

Performance Measures of a Built Environment Multidisciplinary Research Journal: IJBES Metrics in a Review

Shamsulhadi Bandi

Managing Editor, International Journal of Built Environment and Sustainability (IJBES), Penerbit UTM Press, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor

ABSTRACT

An assessment of IJBES's performance since 2015 was presented in this communication using metrics data from Clarivate and the OJS Report Generator. Raw data were analyzed for the purpose of reporting to readers on the journal's performance using performance metrics available to editor. Key performance metrics such as submissions, acceptance and rejection rates, and citation trends over time were reported and presented to the reader. It has been observed that ensuring balanced content and continuously working on a niche are among the priorities of the journal. It is also necessary to attract relevant and quality manuscripts among the authors to increase citations in other publications. Despite everything, the journal, which is relatively young, was able to withstand the initial test of time and improve its visibility in the scientific community.

Article History

Published Online : 31 August 2021

Keywords:

Citation, IJBES, Performance, Productivity, Publication

Corresponding Author Contact:

shamsulhadi@utm.my

DOI: 10.11113/ijbes.v8.n3.872

© 2021 Penerbit UTM Press. All rights reserved

1. An overview on journal metrics

Scholarly publication is a staple activity among researchers in institutions around the globe. A compelling crouch to publish in highly rated journal is evident despite the pulsating experiences in the process. Butler and Spoelstra (2020) quoted that a "publication game" has become an increasingly common academic metaphor, which explained a researcher strive in making a research output known in the field. While a researcher may be able to pursue a career goal through an instrumental strategy, the objective of producing an intrinsically meaningful research may be at the expense of a journal.

While the academic circle is aware on the significance of scholarly publication to a researcher, the journal editors on the other hand is oftentimes pushed to devise a strategy which able to dislodge and shield a journal from publishing less impactful materials. One

of the well-known strategies is the peer-review process (Vieira & Gomes, 2018) though much of the work to consider a material by an editor starts at the point of submission itself.

A study by Richards and Wasserman (2013), highlighted the roles of journal editors in a scholarly publication process. The study emphasised that following a plethora of complicated and vexing problems, editors had developed a range of strategies in dealing and responding to them. Over the course of commanding a journal, an editor is also expected to gradually become conversant with the materials to be published and innovative with the range of decision to be made (Petersen, 2017). This allows for a journal to bolster its presence, whilst able to attract readership and citation to the materials published.

Citation is undoubtedly at the heart of any publications and a mark of performance (Craig, Ferguson, & Finch, 2014). Aksnes,

Langfeldt, and Wouters (2019) postulated that citation is often used to reflect the impact of a research and its quality. Though research quality is often considered as a multidimensional concept, common characteristics of plausibility, originality, scientific and societal value are perceived as the key characteristics (Aksnes et al., 2019; Vieira & Gomes, 2018). Having citations to watch, a journal editor has the responsibility to ensure that the characteristics are adopted in the assessment of a material for publication (Aroeira & Castanho, 2020).

The International Journal of Built Environment and Sustainability (IJBES) started in 2014 with an aim to offer readers a multidisciplinary research material within the realm of the built environment. The journal placed sustainability as its main agenda with the objective to publish a strong empirical based and original materials concerning recent development in this niche area. To align itself with other internationally recognized journal, the performance of the journal is reviewed periodically using data mined from the Online Journal System (OJS) and Clarivate. The editors of the journal are responsible to report and extract the data in evaluating the journal's performance.

This communication is presented to inform readers about the journal's standing and performance from 2014 until July 2021. The journal's footprint, publication data along with the acceptance and rejection rate, and its citation performance are presented based on the metrics data until July 2021 with a brief commentary provided to clarify.

2. IJBES Footprint

The inclusion of IJBES into the Emerging Source Citation Index program by Clarivate since 2015 boosted the journal's visibility among authors. This improves discoverability among researchers and allows the journal to attract good quality manuscripts from around the world. Table 1 shows the diversity of authors with at least one manuscript published on IJBES and indexed in the Web Science Database (WoS) at the same time.

IJBES currently has publications by authors from 27 countries / regions, 60% of whom live in Malaysia, followed by Nigeria (24%), India (7%) and Indonesia / Sri Lanka (3.5%). The presence of the journal in other parts of the world is also notable, with the participation of authors living in countries in the Middle East, the Pacific and Africa. There are also quite a few authors from China and European countries that have started to make their mark on IJBES.

Table 1 IJBES author's diversity (up to July 2021)

Countries/Regions	Record Count	% of 200
Malaysia	120	60.00
Nigeria	48	24.00
India	14	7.00
Indonesia	7	3.50
Sri Lanka	7	3.50
Peoples R China	4	2.00
Australia	3	1.50
Saudi Arabia	3	1.50
South Korea	3	1.50
Turkey	3	1.50
Bangladesh	2	1.00
Iran	2	1.00
Japan	2	1.00
Oman	2	1.00
Philippines	2	1.00
Thailand	2	1.00
Algeria	1	0.50
Bahrain	1	0.50
Canada	1	0.50
Kuwait	1	0.50
Netherlands	1	0.50
New Zealand	1	0.50
Russia	1	0.50
Rwanda	1	0.50
South Africa	1	0.50
Sudan	1	0.50
USA	1	0.50
	<i>n</i> = 27	

3. Publication data

3.1 Manuscript received and published

Since 2014, IJBES has received a total of 489 submissions from authors. Of these, 210 have been published and 200 are currently indexed in WoS. Generally, the trend of manuscript submission is increasing from year to year since 2014, however the number that made it for publication remain consistent. The overall trend of submission and publication is as shown in Figure 1.

In 2019 and 2020, IJBES received a total of 259 submission which is more than 50% of the all-time submission since 2014. This on average, equals to one new submission for every three days, or between two to three submission each week. On top of that, data shows that of all the submission received in 2020 which is 128, almost 44% was received between March until June 2020 over a duration of that four months alone. During the period, IJBES

received one new submission for every 2.12 days, which is equals to one new submission for every 3.5 days.

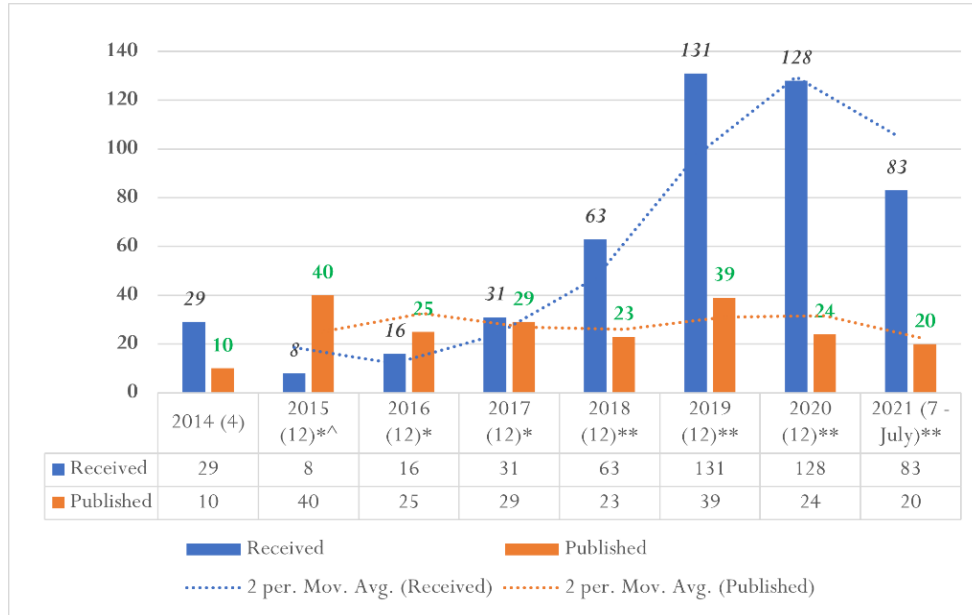


Figure 1 Number of manuscripts received and published (2014 - July 2021)

(Notes: ^ denotes the start of WoS indexing; * denotes a mix between manual and online submission; ** denotes full online submission)

3.2 Acceptance and rejection rate

Figure 2 shows the percentage of acceptance and rejection since 2018 when manuscript submission is made 100% online through the OJS. The figure shows that the gap between the acceptance

and the rejection rate is gradually getting wider despite a steep increase in manuscripts submission shown in Figure 1. The overall rejection rate for all recorded period is 76%, in which 62% of rejection is determined after the first review cycle and the remaining 14% consist of desk rejection.

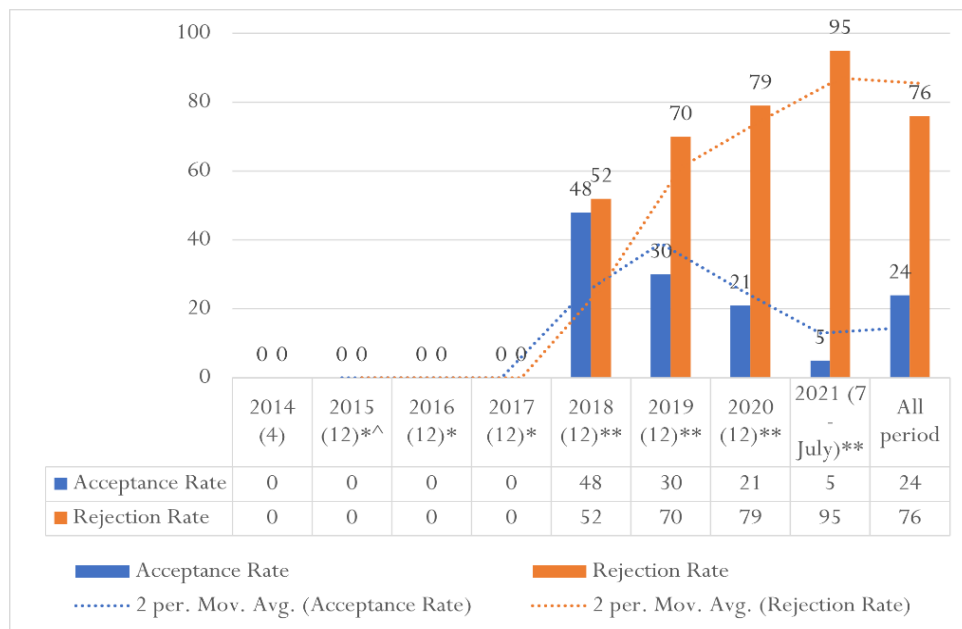


Figure 2 Acceptance and rejection rate in % (since 2018 when submission is made 100% online via OJS)

(Notes: ^ denotes the start of WoS indexing; * denotes a mix between manual and online submission; ** denotes full online submission)

3.3 Citation report

Figure 3 shows the citation trend of IJBES since 2015. There is a positive trend across materials published by IJBES since 2016. The citation momentum for IJBES started to climb in 2018 with each material published received at least one citation over the period.

A positive citation record was recorded in 2019 in which for the first time, citations had exceeded the number of publications. In the year 2020, despite publishing much lesser than the year before, citations recorded an all-time-high of 83 on that year alone. The citation trend is expected to increase positively over time with the support of quality and relevant materials.

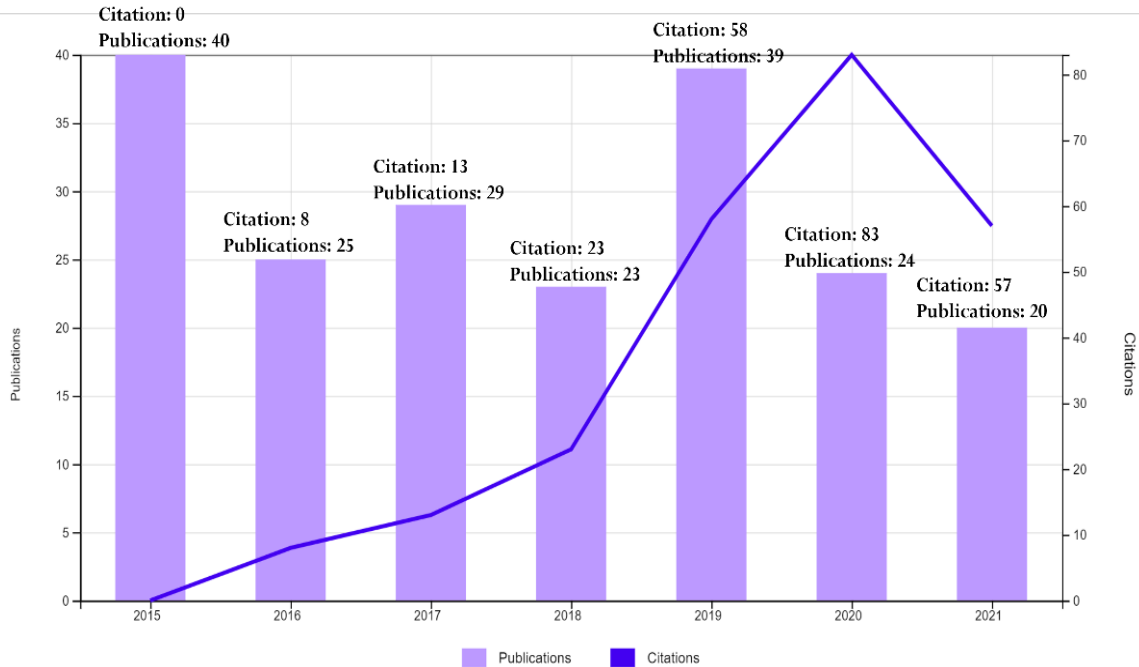


Figure 3 Number of citations recorded (2015 – July 2021) (Clarivate, 2021)

3.4 Average item citation count

Table 2 and Table 3 present item citation counts, and the yearly citations counts between two disparate timespans as shown in the tables. Since 2019 when the last citation record was reported, the sum of the times cited had increased exponentially from 46 to 242. The average citations per item stood at 1.21 and on average, IJBES recorded 40.33 citations per year.

Table 2 Item citation counts between disparate timespan of 2015 to 2019 and 2015 to July 2021

Criteria	IJBES (2015-2019)	IJBES (2015-July 2021)
Number of publications indexed by WoS	125	200
Sum of the Times Cited	46	242
Average Citations per Item	0.37	1.21
h-index	3	7

Table 3 Yearly citation counts between disparate timespan of 2015 to 2019 and 2015 to July 2021

Yearly citation record	IJBES (2015-2019)	IJBES (2015-July 2021)
2015	0	0
2016	5	8
2017	10	13
2018	21	23
2019	10	58
2020	0	83
2021 (July)	0	57
Total number of citations	46	242
Average citation per year	11.50	40.33

3.5 Highly cited materials

Table 4 shows ten highly cited materials published by IJBES since 2015 along with its most recent yearly number of citations in 2019, 2020 and up to July 2021. Data shows that review papers are likely to attract readership and translates into citation as showed in the table. Though this may be the case, original research articles continue to characterize the list of the highly cited materials.

Table 4 10 highly cited materials published by IJBES (since 2015)

No.	Title of article	Vol	Issue	Year	Total citation	Average citation/year	Yearly number of citations		
							2019	2020	2021-7
1.	Accident Causation Factors on Building Construction Sites: A Review	5	1	2018	12	3	4	5	3
2.	An Appraisal into the Potential Application of Big Data in the Construction Industry	5	2	2018	11	2.75	3	5	2
3.	A model to Estimate the Implicit Values of Housing Attributes by Applying the Hedonic Pricing Method	4	2	2017	9	1.8	1	5	2
4.	Stakeholders Assessment of Constraints to Project Delivery in the Nigerian Construction Industry	4	1	2017	8	1.6	3	4	0
5.	Mobile Augmented Reality: A Tool for Effective Tourism Interpretation in Enhancing Tourist Experience at Urban Tourism Destination	2	3	2015	8	1.14	2	1	1
6.	Critical Success Factors for Malaysian Construction Projects: An Investigative Review	4	2	2017	7	1.4	3	2	1
7.	Building Envelope Thermal Performance Assessment Using Visual Programming and BIM, based on ETTV requirement of Green Mark and GreenRE	4	3	2017	7	1.4	2	4	1
8.	Effects of Neighborhood's Built Environment on Physical Activities in Gated Communities: A Review	3	1	2016	7	1.17	2	1	0
9.	Step by step approach for qualitative data analysis	5	3	2018	6	1.5	0	2	4
10.	Urban Greenery a pathway to Environmental Sustainability in Sub Saharan Africa: A Case of Northern Nigeria Cities	4	3	2017	6	1.2	2	2	2

4. Citing materials

There are 224 materials citing IJBES in other publication titles indexed in WoS as in July 2021.

Data pertaining to the citing materials categories, research areas and publication titles citing IJBES is presented in the following sections.

4.1 Materials citing IJBES by WoS categories

Table 5 shows the categories of materials in other publications citing IJBES. A total of 77 entries or categories are identified from the data in which the first 20 categories that appears are shown in the table. Among the categories shown, urban studies, environmental sciences, engineering and technology, and other

aspects related to the built environment are dominating the categories. The data thus shows that IJBES has steered its publication to this niche aspects of the built environment which aligns with the scope of publications.

Table 5 WoS categories of materials citing IJBES

Web of Science Categories	#	Record Count	% Of 224
Urban Studies	1	40	17.857
Environmental Sciences	2	34	15.179
Construction Building Technology	3	25	11.161
Engineering Civil	4	24	10.714
Environmental Studies	5	24	10.714
Green Sustainable Science Technology	6	24	10.714
Management	7	19	8.482
Engineering Multidisciplinary	8	12	5.357
Regional Urban Planning	9	9	4.018
Remote Sensing	10	9	4.018
Architecture	11	7	3.125
Energy Fuels	12	7	3.125
Hospitality Leisure Sport Tourism	13	7	3.125
Public Environmental Occupational Health	14	7	3.125
Business	15	6	2.679
Computer Science Information Systems	16	6	2.679
Engineering Electrical Electronic	17	6	2.679
Engineering Environmental	18	6	2.679
Imaging Science Photographic Technology	19	6	2.679
Engineering Industrial	20	5	2.232
<i>*Showing 20 out of a total of 77 entries</i>			

4.2 Materials citing IJBES by WoS research areas

Table 6 shows the research areas of materials in other publications citing IJBES. A total of 50 entries or research areas are identified from the data in which the first 20 research areas that appears are shown in the table. Among the research areas shown, engineering, environmental sciences ecology, and urban studies are on top of the list followed by technology, business and economics, construction/building, and others.

Table 6 WoS research areas of materials citing IJBES

Research Areas	#	Record Count	% Of 224
Engineering	1	47	20.982
Environmental Sciences Ecology	2	41	18.304
Urban Studies	3	40	17.857
Science Technology Other Topics	4	29	12.946
Business Economics	5	27	12.054
Construction Building Technology	6	25	11.161
Social Sciences Other Topics	7	12	5.357
Computer Science	8	11	4.911
Public Administration	9	9	4.018
Remote Sensing	10	9	4.018
Architecture	11	7	3.125
Energy Fuels	12	7	3.125
Public Environmental Occupational Health	13	7	3.125
Chemistry	14	6	2.679
Imaging Science Photographic Technology	15	6	2.679
Materials Science	16	5	2.232
Geography	17	4	1.786
Geology	18	4	1.786
Physics	19	4	1.786
Agriculture	20	3	1.339
*Showing 20 out of a total of 50 entries			

4.3 Publication titles with an Impact Factor (IF) citing materials in IJBES

There is an indication that materials published in IJBES attract citations by authors who are publishing in publications with impact factor (IF). As shown in Table 7, the highest record count is 14 (6.25%) by Sustainability (JIF 2020 = 3.2510), followed by other well-known publications in built environment. The total entries recorded since 2015 is 168 which consist of both publications with and without impact factor (IF). The general observation suggests that the publication titles which appear in the table reflect the focus and scope of IJBES which consequently support its citations in other publication titles.

Table 7 Materials published in publications with an Impact Factor (IF) citing materials from IJBES

Publication Titles	Record Count	% Of 224	JIF 2020
Journal Of Cleaner Production	2	0.893	9.2970
Automation In Construction	2	0.893	7.7000
Sustainable Cities and Society	2	0.893	7.5870
Building And Environment	1	0.446	6.4560
Energy And Buildings	2	0.893	5.8790
Advanced Engineering Informatics	1	0.446	5.6030
Building Research and Information	1	0.446	5.3220
Urban Forestry Urban Greening	2	0.893	4.5370
Applied Geography	1	0.446	4.2400
Journal Of Construction Engineering and Management	2	0.893	3.9510
Asia Pacific Journal of Tourism Research	1	0.446	3.6770
Sensors	2	0.893	3.5760
International Journal of Environmental Research and Public Health	3	1.339	3.3900
Sustainability	14	6.25	3.2510
Applied Sciences Basel	2	0.893	2.6790
Architectural Engineering and Design Management	2	0.893	2.6000
Children's Geographies	1	0.446	2.2910
Advances In Civil Engineering	1	0.446	1.9240
Arabian Journal of Geosciences	1	0.446	1.8270
South African Journal of Economic and Management Sciences	2	0.893	0.9910
*Showing 20 out of a total of 168 entries			

5. Observations

A review of IJBES performance since 2015 is reported in this communication using the metric data sourced from Clarivate and the OJS report generator. The raw data is analysed with an aim to report to the readers about the journal's performance using performance metrics available to the editor. Important performance indicators such as the submission data, acceptance and rejection rate and the citation trend over time are reported and presented to the readers. Despite the effort made by the editor to present the latest data, citation is nonetheless dynamic, where metrics data changes in a constant basis.

The editor wishes to stress that ensuring a balance content and continuously working on a niche area are among the journal's priority. There is also a need to attract relevant and quality manuscripts from among the authors to invite impactful citations in other publications.

Authors are advised against flooding the journal with middling manuscripts, where it will create unnecessary backlogs which put unwarranted pressure on the workflow. Notwithstanding, the journal being relatively young, has been able to stand against the initial test of time and improves its visibility among the scientific communities. The editor wishes to thank the editorial, authors, reviewers and readers for the support and assistance through every publication cycles.

Acknowledgement

The editor wishes to thank Hairunnisa Yunos of Penerbit UTM Press for putting up the materials for every publication cycle, Universiti Teknologi Malaysia (UTM) for assistance (fund under GUP PY/2019/00597/Q.J130000.2652.16J81) and Khew Kai Ren, in formatting this communication for publication.

References

- Aksnes, D. W., Langfeldt, L., & Wouters, P. (2019). Citations, Citation Indicators, and Research Quality: An Overview of Basic Concepts and Theories. *Sage Open*, 9(1), 17. doi:10.1177/2158244019829575
- Aroeira, R. I., & Castanho, M. (2020). Can citation metrics predict the true impact of scientific papers? *Febs Journal*, 287(12), 2440-2448. doi:10.1111/febs.15255
- Butler, N., & Spoelstra, S. (2020). Academics at play: Why the "publication game" is more than a metaphor. *Management Learning*, 51(4), 414-430. doi:10.1177/1350507620917257
- Clarivate. (2021). Result analysis and citation report. Retrieved from <https://www.webofscience.com/wos/woscc/summary/fa4ae70f-2598-43bd-9f56-34268cb401e5-0516ae77/relevance/1>

Craig, I. D., Ferguson, L., & Finch, A. T. (2014). *Journals ranking and impact factors: how the performance of journals is measured*. Sawston: Chandos Publ.

Petersen, J. (2017). How innovative are editors?: evidence across journals and disciplines. *Research Evaluation*, 26(3), 256-268. doi:10.1093/reseval/rvx015

Richards, I., & Wasserman, H. (2013). The heart of the matter: Journal editors and journals. *Journalism*, 14(6), 823-836. doi:10.1177/1464884913493062

Vieira, E. S., & Gomes, J. (2018). The peer-review process: The most valued dimensions according to the researcher's scientific career. *Research Evaluation*, 27(3), 246-261. doi:10.1093/reseval/rvy009