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ISSUES AND OPINIONS

EVALUATING JOURNAL QUALITY AND THE ASSOCIATION FOR INFORMATION SYSTEMS SENIOR SCHOLARS' JOURNAL BASKET VIA BIBLIOMETRIC MEASURES: DO EXPERT JOURNAL ASSESSMENTS ADD VALUE?

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Appendix A

Journal Quality Ranking Methods

Consistent with Straub and Anderson (2010), we recognize that a journal's quality and a journal's impact, reputation, and influence are not necessarily equivalent. Similarly, an underlying nomology likely exists—that is largely unknown and unresearched—such that key factors of quality (e.g., rigor of review process, caution with respect to editorial oversight, accuracy of content, etc.) are what predict journal impact or influence (Straub and Anderson 2010). However, due to the complex and unknown nature of this nomology, and following extant practice in scientometrics research, we follow Straub and Anderson in simply equating journal quality with journal impact and reputation for pragmatic purposes.

On this basis, we categorize the various methods of assessing journal quality from this lens into three methodological approaches: expert assessment, citation analyses, and non-validated approaches. We review these approaches to better establish the foundation for our choice to combine bibliometrics with expert assessment, rather than rely on only one method, as is the extant practice in the IS discipline.

Approach 1: Bibliometric Methods for Assessing Journal Quality

Bibliometric journal-ranking methods typically use citation analysis of a journal's articles to assess the journal's overall contribution to science and, subsequently, use this contribution as a surrogate for journal quality (Straub and Anderson 2010). For convenience, such methods typically limit the citation window to two or three years after the article's publication (Allen et al. 2009; Fersht 2009; González-Pereira et al. 2010); however, more recently, citation methods have considered longer windows such as five years (Straub and Anderson 2010). The advantages of bibliometric methods include simplicity, objectivity, and widespread use across most disciplines (McVeigh 2004; Meho 2007; Sombatsompop and Markpin 2005).

However, bibliometric journal-ranking approaches have several drawbacks. One limitation is that they require an index database, such as Scopus™ or Thomson's ISI Web of Knowledge™. These index databases are necessarily limited in scope—completely excluding many journals of lesser quality or of unproven quality (i.e., newer journals) (Straub and Anderson 2010); however, articles in these omitted journals are still cited—some heavily so (Harvey et al. 2007). Another criticism of bibliometric measures is that a window of two or three years discounts long-term contribution (Straub and Anderson 2010). Allen et al. (2009) found that many highly rated articles are not cited in the first three years but instead become highly cited after three years. Because of this scope limitation, bibliometric approaches tend to downplay the long-term scientific contribution of certain articles (Allen et al. 2009; Fersht 2009) and, consequently, downplay the contribution and subsequent judged quality of the journals in which these deflated articles are published. For these reasons, Straub and Anderson assert that a five-year window is more appropriate than a two-year window.

Other potential issues with bibliometric approaches include the following (Harvey et al. 2007): differences in how fields use citation chains (some use lengthy chains, others favor short chains), herding (similar sets of highly cited articles are repeated for articles in a discipline), content bias (review-oriented journals are cited more heavily than journals that publish original research), journal editors who promote artificial journal self-citation, and differences in maturity of fields. These latter issues explain why leading scientometrics research has recently established that bibliometrics are highly appropriate for comparing journals *within* a discipline but highly inappropriate for comparing journals *between* disciplines (Harvey et al. 2007; Leydesdorff 2008).

We alleviate many of the above-mentioned drawbacks by using multiple bibliometrics, which approach we address in the methodology section. Nevertheless, journal-ranking experts outside the IS discipline have increasingly concluded that the best overall approach is to combine journal bibliometrics with expert assessment of journal quality (e.g., Allen et al. 2009; Butler 2008; Harnad 2008; Harvey et al. 2007; Mingers and Harzing 2007).

Approach 2: Expert Assessment of Journal Quality

Studies using expert assessment of journal quality add important qualitative information and judgment that cannot be directly reflected in bibliometric indicators that solely consider impact—including an expert's knowledge of editorial practices, familiarity with a journal's peer-review process, judgment of the credentials of a journal's editorial board, and so on (Straub and Anderson 2010). The IS field uses this approach extensively (e.g., Hamilton and Ives 1980; Lowry et al. 2004; Mylonopoulos and Theoharakis 2001; Peffers and Ya 2003). Through an extensive empirical analysis, Lewis et al. (2007) demonstrated that the best IS journal-ranking studies using expert opinion in a recent 10-year period (i.e., Hardgrave and Walstrom 1997; Lowry et al. 2004; Mylonopoulos and Theoharakis 2001; Peffers and Ya 2003; Walstrom and Hardgrave 2001; Whitman et al. 1999) displayed a remarkable degree of measurement validity and reliability.

The greatest limitation of expert rankings is that they do not consider a journal's actual impact on science. Accordingly, researchers increasingly call for the combined use of bibliometrics with expert rankings. Another limitation of expert assessment is that because the IS field is relatively new and dynamic, the quality of many of its journals is in a constant state of flux. As a result, newer, quality journals can rise quickly in assessed reputation—as occurred with *JAIS*, *ISJ*, and *EJIS* (Lowry et al. 2004). Thus, newer IS journals have been absent in most expert ranking studies, thereby making a comparison to older journals difficult. For example, only three rankings include all of the following IS journals in the same study: *MISQ*, *ISR*, *JMIS*, *DSS*, *I&M*, *EJIS*, *JAIS*, and *ISJ* (Lowry et al. 2004; Mylonopoulos and Theoharakis 2001; Peffers and Ya 2003). An easy solution to this problem is to conduct periodic expert-ranking studies (Lowry et al. 2004). Given the changes in the IS field and the recent controversies regarding the AIS Senior Scholars' recommendation of the SenS-6/SenS-8 baskets, a current assessment of expert opinion is warranted.

Approach 3: Other Approaches

Researchers use other approaches less frequently because of issues in the designs of the approaches that lead to multiple validity and generalizability concerns. A common but questionable practice is the use of a department- or college-specific journal-ranking list for institution-specific needs. Not surprisingly, this approach typically yields lists that are highly politicized and thus lack validity and generalizability; such lists often conveniently focus on journals in which the work of associated senior faculty has been published (Harvey et al. 2007).

A second recently proposed approach is to rank journals on the basis of the ranked quality of the institutions with which the authors publishing in the journals are associated (Author Affiliation Index, or AAI) (Ferratt et al. 2007). One potential concern regarding this approach is that it shifts too much of the quality assessment away from the quality of the journal content to the quality of the authors' associated institutions. The logical fallacy here should be clear: although positive correlations exist between institution quality and article quality, a higher-quality institution does not guarantee higher-quality articles.

With AAI, it is also possible that the relationships discovered are tautological. How do we know the best schools? At least one way is to determine the journals in which they publish. How do we know the best journals? The tautology is that the AAI method says we know this by knowing where the best schools publish.

A final, more accepted approach is to simply average all previous journal rankings into one index (Rainer and Miller 2005). We believe this approach can be useful for highly stable fields. However, we are concerned with the application of this averaging approach to IS journal rankings for three reasons:

(1) Virtually every IS journal-ranking study to date has used a different methodology and inclusion criteria for the selected journals and respondents (e.g., some included non-IS journals, some did not); thus, the average is not from the same baseline conditions.

(2) Most previous IS journal rankings used only North American respondents, so the average was biased toward these respondents.

(3) The IS field and its associated journals have been in a period of rapid growth and quality improvement; thus, creating an average of rankings over a decade obfuscates contemporary knowledge of IS journal quality.

Appendix B

Inclusion/Exclusion Decisions in Final Analysis of IS Journals

Table B1. Justification for Inclusion/Exclusion Decisions in Final Analysis of Journals

Name	Abbreviation	(Rainer and Miller 2005)	(Lowry et al. 2004)	(Katerattanakul and Han 2003)	(Peffers and Ya 2003)	(Mylonopoulos and Theoharakis 2001)	(Whitman et al. 1999)	(Hardgrave and Walstrom 1997)	(Walstrom and Hardgrave 2001)	IS Journal?	Top-40 Cut?	Justification (if applicable)
Academy of Management Journal		25	–	–	–	17	–	15	14	N	n/a	Primarily management
Academy of Management Review		32	–	–	–	22	–	19	16	N	n/a	Primarily management
ACM Computing Surveys		20	–	12	–	24	14	14	10	N	n/a	Primarily CS
ACM SIG Publications		27	–	–	–	26	33	–	–	N	n/a	Will not rank large aggregates like this
ACM Transactions on Database Systems		15	–	10	–	–	–	11	6	N	n/a	Primarily CS
ACM Transactions on Information Systems		9	–	–	39	–	–	–	–	N	n/a	Primarily CS
ACM Transactions on MIS	*ACM TMIS*	–	–	–	–	–	–	–	–	Y	Y	Write-in by several experts, top-40
Administrative Science Quarterly		24	–	–	–	21	–	16	–	N	n/a	Primarily management
African J. of Information Systems	*AFJIS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
AI Magazine		–	–	9	–	–	–	–	–	N	n/a	Magazine; primarily CS
AIS Transactions on HCI	*AIS THCI*	–	–	–	–	–	–	–	–	Y	Y	Write-in by several experts, top-40
All ACM Transactions		–	10	–	–	13	12	17	–	N	n/a	Will not rank large aggregates like this
All IEEE Transactions		–	8	–	–	6	9	12	–	N	n/a	Will not rank large aggregates like this
Australian Journal of Information Systems	*AJIS*	–	–	–	25	46	–	–	–	Y	Y	n/a
Business Horizons		–	–	–	–	–	–	–	25	N	n/a	Primarily management
California Management Review		–	–	–	–	–	–	–	–	N	n/a	Primarily management
China J. of Information Systems	*CJIS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Communication Research		–	–	–	–	–	–	43	–	N	n/a	Primarily communication
Communications of the ACM		2	5	3	–	2	3	4	2	N	n/a	Magazine; primarily CS
Communications of the Association for Information Systems	*CAIS*	23	–	–	5	18	–	–	–	Y	Y	n/a
Communications of the International Information Management Association	*CIIMA*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Computer Decisions		–	–	–	–	–	–	–	27	N	n/a	Primarily CS
Computer Journal		–	–	25	–	50	43	–	–	N	n/a	Primarily CS
Computers and Operations Research		17	–	–	–	–	24	–	–	N	n/a	Primarily OR/OM
Computers in Human Behavior		–	–	–	–	–	–	42	–	N	n/a	Primarily HCI journal

Table B1. Justification for Inclusion/Exclusion Decisions in Final Analysis of Journals (Continued)

Name	Abbreviation	(Rainer and Miller 2005)	(Lowry et al. 2004)	(Katerattanakul and Han 2003)	(Peffers and Ya 2003)	(Mylonopoulos and Theoharakis 2001)	(Whitman et al. 1999)	(Hardgrave and Walstrom 1997)	(Walstrom and Hardgrave 2001)	IS Journal?	Top-40 Cut?	Justification (if applicable)
Computer-Supported Cooperative Work		–	–	–	36	–	–	–	–	N	n/a	Primarily communication
Data Management		–	–	–	–	–	37	–	24	N	n/a	Primarily CS
DATABASE		30	–	–	–	–	–	–	–	N	n/a	Primarily CS
Datamation		–	–	–	–	–	–	51	23	N	n/a	Magazine
Decision Sciences		7	6	–	–	8	5	6	8	N	n/a	Primarily decision science
Decision Support Systems	*DSS*	8	7	20	7	9	13	10	11	Y	Y	n/a
Electronic Commerce Research and Applications	*ECRA*	–	–	–	41	–	–	–	–	Y	Y	n/a
Electronic Government, An International J.	*EG*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Electronic J. of Information Systems Evaluation	*EJISE*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Electronic J. of Information Systems in Developing Countries	*EJISDC*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Electronic Markets	*EM*	–	–	–	29	40	–	–	–	Y	Y	n/a
Enterprise Information Systems	*EIS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Enterprise Modeling and Information Systems Architectures, An International J.	*EMISA*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
E-services Journal	*e-SJ*	–	–	–	45	–	–	–	–	Y	Y	n/a
European Journal of IS	*EJIS*	13	11	14	4	11	–	–	–	Y	Y	n/a
European Journal of Operations Research		–	–	–	–	42	–	–	–	N	n/a	Primarily OR/OM
Expert Systems Review		–	–	–	–	–	–	38	–	N	n/a	Primarily CS
Expert Systems with Applications		–	–	24	–	–	–	34	–	N	n/a	Primarily CS
Harvard Business Review		6	15	–	–	7	6	9	9	N	n/a	Primarily management
Human-Computer Interaction		–	–	7	–	32	–	23	–	N	n/a	Primarily HCI
IBM Systems Journal		42	–	8	–	28	–	–	–	N	n/a	Primarily CS
IEEE Computer		19	25	16	–	19	11	–	–	N	n/a	Magazine; primarily CS
IEEE Software		11	–	–	–	–	–	–	–	N	n/a	Magazine; primarily CS
IEEE Transactions on Computer		18	–	–	–	–	–	–	–	N	n/a	Primarily CS
IEEE Transactions on Knowledge and Data Engineering		–	–	–	–	–	–	–	–	N	n/a	Primarily CS
IEEE Transactions on SE		10	22	5	–	–	–	7	5	N	n/a	Primarily CS
IEEE Transactions on SMC		14	–	–	–	–	–	–	–	N	n/a	Primarily CS
INFOR		–	–	–	–	–	–	37	–	N	n/a	Not in print
Information & Management	*I&M*	12	9	15	5	10	15	20	12	Y	Y	n/a
Information & Organization	*I&O*	40	20	–	28	25	–	–	–	Y	Y	n/a
Information and Software Technology		–	–	–	–	–	45	–	–	N	N	Primarily CS
Information Knowledge Systems Management	*IKSM*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40

Table B1. Justification for Inclusion/Exclusion Decisions in Final Analysis of Journals (Continued)

Name	Abbreviation	(Rainer and Miller 2005)	(Lowry et al. 2004)	(Katerattanakul and Han 2003)	(Peffers and Ya 2003)	(Mylonopoulos and Theoharakis 2001)	(Whitman et al. 1999)	(Hardgrave and Walstrom 1997)	(Walstrom and Hardgrave 2001)	IS Journal?	Top-40 Cut?	Justification (if applicable)
Information Management & Computer Security	*IM&CS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Information Processing and Management	*IP&M*	–	–	–	46	–	35	–	–	Y	N	Not top-40
Information Research	*IR*	–	–	–	43	–	–	–	–	Y	N	Not top-40
Information Resources Management Journal	*IRMJ*	50	–	–	11	38	31	35	–	Y	Y	n/a
Information Sciences		–	–	–	24	–	–	–	–	N	n/a	Primarily CS / Information Sciences
Information Systems		–	21	18	21	–	–	–	–	N	n/a	Primarily CS
Information Systems and eBusiness Management	*ISeB*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Information Systems Education J.	*ISEJ*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Information Systems Frontiers	*ISF*	–	–	–	18	–	–	–	–	Y	Y	n/a
Information Systems Journal	*ISJ*	36	13	17	10	16	16	–	–	Y	Y	n/a
Information Systems Management	*ISM*	43	–	19	35	33	26	30	17	Y	Y	n/a
Information Systems Research	*ISR*	3	2	2	2	3	4	2	3	Y	Y	n/a
Information Technology & People	*IT&P*	–	–	–	15	27	–	–	–	Y	Y	n/a
Information Technology and Management	*IT&M*	–	–	–	27	–	–	–	–	Y	Y	n/a
Infosytems		–	–	–	–	–	–	–	26	N	n/a	Not in print
Interfaces		39	–	–	–	39	20	28	19	N	n/a	Primarily OR/OM
International J. of Business Information Systems	*IJBIS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
International J. of Electronic Commerce	*IJEC*	–	–	–	12	23	–	–	–	Y	Y	n/a
International J. of Enterprise Information Systems	*IJEIS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
International J. of Information and Decision Sciences	*IJIDS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
International J. of Information Management	*IJIM*	–	–	–	37	–	–	–	–	Y	N	Not top-40
International J. of Information System Modeling and Design	*IJISMD*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
International J. of Information Technologies and Systems Approach	*IJITSA*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
International J. of Intercultural Information Management	*IJIIM*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
International J. of Technology Management	*IJTM*	41	–	–	–	–	41	–	–	Y	N	Not top-40
International Journal of Human-Computer Studies		–	–	11	42	44	–	22	–	N	n/a	Primarily HCI

Table B1. Justification for Inclusion/Exclusion Decisions in Final Analysis of Journals (Continued)

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International Journal of Man-Machines Studies		34	–	–	–	34	25	–	–	N	n/a	Now IJHCS (HCI journal)
Issues in Information Systems	*ISS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
J. of Education for Management Information Systems	*JEMIS*	38	–	–	–	–	39	–	–	Y	N	Not in print
J. of Computer Information Systems	*JCIS*	–	23	26	13	41	22	27	22	Y	Y	n/a
J. of Database Management	*JDM*	–	–	–	14	–	19	26	–	Y	Y	n/a
J. of Enterprise Information Management	*JEIM*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
J. of Global Information Management	*JGIM*	–	–	–	19	–	–	–	–	Y	Y	n/a
J. of Global IT Management	*JGITM*	–	–	–	23	–	–	–	–	Y	Y	n/a
J. of Information Privacy and Security	*JIPS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
J. of Information System Security	*JISS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
J. of Information Systems and Technology Management	*JISTEM*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
J. of Information Systems Applied Research	*JISAR*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
J. of Information Systems Education	*JISE*	33	–	–	31	–	36	41	–	Y	Y	n/a
J. of Information Technology	*JIT*	–	–	23	40	–	–	–	–	Y	Y	n/a
J. of Information Technology Case and Application Research	*JITCAR*	–	–	–	33	–	–	–	–	Y	Y	Write-in by several experts, top-40
J. of Information Technology for Development	*ITD*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
J. of Information Technology Management	*JITM*	36	–	–	–	–	38	–	–	Y	Y	n/a
J. of Information Technology Theory and Applications	*JITTA*	–	–	–	26	–	–	–	–	Y	Y	n/a
J. of Information, Technology, and Organizations	*JITTO*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
J. of International Technology and Information Management	*JITIM*	45	–	–	–	–	42	–	–	Y	Y	Write-in by several experts, top-40
J. of Management Information Systems	*JMIS*	5	3	–	3	4	7	5	7	Y	Y	n/a
J. of Management Systems	*JMS*	21	–	–	–	–	27	–	–	Y	N	Not top-40
J. of Organizational and End-User Computing	*JOEUC*	–	–	–	22	37	40	44	–	Y	Y	n/a
J. of Organizational Computing and Electronic Commerce	*JOCEC*	–	–	–	34	31	–	–	–	Y	Y	n/a
J. of Strategic IS	*JSIS*	27	18	22	16	20	30	25	–	Y	Y	n/a
J. of Systems and Information Technology	*JSIT*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40

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J. of the Association for Information Systems	*JAIS*	–	12	–	9	30	–	–	–	Y	Y	n/a
Journal of Computer and System Sciences		–	–	13	–	–	–	–	–	N	n/a	Primarily CS
Journal of Database Administration		22	–	–	–	–	28	–	–	N	n/a	Primarily CS
Journal of Information Management		27	–	–	–	–	21	–	–	N	n/a	n/a
Journal of Information Science		49	–	–	–	–	23	–	–	N	n/a	Primarily information science
Journal of Information Systems		44	19	–	–	35	18	39	–	N	n/a	Primarily accounting
Journal of Operations Research		–	–	–	–	–	–	32	–	N	n/a	Primarily OR/OM
Journal of Systems and Software		–	–	27	–	–	–	33	–	N	n/a	Primarily CS
Journal of the ACM		26	–	4	17	45	10	–	–	N	n/a	Primarily CS
Journal of the American Society for Information Science		–	–	–	–	–	34	–	–	N	n/a	Primarily information science
Journal on Computing		–	16	–	–	–	–	–	–	N	n/a	Primarily CS
Knowledge Based Systems		–	–	21	–	–	–	31	–	N	n/a	Primarily CS
Management Science		4	4	–	–	5	2	3	4	N	n/a	Primarily management
MIS Quarterly	*MISQ*	1	1	1	1	1	1	1	1	Y	Y	n/a
MIS Quarterly Executive	*MISQE*	–	–	–	–	–	–	–	–	Y	Y	Write-in by several experts, top-40
MISQ Discovery		–	–	–	20	–	–	–	–	N	n/a	No longer in print
Omega		48	–	–	–	29	32	24	15	N	n/a	Primarily OR/OM
Operations Research		–	17	–	–	43	–	18	18	N	n/a	Primarily OR/OM
Organization Science		31	14	–	–	15	–	8	–	N	n/a	Primarily OB / management
Organizational Behavior and Human-Decision Processes		–	–	–	–	47	–	21	–	N	n/a	Primarily OB / management
Pacific Asia J. of the Association for Information Systems	*PAJAIS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Review of Business Information Systems	*RBIS*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
Revista Latinoamericana y del Caribe de la Asociación de Sistemas de Latinoamericana y del Caribe de la Asociación de Sistemas de Información	*RELCASI*	–	–	–	–	–	–	–	–	Y	Y	Write-in by several experts, top-40
Scandinavian J. of Information Systems	*SJIS*	–	–	–	–	–	–	–	–	Y	Y	Write-in by several experts, top-40
Simulation		–	–	–	–	–	–	45	–	N	n/a	Primarily CS
Sloan Management Review		16	–	–	–	12	8	13	13	N	n/a	Primarily management
Systèmes d' Information et Management	*SIM*	–	–	–	–	–	–	–	–	Y	N	Write-in; not ranked before; not top-40
The DATABASE *for Advances in Information Systems*	*DATA BASE*	35	–	–	8	14	17	29	20	Y	Y	n/a
The Information Society		–	–	–	49	36	–	–	–	N	n/a	Primarily OR/OM
Wirtschaftsinformatik	*WIRT*	–	24	–	32	–	–	–	–	Y	Y	n/a

Table B2. Summary Statistics for Previous Rankings Studies' Use of IS-Centric Journals

Summary Item	(Rainer and Miller 2005)	(Lowry et al. 2004)	(Katerattanakul and Han 2003)	(Peffers and Ya 2003)	(Mylonopoulos and Theoharakis 2001)	(Whitman et al. 1999)	(Hardgrave and Walstrom 1997)	(Walstrom and Hardgrave 2001)
IS journals ranked	19	12	10	36	21	20	13	8
Total journals ranked	48	25	27	45	49	43	45	26
IS journals as percent of total in study	39.6%	48.0%	37.0%	80.0%	42.9%	46.5%	28.9%	30.8%

Appendix C

Considered Publications

Table C1. IS-Centric Journals Considered with Publishing Information

Journal Name	Publisher	Sponsoring Organization
ACM Transactions on MIS (ACM TMIS)	ACM	ACM
African J. of Information Systems (AFJIS)	The International Center for IT and Development, College of Business, Southern University	Same as publisher
AIS Transactions on HCI (AIS THCI)	The Association for Information Systems (AIS)	Same as publisher
Australasian J. of Information Systems (AJIS)	Australasian Association for Information Systems (AAIS) through the Australian Computer Society Digital Library (ACS)	University of Canberra (UC)
China J. of Information Systems (CJIS)	School of Economics and Management, Tsinghua University, Beijing, "Information Systems Journal"	Same as publisher
Communications of the AIS (CAIS)	The Association for Information Systems (AIS)	Same as publisher
Communications of the International Information Management Association (CIIMA)	International Information Management Association, Inc.	Same as publisher
Decision Support Systems (DSS)	Elsevier	Same as publisher
Electronic Commerce Research and Applications (ECRA)	Elsevier	Same as publisher
Electronic Government, An International Journal (EG)	Inderscience Enterprises Limited	Same as publisher
Electronic J. of Information Systems Evaluation (EJISE)	Academic Conferences Limited	Same as publisher
Electronic J. of Information Systems in Developing Countries (EJISDC)	City University of Hong Kong, Erasmus University of Rotterdam, University of Nebraska, Omaha	Same as publisher
Electronic Markets (EM)	Springer	University of St. Gallen, Switzerland and the University of Leipzig, Germany
Enterprise Information Systems (EIS)	Taylor & Francis Group	Same as publisher
Enterprise Modeling and Information Systems Architectures, An International J. (EMISA)	Special Interest Group on Modeling Business Information Systems within the German Informatics Society (GI-SIGMoBIS)	Same as publisher
e-Service J. (e-SJ)	Indiana University Press	The Trustees of Indiana University
European J. of Information Systems (EJIS)	Palgrave Macmillan, a division of Macmillan Publishers Limited	Same as publisher
Information & Management (I&M)	Elsevier	Same as publisher
Information and Organization (I&O)	Elsevier	Same as publisher
Information Knowledge Systems Management (IKSM)	IOS Press	Same as publisher
Information Management & Computer Security (IM&CS)	Emerald Group Publishing Limited	Same as publisher
Information Processing & Management (IP&M)	Elsevier	Same as publisher
Information Research (IR)	Professor T.D. Wilson, Professor Emeritus of the University of Sheffield	Lund University Libraries

Table C1. IS-Centric Journals Considered with Publishing Information (Continued)

Journal Name	Publisher	Sponsoring Organization
Information Resources Management J. (IRMJ)	IGI Global	The Information Resource Management Association (IRMA)
Information Systems and eBusiness Management (ISeB)	Springer	Same as publisher
Information Systems Education J. (ISEJ)	EDSIG, the Education Special Interest Group of AITP, the Association of Information Technology Professionals (Chicago, Illinois)	Same as publisher
Information Systems Frontiers (ISF)	Springer	Same as publisher
Information Systems J. (ISJ)	John Wiley & Sons, Inc.	Same as publisher
Information Systems Management (ISM)	Taylor & Francis Group	Same as publisher
Information Systems Research (ISR)	The Institute for Operations Research and the Management Sciences (INFORMS)	Same as publisher
Information Technology & People (IT&P)	Emerald Group Publishing Limited	Same as publisher
Information Technology and Management (IT&M)	Springer	Same as publisher
International J. of Business Information Systems (IJBIS)	Inderscience Enterprises Limited	Same as publisher
International J. of Electronic Commerce (IJEC)	M.E. Sharpe	Same as publisher
International J. of Enterprise Information Systems (IJEIS)	IGI Global	Same as publisher
International J. of Information and Decision Sciences (IJIDS)	Inderscience Enterprises Limited	Same as publisher
International J. of Information Management (IJIM)	Elsevier	Same as publisher
International J. of Information System Modeling and Design (IJISMD)	IGI Global	IRMA
International J. of Information Technologies and Systems Approach (IJITSA)	IGI Global	IRMA
International J. of Intercultural Information Management (IJIIM)	Inderscience Enterprises Limited	Same as publisher
International J. of Technology Management (IJTM)	Inderscience Enterprises Limited	Same as publisher
Issues in Information Systems (ISS)	International Association for Computer Information Systems (IACIS)	Same as publisher
J. of Computer Information Systems (JCIS)	International Association for Computer Information Systems (IACIS)	Same as publisher
J. of Database Management (JDM)	IGI Global	IRMA
J. of Enterprise Information Management (JEIM)	Emerald Group Publishing Limited	Same as publisher
J. of Global Information Management (JGIM)	IGI Global	IRMA
J. of Global Information Technology Management (JGITM)	Ivy League Publishing	Same as publisher
J. of Information Privacy and Security (JIPS)	UW-Whitewater, Global Business Resource Center	Same as publisher
J. of Information System Security (JISS)	The Information Institute	Same as publisher
J. of Information Systems and Technology Management (JISTEM)	TECSI - Laboratório de Tecnologia e Sistemas de Informação - FEA USP/ TECSI - Research Lab on Information Systems and Technology, Universidade de São Paulo-USP	Same as publisher
J. of Information Systems Applied Research (JISAR)	EDSIG, the Education Special Interest Group of AITP, the Association of Information Technology Professionals (Chicago, Illinois)	Same as publisher

Table C1. IS-Centric Journals Considered with Publishing Information (Continued)

Journal Name	Publisher	Sponsoring Organization
J. of Information Systems Education (JISE)	Education Special Interest Group (EDSIG) of the Association of Information Technology Professionals (AITP)	Same as publisher
J. of Information Technology (JIT)	Palgrave Macmillan, a division of Macmillan Publishers Limited	Same as publisher
J. of Information Technology Case and Application Research (JITCAR)	Ivy League Publishing	Same as publisher
J. of Information Technology for Development (ITD)	Taylor and Francis	College of Information Science and Technology at the University of Nebraska Omaha
J. of Information Technology Management (JITM)	Association of Management	Same as publisher
J. of Information Technology Theory and Application (JITTA)	The Association for Information Systems (AIS)	Same as publisher
J. of Information, Technology, and Organizations (JITTO)	Informing Science Institute	Same as publisher
J. of International Technology and Information Management (JITIM)	The International Information Management Association	Same as publisher
J. of Management Information Systems (JMIS)	M.E. Sharpe Inc.	Same as publisher
J. of Management Systems (JMS)	Association of Management (AoM) / International Association of Management (IAoM)	Same as publisher
J. of Organizational and End User Computing (JOEUC)	Information Resources Management Association	Same as publisher
J. of Organizational Computing and Electronic Commerce (JOCEC)	Taylor & Francis	Same as publisher
J. of Strategic Information Systems (JSIS)	Elsevier	Same as publisher
J. of Systems and Information Technology (JSIT)	Emerald Group Publishing Limited	Same as publisher
J. of the Association for Information Systems (JAIS)	The Association for Information Systems (AIS)	Same as publisher
MIS Quarterly (MISQ)	Management Information Systems Research Center (MISRC) of the University of Minnesota	Same as publisher
MIS Quarterly Executive (MISQE)	The Association for Information Systems (AIS)	Society for Information Management; MISQ, AIS, Indiana University; University of St. Gallen, City University of Hong Kong
Pacific Asia J. of the Association for Information Systems (PAJAIS)	The Association for Information Systems (AIS)	Same as publisher
Review of Business Information Systems (RBIS)	Clute Institute	Same as publisher
Revista Latinoamericana y del Caribe de la Asociación de Sistemas de Latinoamericana y del Caribe de la Asociación de Sistemas de Información (RELCASI)	The Association for Information Systems (AIS)	Same as publisher
Scandinavian J. of Information Systems (SJIS)	IRIS Association	The Association for Information Systems (AIS)
Systèmes d'Information et Management (SIM)	Editions Eska	Association Information et Management (AIM)
The DATABASE *for Advances in Information Systems (DATABASE)*	ACM SIGMIS	University of Memphis Management Information Systems Department
Wirtschaftsinformatik (WIRT); also published in English as Business & Information Systems Engineering	GablerVerlag	Springer

Appendix D

Details on Data Collection Procedures

Population Oversampling for Expert Survey Data Collection

For the expert assessment portion of our research, we designed the data collection methodology with an oversampling method that included almost the entire population of IS academics in the world. We followed the methodology used in Lowry et al. (2004), but included more sample sources to ensure population oversampling. Thus, we assume that our statistics are based on the population of IS researchers—not a subsample of the population. To achieve this global representation, we first used the target and respondent list from Lowry et al. We added to this group all faculty listed in the AIS membership directory, those who published in the last five years in the traditionally acknowledged top-four IS journals from previous studies (i.e., *MISQ*, *ISR*, *JMIS*, and *JAIS*), those who attended ICIS in the last five years, and anyone listed as a member of any IS department in the world (based on the AIS web site listings).

This oversampling method resulted in 16,202 purportedly unique individuals and e-mail addresses. An examination of the pool revealed that many entries were duplicates (e.g., the same person with different name spellings, additional entries with various e-mail addresses, or multiple records for the same person representing different institutions over time). We thus eliminated 1,847 potential respondents whom we could verify as having duplicate identities. We then sent invitations to the remaining potential 14,355 respondents. Of these, 4,994 e-mail addresses were invalid, generally for people who no longer resided at the institution and/or had their account suspended; spam filters blocked a much smaller portion. In addition, 372 valid e-mail addresses existed for respondents who were on long-term leave (e.g., maternity, health, and industry) or were not otherwise available. Thus, we estimate that our survey successfully reached 8,989 unique academics.

Of the 8,989 academics whom we reached, 83 noted that they were too busy or uninterested to respond; 56 noted that they were retired and thus not eligible; and 444 noted that, although they published in IS journals or resided in IS departments, they did not consider themselves to be IS academics but instead members of another field (thus, we eliminated them in our attempt to restrict our sample to IS researchers). Most of these were academics in IS departments with academic training in computer science, statistics, and operations.[1]

From among the 8,406 remaining target respondents, we received 2,816 responses. Of these responses, 139 were omitted because the respondents did not consider themselves to be *active* IS academics. To be conservative, we retained the 83 uninterested/busy respondents as potential respondents; thus, we estimate that our survey reached a maximum of 8,350 eligible respondents, and given the 2,816 responses that we received, we achieved a minimum 33.7 percent response rate from international IS academics. Accordingly, this participation rate was the largest international participation in an IS journal study to date. We believe that 8,350 is the most accurate estimate of the actual population of IS researchers in the world at the time our data was collected (i.e., 2010).

To increase the quality and validity of our results, our survey software prevented duplicate entries from the same person or same computer, while allowing responses only from explicitly invited participants. Finally, we omitted responses for 396 people who left portions of the survey blank without explanation. This process left 2,420 responses that were used to conduct our full data analysis. By comparison, after a similar winnowing process, Lowry et al. had 1572 responses remaining in their analysis.

Self-Citation Google Scholar™ Data Collection

In order to better understand *short-term* citation activity, we identified all articles published from January 2011 through July 2012 in the 21 IS journals considered in our study, thereby resulting in 1358 articles. Using Google Scholar™, we identified every article that cited each of the identified 1,358 articles, thereby resulting in 2,548 *citing* articles. We coded each of the 2,548 citing articles into one of seven mutually exclusive categories listed below.

[1]We conducted a random audit of 300 (out of 444) of these individuals and found that 90 (30%) were listed as "IS academics" in the AIS membership directory. This result is to be expected because the IS field is an interdisciplinary field and IS academics routinely are members of related organizations such as the ACM, IEEE, and Academy of Management.

1. **Self-cites**: Citing article was published by the same journal as the cited article.

2. **Non-peer**: Citing article was published in a non-peer reviewed outlet, or non-journal non-conference outlet such as dissertations, books, SSRN, sprouts, working paper, etc.

3. **AIS/HICSS Conference**: Citing article was published in one of the following eight conferences:
   - *HICSS* (Hawaii International Conference on System Sciences)
   - AIS Conferences:
     - *ICIS* (International Conference on Information Systems)
     - *AMCIS* (Americas Conference on Information Systems)
   - Affiliated AIS Conferences:
     - *ECIS* (European Conference on Information Systems)
     - *CONF-IRM* (International Conference on Information Resources Management)
     - *ICMB* (International Conference on Mobile Business)
     - *MCIS* (Mediterranean Conference on Information Systems)
     - *PACIS* (Pacific-Asia Conference on Information Systems)

4. **Non-AIS/HICSS Conference**: Citing article was published in a conference not listed in #3, including symposiums, workshops, and colloquiums.

5. **IS ISI Journal**: Citing article was published in one of the 29 IS journals indexed by the ISI in 2011: *DATABASE, DSS, ECRA, EIS, EJIS, EM, I&M, I&O, IJEC, IJIM, IJTM, ISF, ISJ, ISM, ISR, IT&M, IT&P, JAIS, JCIS, JDM, JGIM, JIT, JMIS, JOCEC, JSIS, MISQ, MISQE, WIRT*.

6. **Other ISI Journal**: Citing article was published in a journal indexed by the ISI, but is not one of the IS journals referred to in #5 (e.g., *Journal of Psychology*).

7. **Non ISI Journal**: Citing article was published in any peer-reviewed journal not currently indexed by the ISI.

An error in citation counts could significantly bias results. Accordingly, we desired 100 percent reliability in our coding efforts. To establish 100 percent reliable coding, two coders were initially assigned to each of the 21 journals under review. The coders independently categorized each of the citing articles for each of the cited articles for their assigned journals. An independent third coder (reconciliation coder) identified discrepancies between the two original coders. The reconciliation coder manually investigated the unreconciled article following the same procedures of categorizing the citing articles as followed by the original coders. If his categorization counts agreed with one of the two original coders, the agreeing counts were retained. If the three coders' counts disagreed, a fourth coder worked with the reconciliation coder until the discrepancy was verbally resolved. Following this procedure ensured 100 percent reliability among coders. These citation counts were then used as input to calculate the final measures.

Appendix E

Detailed Definitions of Citation Metrics Used

ISI Impact Factor

The Thomson Reuters ISI Impact Factor™ of a journal is the average number of citations received per paper published in that journal during the two preceding years, accounting for the number of "citable items" published (Fersht 2009). For example, the 2010 impact factor for *MISQ* (released summer 2011) is the number of citations that *MISQ* received during 2009 and 2008, divided by the number of citable items (or actual articles) the journal published during those same two years. Citable items are articles, proceedings, or research notes, and do not include editorials, letters, or book reviews. Specifically, the 2010 Impact Factor of a journal would be calculated in the following manner:

A = the number of times articles published in 2009 and 2008 were cited by indexed journals during 2010
B = the total number of citable items published by that journal in 2009 and 2008
2010 impact factor = A/B

Importantly, the 2010 Impact Factor could not be released until summer 2011 because the Impact Factor could not be calculated until all the 2010 publications were processed by Thomson Reuters.

Proponents of this measure admit that it is not perfect, but it is one of the most reliable in existence, being widely used for several years (Garfield 2005). A significant advantage of this measure is the ability to compare journals from different fields and disciplines fairly and consistently. A strength and a limitation of the ISI Impact Factor is that a journal has to attain a certain threshold of citations and general publisher quality indicators to be allowed to have an ISI Impact Factor. This is useful because having an ISI Impact Factor is an indicator of quality; unfortunately, this makes it difficult to assess the citation impact of journals that do not have an ISI Impact Factor.

ISI Five-Year Impact Factor

The five-year impact factor is an ISI Thomson Reuters metric that uses five years of data instead of two in the standard calculation. Thus, the 2010 Five-Year Impact Factor uses years 2005–2009. Using this factor helps consider longer-term citation impact.

ISI Impact Factor Without Journal Self-Citation

The ISI Impact Factor without journal self-citation is an ISI Thomson Reuters metric that is based on their Impact Factor calculation but eliminates any self-citations from the journal in question. Specifically, any citations within any article in the journal that refer to an article published in the same journal are eliminated. Thus, we included this metric to adjust further for any potential differences in self-citation rates of top IS journals.

ISI Five-Year Article Influence

The Article Influence™ score is another bibliometric factor created by ISI Thomson Reuters adopted here. It determines the average influence of a journal's articles over the first five years after publication. This score is calculated by dividing a journal's Eigenfactor Score by the number of articles in the journal, normalized as a fraction of all articles in all indexed publications. This measure is roughly analogous to the Five-Year Journal Impact Factor in that it is a ratio of a journal's citation influence to the size of the journal's article contribution over a period of five years. The mean Article Influence Score is 1.00; a score greater than 1.00 indicates that each article in the journal has above-average influence. A score less than 1.00 indicates that each article in the journal has below-average influence. Of course, this measure is relative to all publications indexed by Thomson Reuters; thus, the influence is compared to the influence of other leading journals—not all journals.

h-Index

The *h*-index (Hirsch 2005) is a measure of a journal's quality based on its most highly cited articles since inception. To compute the *h*-index for a journal, all articles in the lifetime of the journal are ranked by the number of times other articles cite them. The most-cited article receives a rank of one and the ranking number increases as the number of citations decreases. A journal with an index of h has published h papers each of which has been cited in other papers at least h times. For example, if the fifth most cited article of a journal is cited at least five times (but the next most cited article is less than five), the journal has an *h*-index of five. If the 20th most cited article of a journal is cited at least 20 times, the *h*-index is 20. The advantage of the *h*-index over the impact factor is that higher priority is given to the quality of articles rather than solely the number of times a journal is cited (Miller 2006). A journal with highly cited articles will have a higher *h*-index than highly cited journals with few high-quality articles. This prevents bias toward journals that tend to self-cite. Moreover, the *h*-index uses Google Scholar™ data on journals; thus, this version of impact can be computed for more published journals than the ISI Impact Factors.

hc-Index

The *hc*-index is an adjusted *h*-index that gives more weight to recently published articles than older articles as a solution to the time-in-print bias (Sidiropoulos et al. 2007); it is based on the latest Google Scholar™ data. The *h*-index has been criticized for several limitations, all of which cannot be addressed in our paper because of space limitations. For more complete treatment, see Bar-Ilan (2008), Bornmann and Daniel (2009), and Bornmann et al. (2008). We have chosen to address three core limitations that have been noted in previous IS literature (Truex

et al. 2009) and that are most applicable to our journal-level comparison (Truex et al. 2009; Zhang 2009). First, the *h*-index metric considers journals over their lifetime (rather than the most recent years). As a result, journals that have been in publication for several years have a significant citation advantage over those with a shorter history of publication (Truex et al. 2009). Further, a journal that published several highly cited articles in the past will continue to have a large *h*-index even if the quality of the journal changes. To overcome this time-in-print bias, Sidiropoulos et al. (2007) proposed a variation of the *h*-index that they term the contemporary *h*-index, or *hc*-index. This metric adjusts the *h*-index by increasing the weight for more recently published articles and decreasing the weight for older papers.

g-Index

The *g*-index is an adjusted *h*-index that ascribes more weight to highly influential articles (Egghe 2006); it is based on the latest Google Scholar™ data. A second limitation of the *h*-index important for our consideration is its inability to recognize highly influential papers. Because the *h*-index is based on rank-ordered citation counts, it does not differentiate between a paper with 50 citations and one with 50,000 citations once the rank order is established (Truex et al. 2009). The *g*-index (Egghe 2006) was developed to overcome this limitation by more heavily weighting highly cited articles. This is accomplished by incorporating a squared rank to ascribe accurate weight to highly influential articles.

e-Index

The *e*-index is a metric that is complementary to the *h*-index, accounting for differences in citation patterns among journals with the same or similar *h*-index score (Zhang 2009); it is based on the latest Google Scholar™ data. The *h*-index is also limited by its lack of granularity and its information loss (Zhang 2009). Because the *h*-index is computed as the intersection of publication rank and citation count (Hirsch 2005), the *h*-index often results in ties when comparing several authors. Further, the *h*-index only infers h^2 citations, while ignoring all additional citations (Zhang 2009). Ties are not as common when comparing h-indices for journals, but the loss of information regarding excess citations can be an issue. For example, two journals might have the same or similar h-indices because they have similar numbers of citations for articles near the same place in their rank ordering (i.e., their intersection points of publication rank and citation count are similar). However, one journal might have many more citations in the rest of its set of articles than the other journal (i.e., the journal has a larger "tail"). This difference is lost in the *h*-index. Zhang (2009) proposed the *e*-index to address this limitation. It is calculated using citation information not included in the *h*-index, thus capturing differences in excess citations.

SNA—Freeman Degree

The Freeman Degree is a localized, within-network measure of the number of direct relationships for a given journal (Freeman 1979).

SNA—Bonacich Power

The Bonacich Power is a localized, within-network degree measure for a journal's power, based on the power of other journals to which it is connected (Bonacich 1987).

SNA—Information Centrality

Information centrality is a measure of all paths between pairs of journals, including the strength of ties between journals (Porta et al. 2006; Stephenson and Zelen 1989).

Appendix F

Details of Analysis

Table F1. Summary of Expert Assessment, Bibliographic, and SNA Data for 21 IS Journals Included in Final Composite Rankings (Listed Alphabetically)

Journal	Expert Opinion (z-score)	ISI Impact	5-year Impact	ISI Impact w/o Self-Cites	Article Influence	*h*-index	*hc*-index	*g*-index	*e*-index	Freeman Degree	Bonacich's Power	Information Centrality
*DSS***	0.23	2.14	2.57	1.63	0.71	94	54	147	92.94	21.55	5.82	0.92
ECRA	-0.91	1.95	1.73	1.66	0.40	3	1	3	1.00	4.41	2.87	0.67
EJIS	0.93	1.77	2.21	1.40	0.55	69	40	113	75.71	13.03	5.45	0.79
*I&M***	0.08	2.63	3.90	2.43	0.83	114	65	179	113.36	18.10	5.87	0.87
*IJEC***	-0.64	0.85	2.17	0.55	0.60	62	39	117	87.03	6.58	5.44	0.70
*ISF***	-0.80	1.60	1.46	1.23	0.42	38	26	63	41.84	4.95	4.33	0.69
ISJ	0.22	2.18	3.02	1.96	0.72	65	38	104	68.65	5.96	4.43	0.68
ISM	-0.47	1.03	1.28	0.91	0.32	42	27	64	39.45	4.03	4.55	0.66
ISR	2.17	3.36	5.46	3.09	2.02	150	87	271	198.27	25.30	5.99	0.92
*IT&M***	-0.67	0.73	0.97	0.67	1.60	30	23	56	41.34	0.98	1.54	0.62
JAIS	0.92	2.22	2.96	2.15	1.18	53	35	84	53.52	19.80	6.18	0.88
JCIS	-0.64	0.82	0.89	0.52	0.18	35	22	47	24.35	5.24	3.27	0.72
JDM	-0.80	2.12	1.98	1.09	0.42	29	20	49	33.96	1.78	1.59	0.62
JGIM	-0.86	1.22	1.83	1.03	0.34	30	21	48	32.02	1.87	2.40	0.65
*JIT***	-0.35	2.91	3.45	2.78	0.82	62	35	98	62.74	8.43	5.20	0.75
JMIS	1.22	2.66	4.05	2.30	1.16	123	64	210	142.87	28.28	5.99	0.96
JOCEC	-0.93	0.79	1.00	0.72	0.23	31	18	57	41.02	0.71	0.92	0.63
JSIS	-0.29	2.90	3.80	2.00	0.69	58	34	101	70.28	8.19	5.21	0.74
MISQ	2.61	5.04	9.82	4.72	2.76	198	103	369	272.12	56.22	6.18	1.15
MISQE	-0.14	1.56	2.09	1.19	0.58	25	21	55	45.10	8.83	4.32	0.79
*WIRT***	-0.89	0.88	0.67	0.00	0.05	9	11	14	8.94	0.77	1.70	0.60

Notes:

1. Grey background indicates membership in the Senior Scholars' Basket (either SenS6+2 or SenS8),
2. Double-asterisks indicate high levels of short-term self-citations and/or low short-term IS influence, which indicates potential omission. See Table F4.

Table F2. Wilcoxon Results (*p*-values) for Each Weightings Scheme Comparison

Weighting Acheme	Alt-2	Alt-3	Alt-4
Alt-1	0.903	0.455	0.958
Alt-2		0.986	0.903
Alt-3			0.794

Table F3. Preliminary Weighted Rankings Using Rank-Sums Across All Weighting Strategies

Rank	Alt1	z	Alt2	z	Alt3	z	Alt4	z	Composite	Rank Sum
1	*MISQ*	2.910	*MISQ*	2.803	*MISQ*	2.920	*MISQ*	3.007	*MISQ*	4
2	*ISR*	1.563	*ISR*	1.457	*ISR*	1.660	*ISR*	1.572	*ISR*	8
3	*JMIS*	1.044	*JMIS*	1.106	*JMIS*	1.076	*JMIS*	0.951	*JMIS*	12
4	*I&M***	0.757	*I&M***	0.770	*I&M***	0.799	*I&M***	0.701	*I&M***	16
5	*DSS***	0.499	*DSS***	0.619	*DSS***	0.508	*JAIS*	0.384	*DSS***	21
6	*JAIS*	0.380	*JAIS*	0.526	*JAIS*	0.229	*DSS***	0.372	*JAIS*	23
7	*JIT***	0.227	*JIT***	0.207	*JIT***	0.145	*JIT***	0.327	*JIT***	28
8	*JSIS*	0.149	*EJIS*	0.161	*JSIS*	0.089	*JSIS*	0.215	*JSIS*	33
9	*EJIS*	0.076	*JSIS*	0.144	*EJIS*	0.079	*ISJ*	0.008	*EJIS*	36
10	*ISJ*	-0.038	*ISJ*	-0.091	*ISJ*	-0.031	*EJIS*	-0.012	*ISJ*	39
11	*IJEC***	-0.175	*IJEC***	-0.111	*IJEC***	-0.108	*IJEC***	-0.306	*IJEC***	44
12	*MISQE*	-0.348	*MISQE*	-0.268	*MISQE*	-0.421	*MISQE*	-0.357	*MISQE*	48
13	*ISF***	-0.436	*ISF***	-0.400	*ISF***	-0.453	*ISF***	-0.455	*ISF***	52
14	*ISM*	-0.527	*ISM*	-0.471	*ISM*	-0.515	*ISM*	-0.595	*ISM*	56
15	*JCIS*	-0.757	*JCIS*	-0.701	*IT&M***	-0.726	*ECRA*	-0.654	*JCIS*	65
16	*JDM*	-0.767	*ECRA*	-0.767	*JCIS*	-0.737	*JDM*	-0.665	*JDM*	67
17	*IT&M***	-0.768	*JGIM*	-0.824	*JDM*	-0.747	*IT&M*	-0.677	*IT&M***	68
18	*JGIM*	-0.770	*JDM*	-0.890	*JGIM*	-0.748	*JGIM*	-0.739	*ECRA*	69
19	*ECRA*	-0.774	*IT&M***	-0.900	*ECRA*	-0.903	*JCIS*	-0.833	*JGIM*	71
20	*JOCEC*	-1.030	*JOCEC*	-1.138	*JOCEC*	-0.934	*JOCEC*	-1.017	*JOCEC*	80
21	*WIRT***	-1.214	*WIRT***	-1.232	*WIRT***	-1.182	*WIRT***	-1.227	*WIRT***	84

Notes:

1. Grey background indicates membership in the Senior Scholars' Basket (either SenS6+2 or SenS8).
2. Double-asterisks indicate high levels of short-term self-citations and/or low short-term IS influence, indicating potential omission. See Table F4.

Table F4. Results of Applying Filtering Criteria to Top-21 IS Journals (Listed Alphabetically)

Journal	# Cites	Self-Cites	IS Quality Cites	Other Cites	Short-Term Self-Cite Percentage	Short-Term IS Influence Ratio	Exhibits Potential Niche Behavior?
*DSS***	653	103	58	492	15.8%	56.3%	Yes
ECRA	155	10	13	132	6.5%	130.0%	No
EJIS	88	7	20	61	8.0%	285.7%	No
*I&M***	91	9	3	79	9.9%	33.3%	Yes
*IJEC***	29	7	4	18	24.1%	57.1%	Yes
*ISF***	209	57	17	135	27.3%	29.8%	Yes
ISJ	93	6	22	65	6.5%	366.7%	No
ISM	10	0	3	7	0.0%	n/a	No
ISR	343	16	78	249	4.7%	487.5%	No
*IT&M***	103	71	2	30	68.9%	2.8%	Yes
JAIS	53	5	16	32	9.4%	320.0%	No
JCIS	19	1	2	16	5.3%	200.0%	No
JDM	17	0	2	15	0.0%	n/a	No
JGIM	6	0	1	5	0.0%	n/a	No
*JIT***	36	28	2	6	77.8%	7.1%	Yes
JMIS	94	3	24	67	3.2%	800.0%	No
JOCEC	16	1	3	12	6.3%	300.0%	No
JSIS	98	3	31	64	3.1%	1033.3%	No
MISQ	375	19	130	226	5.1%	684.2%	No
MISQE	11	0	6	5	0.0%	n/a	No
*WIRT***	49	9	11	29	18.4%	122.2%	Yes

**Double-asterisks indicate high levels of short-term self-citations and/or low short-term IS influence, which indicates possible niche behavior.

Appendix G

Comparing Methods for Purposes of Construct and Nomological Validity

What we have done with these expert assessment and bibliometric methods is consistent with the logic of Campbell and Fiske (1959) regarding construct validity. As in Campbell and Fiske, the methods are "maximally different" (p. 83). In that our methods agree on the results, being a form of nomological validity as described in Straub et al. (2004), we can also argue that the methods "converge."

When methods converge, they validate each other, but with only two methods, there can be no sense that one method is superior or inferior to the other. As Campbell (1960) says, the methods are "symmetric and egalitarian" (p. 548). To determine that a set of methods are better representations of the constructs, we would need multiple methods converging and discriminating in contradistinction to one of the methods. Even then, we cannot be certain in a post-positivist world that the convergence of the methods was not due to chance or varying forms of measurement error of other kinds.

Appendix H

Assumptions and Details of Our Cluster Analyses

Cluster analysis does not have "hard" sample size rules because it is a data mining technique that does not need to satisfy parametric or even nonparametric statistical test assumptions. Hair et al. (2009) note that if cluster analysis is based on a sample of a population, then the sample size needs to be "sufficiently large" to represent the population (p. 504). However, in our case, we are not dealing with statistical assumptions of a normal distribution nor are we inferring from a sample of journals to a larger population of journals. The only journals of interest (i.e., our defined population) are the 21 candidate journals. That being said, a conservative critique of cluster analysis assumptions emphasizes that researchers should be most concerned as to whether there are too many dimensions for the number of cases that need to be grouped (Dolnicar 2002). This conservative approach, not yet universally adopted, suggests that the minimal sample size to include no less than 2^k cases (k = number of variables), preferably 5×2^k. In our analysis, k = 1, and thus we need a minimum sample size of n = 10 to meet this criterion.

Note that Sarle and Kuo (1993) document an approximate nonparametric test for the number of clusters that has been implemented in the MODECLUS procedure of SAS. The SAS documentation notes the following (SAS 1999):

> This test sacrifices statistical efficiency for computational efficiency. The method for conducting significance tests is described in the chapter on the MODECLUS procedure. This method has the following useful features:
>
> - No distributional assumptions are required.
> - The choice of smoothing parameter is not critical since you can try any number of different values.
> - The data can be coordinates or distances.
> - Time and space requirements for the significance tests are no worse than those for obtaining the clusters.
> - The power is high enough to be useful for practical purposes.
>
> The method for computing the *p*-values is based on a series of plausible approximations. There are as yet no rigorous proofs that the method is infallible. Neither are there any asymptotic results. However, simulations for sample sizes ranging from 20 to 2000 indicate that the *p*-values are usually conservative. The only case discovered so far in which the *p*-values are liberal is a uniform distribution in one dimension for which the simulated error rates exceed the nominal significance level only slightly for a limited range of sample sizes.

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