

Some consequences of overemphasis on Impact Factor

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ABSTRACT

Impact Factor is widely used as a parameter for judging the value of academic research. Some researchers are of the opinion that, for assessing the quality of research, scientists and academicians rely too much on Impact factor nowadays and this leads to some undesirable outcomes for the overall scientific enterprise. This short article presents and describes some of those outcomes.

Keyword : - *Impact Factor, research quality, outlet of publication*

1. Introduction

Impact factor is basically a journal metric. There are other journal metrics too like Cite Score, Eigenfactor, etc. All these metrics are also mostly means of rating journals and giving researchers an idea of overall 'quality' of the journals. But, probably, no other metric is as widely used as Impact Factor. Impact Factor is a product of Clarivate Analytics, and is based on the database of Web of Science. If we consider the research reports and reviews of a journal in year 1 and the next year and get an idea of the citation counts to these contents in third year and then divide this citation count by the number of research reports and reviews in the first and second year, we get IF or Impact factor.

Impact Factor has been used for the purpose of deciding a scientist's or a researcher's promotion and funding for quite some time, and is still being used for the purpose. But, of late, scholars and researchers have been noticing that, in the world of research, there is a presence of a kind of obsession with impact factor (Colquhoun, 2003), and this obsession is not entirely a healthy trend. This short article is aimed at listing out some of the consequences of this unhealthy trend without going in much detail about the causes behind this or possible solutions.

2. The consequences

A major consequence of Impact factor obsession is gradual development of a faulty assessment system for research. Science is becoming more and more specialized. With more and more specialization emerging out of multiple academic disciplines, it has become difficult for many researchers and scientists to properly and fully comprehend every detail of academic or scientific work of another researcher working in even a very closely related area. One might be an expert in a certain area of knowledge or in a certain academic discipline, but claiming expertise in a specialized branch of the same discipline is not always possible. Under these circumstances, relying on surrogate measure of journal quality (like IF) provides a convenient alternative. But if the overenthusiasm behind Impact Factor crosses a point then it could lead to a situation where instead of studying in proper detail the work of a researcher and making effort at fully comprehending it, evaluators will simply look at some number or some score and give out a label about work quality of that researcher. In fact, according to Colquhoun (2003), in some parts of the world, the situation of judging research quality has indeed reached a stage where senior scientists are mostly relying on inaccurate research assessment systems when they are judging works of several competing researchers for the grant of funding, etc.

Another consequence of overemphasis on Impact Factor is emergence of a situation where mere outlet of publication or the place where an article gets published gets all the appreciation and the article quality goes in the background of things (Casadevall & Fang, 2014). Ideally it should be the actual content of an article that should

matter the most. Sometimes, in this scenario, the chances of appreciation of a 'good' article really go down if it does not make it to a high impact factor journal. In fact obsession with Impact Factor is leading to a branding of scientific works and scientists themselves (Casadevall & Fang, 2014) and in this branding scientists and their contributions are linked with mere venues of publication. Once these scientists mention the high impact venue of publication of their latest works, everybody tends to stop examining the work of that scientist in greater detail. In a way, chances of obtaining funding, academic promotion and other awards are all getting associated with publication venue and this is leading to a situation where a handful of publication venues or journals (with high impact factor scores) are becoming more and more desirable and influential. If the influencing ability in research gets concentrated with just a handful of journals and their editors, then it can't be good news for the entire research culture. In fact, Impact Factor is now being endorsed by many governments around the world. Sure there are some reasons for this, but this 'national endorsement' of Impact Factor can result in even greater perpetuation of undesirable outcomes associated with obsession with Impact Factor. In fact, it is both a major cause of Impact Factor popularity and an undesirable outcome. Brazil has established a "Qualis" scale based on the average impact factor of their publications, which is used to grade students and faculty and China offers monetary rewards to editors who increase the impact factors of their journals (Ferreira, Antoneli & Briones, 2013; Hugget, 2012).

A third outcome of overreliance on Impact Factor can result in non-recognition of some unique ideas and especially ideas whose impact are not felt in a short span of two years. We know that calculation of Impact Factor involves considering the number of total citations in previous two years. The impact of findings sometimes takes more than two years to be known to the world (Lawrence, 2007). This is how Impact Factor misses out on some very special articles. Sometimes the most novel and innovative research- whose novelty and innovativeness can lie development of a new concept or development of a new way to approach a problem, fail to get attention only because of uniqueness of ideas presented in there. The uniqueness associated with innovative research might reduce its popularity. Further, insistence on high impact research might lead to a situation where high-risk research will not get promoted. Sometimes it is the high risk research that leads to discoveries that are completely unexpected. If majority of senior scientists see a particular area within an academic discipline as very important and expect other researchers to focus on work within that area only, then possibility of finding something new comes down. If only the 'popular' gets promoted (precisely what IF does), then research endeavours focused outside the common consensus, will not get promoted. There are, sometimes, some types of research which involve a great risk of complete failure but also a good possibility of ground breaking discovery and chances of reaching a major breakthrough through these kinds of research will come down if the obsession with high impact journal continues. At least some amount of high risk research should always be promoted by the overall scientific enterprise.

3. CONCLUSION

This article is not an attempt to bring forth an argument that Impact Factor is totally useless. Impact Factor has surely helped the research community in a lot of ways. This article just attempts to highlight some of its downsides. The article concludes with a hope that as the awareness on the issue increases, near future might witness research community gradually giving up their obsession with this journal metric.

REFERENCES

- Casadevall, A., and Fang, F. C. (2014). Causes for the persistence of impact factor mania. *mBio* 5, e01342-14
- Colquhoun, D. (2003). Challenging the tyranny of impact factors. *Nature*, 423, 479
- Ferreira, R. C., Antoneli, F., and Briones, M. R. S. (2013). The hidden factors in impact factors: A perspective from Brazilian science. *Frontiers in Genetics*, 4, 1–2.
- Huggett, S. (2012). Impact factors: cash puts publishing ethics at risk in China. *Nature*, 490, 342. doi:10.1038/490342c.
- Lawrence, P.A. (2007). The mismeasurement of science. *Curr. Biol*, 17,R583–R585. doi:10.1016/j.cub.2007.06.014.