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Globalization of Authorship in the Marketing Discipline: Does It Help or Hinder the Field?

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Marketing scholars have reflected upon the marketing discipline's internal evolution before. However, no prior study has assessed the globalization of authorship in our discipline, let alone assessed its consequences for the field. This paper addresses the following two questions: (1) Is there evidence of increasing globalization of authorship in the marketing discipline? (2) If so, does it help or hinder the field? Our work shows empirically how the globalization of our discipline evolved, how U.S. dominance is fading, and which countries experienced a rise in productivity of their affiliate and native scholars. Globalization hinders the field, because it has a negative effect on the impact of several major journals (most importantly, the *Journal of Marketing* and the *Journal of Marketing Research*). Globalization helps the field, because it has a positive effect on the diversity of our discipline. Important implications of our research are: (1) Journals and sponsoring organizations should strive for more international meetings. (2) Editors, reviewers, and authors should pay more attention to the global relevance of the research they publish, review, and submit. (3) Individual researchers should aim to be part of the global community of marketing scientists through, for instance, international research visits.

Key words: globalization; journal impact; journal diversity; journal citations; philosophy of science; bibliometrics
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Introduction

Marketing scholars have reflected upon the marketing discipline's internal evolution before either (1) presenting normative accounts of what should be published (e.g., Anderson 1986, 1988; Hunt 1990; Peter and Olson 1983; Shugan 2003; Zinkhan and Hirscheim 1992); (2) describing what was being published (Tellis et al. 1999); (3) analyzing the impact journals had within and outside our field (Baumgartner and Pieters 2003); or (4) counting the productivity of individual authors and institutions (Bakir et al. 2000, Cote et al. 1991, Helm et al. 2003, Spake and Harmon 1997).

However, no prior study has assessed the globalization of authorship in our discipline, let alone examined its consequences for the field. This lack of prior research surely cannot be explained either by a lack of example or by a lack of relevance. Authors in some of our main source disciplines—economics (e.g., Kocher and Sutter 2001) and psychology (e.g., Adair et al. 2002, Bauserman 1997, Rosenzweig 1992)—have examined the extent to which they are international in author background. A major argument for these authors to do so was their concern about the variety of ideas, methods, and approaches of articles in leading journals (Kocher and Sutter 2001).

Studying the globalization of marketing science is also relevant. Journal editors, publishers, and sponsoring organizations (such as the American Marketing Association and INFORMS), want to know about their journals' standing—often in comparison to other journals in the field—and the effect of their editorial policies (Baumgartner and Pieters 2003). Globalization may be a specific policy of editors. Individual marketing scholars may want to know to what extent the discipline is becoming more international and which countries are most active. This knowledge would enable them to better track the progress of the discipline and to diffuse one's own ideas, e.g., through international visits to other universities and conferences. Finally, studying globalization fits with the increasing attention in marketing science for globalization and changes in the international environment (e.g., Eliashberg and Elberse 2003, Tellis et al. 2003).

Globalization may also have important consequences through which it may hinder or help the field. First, internationalization of authors may make

a journal more widely known across countries and thus increase its impact. On the other hand, internationalization may also decrease a journal's impact, as authors may especially cite articles of authors in their own (geography-bounded) network. Second, a more diverse international background of authors may yield more diversity in viewpoints, approaches, and paradigms. Prior research recognizes diversity as critical to the scientific progress within the marketing discipline (Tellis et al. 1999).

The current paper asks the following two questions:

1. Is there evidence of increasing globalization of authorship in the marketing discipline?

2. If so, does it help or hinder the field?

We address the above questions by gathering data on all publications in the four journals that are widely acclaimed as major marketing journals in the United States (Tellis et al. 1999), namely, the *Journal of Consumer Research* (JCR), the *Journal of Marketing* (JM), the *Journal of Marketing Research* (JMR), *Marketing Science* (MKS), and one journal that is acclaimed as a major marketing journal in Europe, the *International Journal of Research in Marketing* (IJRM). We inventoried all journal articles between 1964 and 2002 in these five journals but excluded papers with a total length of three or fewer pages, as these contain book reviews, software reviews, commentaries, and the like, and any papers that were clearly not peer-reviewed papers, such as computer abstracts and editorials.

Evidence of Increasing Globalization

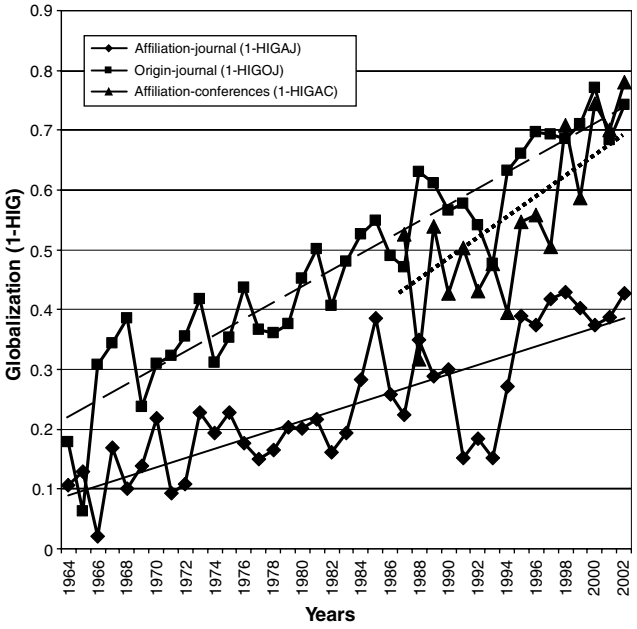
To assess whether marketing science is really globalizing, we calculate a Herfindahl index—which is typically used to measure the degree of concentration in an industry—for globalization of author affiliation in journals per year ($HIGAJ_t$). It is calculated as follows:

$$HIGAJ_t = \sum_{k=1}^{K} \left(\frac{\sum_{j=1}^{5} nrarticles_{kjt}}{\sum_{k=1}^{K} \sum_{j=1}^{5} nrarticles_{kjt}} \right)^2 \qquad (1)$$

in which $nrarticles_{kjt}$ represents the number of articles with authors affiliated to country k, in journal j (=IJRM, JCR, JM, JMR, MKS) at time t. Note that this measure is reverse coded (that is, a low (high) *HIGAJ* implies high (low) globalization). Also note that this measure is bounded by 0 and 1. Figure 1 presents the evolutionary path—marked by diamonds—of (1-$HIGAJ_t$) and the linear trend that best fits this evolution—represented by a full line. From Figure 1, we may conclude that *over time, marketing journals have become more global in author affiliation*. However, this conclusion gives rise to four subsequent questions, each of which we discuss in turn:

(1) Did globalization also occur at the level of authors' country of origin?

Figure 1 Globalization of the Marketing Discipline According to Three Metrics



(2) Did globalization also occur for the major conferences in our field?

(3) Are there differences in globalization across the journals and conferences in our field?

(4) Which countries are most productive over time?

Globalization of Journal Publications for Authors' Country of Origin

First, we examined whether globalization also occurred at the level of authors' country of origin. To this effect, we trained research assistants in gathering biographic information for each author in our journal database from public sources (mainly, the Internet). The country of origin was operationalized as the country of undergraduate education, as (1) undergraduate education can be considered as the awakening of the academic mind, or the "academic birth," and (2) not many people move abroad for their undergraduate studies, so the correlation between country of birth and country of undergraduate education must be very high.

Country of origin is missing for 30% of our sample, mostly because of not finding a bio page, more rarely because of the lack of information on the bio page. We found no consistent differences in the occurrence of missing data across the different journals or across countries of affiliation. We did find, however, that country of origin data on the author became more difficult to find, the older the year of publication. Thus, the number of missing values in country of origin decreases with time.

From our data on country of origin of journal authors, we again calculated a Herfindahl index in

Table 1 Globalization of Authorship for Marketing Journals and Marketing Conferences

Journals	Affiliation globalization-journals (1-*HIGAJ*)	Country of origin globalization-journals (1-*HIGOJ*)	Conferences	Affiliation globalization-conferences (1-*HIGAC*)
IJRM	0.71	0.81	EMAC	0.87
MKS	0.29	0.71	MSC	0.55
JMR	0.28	0.66	AMA	0.27
JM	0.27	0.59	AMA	0.27
JCR	0.20	0.49	ACR	0.31

a manner similar to that used for $HIGAJ_t$, but now for globalization of author origin in journals per year ($HIGOJ_t$). The evolution of 1-$HIGOJ_t$ is also graphed in Figure 1 (marked by squares) and again jointly with the linear trend that best fits its evolution (represented by a dashed line). It shows that *globalization also occurred at the level of authors' country of origin*.

Globalization of Conference Publications for Authors' Country of Affiliation

Second, we examine whether globalization occurred to the same extent for the major marketing conferences. We inventoried papers presented at five conferences that span all areas of marketing and fit with the journals we sampled, namely, the *Association for Consumer Research Conference* (ACR), the *American Marketing Association Winter Conference* (AMA), the *INFORMS Marketing Science Conference* (MSC), and the *European Marketing Academy Conference* (EMAC). We did so for the period from 1987 to 2002. To obtain these data we used the proceedings or books of abstracts of each of these conferences.

In the end, we were able to gather 59 proceedings (out of 64, or 92%). The missing values, unfortunately, were all from the same conference, namely, the *INFORMS Marketing Science Conference* (1988, 1989, 1991, 1993, 1996), which historically does not have a fixed format for its book of abstracts. From all 59 gathered proceedings and books of abstracts, we manually inventoried the first authors and their geographic affiliations.[1] For 1% of all first authors, data on their country of affiliation was missing. From these data, we again calculated a Herfindahl index in a manner similar to that used for $HIGAJ_t$, but now for globalization of author affiliation in conferences per year ($HIGAC_t$). The evolution of 1-$HIGAC_t$ is also graphed in Figure 1 (marked by triangles) and again jointly with the linear trend that best fits its evolution (represented by a dotted line). From the evolution of 1-$HIGAC_t$ in Figure 1, we may conclude that *over time, marketing conferences have become more global in author affiliation*.

[1] Note that one may argue that instead of the first authors we should take all authors into account, as all authors presumably have contributed to the work that is presented. Therefore, we also ran the same calculations taking all authors and their geographic affiliations into account, which gave highly similar results.

Differences Across Journals and Conferences in Globalization

Third, we examine whether there are differences in globalization among our journals and conferences. Table 1 presents 1-*HIGAJ*, 1-*HIGOJ*, and 1-*HIGAC* per journal/conference over the last decade of our database (1993–2002; earlier periods show a similar pattern).

From Table 1, we can conclude that *there is a considerable difference between journals and conferences in globalization of their authorships*. We find that IJRM is the most globalized journal, followed by MKS, JMR, JM, and finally JCR. The differences across journals also match the differences we find across the conferences that are associated with each journal (except for ACR, which is more international than AMA, while JCR is less international than JM and JMR). While the findings regarding IJRM and EMAC can be easily explained from the international origin of IJRM and EMAC, the differences among U.S.-based journals and conferences cannot.

That such a large difference exists between IJRM and the other (American) journals leads us to examine in more detail this journal's characteristics and the robustness of our results when excluding this journal. First, while we find a decreasing share of U.S. scholars in the American journals, the share of U.S. scholars in IJRM has actually increased (from 29% in 1984–1988 (the first five years of its existence) to 48% in 1998–2002 (the last five years in our database)). Second, when we exclude IJRM from our data set, all findings we report in this paper either do not change or change only very modestly. *These findings illustrate that what we find is truly globalization of the marketing discipline* (*journals and conferences*) *and not merely de-Americanization of American journals.*

Country Productivity

Fourth, we examine individual country productivity. Table 2 presents country shares and rankings at

Table 2A Country (Level of Affiliation) Productivity in Marketing Journals

	Overall		1964–1973		1974–1983		1984–1993		1994–2002		1994–1998		1999–2002	
Country	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
United States	85.5	1	92.9	1	89.8	1	86.4	1	78.0	1	78.7	1	77.2	1
Canada	3.9	2	2.6	2	5.2	2	4.1	2	3.3	3	3.7	3	2.8	3
The Netherlands	2.0	3	0.1	11	0.2	9	1.5	4	4.9	2	4.6	2	5.3	2
UK	1.7	4	2.5	3	1.1	3	1.8	3	1.9	4	1.9	4	1.9	6
France	1.1	5	0.2	7	0.9	4	1.1	5	1.7	5	1.4	6	2.0	5
Israel	0.9	6	0.3	5	0.9	4	1.0	6	0.9	10	0.6	10	1.2	10
Belgium	0.8	7	0.4	4	0.2	9	0.7	7	1.6	6	1.7	5	1.4	8
Australia	0.7	8	0.2	8	0.5	6	0.5	9	1.2	9	1.1	8	1.4	9
Germany	0.6	9	0.1	11	0.1	11	0.5	8	1.3	8	1.1	7	1.5	7
Hong Kong	0.4	10	0.0	16	0.0	17	0.0	20	1.4	7	0.9	9	2.0	4
Others	2.4		0.7		1.1		2.4		3.8		4.3		3.3	

Table 2B Country (Level of Origin) Productivity in Marketing Journals

	Overall		1964–1973		1974–1983		1984–1993		1994–2002		1994–1998		1999–2002	
Country	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
United States	63.3	1	81.8	1	75.9	1	65.3	1	49.6	1	52.6	1	45.7	1
India	15.0	2	3.9	3	6.5	2	16.0	2	21.9	2	20.7	2	23.4	2
Canada	4.0	3	6.8	2	6.0	3	2.7	3	3.1	4	3.5	4	2.6	7
Israel	3.9	4	2.1	5	2.1	5	2.2	4	2.4	5	1.9	5	2.9	5
The Netherlands	2.6	5	0.0	16	0.2	14	1.6	7	5.4	3	5.2	3	5.7	3
UK	2.1	6	2.2	4	3.6	4	1.9	5	1.3	11	1.4	9	1.1	11
Belgium	1.4	7	0.5	6	0.6	10	1.2	8	2.3	6	1.8	6	3.0	4
France	1.3	8	0.2	12	1.0	6	1.6	6	1.5	9	1.6	8	1.4	10
Germany	1.0	9	0.2	12	0.3	13	0.6	12	2.0	7	1.7	7	2.4	8
New Zealand	0.8	10	0.0	16	0.4	11	0.7	11	1.3	10	1.0	10	1.6	9
Others	4.6		2.3		3.4		6.2		9.2		8.6		10.2	

Table 2C Country (Level of Affiliation) Productivity in Marketing Conferences

	Overall		1987–1991		1992–1996		1997–2002		1997–1999		2000–2002	
Country	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
United States	65.1	1	70.3	1	73.6	1	57.6	1	64.3	1	51.4	1
Turkey	4.5	2	4.1	4	3.6	3	5.2	2	3.9	2	6.4	2
Canada	4.0	3	6.9	2	3.1	4	3.2	7	2.6	7	3.8	3
UK	3.9	4	4.5	3	4.0	2	3.6	3	3.7	3	3.5	7
South Korea	2.5	5	2.6	5	2.4	5	2.6	8	1.3	9	3.7	4
Australia	2.2	6	0.7	11	1.6	6	3.3	5	3.6	4	3.0	8
The Netherlands	2.2	7	0.5	15	1.4	7	3.5	4	3.4	5	3.6	6
Germany	2.1	8	1.0	7	0.9	9	3.3	6	2.9	6	3.6	5
France	2.0	9	2.2	6	1.4	8	2.2	9	2.2	8	2.2	9
Belgium	1.1	10	0.7	12	0.5	14	1.5	10	0.9	12	2.1	10
Others	10.4		6.5		7.5		14.0		11.2		16.7	

the author affiliation level (part A), the author origin level (part B) for journal publications, and the author affiliation level for conferences (part C) for the "top 10" countries. We can conclude from Table 2 that *the share of the United States has consistently declined across all three metrics*. Also, the share of Canada mostly declines across all three metrics, although not consistently.

Second, *the share of Asian* (*mainly at the level of origin*) *and European* (*at the level of affiliation and origin*) *scholars has consistently increased in the last decade*. In Asia, at the individual country level, especially the *persisting rise of scholars of Indian origin* (from 20.7% in 1994–1998 to 23.4% in 1999–2002 after an initial "jump" from approximately 6% to 16% in the 1980s) and *the jump of Hong Kong* (*at the affiliation level*) from number 20 (1984–1993) to number 4 (1998–2002) in the ranking are noteworthy. *In Europe, at the individual country level, especially the increasing share of The Netherlands, both at the affiliation level and the origin level, as well as*

the recently increased conference participation of scholars with a German and Turkish affiliation, is noteworthy. The latter may indicate that German and Turkish scholars in the future may become more productive contributors to marketing journals.

Third, the share taken by other countries that do not belong to our "top 10" also increases over time, further underlining the increasing globalization of the field.

It is always a difficult task to "rank countries"; the rankings presented in Table 2 are no different. At least four questions can be raised regarding these rankings, which we discuss very briefly. First, are there any interesting evolutions in other countries that do not belong to the "top 10?" The most interesting finding among the countries not presented in Table 2 is the sharply increasing share of scholars with a Chinese origin in the last four years (with a share of 2.8% in the period from 1999 to 2002).

Second, to what extent are these rankings robust to the number of authors on journal and conference publications? When correcting for this, we found our results are replicated.

Third, how do the rankings in Table 2 look when one corrects for the varying population sizes of these countries? The additional insights from such an analysis are that (1) the population-corrected journal productivity at the level of affiliation of Hong Kong and The Netherlands has become higher than that of the United States since the end of the 1990s. (2) The population-corrected journal productivity at the level of origin of New Zealand, The Netherlands, and Belgium has become higher than that of the United States—mostly since the mid-1980s—while Israel has always been and still is the most productive country. (3) The population-corrected conference productivity at the level of affiliation of Belgium and The Netherlands has become higher than that of the United States since the end of the 1990s.

Fourth, to what extent is the performance of countries other than the United States on the journal publication ranking (at the affiliation level) driven by a few outliers, i.e., a few very productive researchers that may push a country up or down in the ranking? We conducted several checks on this issue through examining the average number of articles per author, and our results actually run counter to the common belief that journal productivity of smaller countries is driven by outliers. We found that U.S. authors actually have the highest average number of publications per author (2.8). There is also no significant difference between the average number of publications per author from relatively successful other countries such as The Netherlands (2.3), Israel (2.7), and Belgium (2.2) and the average number of publications per author from the United States. The standard deviation around these averages is the largest for the United States (3.9), while the standard deviations of The Netherlands (3.7), Belgium (2.7), and Israel (2.7) are also comparable. Finally, excluding the 1% of most productive authors (that (co-)authored 19 or more articles in our database) does not change any of the results reported in the paper. Thus, outliers do not affect our analyses.

More detailed information on the productivity of countries not belonging to the "top 10," population corrected output rankings, and the effect of outliers on rankings can be found in an appendix that can be downloaded from the *Marketing Science* website (at http://mktsci.pubs.informs.org).

Consequences of Globalization

The previous section showed that marketing science increasingly globalizes in authorship. Although this finding is interesting in its own right, an even more relevant question may be whether globalization helps or hinders the discipline. For instance, sociologists in the last decade have studied how increasing globalization of the world impacts societies (Yearley 1996). In this analysis, we focus on the consequences of globalization in author affiliation on journal impact and diversity.[2]

The impact of our major journals refers to the extent to which articles that are published in these journals are cited frequently. Impact is important, not only for the impact of the entire marketing discipline (as these journals should represent our best work), but also for the status of a journal (Shugan 2004). There are several reasons why globalization may positively affect the impact of our journals. First, globalization in authorship may lead to a globalization in readership and, therefore, a wider (international) diffusion of the marketing knowledge published in our major outlets. Second, new marketing concepts and methods do not originate solely in a single country (e.g., the United States), but all around the world. Local scholars are better able to pick up on these marketing innovations than foreign scholars may be. From this perspective, globalization in authorship may positively affect the quality and newness of articles published, which should enhance the impact of major marketing journals.

[2] We focus on journal impact and diversity as consequences, as they are the most important indicators of scientific development, as used by prior literature (for an overview, see Tellis et al. 1999). Future research might consider the impact and diversity of conference proceedings. We focus on globalization of author affiliation and not on globalization of author origin, because affiliation may have stronger consequences, given that researchers may be more influenced by their country of affiliation than by their country of origin, given cultural assimilation of immigrants. In fact, when we estimate all models below using country of origin instead of country of affiliation, we find many effects to be insignificant.

On the other hand, globalization may also hinder the impact of journals. First, the U.S. marketing science community is mostly a close-knit community with many organizations—such as INFORMS, Markting Science Institute, and AMA—that stimulate debate among mainly U.S.-based scholars through conferences, meetings, and research camps. The international (non-U.S.) marketing science community is much more dispersed and is, with some exceptions aside, also less involved in the U.S. marketing science community. Therefore, international authors may have less opportunity to communicate their research to U.S.-based scholars and other international authors as well. As a consequence, their work may be less cited and, consequently, less impactful. Second, international authors may pick up on local phenomena or use local data, which may (perhaps unjustifiably) be perceived as less relevant to scholars from other countries (e.g., the United States). This may also cause their work to be cited less and have lower impact.

The diversity of our major journals refers to the extent to which a (set of) journal(s) is open to publishing articles on a variety of topics, with each article adopting a variety of disciplinary perspectives. Diversity may be important for the progress of a discipline for three reasons (Tellis et al. 1999):

(1) Diversity provides a richer understanding of a marketing phenomenon.

(2) Diverse journals encourage original thinking that could fosters a new paradigm.

(3) Diverse journals stimulate scientific progress, as progress often occurs at the intersection of disciplines.

One may expect that globalization of authors may lead to higher diversity. This diversity may be fostered by differences among countries in competencies, culture, and research traditions. We next discuss the operationalization of impact and diversity, and then we turn to our findings.

Operationalization

Impact. To measure impact, we use the impact factors reported by the ISI in its journal citation reports, which are available from 1977 to 2002 for JM, JMR, and JCR. For MKS, they are available from 1989 to 2002. For IJRM, impact factors are only available from 1999 to 2002. ISI calculates the journal impact factor "by dividing the number of citations in the current year to articles published in the two previous years by the total number of articles published in the previous two years" (www.isinet.com). We note that the impact scores of ISI only cover journals written in English and few non-U.S. journals.

Diversity. We calculate two diversity measures: (1) a Herfindahl-type index for diversity at the journal level (*JDIV*) and (2) a Herfindhahl-type index for diversity at the level of the source discipline (*SDIV*). While *JDIV* measures the concentration in cited journals, *SDIV* measures the concentration in cited source disciplines, such as economics, psychology, and sociology (Tellis et al. 1999; see also appendix). Thus, note that our measures are reverse coded (that is, a low (high) Herfindahl index implies high (low) diversity).

Model and Findings

The Effect of Globalization of Authorship on Impact. As it is conceivable that the effect of globalization on the impact of marketing journals is different across journals we estimate the following equation with journal-specific parameters for globalization:

$$\begin{aligned} IMPAC_{jt} = {} & \alpha + \beta_{JCR} * HIGAJ_{j,t-1} * JCR + \beta_{JM} \\ & * HIGAJ_{j,t-1} * JM + \beta_{JMR} * HIGAJ_{j,t-1} \\ & * JMR + \beta_{MKS} * HIGAJ_{j,t-1} * MKS + \delta_1 \\ & * t + \delta_2 * t^2 + \gamma * IMPAC_{j,t-1} + \eta_1 \\ & * JDIV_{j,t-1} + \eta_2 * SDIV_{j,t-1} + \lambda_{JCR} * JCR \\ & + \lambda_{JM} * JM + \lambda_{JMR} * JMR + \varepsilon_{jt} \end{aligned} \quad (2)$$

in which β captures the journal-specific effects of journal globalization; δ captures the trend effects; γ captures the effect of past impact; η captures the effect of journal and source diversity; and λ captures the effect of three journal dummies (with MKS as base case). We use lagged predictors, because the impact score is based on articles published in the prior two years. Note that we did not include the IJRM data in this model, as not enough data is available for IJRM (only available as of 1999). Statistical tests for serial correlation (Breusch-Godfrey), heteroscedasticity (White), multicollinearity (Belsley et al. 1980), and stationarity showed our current model specification to be appropriate.

We present the results from estimating Equation (2) in Table 3.

The focal conclusion from Table 3 is that *globalization, at the level of the country of affiliation, has negatively affected the impact of JM and JMR, while it has not affected the impact of JCR and MKS*.

To check to what extent the results in Table 3 may be driven by possible aggregation bias, we also conducted a similar analysis at the disaggregate level. For this disaggregate analysis, we collected citation data for all individual articles in our database published from 1981 to 2001 (with the help of CWTS at Leiden University, The Netherlands). The total number of articles in this database is 2,736 (JCR, 775; JM, 646; JMR, 837; MKS, 369; IJRM, 109). The fewest articles over this time period appeared in 1996 (103), and the most articles appeared in 2000 (156). Note that in this

Table 3 Effect of Globalization of Author Affiliation on Impact at Journal Level

	Coefficient	St. error
α	0.29	0.95
β_{JCR}	−0.25	1.18
β_{JM}	1.46*	0.85
β_{JMR}	2.98***	0.91
β_{MKS}	0.14	1.13
δ_1	0.02	0.03
δ_2	0.00	0.00
γ	0.47***	0.11
η_1	−5.17	7.15
η_2	0.24	0.68
λ_{JCR}	0.49	1.30
λ_{JM}	−1.33	1.09
λ_{JMR}	−2.60**	1.10
R^2	0.66	
N	88	

*$p < 0.10$, **$p < 0.05$, and ***$p < 0.01$ (two-sided tests).

database, IJRM is covered as of 1997 and MKS as of 1986. Citations of articles prior to 1981 are unavailable for our sample of journals. The year 2002 is not included, as our focal measure *CITE* captures all citations of an article until two years after the date of publication.[3] Note that in this analysis we can include IJRM as 109 data points are available.

For the independent variables, as the globalization trend runs parallel to a declining share for U.S. affiliated authors ($\rho = -0.84$; $p < 0.01$)—and we cannot operationalize a Herfindahl-type measure of globalization at the article level—we include the variable *AUUS* for each journal article–author combination that takes the value of 1 when the author is U.S. affiliated and a value of 0 when that is not the case. In the case of multiple authors (m) per article, we thus have m observations per article. We again estimate the effect of *AUUS* for each journal by taking the interaction effect with the journal dummy. We also controlled for some article characteristics such as time, article length, and article number.

CITE represents a count variable. A logical candidate for modeling such count data is the Poisson regression model. However, the regression-based procedure developed by Cameron and Trivedi (1990) to test for overdispersion indicates that there is substantial overdispersion, in which case the Poisson model would underestimate the standard errors. Therefore, we instead estimated a negative binomial model using quasi-maximum likelihood and the quadratic hill climbing optimization algorithm that does not suffer from this problem. This model—with $CITE_{kjt}$ the number of cites for article k in journal j at time t—was specified as follows:

$$\begin{aligned} CITE_{kjt} = {} & \alpha + \beta_{JCR} * AUUS_{kjt} * JCR + \beta_{JM} * AUUS_{kjt} \\ & * JM + \beta_{JMR} * AUUS_{kjt} * JMR + \beta_{MKS} \\ & * AUUS_{kjt} * MKS + \beta_{IJRM} * AUUS_{kjt} * IJRM \\ & + \delta_1 * t + \delta_2 * t^2 + \eta_1 * ARTLENGTH_{kjt} \\ & + \eta_2 * ARTNR_{kjt} + \lambda_{JCR} * JCR + \lambda_{JM} * JM \\ & + \lambda_{JMR} * JMR + \lambda_{IJRM} * IJRM + \varepsilon_{kjt}. \end{aligned} \quad (3)$$

Table 4 provides the results of estimating Equation (3) and provides additional validation for our argument that globalization may negatively affect the impact of a journal, as in some journals such as JM and JMR, *non-U.S. authors are cited less than U.S. authors*. The reason may be either the citation network they belong to, the topics they address, or the data sets they employ. We also find that the same phenomenon occurs at JCR. This latter finding should be interpreted with caution, as it deviates from our finding in the aggregate analysis. One reason for this deviation may be the difference in time period. However, when we constrain the sample for our aggregate analysis to the same period as the disaggregate analysis, results remain the same. More convincing reasons may be that (1) the statistical power in the disaggregate analysis is much higher than that in the aggregate analysis, as the number of observations is

Table 4 Effect of Globalization of Author Affiliation on Impact at Article Level

	Coefficient	St. error
α	−0.37***	0.10
β_{JCR}	0.22***	0.07
β_{JM}	0.13**	0.06
β_{JMR}	0.13**	0.06
β_{MKS}	0.10	0.09
β_{IJRM}	0.18	0.13
δ_1	0.01	0.01
δ_2	−0.00*	0.00
η_1	0.06***	0.00
η_2	−0.03***	0.00
λ_{JCR}	0.74***	0.11
λ_{JM}	0.80***	0.10
λ_{JMR}	0.76***	0.10
λ_{IJRM}	−0.43***	0.13
LL	−12,292.94	
R^2	0.16	
N	5,689	

Note. The number of observations is not equal to the number of articles (2,736), as the number of observations in this analysis is the number of author-article combinations.

*$p < 0.10$, **$p < 0.05$, and ***$p < 0.01$ (two-sided tests).

[3] We also calculated the *CITE* measure, using all citations an article receives until four years after publication, and re-ran all analyses. It does not affect our conclusions.

larger (article level instead of journal level analysis), and/or (2) the disaggregate analysis does not suffer from plausible aggregation biases.

The disaggregate analysis also offers some additional insights. First, long articles are cited more than short articles. Second, articles in the first half of a journal issue are cited more than articles in the second half of a journal issue (suggesting citation returns to lead articles).

Finally, one may think that for IJRM it is more relevant whether Europe-affiliated authors are cited more frequently than non-Europe-affiliated authors as, the journal has a European background. Additional analyses toward this effect show that this reasoning does not hold. In all tests we conducted to this effect, we never found a significant parameter for European affiliation. This absence of a citation bias is in line with our earlier expectation that international (read: non-U.S.) citation networks may be more dispersed (rather than close knit).

Our overall conclusion from these analyses of the effect of globalization of affiliation on impact is that *globalization may effectively hurt a journal's impact, as is the case for JM and JMR and may be the case for JCR.*

The Effect of Globalization of Authorship on Diversity. We assess the impact of globalization on our diversity measures, *JDIV* and *SDIV*, as follows:

$$\begin{aligned} JDIV_{jt} = {} & \alpha_1 + \beta_{JCR}^{JDIV} * HIGAJ_{jt} * JCR + \beta_{JM}^{JDIV} * HIGAJ_{jt} \\ & * JM + \beta_{JMR}^{JDIV} * HIGAJ_{jt} * JMR + \beta_{MKS}^{JDIV} \\ & * HIGAJ_{jt} * MKS + \delta_1 * t + \lambda_{JCR}^{JDIV} * JCR \\ & + \lambda_{JM}^{JDIV} * JM + \lambda_{JMR}^{JDIV} * JMR + \varepsilon_{jt}^{JDIV} \qquad (4a) \end{aligned}$$

$$\begin{aligned} SDIV_{jt} = {} & \alpha_2 + \beta_{JCR}^{SDIV} * HIGAJ_{jt} * JCR + \beta_{JM}^{SDIV} * HIGAJ_{jt} \\ & * JM + \beta_{JMR}^{SDIV} * HIGAJ_{jt} * JMR + \beta_{MKS}^{SDIV} \\ & * HIGAJ_{jt} * MKS + \delta_2 * t + \lambda_{JCR}^{SDIV} * JCR \\ & + \lambda_{JM}^{SDIV} * JM + \lambda_{JMR}^{SDIV} * JMR + \varepsilon_{jt}^{SDIV}. \qquad (4b) \end{aligned}$$

The symbols have the same meaning as in the models above. Note that journals may have different intercepts (through the journal dummies we include), as some are more diverse than others (Kamakura 2001, Tellis et al. 1999). We also allow for globalization to have a different effect across journals, and we include a time trend. We estimated Equations (4a) and (4b) as a system using OLS, which is appropriate, as these equations have the same set of predictors. Finally, note that we did not include the IJRM data in this model as IJRM data on diversity is only available since 1997, which leads to only five data points for IJRM. Adding the IJRM data and the associated IJRM dummy creates strong collinearity between the regression constant, the IJRM dummy, and *HIGAJ*. Also, this model is estimated on 92 data points, as compared to the earlier 88 data points of the impact equation. The impact equation (2) includes $IMPAC_{t-1}$ as a predictor, thereby excluding the first observation for each of the four included journals in the estimation.

Table 5 **Effect of Globalization of Author Affiliation on Diversity (Equation 4)**

	JDIV			*SDIV*	
	Coefficient	St. error		Coefficient	St. error
α_1	0.01	0.01	α_2	0.35**	0.14
β_{JCR}^{JDIV}	0.02	0.02	β_{JCR}^{SDIV}	0.34**	0.15
β_{JM}^{JDIV}	0.01	0.01	β_{JM}^{SDIV}	0.16	0.14
β_{JMR}^{JDIV}	0.05***	0.02	β_{JMR}^{SDIV}	0.16**	0.08
β_{MKS}^{JDIV}	0.03*	0.02	β_{MKS}^{SDIV}	0.12	0.18
δ_1	0.00***	0.00	δ_2	0.00***	0.00
λ_{JCR}^{JDIV}	−0.00	0.02	λ_{JCR}^{SDIV}	−0.24	0.18
λ_{JM}^{JDIV}	−0.00	0.02	λ_{JM}^{SDIV}	−0.12	0.17
λ_{JMR}^{JDIV}	−0.03	0.02	λ_{JMR}^{SDIV}	−0.14	0.15
R^2	**0.50**			**0.20**	
N	92			92	

*$p < 0.10$, **$p < 0.05$, and ***$p < 0.01$ (two-sided tests).

For Equation (4a), we did not find evidence of any problems regarding serial correlation, heteroscedasticity, multicollinearity, or stationarity. This was also true for Equation (4b), except for heteroscedasticity. White's heteroscedasticity test was significant at $p < 0.10$. We consequently estimated the model in Equation (4b), using White's heteroscedasticity-consistent covariance matrix estimator. Table 5 presents the results of both models. The main conclusions from Table 5 are that (1) *globalization has a positive effect on journal diversity*, and (2) *globalization has a positive effect on source diversity*. This effect is significant at conventional significance levels for JMR and MKS (*JDIV*) and for JCR and JMR (*SDIV*). The difference among journals in significance levels may be due to the limited number of observations (92). When we pool parameters across journals, globalization has a strongly significant and positive effect ($p < 0.05$) on both journal diversity and source diversity.

Discussion

Summary of Main Findings

In this paper, we answered two questions: (1) Is there evidence of increasing globalization of authorship in the marketing discipline? (2) If so, does it help or hinder the field? As to the first question, we empirically confirmed that the marketing discipline is globalizing in authorship on all metrics we identified. We also found variation within the marketing discipline, with JCR being the least global journal and IJRM being the

most global journal, and AMA being the least global conference and EMAC being the most global conference. At the country level, we found that the U.S. share of articles decreases on all our measures. Scholars with an affiliation in France, Hong Kong, Israel, and The Netherlands increase their share of articles. Scholars with an Indian, and to a lesser extent Belgian, Chinese, Dutch, French, German, and Israeli origin, increasingly publish in major marketing journals. At the same time, we see that Canadian and UK scholars publish less in major marketing journals than before.

As for the second question, we show that globalization hinders the field, because it has a negative effect on the impact of several journals (e.g., JM and JMR) and it helps the field, because it has a positive effect on the diversity of our discipline.[4]

Implications

Marketing Journals. Our results have four major implications for major marketing journals. First, editors, editorial review boards, and sponsoring organizations of marketing journals should continue their globalization (as globalization positively affects diversity) but should also address the challenges toward impact of foreign scholars. To do so, we believe that they should stimulate truly international conferences and meetings, rather than merely U.S.-based meetings. One striking finding of our research in this respect is that globalization especially has a strong and negative effect on the impact of the AMA journals, JM and JMR. The reason might perhaps be that in contrast to meetings of INFORMS and EMAC that both are highly international, most AMA meetings are still very much focused on the United States (see Table 1). An important step for the AMA might perhaps be to organize more international meetings, which we believe may increase awareness of work by international scholars published in AMA journals. It may also consider creating special initiatives to have a higher number of international authors attend the AMA conferences. Second, when considering manuscripts, editors and reviewers should probably assess whether the paper is relevant to an international audience, irrespective of their geographic location. Third, for an editor of a journal, it is relevant to know the background of its author population. Having knowledge on where new manuscripts may surface can allow editors to undertake specific efforts to encourage international scholars to submit work to their journal. Fourth, as the marketing discipline becomes more global in authorship, it is our opinion that editorial review boards should also reflect this globalization.

Individual Researchers. This study also has relevant implications for individual researchers. First, as the marketing science community is increasingly international, it becomes more important for U.S. scholars to network in a global context. It seems likely that visits abroad become a requirement to be able to track the progress of the discipline but also to sufficiently diffuse one's own ideas and thus maximize one's impact. Second, our results show that the work of international scholars is often cited less than the work of U.S. authors. Thus, foreign scholars face a challenge in how to maximize the impact of their work, which they can address in several ways. First, in addition to publishing in U.S.-based journals, they should probably become increasingly involved in the U.S.-based networks through attendance at American meetings, involvement in the U.S. job market, visits to U.S. schools, and invitations for visits of U.S. faculty. Second, international authors should pay more attention to the relevance of their work to an international (including U.S.) readership.

Limitations and Future Research

This study has the following limitations. First, we studied only the globalization of authorship in the five top journals in marketing. Future research could study the globalization of authorship in other journals, such as *Management Science*, which may verify that our conclusions do generalize. Second, whereas the finding that articles by international scholars have less impact is interesting and we cited some reasons why this may occur, we left the empirical investigation of the underlying reasons of this finding for future research to address. Third, the consequence models were estimated for a restricted time period. Future research could study more extended time periods.

Fourth, for measuring and modeling impact, we use data from the ISI journal citation reports that is limited in the number of journals they cover. Often articles in major journals by international scholars are followed by publications in more regional or local journals (in a language other than English), such as *Recherche et Applications de Marketing* (France) or *Zeitschrift für Betriebswirtschaf* (Germany). Our study does not account for that type of impact.

Aside from directly addressing the limitations of the current study, there are several other areas on which future research may embark. First, we have relatively little understanding of which factors drive the impact of papers. As scientists, we should not only

[4] The notion that globalization may also have negative consequences can also be found in other aspects of marketing and business. For instance, Ahmadi and Yang (2000) discuss the positive and negative consequences of parallel imports. Globalization having positive as well as negative effects mimics findings of Tyagi (2004), who shows that the positive effects of a reduction in consumer transaction costs may also negatively impact consumer welfare.

be interested in examining interesting marketing phenomena, but also in widely diffusing our findings. The marketing discipline sometimes fails at doing that (Baumgartner and Pieters 2003), making it more important for future research to really explain why this happens. Second, we found that there are strong differences across countries in productivity. Future research that examines drivers of variation in research productivity across countries and institutions would be interesting.

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Appendix. Measurement of Diversity

The diversity measures are in line with prior literature and were calculated using the same methodology (Tellis et al. 1999). The diversity at the journal level for journal j at time t is:

$$JDIV_{jt} = \sum_{i=1}^{I} \left(\frac{citations_{j \to i,\, t}}{\sum_{i=1}^{I} citations_{j \to i,\, t}} \right)^2 \quad \text{(A1)}$$

with as before $citations_{j \to i}$ the number of citations of journal j to journal i.

Likewise, the diversity at the source discipline level for journal j at time t is:

$$SDIV_{jt} = \sum_{s=1}^{S} \left(\frac{citations_{j \to s,\, t}}{\sum_{s=1}^{S} citations_{j \to s,\, t}} \right)^2 \quad \text{(A2)}$$

with $citations_{j \to s}$ the number of citations of journal j to source discipline s.

As stated before, we used the ISI journal citation reports for citation information. To calculate *SDIV* we assigned each cite to a source discipline (e.g., economics, management, sociology, psychology, mathematics, etc.) based on the description provided in the journal citation report. To assess the reliability of our indices we compared these indices with the ones published in Tellis et al. (1999). This comparison showed a high consistency between our calculations and theirs.

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