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How to evaluate the interdisciplinary value of publications across business disciplines?

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Assessments of research performance of academic institutions and individual faculty members are most commonly conducted based on their publication records. While comparisons of publication records may provide accurate and useful information regarding research performance within a given discipline, the internal and external stakeholders of universities are often required to evaluate publication records across several different disciplines. These comparisons, however, are not quite straightforward because of potential discipline-specific differences in publishing patterns and barriers. As noted by Schubert and Braun (1996), interdisciplinary comparisons of publication records without an appropriate “transdisciplinary currency” induce a quotidian fallacy of comparing apples with oranges.

In this paper, we present an objective method for evaluating the interdisciplinary value of top-tier publications. The proposed approach is applied within a business school setting for constructing interdisciplinary “exchange rates” for publications across business disciplines and economics. Our quantitative approach utilizes intradisciplinary author rankings for inferring interdisciplinary “exchange rates” for comparing the value of articles published in the top-tier journals across disciplines. Specifically, using

publication data from the leading peer-reviewed journals in accounting, economics, finance, management, and marketing, we construct intra-disciplinary author rankings which we then employ to estimate the empirical association between the number of publications and author rankings in each discipline. Based on the estimated effort required for improving individual’s ranking within her own discipline, we can deduce the marginal value of a single publication in each discipline. These marginal values can be converted into “exchange rates” for comparing the interdisciplinary value of publications. Albeit this paper empirically applies the interdisciplinary “exchange rates” for evaluating publications across business disciplines, the proposed methodology provides an objective, generic approach for comparative assessments of research performance across various other scientific disciplines.

Methods and material

We construct interdisciplinary “exchange rates” for comparing publications across disciplines based on publication data from the leading peer-reviewed journals in accounting, economics, finance, management, and marketing over the period 2005–2015. Specifically, we collect data on the authors of each article published in the journals which are classified as

“Journals of Distinction” (category 4*) in the Chartered Association of Business Schools’ Academic Journal Guide 2015 (ABS-AJG). These journals are considered to publish research of the highest quality and are generally highly regarded among the academic community.

The publication data used in our analysis include all articles which were published between January 2005 and September 2015 as well as all forthcoming articles which were electronically available as of September 2015. During our sample period, the leading business and economics journals published altogether 15,610 articles with 18,154 individual authors.

We infer the interdisciplinary “exchange rates” for evaluating the value of publications across disciplines from intradisciplinary author rankings. Specifically, we construct intradisciplinary author rankings and utilize these rankings to estimate the marginal effect of an additional publication in a top journal on the individual’s ranking within her own discipline. Based on the implied effort required for improving individual’s intradisciplinary ranking, we then infer the interdisciplinary “exchange rates” for comparing the value of articles published in the top-ranked journals across disciplines.

Results

Our empirical findings demonstrate that the value of top-tier publications varies substantially across the business disciplines. The estimated interdisciplinary “exchange rates” suggest that publications in the leading accounting journals are relatively more valuable than top-tier publications in the other disciplines, with a single single-authored accounting article corresponding to approximately two marketing articles and about 1.4 articles in the top-ranked economics, finance, and management journals. The estimated interdisciplinary “exchange rates” are depicted in Figure 1. The relatively higher value of top-tier accounting publications is broadly consistent with the empirical evidence documented in by Buchheit et al. (2002), Swanson (2004), and Swanson et al. (2007).

We utilize the estimated “exchange rates” for constructing an interdisciplinary author ranking of the most prolific business scholars. In our “exchange rate” adjusted ranking, authors from the different disciplines are uniformly distributed across the interdisciplinary ranking list. This provides support for the validity of the “exchange rate” approach for making objective comparisons of publication records across disciplines.

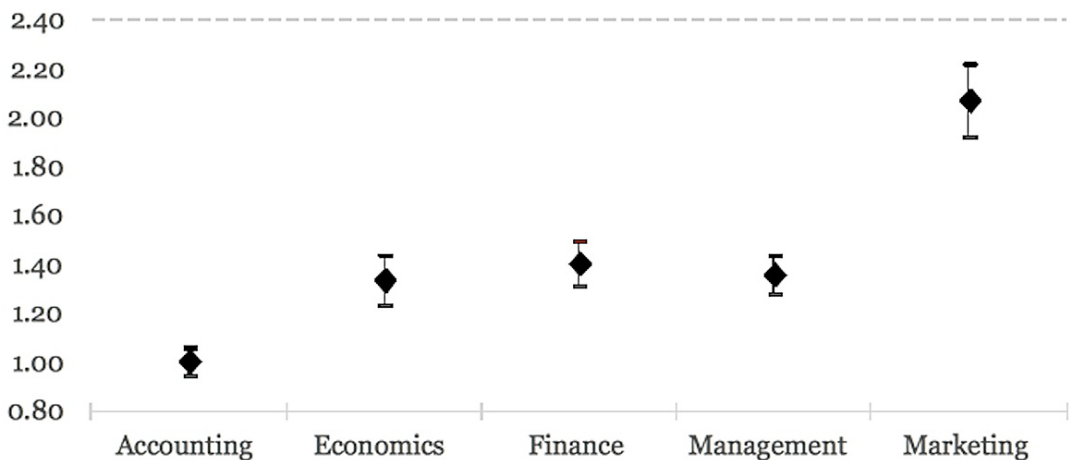


Figure 1: Interdisciplinary “exchange rates”

Furthermore, we conduct a number of additional tests in order to ascertain that the interdisciplinary “exchange rates” are not sensitive to alternative journal sets and sample periods. We also perform a simulation exercise which suggests that the observed differences in publication values between the disciplines are largely induced by discipline-specific quality norms and publication hurdles as well as differences in the level of scholarly competition across disciplines.

Overall, the results of our empirical analysis indicate that the use of interdisciplinary “exchange rates” for converting publications into equivalent units may increase the objectivity of cross-disciplinary comparisons by eliminating the influence of discipline-specific publishing patterns and barriers.

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