	169	235
<i>JGM</i>	14	63	—	1.89	0.163	0.226	24	38
<i>HRM</i>	25	67	—	1.89	—	0.104	—	12
<i>Complete-data sample (all data are available: n = ten journals)</i>								
Mean:	28.70	93.33	2.92	2.89	1.055	1.223	888	1059
S.D.:	15.71	11.69	0.58	0.48	0.789	0.654	905	896
<i>Opportunistic sample (data as available: n = twelve to seventeen journals)</i>								
Mean:	23.00	84.10	2.81	2.57	0.901	0.933	657	714
S.D.:	14.23	16.45	0.58	0.54	0.747	0.654	846	836
n:	(17)	(17)	(12)	(17)	(14)	(16)	(14)	(16)

* In 1987.

† Journals are *Strategic Management Journal (SMJ)*, *Administrative Science Quarterly (ASQ)*, *Academy of Management Journal (AMJ)*, *Management Science (MS)*, *Harvard Business Review (HBR)*, *Academy of Management Review (AMR)*, *Sloan Management Review (SMR)*, *Journal of Management Studies (JMS)*, *California Management Review (CMR)*, *Organization Studies (OS)*, *Journal of Business Strategy (JBS)*, *Organizational Dynamics (OD)*, *Journal of Management (JM)*, *Decision Sciences (DS)*, *Long Range Planning (LRP)*, *Journal of General Management (JGM)*, and *Human Resource Management (HRM)*. The top five strategic management journals in 1987, as measured by current article impact, are also the top five journals under the broad category of management in Section 8 of the 1987 *SSCI Journal Citation Reports* (which lists a total of thirty-five). The top ten in this list, those with high impact (>0.750), contain two that are not in our sample of strategic management journals: *Organizational Behavior and Human Decision Processes* (no. 6) and *MIS Quarterly* (no. 7). The full list of thirty-five management journals includes all of the strategic management journals in our study except for the *Journal of Business Strategy*.

management journals objectively show much greater quality variation than was recognized by experts. Substantial changes in the impact and influence of individual journals between 1985 and 1987 also demonstrate that there are dynamics in the field of strategic management which were not recognized fully by MacMillan and Stern's (1987) panels of experts.

By 1987 those journals whose articles had the highest current impact were, beginning with the most frequently cited: *Strategic Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *Harvard Business Review*, and *Academy of Management Journal*. The two highest-ranking journals unexpectedly were of recent vintage—having begun publication but 7 and 11 years earlier. However, use of cumulative influence (citations to all of a journal's past articles) as the measure of quality resulted, as might be expected, in somewhat stronger ratings for older journals. By 1987 those journals with the highest cumulative influence were *Management Science*, *Administrative Science Quarterly*, *Harvard Business Review*, *Academy of Management Journal*, and *Academy of Management Review*, with all but *AMR* existing for 29 or more years and possessing a considerable stock of past articles. Only 7 years old, *Strategic Management Journal* ranked sixth among seventeen in terms of cumulative influence, even though relatively few articles had yet been published in its pages. The top six journals as rated by MacMillan and Stern's experts include the top five journals according to both objective measures, current article impact and cumulative journal influence.

Cross-sectional analysis was performed to test relationships among the various measures of journal quality and to indicate possible determinants of quality. Since some data (expert ratings) were ordinal and there were ten to seventeen journals with various data sets available, Spearman rank order correlation is suitable and diminishes possible outlier distortion due to small sample sizes (McCall, 1980: 151–153, 345–348; Siegel and Castellan, 1988: chs 3 and 9). In Table 2, correlations for ten journals with complete data are in the upper position, while correlations for the largest data sets available occupy the lower position. Sample sizes are in parentheses, and two-tailed significance levels are indicated by asterisks.

Table 2 shows high stability of ratings by the experts in 1984 and 1986 (about 85 percent correlation squared or variance overlap). The objective measure of current article impact shows less correspondence between 1985 and 1987 (about 65 percent variance overlap), but the cumulative journal influence is highly stable (92 percent overlap). Length of publication of journals is related significantly only to expert familiarity in the larger sample, which includes some less well known journals, and to cumulative journal influence. Surprisingly, current article impact is not affected by length of journal publication.

Expert familiarity with the journals in 1986 is related in Table 2 to all indices of journal and article quality only for the larger samples which include more of the lower-quality journals. At least 63 percent of the experts were familiar with each of the journals in the sample of ten, but this ranged down to 52 percent for the larger sample of seventeen journals. The quality measures' standard deviations were similar for larger and smaller samples. Thus, the relatively low correlations for expert familiarity in the sample of ten journals seems to result not merely from restriction of range, but also from a truly limited relationship of familiarity to quality. Indeed, some journals which were unfamiliar to a number of experts have relatively high quality as measured by article impact. For example, the *Journal of Management Studies* and the *Journal of Management* were near the middle in terms of impact but were known to fewer than two-thirds of the management experts. Primary editorial locations (England and West Texas) may have served to diminish their visibility as journals of good quality.

Objective measures of *current article impact* provide citations in a given year to articles published 1 and 2 years earlier. Carefully selected experts can be presumed to be up to date and knowledgeable, rating recent journal quality in the year of evaluation and the prior year. Thus, the impact factor for 1985, which refers to articles published in 1983 and 1984, should correspond to expert evaluation in 1984. Similarly, the impact factor for 1987 should correspond to expert evaluation of journals in 1986. The impact factor which would correspond to a further survey of expert evaluations in 1988 by MacMillan (1989) is that for 1989, which remains to be developed

Table 2. Spearman correlations of journal characteristics and quality measures

Variables:	Journal quality measures						Cumulative journal influence 1985
	Length of journal publication	Expert familiarity, 1986	Expert evaluations		Current article impact		
			1984	1986	1985	1987	
Expert familiarity 1986	0.47 0.57** (10,17)						
Expert evaluation 1984	0.43 0.48 (10,12)	0.46 0.67** (10,12)					
Expert evaluation 1986	0.15 0.33 (10,17)	0.30 0.68*** (10,17)	0.92*** 0.94*** (10,12)				
Current impact, 1985	0.30 0.35 (10,14)	0.56* 0.67*** (10,14)	0.87*** 0.87*** (10,10)	0.77*** 0.71*** (10,14)			
Current impact, 1987	-0.10 0.16 (10,16)	0.25 0.63*** (10,16)	0.70** 0.77*** (10,11)	0.84*** 0.92*** (10,16)	0.78*** 0.81*** (10,14)		
Cumulative influence, 1985	0.62* 0.60** (10,14)	0.31 0.67*** (10,14)	0.83*** 0.83*** (10,10)	0.66** 0.79*** (10,14)	0.75** 0.82*** (10,14)	0.53 0.74*** (10,14)	
Cumulative influence, 1987	0.63* 0.54** (10,16)	0.39 0.76*** (10,16)	0.88*** 0.85*** (10,11)	0.72** 0.81*** (10,16)	0.76** 0.75*** (10,14)	0.59* 0.76*** (10,16)	0.96*** 0.96*** (10,14)

Samples for which data are available are in parentheses, the first for the correlation in the upper and the second for that in the lower position.

* $p < 0.10$, two-tailed; ** $p < 0.05$, two-tailed; *** $p < 0.01$, two-tailed.

and published in 1990 by ISI. The second set of objective quality measures is *cumulative journal influence*. Since it provides citations in the stated year to articles published in all past years, it cannot be tied directly to expert ratings determined in a specific year.

Table 2 shows that the experts' journal evaluations correlate strongly with the appropriate years' measures of current article impact. Variance overlap is 76 percent for 1984 expert opinion with 1985 article impact, and 71-85 percent for 1986 expert rating with 1987 impact. On the other hand, cumulative journal influence in 1987 correlates best with expert ratings in both 1984 and 1986, with variance overlap 52-77 percent. We conclude that expert evaluations are strongly related to cumulative journal influence in general and to current article impact measures

which correspond to the same time as the expert evaluation.

THE DEVELOPMENT OF STRATEGIC MANAGEMENT

Results of analysis over time for all strategic management journals and for the five journals with highest current impact are shown in Table 3. From 1977 to 1988, average impact of a published article rose from 0.630 (for ten journals) to 1.088 (for sixteen journals). These figures change only moderately when the sample is restricted to journals for which full data sets were available by 1985 (not presented in Table 3)—rising from 0.728 in 1977 (eight journals) to 1.329 in 1988 (ten journals). Quality variations among

Table 3. Development of journal quality in strategic management

	Averages for all journals*		Five top journals in the field				
	Cumulative journal influence	Current article impact	Current article impact				
			SMJ	AMR	ASQ	HBR	AMJ
1977	437 (10)	0.630 (10)	—	—	1.775	0.790	0.685
1978	487 (10)	0.581 (10)	—	—	2.014	1.044	0.774
1979	626 (8)	0.800 (9)	—	—	2.291	0.938	1.000
1980	599 (9)	0.760 (9)	—	—	2.576	1.282	1.025
1981	606 (10)	0.644 (11)	0.000	—	2.062	1.349	1.265
1982	621 (10)	0.639 (12)	0.685	—	1.903	1.101	1.227
1983	602 (12)	0.803 (12)	0.789	—	2.574	1.242	1.403
1984	703 (12)	1.046 (12)	1.397	—	2.967	1.484	1.787
1985	657 (14)	0.901 (14)	0.909	1.536	2.855	1.243	1.558
1986	688 (15)	0.878 (15)	1.367	1.651	1.907	1.032	1.573
1987	714 (16)	0.933 (16)	1.983	1.965	1.796	1.653	1.626
1988p	732 (16)	1.088 (16)	1.785	2.152	1.962	1.675	1.776
Background Information							
Initial year of publication			1980	1976	1956	1922	1958
Editors' own research stature (citations per year)							
1980 Editors†			43.7	0.2	83.2	18.0	8.8
1985 Editors‡			62.7	8.2	139.6	28.6	28.2

* Data available for the number of journals in parentheses from the total sample of seventeen in Table 1, in the *SSCI Journal Citation Reports* for 1977-87 (1988p = preliminary ISI data).

† Number of citations per year to sole or primary-author publications of the journals' editors, from the *Social Sciences Citation Index* for 1976-80. Where one associate or coeditor, editor's score was weighted 2/3 and the other's 1/3. Where more than one associate or coeditor, editor's score was weighted 1/2, with the remainder divided equally among others. Assistant, specialized, managing, and numerous associate editors were not considered.

‡ Number of citations per year from *SSCI* for 1981 to 1985.

journals in the samples remain substantial, with impact factor standard deviations moving from about 0.5 in 1977 to 0.8 in 1984 and 0.6 in 1988. For the two samples over 1977-88 there were increases of 73 and 83 percent in the average current article impact of strategic management journals.

Increases were similar for cumulative journal influence, the number of citations to all past articles, which rose from an average of 437 to each journal in 1977 (ten journals in sample) to an average of 732 in 1988 (sixteen journals). The total influence of strategic management research can be gauged by multiplying the average number of citations per journal by the number of journals. Citations to strategic management journal articles rose from 4370 in 1977 to 11,712 in 1988 (from 4332 to 10,759 for the smaller sample of eight to ten journals). The influence of the field's journals upon all noteworthy scholarly publications grew by 168 percent over 1977-1988, although social

science and management research influence as a whole grew only 6 percent from 1977 to 1987 (cf. 1987 *SSCI Guide and Lists of Source Publications*: 26-27).

THE RAPID RISE OF TWO JOURNALS

As shown in Figure 1, the increase in current article impact is dramatic for *Strategic Management Journal* and *Academy of Management Review*, both relatively new journals which rose to first and second position among management and business policy journals by 1987 and to third and first position in 1988. The remaining journals among the top five, *Administrative Science Quarterly*, *Harvard Business Review*, and *Academy of Management Journal*, have been published for over 30 years. While these periodicals with long track records remain high in quality, their current article impact factors fluctuate and were

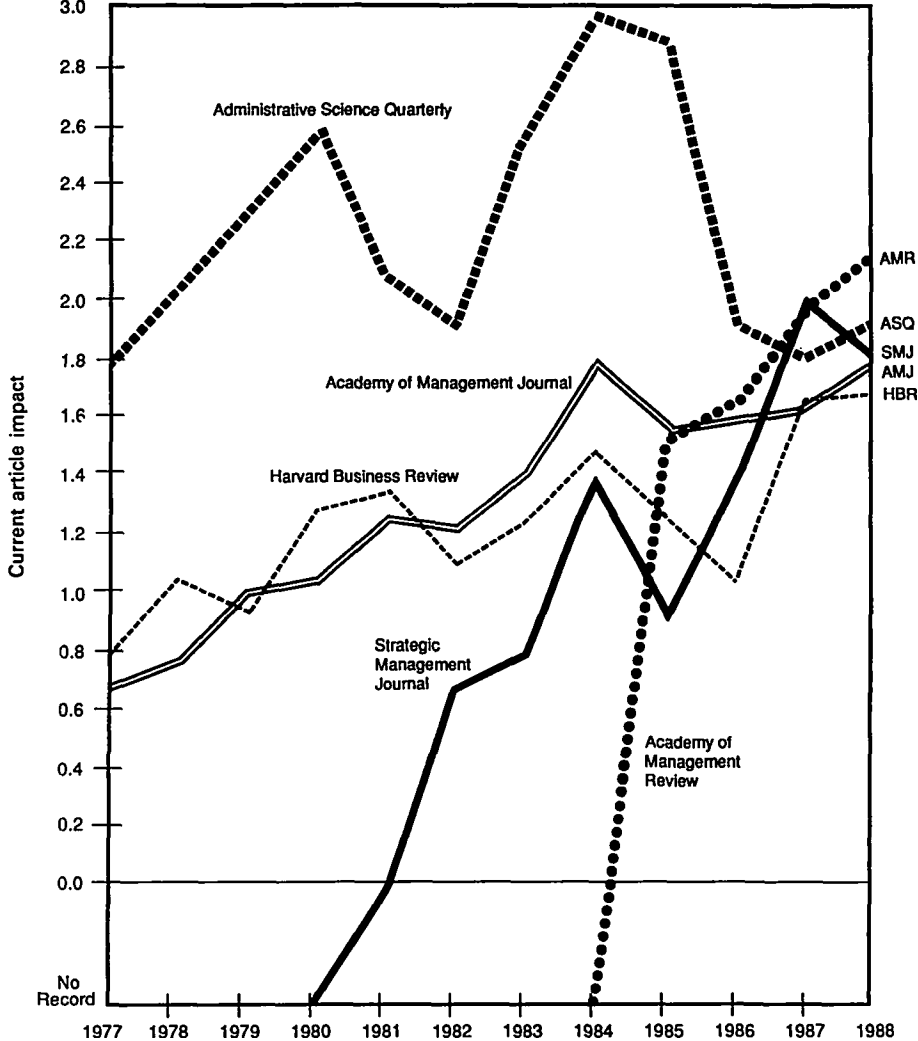


Figure 1. Impact of current journal articles

surpassed in 1987 by *Strategic Management Journal* and *Academy of Management Review*.

EDITORS AND JOURNAL QUALITY

Substantial quality differences among journals in the same field, and rapid quality changes for individual journals, invite questions as to reasons

for quality differences and changes. One factor that seems to affect journal impact is the research stature of a journal's editors. As summarized in Table 3, by 1985 all five top journals had editors with well-established research influence—each with more than forty citations during 1981–1985 to own first-authored research. *Strategic Management Journal's* rapid rise may be attributed to early editorial quality. Similarly, the apparent

of development by the Academy of Management Review, followed by a rapid increase of influence, may be associated with a rise in editorial research stature by 1985.

Research stature can be measured by the rate at which others make use of a scientist's publications. Since both publication and citation of an individual's work may fluctuate from year to year, for measurement stability citation counts should cover a number of years. For the editors of the seventeen journals in our sample, counts of references in 1976–80 and 1981–85 are available from 5-year summary editions of the *Social Sciences Citation Index*. To represent those sharing main editorial responsibilities, citations are counted to primary research of the editor and of one or two associate editors or coeditors if present (with lesser weightings as in Table 3), but citations to research by assistant, specialized, and managing editors are not counted.

An editor who is an experienced researcher may affect a journal's quality by attracting active scholars to submit manuscripts, and by recognizing and selecting articles which will have high impact upon further scholarship. To test effects of journal editors, we hold the editors of a journal in 1980 responsible for attracting and choosing articles published during the next 2 years—articles whose current impact factors were provided in the 1983 *SSCI Journal Citation Reports*. Similarly, editors in 1985 are responsible for the quality of articles published during 1986 and 1987, whose average impact upon other articles published in 1988 will be in the 1988 *SSCI Journal Citation Reports* (preliminary data from Mears, 1989).

Linkage between editors' research stature and the impact of articles published in their journals is demonstrated by 2×2 contingency tables in Figure 2. For the sample of seventeen strategic management journals, 1980 editors' research stature is related to 1983 impact of 1981 and 1982 articles. A second test of the editor stature–journal quality relationship relates 1985 editors to the 1988 impact of articles published during 1986 and 1987.

High research stature is defined as more than five citations per year over a 5-year period. This level of influence upon the research literature was achieved by about two-thirds of the editors in our sample, but is attained by only a small percentage of social science and management

researchers. The research of some editors was referenced more frequently, but having one's work cited more than five times per year had little further effect upon quality of the journal edited. *High journal quality* is defined as an average article impact of 0.750. This standard places high-quality journals in the top 20–30 percent of the noteworthy periodicals listed in the fields of management, business, applied psychology, economics, and finance (see 1983 *SSCI Journal Citation Reports*: Section 8). Statistical analysis employs the Fisher exact probability test (Siegel and Castellan, 1988).

No journals with editors of low research stature in 1980 achieved high-quality status in 1983. On the other hand, only half of those journals whose editors did have high research stature were of high quality. The contingency table in the upper part of Figure 2 indicates that editors who are accomplished researchers are necessary, but not sufficient, to produce an influential publication. The Fisher exact probability test shows the relationship between 1980 editorial stature and 1983 journal quality to be significant ($p=0.0407$, one-tailed). A second contingency table, in the lower part of Figure 2, replicates this finding for the editors of 1985 and journal quality in 1988 ($p=0.0276$).

In addition to the importance of journal editors, examination of individual journals indicates other factors which may influence journal quality. Two of the high editor stature but low-quality journals in the earlier period (*OD* and *OS*) maintained high editorial stature and achieved high-quality status by the second period. One (*DS*) suffered editorship decline and remained low in quality. Two (*LRP* and *JM*) remained relatively uninfluential, even though their editors maintained high research stature. Perhaps their principal editorial locations in the U.K. and West Texas are remote from many U.S. academics, diminishing the visibility and accessibility of their journals' articles. Three of the low-editorship/low-quality journals of the first period (*AMR*, *HRM*, and *CMR*) experienced substantial increases of editors' research stature in the second period and became high-impact journals by 1988. One of the low–low journals of the first period (*SMR*) became an exception to the requirement of high-status editorship for high journal influence. Its student editors continued to have low research stature, but *SMR* moved from low–low to the

Figure 2. Editors' research stature and their journals' quality*

1980 Editors' Research stature		Journals' articles in 1981 and 1982		1983 Journal quality index (these articles' impact)							
Journal quality (current article impact in 1983)											
		Low (<0.750)			High (>0.750)						
1980 Editors' research stature (1976-80 citations)	High (>5/year):	<i>OD</i> (8.1, 0.576) <i>OS</i> (48.6, 0.541) <i>LRP</i> (13.0, 0.082) <i>DS</i> (18.6, —†) <i>JM</i> (20.2, —)	<table border="1"> <tr> <td>High-Low</td> <td>5</td> <td>5</td> </tr> <tr> <td>Low-Low</td> <td>7</td> <td>0</td> </tr> </table>		High-Low	5	5	Low-Low	7	0	<i>ASQ</i> (83.2, 2.574) <i>AMJ</i> (8.8, 1.403) <i>HBR</i> (18.0, 1.242) <i>MS</i> (16.4, 1.036) <i>SMJ</i> (43.7, 0.789)
	High-Low	5	5								
Low-Low	7	0									
Low (<5/year):	<i>JMS</i> (2.7, 0.625) <i>SMR</i> (0.0, 0.500) <i>CMR</i> (1.4, 0.149) <i>JGM</i> (0.4, 0.115) <i>AMR</i> (0.2, —) <i>HRM</i> (0.0, —) <i>JBS</i> (3.4, —)			High-High	Low-High						

Fisher exact probability test $p=0.0407$.‡

1985 Editors' Research stature		Journals' articles in 1986 and 1987		1988 Journal quality index (these articles' impact)							
Journal quality (current article impact in 1988)											
		Low (<0.750)			High (>0.750)						
1985 Editors' research stature (1981-85 citations)	High (>5/year):	<i>JM</i> (13.8, 0.602) <i>LRP</i> (8.4, 0.228)	<table border="1"> <tr> <td>High-Low</td> <td>2</td> <td>10</td> </tr> <tr> <td>Low-Low</td> <td>4</td> <td>1</td> </tr> </table>		High-Low	2	10	Low-Low	4	1	<i>AMR</i> (8.2, 2.152) <i>ASQ</i> (139.6, 1.962) <i>SMJ</i> (62.7, 1.785) <i>AMJ</i> (28.2, 1.776) <i>HBR</i> (28.6, 1.675) <i>OD</i> (5.6, 1.150) <i>MS</i> (40.2, 1.000) <i>HRM</i> (19.9, 0.878) <i>CMR</i> (21.4, 0.870) <i>OS</i> (41.4, 0.757)
	High-Low	2	10								
Low-Low	4	1									
Low (<5/year):	<i>JMS</i> (2.8, 0.738) <i>DS</i> (3.2, 0.610) <i>JGM</i> (2.0, 0.129) <i>JBS</i> (0.7, —)			High-High	Low-High						

Fisher exact probability test $p=0.0276$.‡

* Journal names are in the second footnote to Table 1. For individual journals, editors' research stature and current article impact are in parentheses in Figure 2. Editors' research stature is calculated as described in Table 3, in the second and third footnotes. Journal impact data for 1988 were provided by Mears (1989).

† Journal quality is presumed low (impact factor less than 0.750) when no rating is provided by the *SSCI Journal Citation Reports*, as discussed in the Analytical Framework. If these data are excluded, total sample sizes in the upper and lower sections of Figure 2 are 12 and 16, and Fisher exact probability test results are $p=0.0707$ and $p=0.0632$.

‡ Fisher exact probability test calculations as shown by Siegel and Castellan (1988), 1 d.f., one-tailed, for a positive relationship of editors' research stature with subsequent journal quality.

low-high position in the second period. Perhaps just as negative situational factors in the cases of *LRP* and *JM* might make a journal less influential, positive factors as in the case of the *Sloan Management Review*—published at a highly visible and prestigious location—can add to a journal's influence.

CONCLUSION

Our results strongly confirm those reported by MacMillan and Stern (1987). Objective quality measures of scholarly influence substantiate their expert ratings of management/business policy journals. Relative positions among the sampled journals shift over time, and two recently initiated publications have risen to first, second, or third place for current article impact in 1987 and 1988. Success of strategic management journals is related to level of editorial research stature, and may be associated with situational factors such as location and prestige which contribute to journal visibility.

Over 12 years the influence of strategic management journals upon publications in scholarly periodicals rose several-fold. The increased utilization of strategic management articles indicates scholarly acceptance of the field's importance. The rapid rise to prominence by two new journals suggests recognition of the need for paradigmatic development which these journals and the field of strategic management promise to address.

ACKNOWLEDGEMENTS

We are grateful for the advice of *SMJ* referees and editors, for technical data and suggestions from the Institute for Scientific Information's Editorial Services Department, and for editorial assistance by Elke K. Franke. Early stages of this research were supported in part by National Science Foundation Grant No. IST-7916483 for the study of the critical review process and by a Sellinger School grant for the study of research productivity.

REFERENCES

Allman, D. N. 'The decline in business profitability: A disaggregated analysis', *Economic Review* (Federal

- Reserve Bank of Kansas City), January 1983, pp. 19-26.
- Ansoff, H. I. 'The emerging paradigm of strategic management', *Strategic Management Journal*, 8, 1987, pp. 501-515.
- Baily, M. N. 'What has happened to productivity growth?', *Science*, 234, 1986, pp. 443-451.
- Baily, M. N. and R. J. Gordon, 'The productivity slow-down, measurement issues, and the explosion of computer power', *Brookings Papers on Economic Activity*, 1988(2), pp. 347-420.
- Banks, R. L. and S. C. Wheelwright. 'Operations vs. strategy: Trading tomorrow for today', *Harvard Business Review*, 57(3), 1979, pp. 112-120.
- Camerer, C. 'Redirecting research in business policy and strategy', *Strategic Management Journal*, 6, 1985, pp. 1-15.
- Denison, E. L. 'Accounting for slower economic growth: An update'. In J. W. Kendrick (ed.), *International Comparisons of Productivity and Causes of the Slowdown*, Ballinger, Cambridge, MA, 1984, pp. 1-45.
- Fahey, L. and H. K. Christensen. 'Evaluating the research of strategy content', *Journal of Management*, 12, 1986, pp. 167-183.
- Franke, R. H. 'Technological revolution and productivity decline: The case of U.S. banks'. In T. Forester (ed.), *Computers in the Human Context*, MIT Press, Cambridge, MA, 1989, pp. 281-290.
- Garfield, E. 'Citation analysis as a tool in journal evaluation', *Science*, 178, 1972, pp. 471-479.
- Garfield, E. *Citation Indexing—Its Theory and Application in Science, Technology, and Humanities*, John Wiley and Sons, New York, 1979.
- Hayes, R. H. and W. J. Abernathy. 'Managing our way to economic decline', *Harvard Business Review*, 58(4), 1980, pp. 67-77.
- Huff, A. S. and R. K. Reger. 'A review of strategic process research', *Journal of Management*, 13, 1987, pp. 211-236.
- Library of Congress, *New Serial Titles: 1950-1970*, Library of Congress, Washington, DC, 1973.
- Library of Congress, *New Serial Titles: 1970-1975*, Library of Congress, Washington, DC, 1976.
- Library of Congress, *New Serial Titles: 1981-1985*, Library of Congress, Washington, DC, 1986.
- MacMillan, I. C. 'Delineating a forum for business policy scholars', *Strategic Management Journal*, 10, 1989, pp. 391-396.
- MacMillan, I. C. and I. Stern. 'Delineating a forum for business policy scholars', *Strategic Management Journal*, 8, 1987, pp. 183-186.
- McCall, R. B. *Fundamental Statistics for Psychology*, Harcourt Brace Jovanovich, New York, 1980.
- Mears, J. A. Personal communication (letter), 9 December 1988.
- Mears, J. A. Personal communication (telephone), 19 June 1989.
- Neeley, J. D., Jr. 'The management and social science literatures: An interdisciplinary cross-citation analysis', *Journal of the American Society for Information Science*, 42, 1981, pp. 217-223.

Salancik, G. R. 'An index of subgroup influence in dependency networks', *Administrative Science Quarterly*, **31**, 1986, pp. 194-211.

Schendel, D. E. and C. W. Hofer (eds) *Strategic Management: A New View of Business Policy and Planning*, Little, Brown, Boston, MA, 1979.

Schlefer, J. 'Making sense of the productivity debate: Reflections on the MIT report', *Technology Review*, **92**(6), August/September 1989, pp. 28-40.

Sharplin, A. D. and R. H. Mabry. 'The relative importance of journals used in management

research: An alternative ranking, *Human Relations*, **38**, 1985, pp. 139-149.

Siegel, S. and N. J. Castellan, Jr. *Nonparametric Statistics for the Behavioral Sciences*, McGraw-Hill, New York, 1988.

Simon, H. A. 'Rational decision making in business organizations', *American Economic Review*, **69**, 1979, pp. 493-513.

Thurrow, L. C. *The Zero-Sum Solution*. Simon and Schuster, New York, 1985.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.