Evaluation Process of Journal Articles

The New Standardized Journal Impact Factor Percentile (JIFP)

Dan Miodownik & Tamir Sheafer December 2015

Goal

Create alternatives to the Jerusalem Index.

Justification

Jerusalem Index is sub-optimal for various reasons:

- 1. No other institution recognizes this index, and no other institution has such an index.
- 2. Most faculties in the Hebrew University do not use this index any more.
- 3. The Jerusalem journal ranking lists is a unique "instrument" for journal quality assessment that is not fully compatible, neither with the standards used by the Israeli council of Higher Education nor by international and local universities. All these institutions use the ISI (Thomson-Reuters) that is considered today as the "golden standard" for evaluation of journals.
- 4. Such an incompatibility carries consequences given that articles published in non-ISI ranked journals are *invisible* for university ranking organizations and are *partly invisible* for the Israeli Council of Higher Education, which bases its funding structure in part on the ISI. An analysis done found that 20% of journal articles published by our faculty are listed in the Jerusalem Index but not in ISI. This has a negative effect on both our ranking and funding.
- 5. List of journals in the Jerusalem Index misses, at times, important/new journals; in some cases there are internal discrepancies in the classification of journals into A/B/C/D categories; overall the lists are not updated frequently enough. Consequently, reputable journals (i.e. ISI ranked journals and/or ISI ranked in the "wrong" Jerusalem Index category) are not to be considered as appropriate targets for publication.

For the reason mentioned above Jerusalem Index is not sensitive enough and not optimal for our needs.

Purpose

1. Emphasizing academic excellence.

- 2. Contribute to the visibility of the university by adopting an excellence evaluation method that prioritizes publication in top ISI ranked journals.
- 3. The new method is based on an impact factor ranking, thus allowing comparisons across scientific fields. In other words, the new *Standardized Journal Impact Factor Percentile* is "blind" to citation conventions across scientific subfields (that result in very different impact factor scores for different fields), and provides scores that are truly comparable; impact scores scales for economics and cultural studies, for example, should be comparable. This would help to appreciate better the achievements of scholars that publish in fields with a different citation culture, in which the best journals have low impact factor.
- 4. Using a more sensitive index: the current Jerusalem Index is not sensitive also because it is based on academic departments and not on a more sensitive list of academic fields and sub-fields. The new *Standardized Journal Impact Factor Percentile* is based on ISI's 200 scientific fields (55 of them in social sciences and humanities, which are relevant to us). Please see the list of categories at the end of the document.

Metrics

The new matrix is based on a formula recently presented by ISI (Thomson-Reuters) to allow more meaningful cross-category comparison. It is based on ISI's 5-years impact factor scores. The calculation of a new journal specific impact factor percentile is summarized in the following notation:

$$JIFP_{ic} = \frac{(N - R + .5)}{N} * 100$$

Where

- JIFP is the Standardized Journal Impact Factor Percentile.
- *N* notes the number of journals in the category (e.g., number of journals in political science; economy).
- *R* is the ranking of journal i in category c based on the journal's 5 year impact factor score. If there is no 5 year IF, choose the 1 year IF.

How to Create the JIFP

- Enter Journal Citations Reports (LINK).
- Under "Select Edition" (on the left side) mark SSCI (for social science journals).
- In "select categories" (on the left side) select the appropriate category in which a journal appears (e.g., sociology).
- Select year of publication (on the left side).

- Under "Customize Indicators" (top right side) select "5 Year Impact Factor" and close the window without saving.
- Push the "Submit" bottom (on the left side).
- Click on the headline of the "5 Year Impact Factor" column, to organize the list in a descending order.
- Use the Excel calculator to compute *JIFP*:
 - Insert the total number of journals in the category for the specific year of publication (note: number of journals in category might be different for each year).
 - Insert the 5 year impact factor ranking (e.g., 3 out of 130). Note: if there is no 5 year IF use journal ranking according to the 1 year IF.

Correcting ISI: Multiple Placements and a Misplacement of a Journal

A journal may appear in more than one field category in ISI. Therefore, although its ISI's impact factor is identical in both fields, its *Standardized Journal Impact Factor Percentiles* will be different. A faculty member will report the <u>higher score</u>.

There are certain sub-fields that have a different citation cultures than the major field (e.g., political theory in political science). This might result in low impact factor scores for leading journals in such sub-fields (e.g., *Political Theory* a leading journal in the sub-field of political theory that is ranked relatively low due the different citation culture in the sub field). In such cases, a faculty member will report two values: (1) the *Standardized Journal Impact Factor Percentile* in the main field (e.g. political science for the example above); and (2) the *Standardized Journal Impact Factor Percentile* in an alternative ISI category that according to the faculty member, better represents the sub-field and its citation culture (keeping with the previous example this may be the ISI categories of ethics or history). How to do it? Take the 5 Year Impact Factor of the journal and find out what would be its ranking (e.g., 2 out of 20) had it been presented in the alternative category. Thus, it is possible that the comparison will show that the journal's *JIFP* is higher in the alternative than in its original category.

Using the SJR Index

The ISI's list of journals in some fields is relatively limited. Faculty members could choose to use a different source of data as the basis for comparison. Thus rather than using ISI, one could instead rely on the classification and list of journals created by SCImago which is based on a list of journals in Scopus—a list larger than ISI's. In such instances, SCImago's journal impact index (SJR) will

substitute ISI's impact factor. We will use the same metrics as above to calculate the journal's *Standardized Journal Impact Factor Percentile*.

How to Create the JIFP

- Enter SCImago's journal impact index (SJR): (<u>http://www.scimagojr.com/journalrank.php</u>).
- In "subject area" select social sciences/Psychology or any other relevant area.
- In "subject category" select the appropriate category in which a journal appears (e.g., sociology).
- Select year of publication (on the right side).
- In "order by" choose SJR.
- Push the "refresh" bottom.
- Use the Excel calculator to compute *JIFP*:
 - Insert the total number of journals in the category for the specific year of publication (note: number of journals in category might be different for each year).
 - Insert the SJR ranking (e.g., 3 out of 130).

Reporting about Additional Indices

A faculty member could always <u>add additional indices that show the importance</u> <u>of a certain journal</u>. These could be indices such as Google H index for journals, journals' rejection rates, or other known topic-specific indices (like the Australian Mathematical Society Index—the index used by the department of statistics). These must be known indices of general fields, and they should be provided along the *Standardized Journal Impact Factor Percentile*.

Frequently Asked Questions

1. Who determines the categories of the index?

The index is based on the ISI's scientific categories (total 200, 55 in social sciences and humanities) or SCImago's (SJR) categories.

2. Will the change of the index now affect my next promotion?

No, since this is not a retrospective change. The evaluation of publications as well as work under review prior to the introduction of the new index will be evaluate according to the old Jerusalem Index, unless you will ask to use the new *JIFP* index. In other words, prior publications/work in progress will be evaluate according to the criteria that existed in the time of publication even in a future promotion, unless you will ask to use the new *JIFP* index.

3. What about journals that appear in more than one category? One will include the category with the highest *JIFP* value.

4. What about important journals that are not ranked by ISI? Will such publications count for promotion?

Certainly! As explained above, for such journals you should use SCImago's SJR. In addition, you can present any other known general indicator, such as another index or the rejection rate of the journal.

5. What about publications in Hebrew, that one considers very important; will these count for promotion?

Here, too, certainly! You will have to explain the centrality of the journal.

- 6. Will I be required to manually calculate the scores for every journal? Definitely not! A calculator that will automatically produce the scores will be released as soon as the transition to the new index will be authorized. All that you will have to do is to enter the journal's rank (e.g. 3 out of 130) in the year of publication of your article.
- 7. What about books?

This has nothing to do with publishing books. <u>Books are, and will continue to</u> <u>be, very important in the evaluation process of faculty members.</u> Budget and ranking criteria will never affect the importance of books.

8. Why is this file written in English and not in Hebrew? It is important that our evaluation criteria will be transparent to all.

ISI Scientific Categories in Social Sciences and Humanities

ANTHROPOLOGY	HOSPITALITY, LEISURE,	PSYCHOLOGY,
	SPORT & TOURISM	MULTIDISCIPLINARY
AREA STUDIES	INDUSTRIAL RELATIONS &	PSVCHOLOCY
BUSINESS	LABOR	PSYCHOANALYIIFP
BUSINESS, FINANCE	INFORMATION SCIENCE &	PSYCHOLOGY, SOCIAL
COMMUNICATION	LIBRARY SCIENCE	PUBLIC ADMINISTRATION
CRIMINOLOGY & PENOLOGY	INTERNATIONAL RELATIONS	PUBLIC, ENVIRONMENTAL &
CULTURAL STUDIES	LAW	OCCUPATIONAL HEALTH
DEMOGRAPHY	LINGUISTICS	REHABILITATION
ECONOMICS	MANAGEMENT	SOCIAL ISSUES
EDUCATION & EDUCATIONAL	NURSING	SOCIAL SCIENCES,
RESEARCH	PLANNING & DEVELOPMENT	BIOMEDICAL
EDUCATION, SPECIAL	POLITICAL SCIENCE	SOCIAL SCIENCES, INTERDISCIPLINARY
ENVIRONMENTAL STUDIES	PSYCHIATRY	SOCIAL SCIENCES,
ERGONOMICS	PSYCHOLOGY, APPLIED	MATHEMATICAL METHODS
ETHICS	PSYCHOLOGY, BIOLOGICAL	SOCIAL WORK
ETHNIC STUDIES	PSYCHOLOGY, CLINICAL	SOCIOLOGY
FAMILY STUDIES	PSYCHOLOGY,	SUBSTANCE ABUSE
GEOGRAPHY	DEVELOPMENTAL	TRANSPORTATION
GERONTOLOGY	PSYCHOLOGY, EDUCATIONAL	URBAN STUDIES
HEALTH POLICY & SERVICES	PSYCHOLOGY,	WOMEN'S STUDIES
HISTORY	EXPERIMENTAL	
HISTORY & PHILOSOPHY OF SCIENCE	PSYCHOLOGY, MATHEMATICAL	
HISTORY OF SOCIAL SCIENCES		