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Knowledge dissemination in operations management: Published perceptions versus academic reality

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ABSTRACT

The channels for knowledge generation and dissemination in the business disciplines are many: presenting research at conferences, writing books, distributing working papers, offering insights in society newsletters, giving invited talks, publishing studies in academic journals, and many other venues, including even blogs and perhaps Facebook®. But the most important venue is probably published research in "top-level" academic journals. In the discipline of Operations Management, many studies and lists have been published that attempt to determine which of these journals are supposedly the "top" according to either citation analyses, the opinion of recognized experts, author affiliations, bibliometric studies, and other approaches. These lists may then, in turn, be used in different degrees to evaluate research. However, what really counts is what the academic institutions actually use for guidance in evaluating faculty research. Based on a new source of ranking data from AACSB-accredited schools, we compare published journal-ranking studies against that of academe to determine the degree to which the studies reflect academic "reality". We present rankings of OM journals based on this new source of data and on an aggregate of the stream of published studies, and evaluate their consistency.

1. Introduction

The channels available for disseminating academic knowledge are extensive, ranging from informal "blogs" these days to formal presentations to published books, monographs, and articles in journals. In the field of business, the most important, arguably, are published articles in "top" journals (rather than grants, as might be the case in medicine or engineering) since these are frequently the most important basis for promotion and tenure (P&T) decisions. But beyond P&T and annual evaluations, such top publications are also often the basis for:

- research awards by universities, scholarly societies, governmental academies, and journal publishers;
- grants from federal, state, and private agencies such as the National Science Foundation;
- nominations for high-profile chairs, professorships, research grants, and fellowships;
- offers for joining, or perhaps taking joint professorships at prestigious universities such as Yale, Harvard, MIT, and such others;
- candidacy for high-visibility governmental positions such as advisory positions to the President or Governor, secretarial positions with the state or federal organizations such as the Treasury, membership on the Federal Reserve or Council of Economic Advisors, etc. and
- and even, at least partially, the requisite, ubiquitous business school/program rankings.

Clearly, the role of top publications in each of these sets of decisions will be different, but their influence is often substantial. For example, annual evaluations may include aspects of teaching, service to the department (and school, university, discipline, and perhaps even local community), research in-progress, and publications, while P&T may be based much more heavily on publications. Yet, universities are aware of the legal complications that can arise when a faculty member receives outstanding annual evaluations only to be turned down for P&T some years later. Hence, for schools that wish to place an emphasis on top journal publications for P&T, the role of such publications must be heavily included in the annual evaluations as well [1,2].

It is also clear that there are more stakeholders in top journal publications than just the university. Attaining a reputation as the "national expert" in a particular field or topic can lead to such accolades as being appointed Assistant Secretary of the Treasury, Economic Czar of the State, or Chair of the Federal Bankruptcy Committee for the XYZ Corporation. Such eminent appointments are a great boon to a university, enhancing its reputation, bringing in donations and endowments, increasing its student applications,

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and many other benefits. Hence, the university also has an interest in their faculty publishing in highly recognized journals, and may thus emphasize particular journals or fields over others. Understandably then, everyone from University Presidents to Deans to Assistant Professors are interested in knowing which journals the university considers to be the "top" journals, and especially the top journals in each Professor's own field or discipline.

To determine these top journals, and the rankings of other journals in a field, numerous authors have used various approaches such as citation impact scores, surveys of recognized scholars, bibliometric analyses, author affiliation indexes, and other techniques. These studies commonly identify the same general set of journals, but their ranking may differ considerably. In the discipline of interest here – operations management –Holsapple and Lee-Post [3] detail many of these approaches and identify examples of their use in operations management.

However, with such a range of rankings derived by a variety of methods, it is not clear whose ranking to use, or even which method to rely upon. All of the methods have some justification, but also some weaknesses and limitations, again well described in Holsapple and Lee-Post [3] and Lewis [4]. For that matter, it is not only the methods that confound the studies but a range of other factors as well such as the geographic region (e.g., US versus Europe), the time period considered (e.g., 4 years versus 25 years), the date of publication, the selection of scholars, and the set of journals under consideration.

In this study, we analyze all the ranking studies of operations management journals since 1990, and then compare them to a new source of data—official in-house journal lists of AACSB-accredited business schools used for helping evaluate faculty publications. This is a source of data that has not been used previously in OM journal ranking studies. (Although we asked schools for journal lists "that are used for evaluating publications," we cannot state how, or even if, they were actually used. Our research here informs those evaluating research, but does not report any criteria for that evaluation, such as "three top-level journal articles" or "six solid publications.")

Certainly not all schools formally and explicitly use in-house lists to evaluate research. However, schools often do create formal in-house lists for evaluation. Van Fleet et al. [5, p. 839] suggest that, "These rankings are designed to reduce difficulties in evaluating quality and to help faculty members identify target journals." Additionally, Vokurka [6, p. 345] argues that, "The rankings of journals are important to academics because promotion and tenure decisions are based to a large extent on publication achievements. These decisions are based primarily on the journals in which research is published." Our focus is on identifying the most credible ranking studies in the sense of conforming to the reality of academic guidelines provided by schools that have journal rating lists and then comment on these studies and their various approaches.

2. Background and data

The literature on journal evaluation in operations management has a long history, as well as being diverse. We include here a discussion of these studies, as well as a description of the AACSB survey of journal lists used as a guide for making academic promotion, tenure, and salary decisions.

2.1. The journal ranking studies

Published studies ranking OM journals over two decades – from 1990 to 2009 – were selected. Table 1 presents the 12 articles, the nature of the data that were used in each, and the specific table within each study from which the ranking data were extracted. Seven of the studies compiled journal rankings based on perception scores derived from survey data, three based their analysis on citation data, and two utilized data from other sources—author affiliation index and behavior-based publication counts. For each study the final, overall ranking of quality was used. For cases where the ranking article ranked other dimensions, such as journal relevance, etc., we selected the data corresponding to the article's overall measure of quality. Table 1 presents the specific table within each paper that the data was extracted from and a description of the nature of that data.

As can be seen, seven studies were published in the *Journal of Operations Management*, three in *Omega*, and one each in *Interfaces* and *Manufacturing & Service Operations Management*. Eleven of the studies were published in the 14 year span between 1996 and 2009, for about one such article per year, showing the increased interest in publication venues since the mid-1990s. Two of the senior authors published another such study, the eight other studies being published by different author teams.

2.2. The AACSB-accredited school survey

In order to capture the reality of the stature of OM journals, we collected the official lists used to help assess faculty research output at AACSB-accredited schools [4]. The AACSB was selected because it is recognized as the major accreditation entity for business schools worldwide. As Van Fleet et al. [5, p. 340] note: "A list provides an explicit measure of how a department values research outlets." Moreover, such lists reflect the current state-of-the-standings among competing journals in academic practice. To our knowledge, this data source has not been previously used in ranking OM journals.

An email was sent to AACSB-accredited universities requesting a copy of their official journal list, if such was used, for evaluating faculty publications at their school. The email request was initially sent in November 2006, followed by two reminders in each of the two following months. Of the 545 institutions receiving the request, 206 responded, representing a 38% response rate. Table 2 offers general demographics of both the responding schools and the entire population of AACSB-accredited schools.

To determine the representativeness of the set of respondents, the demographics of the responding schools were statistically compared to those of the entire AACSB population (see Table 2). For the categorical measures (i.e., affiliation, geographic region, degree level offered, and mission priority), one-sample chi-square tests were run, but only one test (public/private affiliation) was even marginally significant at the 0.05 level. One-sample *t*-tests were utilized for the continuous variables (essentially, different versions of school size), but no significant differences were found at the 0.05 level. Our conclusion from these tests was that the respondent set was representative of the entire AACSB population.

While our focus is on OM journal rankings, not on the type of evaluative mechanisms that different schools use, we did find it of interest to compare responding schools that have internal lists versus the entire AACSB-accredited school population. Using the same approach of one-sample tests to compare the same demographic variables as above, we found that as compared to the population of AACSB-accredited schools, the schools that have internal lists have a statistically significantly larger faculty (98 versus 76 on average) and undergraduate enrollment, higher research focus as their "mission priority" (19% versus 12%), and accordingly, fewer schools that are private (19% versus 32%). These differences, and some others, are presented in Table 3.

Of the responding schools, 83 (40%) provided their formal target journal lists. This is a fairly large proportion of schools that have