

Opportunities and challenges presented by a leap in impact factor

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When the multinational media and information company Thomson Reuters recently announced—somewhat later than usual—the Journal Citation Reports® (JCR) for 2013, the impact factor of 1.427 represented a 38% increase for *Diagnostic and Interventional Radiology*, up from 1.031 for 2012 (Table 1) (1). This is a truly impressive yearly increase by any standard and the journal's current Editor-in-Chief, Professor Nevzat Karabulut, along with the Editorial Board, deserves the highest commendation (Professor Karabulut has been at the helm of the journal since March 2011). This latest release of the JCR also shows that this journal ascended 20 steps in a single year among 121 periodicals covered in the category of “radiology, nuclear medicine and medical imaging”, now ranking 74th.

Although much controversy surrounds the validity of the impact factor as a tool for reflecting the credibility of scientific journals (2), it remains a basic indicator of academic publications. An obvious potential benefit of an improved impact factor is an increased ability to attract more high-quality academic manuscripts. Once accepted, these manuscripts, in turn, are expected to bring in more citations that will further improve the impact factor. As long as using impact factor manipulations to give a distorted and false-positive image of a journal's prestige is avoided, an editorial board's eagerness to improve upon their journal's impact factor is understandable.

To overcome some of the problems associated with impact factors, several indicators have been proposed. One of them is the so-called SJR (SCImago Journal Rank) indicator established by SCImago Lab using Scopus® data (Scopus is a bibliographic database containing abstracts and citations for academic journal articles and owned by the Anglo-Dutch publishing and information company Reed Elsevier). SCImago Journal Rank indicator expresses the average number of “weighted” citations received in that year by the documents published in the journal in the three preceding years (3). “Weighted” citations essentially mean that citations received from a higher SJR journal are worth more than citations from a source with a lower SJR. *Diagnostic and Interventional Radiology* fares quite well so far according to SJR indicators (Table 2) (4). Impressively, the rate of self-cites for the journal remains at a mere 6.5% (Table 3) (5). Considering the fact that some journals are being suppressed from coverage by Thomson Reuters for excessively resorting to self-citation for improving their impact factors (6), the maintenance of a low self-citation figure for *Diagnostic and Interventional Radiology* is especially commendable. As a sad example, *Turkish Journal of Botany*, which had impact factors of 1.991 and 1.600 for the years 2011 and 2012, respectively, has been suppressed for the 2013 JCR due to an abundance of self-cites (70%

Table 1. Impact factors of *Diagnostic and Interventional Radiology* by years as published in Journal Citation Reports®

Year	Impact factor ^a	Annual change (%)	Journal's rank within all journals in its subject category (% ^b)
2013	1.427	+38.4	74/121 (61.2)
2012	1.031	-6.3	94/120 (78.3)
2011	1.100	+54.5	88/116 (75.9)
2010	0.712	-7.7	101/113 (89.4)
2009	0.771	NA	87/104 (83.7)

^aIn any given year, the impact factor of a journal is the average number of citations received per paper published in that journal during the two preceding years.

^bPercentage of the journal's rank within the whole ranking scale, 100% representing the lowest rank. NA, not applicable.

Table 2. SCImago Journal Rank (SJR) indicators of *Diagnostic and Interventional Radiology* by years as given by Scimago Lab using Scopus® data

Year	Impact factor ^a	Annual change (%)	Journal's rank within all journals in its subject category (% ^b)
2013	0.547	+11.9	113/272 (41.5)
2012	0.489	+15.3	112/276 (40.6)
2011	0.424	-3.2	124/263 (47.1)
2010	0.438	+11.5	128/249 (51.4)
2009	0.393	-14.2	131/238 (55.0)
2008	0.458	+65.3	110/231 (47.6)
2007	0.277	+66.9	136/231 (58.9)
2006	0.166	+35.0	142/214 (66.4)
2005	0.123	NA	162/210 (77.1)

^aSCImago Journal Rank indicator expresses the average number of "weighted" citations received in that year by the documents published in the journal in the three previous years.

^bPercentage of the journal's rank within the whole ranking scale, 100% representing the lowest rank. SJR, SCImago Journal Rank; NA, not applicable.

Table 3. Self-cites of *Diagnostic and Interventional Radiology* by years as given by Scimago Lab using Scopus® data

Year	Self-cites within all citations received (%)
2013	6.5
2012	10.4
2011	2.9
2010	1.0
2009	0.5
2008	3.4
2007	0.9
2006	5.4

of all received citations) along with 31 other journals from around the world with self-cites making up 58%–90% of all their received citations (6).

I am delighted to see that the use of some ways to improve a journal's impact factor in the online publication era continues to pay off (7). Especially for journals from countries like Turkey, where native language is not English, it is very important to feature online freely accessible English full-texts of articles. Likewise for such journals, a generic—rather than a local, national, or regional—journal title attracts a wider clientele of potential authors and readers. Copyediting makes arti-

cles more easily readable and not infrequently discloses some critical errors that might have otherwise gone unnoticed after the entire preceding editorial workflow. Another potential source of improvement for impact factor is meticulously making addition or correction requests for missing or misfiled citations through the Web of Science™ portal of Thomson Reuters (8).

Nevertheless, what really makes a high-quality journal is first and foremost the expertise and dedication of its editors and reviewers as well as the excellence of its editorial processes. *Diagnostic and Interventional Radiology* has now completed 20 years of publication, being entirely in English since 2005. As someone who has been "present at the creation" as the Publication Coordinator and has later served as a Section Editor, and briefly the Editor-in-Chief, I can attest to the high professional and ethical standards this journal adhered to right from the outset and all through. Our "founding fathers" and later editorial staff as well as the continuous waves of leadership at the Turkish Society of Radiology (the publisher of the journal) were truly dedicated to the goal of eventually making this journal an international venue for scientific communication. As I browse through the printed copy of the May–June 2014 issue of *Diagnostic and Interventional Radiology*, I see that of the 14 published articles four are from the United States, two from Italy, two from China, and one each from the Netherlands, South Korea and Germany (only three are from Turkey). In fact, 421 manuscripts from 41 countries were received during 2013, excluding revised submissions (8). In keeping with its international flair, the journal increasingly invites manuscript reviewers from all over the world based upon their proven expertise (e.g., PubMed® listings). Current average submission-to-decision period is 28 days with a manuscript acceptance rate of 20% (8). The increased publication frequency of *Diagnostic and Interventional Radiology* from quarterly to bimonthly starting in January 2012 has been another major achievement during Professor Karabulut's tenure.

Since its impact factor started to be featured at the JCR in 2009, *Diagnostic*

and Interventional Radiology remains the foremost medical scientific publication published in Turkey (with an Editorial Board whose members are all based in Turkey). This is at least partially attributable to the significant progress made by the radiologists from Turkey over the last several decades (9, 10).

The overall decreased inflation-adjusted reimbursement for radiologists—including those in the universities—in Turkey meant increased workloads for the better part of the last decade. This has been an added burden for the Editorial Board in finding dedicated local reviewers for submitted manuscripts. This makes the 38% leap in impact factor all the more significant. In my opinion, as long as peer-review process remains an indispensable part of scientific publication process, academic promotion and appointment boards need to factor in an objective analysis of a candidate's sample blinded review work. This will result in an enlarged pool of good reviewers.

The current Editorial Board Directive of the Turkish Society of Radiology ensures selection of the journal's Editorial Board members based upon their professional and academic merits (The Editor-in-Chief is selected by the Editorial Board members). Whatever adjustments are made to the directive in future, there should not be concessions from the objective criteria for the qualifications of board members. After all, it is the Editor-in-Chief, along with the Editorial Board, who takes the major blame and credit for the performance of the journal. There is a good reason to congratulate them now.

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