

BRIEF COMMUNICATION

A Critical Evaluation of Expert Survey-Based Journal Rankings: The Role of Personal Research Interests

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By using the data from two recent survey-based rankings of knowledge management / intellectual capital and eHealth journals, this study tests the impact of personal research interests of journal raters on their ranking scores. The rationale is that raters assign higher scores to journals that cater to their area of expertise because they are more familiar with them. The results indicate the existence of raters' bias toward the journals focusing on their preferred areas of interest, but this bias does not uniformly apply across all research topics. In some subdomains, such as intellectual capital, this bias may be very strong, whereas in others, such as soft-side knowledge management research, it may be nonexistent. Although management eHealth researchers rate management-focused journals higher than their clinical-centered counterparts, this bias does not exist among scholars favoring clinical topics. While this limitation is not fatal, the results from expert-survey journal ranking studies should be interpreted with caution.

Introduction

Inquiry into the nature of academic journals has become a long-standing tradition in scientometrics. Various stakeholders—including researchers, editors, reviewers, students, administrators, practitioners, and granting agencies—always wish to know about the nature, status, and relative standing of their academic publication forums. Of particular interest is the development of journal ranking lists because these can be

used for various functions (Currie & Pandher, 2011). One of the primary methods for journal list development is based on surveying active researchers by soliciting their perceptions of value, quality, contribution, impact, etc., of each ranked journal on a Likert-type scale, which is referred to as the stated-preference approach (Tahai & Meyer, 1999). Each journal's individual scores are then combined and used to rank each outlet relative to the others. The expert survey approach has gained recognition because the resulting list reflects the cumulative opinion of active scholars who produce and consume research published in journals being ranked. It is also suitable for the ranking of new journals that have not had enough time to accumulate a large volume of citations. Expert-based measures are also more difficult to manipulate than citations because it is extremely difficult to deliberately influence the journal quality perceptions of a large group of independent scholars, whereas citations may be dramatically boosted in the short term by means of questionable practices such as forced citations or excessive self-citations.

However, over 40 years ago Levin and Kratochwill (1976) called for an immediate moratorium on expert-based assessment of journal quality and the development of corresponding ranking lists. One of the key problems is that raters' decisions are influenced by their personal biases (Cudd & Morris, 1988)—they tend to assign higher scores to journals they are familiar with regardless of these journals' actual quality, rigor, impact, and scientific merit (Walters, 2017). As expected, survey respondents also consistently overrate journals in which they previously published (Donohue & Fox, 2000; Tu & Worzala, 2010). At the same time, declaring and implementing a moratorium on expert-based journal ranking lists is hardly achievable in a

Received May 11, 2017; revised September 21, 2017; accepted October 24, 2017

© 2017 ASIS&T • Published online December 2, 2017 in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/asi.23985

democratic academic environment. Ranking lists are developed by independent institutions and individual researchers who exercise their academic freedom to inquire into the nature of publication forums. In addition, the academic community is fascinated with the rankings of institutions, individuals, and journals, and the ranking studies of all kinds are likely to persist. Academia functions within the “prestige economy,” where publications in top journals and citation counts serve as the currency and where scholars are rewarded by attaining a desirable position in a productivity or impact ranking list. Thus, despite their various flaws and imperfections, journal rankings are here to stay because these are often employed for the assessment of research quality that is linked to the allocation of financial incentives (Schneider, 2009; Sivertsen, 2010). Nevertheless, it is imperative to continue to critically analyze journal ranking methodologies and to improve them.

Expert survey-based journal ranking studies are founded on the assumption that respondents may relatively accurately judge the quality of each journal and reflect it in their ratings. However, the concept of “journal quality” is somewhat illusive, and its very definition is highly subjective and varies among stakeholders (Macdonald & Kam, 2008). The present study argues that, in their journal ranking decisions, journal raters are strongly influenced by their personal research interests and they cannot distinguish between objective quality and mere familiarity. This, in turn, has a confounding effect on the final ranking list.

Every scholar has his or her own personal research interests within a particular academic discipline which serve as a major motivational factor driving research productivity and desire to advance science. When researchers pursue specific research topics, they read relevant works published in academic journals, and they eventually start associating the titles of these journals with their preferred research topics (Serenko & Bontis, 2011).

Unfortunately, journal ranking survey respondents “are notoriously poor at identifying quality journals not known to be quality journals” (Macdonald & Kam, 2008, p. 596). They tend to assign generous ranking scores to journals with titles that sound very credible or familiar, even though they never actually read them, as well as to those that match their area of expertise.¹ Subsequently, the ranking of an outlet depends on the number of raters interested in the topics it focuses on, which skews the overall results. Thus, this one-size-fits-all approach biases the results of ranking lists in favor of journals catering to popular research topics (Mingers & Willmott, 2013) because journal ratings of survey respondents are influenced by their personal research interests. However, there is a scarcity of documented empirical evidence to support this proposition. The present study attempts to fill that void by suggesting the following research question:

What is the impact of the personal research interests of journal raters on their ranking scores of academic journals?

Methods

The empirical investigation relied on two data sets collected earlier for journal-ranking purposes: i) knowledge management and intellectual capital (KM/IC) journals, and ii) eHealth journals.

KM/IC Journals

The first data set was collected by Serenko and Bontis (2017), who developed a ranking of 27 peer-reviewed KM/IC journals by means of a survey of 482 KM/IC researchers. Serenko and Bontis randomly selected up to 110 authors from each of the ranked outlets, 2,578 in total. The respondents were invited to complete a brief survey. This was done through an e-mail message followed by two reminders. The sequence in which journals appeared was automatically randomized for each respondent. The respondents ranked each journal’s overall contribution to the KM/IC field on a 7-point Likert-type scale ranging from *none* to *outstanding*, and a response rate of 22.4% was achieved. The final ranking score was calculated by taking the average of all responses for each journal.

Serenko and Bontis (2017) developed an aggregate ranking of all KM/IC-centered journals. However, four unique streams of research may be identified within the KM/IC domain: i) hard-centered KM (i.e., IT, technocratic, and engineering issues); ii) soft-centered KM (i.e., individual and organizational knowledge-related behaviors, such as learning, training & development, collaboration, philosophy, leadership, strategy, and competitiveness); iii) intellectual capital (IC) (i.e., creating, identifying, measuring, and managing intellectual assets); and iv) knowledge-based development (KBD) (i.e., use of knowledge-based innovations in IT, policy, and geography for urban, economic, and societal development). All 27 KM/IC journals were analyzed and assigned to one of the four categories, each representing a particular KM/IC subdomain. Each author of this paper independently coded each journal by reviewing its mission, objective, types of published works, research interests of its editorial board members, etc. The results were compared and discrepancies in the coding of two journals were identified. These differences were discussed and adjustments to journals’ classifications were made until agreement was reached. Each respondent’s research interests were measured by asking her/him to indicate the degree to which s/he was interested in the four subdomains of KM/IC on a Likert-type scale (from *not interested at all* to *very strongly interested*).

eHealth Journals

The second data set was based on the study of Serenko et al. (2017), who developed two ranking lists of 35 management- and 28 clinical-centered eHealth journals (63 journals). Fifty authors’ names were randomly selected from

¹An alternate hypothesis is also plausible—raters may be more critical of journals in areas where their expertise is stronger, since greater knowledge may lead to higher standards, in particular, to stricter expectations with regard to the use of subject-specific theory and methods.

TABLE 1. Pearson correlations between respondents' research interests and their rankings of the journals in the KM/IC subdomains (* $p < .1$; ** $p < .01$; *** $p < .005$; n.s. not significant).

| Raters' Interest / Journal Ranking | Raters' Interest: KM-Hard | Raters' Interest: KM-Soft | Raters' Interest: Intellectual Capital | Raters' Interest: Knowledge-Based Development |
|--|---------------------------|---------------------------|--|---|
| Journal Ranking: KM-Hard | 0.26*** | 0.18*** | 0.05 n.s. | 0.16*** |
| Journal Ranking: KM-Soft | 0.06 n.s. | 0.12** | 0.09* | 0.02 n.s. |
| Journal Ranking: Intellectual Capital | 0.14** | 0.19*** | 0.44*** | 0.17*** |
| Journal Ranking: Knowledge-Based Development | 0.20*** | 0.18*** | 0.15*** | 0.21*** |

TABLE 2. Mean score differences for eHealth journals (Hotelling's Trace = 0.074, $p < .0005$).

| Raters' Research Area | Type of Journals | Mean Score | F-value | p-value |
|-----------------------|------------------|------------|---------|---------|
| Management IT | Management IT | 33.57 | 16.123 | 0.0005 |
| | Clinical IT | 21.00 | | |
| Clinical IT | Management IT | 18.50 | 0.329 | 0.5670 |
| | Clinical IT | 17.11 | | |

each journal (3,150 names). All respondents were sent an e-mail invitation to complete an online survey, followed by three weekly reminders. Journal order was automatically randomized for each respondent. Respondents were asked to rate each journal's overall contribution to the eHealth field on a 7-point Likert-type scale, and 398 usable responses were received at a response rate of 14%.

The eHealth discipline consists of two somewhat distinct research areas: management IT- and clinical IT-related topics. Examples of the former include issues studied in information systems, information technology, marketing, e-commerce/e-business, and operations management. Instances of the latter include biomechanics, biomedicine, health studies, digital imaging, primary care, dentistry, pharmaceuticals, and nursing. Therefore, two distinct lists were created (i.e., the list of management-centered and the list of clinical-centered eHealth journals). For this, two eHealth experts analyzed each journal's mission, description, interests of board members, and topics of articles. Survey respondents were asked to rank two lists of journals separately. For each respondent, two ranking scores were calculated: i) the total score for management-centered journals; and ii) the total score for clinical-centered journals. In addition, each respondent indicated his or her area of interest and concentration within the eHealth domain as either management- or clinical-focused.

Analysis and Results

KM/IC Journals

A table of Pearson correlations was constructed between respondents' research interests (KM-hard, KM-soft, IC, KBD) and their rankings of the journals in the four

subdomains (see Table 1). If personal interests influence people's journal ranking decisions, the correlation between a matching pair of interest-subdomain (e.g., interest: KM-hard and journal ranking: KM-hard) should be higher than those of incongruent pairs (e.g., interest: KM-hard and journal ranking: KM-soft/IC/KBD).

Correlations in the first row show that survey respondents interested in hard-KM topics are more likely to rank hard-KM journals higher than the ones focusing on soft-KM, IC, and KBD, which supports the proposed theory. Correlations in rows three and four also confirm the same proposition. In contrast to expectations, correlations in row two demonstrate that those interested in soft-KM issues are less likely to rate soft-centered KM journals higher than the journals pertaining to hard-KM, IC, and KBD. Thus, personal research interests inflate the ranking scores of journals that match the raters' research interests, but this effect does not universally apply to all research subdomains.

eHealth Journals

With respect to eHealth journals, if the theory proposed in the present study holds true, the respondents who are interested in management IT topics should rate management IT-centered journals higher than clinical-centered ones. In contrast, those attracted to clinical IT issues are expected to assign higher rating scores to clinical-centered than to management-focused journals.

In all, 59% and 41% of the respondents indicated management- and clinical-centered eHealth topics as their primary research areas, respectively. Table 2 shows the results of the multivariate analysis of variance (MANOVA) test. Those interested in management-centered eHealth research ranked management IT-focused journals higher than clinical IT-focused ones. The respondents interested in clinical-centered issues did not exhibit any differences between their rankings of these two journal groups. Therefore, personal research interests may bias the journal ranking scores for a management group of researchers but not for a clinical one.

Conclusion

The results confirm the existence of raters' bias toward the journals focusing on their preferred areas of interest, but

this bias does not uniformly apply across all research topics. In some subdomains, such as intellectual capital, this bias may be very strong, whereas in others, such as soft-KM research, it may be nonexistent. While management eHealth researchers rate management-focused journals higher than their clinical-centered counterparts, this bias does not exist among scholars favoring clinical topics. The results obtained by the expert-survey ranking method are somewhat biased in favor of journals focusing on the topics favored by a wider category of readers, and the final ranking list is not a perfect reflection of all journals' actual quality or impact. Thus, the present study cautions various stakeholders against blindly applying journal rankings in the assessment of their peers or subordinates, draws attention to the imperfection of the expert survey-based ranking technique, and suggests that the evaluation of one's academic achievements should not be solely based on the title of journals in which she or he has published.

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