SJR Top 20 SJR Analysis of the Most Outstanding Latin American Journals Today

William Rodrigo Avendaño Castro[1], Audin Aloiso Gamboa Suárez[2], Raúl Prada Núñez[3]

[1] PhD in Social and Human Sciences. Research professor at the University Francisco de Paula Santander. E-mail: williamavendano@ufps.edu.co, Orcid: https://orcid.org/0000-0002-7510-8222

[2] PhD of Educational Sciences. Research professor at the University Francisco de Paula Santander University. E-mail: audingamboa@ufps.edu.co, Orcid: https://orcid.org/0000-0001-9755-6408

[3] MSc in Data Analysis Engineering. Research professor at the University Francisco de Paula Santander University. E-mail: raulprada@ufps.edu.co, Orcid: https://orcid.org/0000-0001-6145-1786

RESUMEN

Citations received from scientific articles published in recognized journals originate the calculation of the impact index of this means of dissemination. SCImago Journal & Country Rank is a free access platform on the Internet that provides indicator information on the quality, prestige and impact of scientific journals over three years. For this purpose, it uses the publications indexed in the Scopus database. In this research, a descriptive analysis has been made (through clusters) of the impact index in SJR journals from Latin American countries in the Top 20 of SJR 2019 with the indicators: H index, Total Docs. (2019), Total Docs. (3 years), Total Refs. (2019), Total Cites (3 years), Citable Docs. (3 years), Cites/Doc. (2 years), Ref./Doc. (2019); in order to analyze and compare them. First, information on the impact rate on SJR is presented. Then, the clusters formed between the SJR impact index and the mentioned indicators are shown. Although in the Rank SJR, the journals PECON (BR), RevMexAA (MX) and ETHE (CO) occupy the first three positions in that order, the first and third stand out in cluster 1 as the best scientific journals in the clusters formed.

Palabras Clave: SJR, SJR 2019, Latin American journals, impact index, H index, scientific journals.

INTRODUCTION

University rankings reflect the academic and research activity of the universities, which is related to the production and dissemination of scientific papers in journals of recognized quality (De-Moya-Anegón et al., 2020; Scimago Journal & Country Rank, 2007-2022; Urbina & Pérez, 2020; Ramírez et al., 2020; Gamboa, 2019). For example, the output indicator (O) of the investment measurement factor of the SIR Iber Ranking (Mondragon Unibertsitatea, s.f.), determines the university's position in the same. This quality of the media is measured, evaluated and compared by indicators associated with the number of articles published and also with the number of times these articles are cited by other authors, Vasquez et al. (2017) result in the highlighting of "publications with impact" (Scimago Journal & Country Rank, 2007-2022). In other words, they are those indexed in information portals that measure and evaluate the

recognition and quality of the journals (Clarivate, 2022).

The impact index of journals depends on the number of published papers, the total number of citations received the number of citations on average per published paper, and the number of citations of the most cited published papers, to name a few metrics (University of Granada et al., s.f.). These values are translated into an impact factor measured, listed, and published in the Journal Citation Reports (JCR) (FAPESP et al., 2022) and the SCImago Journal and Country Rank (SJR, 2007-2022). In addition, there are other indexes such as RESH (University of Granada et al., 2022), SciELO (FAPESP et al., 2022), Latindex (UAM, 2022), and Google Scholar Metrics (Google Schoolar, 2022); which also offer indexes to measure the quality of scientific publications.

In addition to the impact index of scientific publications, the rankings of journals in each thematic area, both in JCR and SJR, are divided into Q quartiles (numbered from 1 to 4) that order the journals from highest to lowest for the impact index [5]. Quartile Q1 (the best) comprises the first 25% of magazines listed. Quartile Q2 comprises the next 25% to 50% of journals. Q3 is between 50 and 75% of the list of journals. Finally, Q4, the last journals listed between 75 and 100%.

The purpose of this research is to carry out a descriptive analysis (through clusters) of the SJR impact index of Latin American country journals (LATAM) in the Top 20 of SJR 2019 (Vasquez et al., 2017) with the indicators in order to analyze and compare them. Firstly, information on the SJR impact index is presented. Then, the clusters formed between the SJR impact index and the mentioned indicators are shown.

SJR Impact Index

The SJR Impact Index provides information about the prestige and influence of the journal. It is measured annually and reflects the average number of weighted citations received in that year for papers published in the journal in the previous three years (Vasquez et al., 2017; University of Granada, 2022). In addition, citations are weighted according to the position of the journal cited: those of a journal with a high SJR has more value than those of another journal with a lower SJR (Scimago Journal & Country Rank, 2007-2022). The website is free to access (Elsevier BV, s.f.).

The database has been available since 1999 and includes the publications indexed in Elsevier's Scopus (Elsevier BV, s.f.) Desde 1997. Database since 1997. 27 major thematic areas can list the Journal Rankings, 313 specific subject categories, region/countries, by year and by type: journals, book series, conferences and proceedings, and trade journals. Information can also be filtered by considering the following options: only open-access journals, only SciELO journals and only WoS journals (Vasquez et al., 2017; University of Granada et al., 2022).

The indicators used by SJR 2019 are (Table 1): H index, Total Docs. (2019), Total Docs. (3 years), Total Refs. (2019), Total Cites (3 years), Citable Docs. (3 years), Cites/Doc. (2 years), Ref./Doc. (2019) (Vasquez et al., 2017; University of Granada et al., 2022). Each of them can be used to make a classification of journals. The first positions are the best.

Table 2 shows the abbreviation of journals (Elsevier BV., s.f.) and the values of the indicators of journals from LATAM countries in the SJR 2019 Top 20 (Vasquez et al., 2017). The abbreviation of the journal title should be used in bibliographies, bibliographic references, footnotes and strips (Elsevier BV., s.f.). To simplify the analysis in this work, the journal Acta Scientarium - Agronomy is abbreviated ASA. In the list, there is an MX journal, a CO journal, a CL journal and the rest (17) from Brazil.

Table 1. SJR Impact Index Indicators (2019)

Indicator	Definition
SJR	SCImago Journal Rank Indicator is a measure oj journal's impact, influence or prestige. It espresses the average number of weighted citations received in the selected year by the documents published in the journal in the three previous years.
H index (2019)	Journal's number of articles (h) that have received at least h citations over the whole period.
Total Docs. (2019)	Journal's published articles in 2019. All type of documents are considered.
Total Docs. (3 years)	Journal's published articles in 2018, 2017 & 2016. All type of documents are considered.
Total Refs. (2019)	Number of references included in the journal's published articles in 2019.
Total Cites (3 years)	Citations in 2019 received by journal's documents published in 2018, 2017 & 2016.
Citable Docs. (3 years)	Journal's citable documents in 2018, 2017 & 2016. They include articles, reviews and conference papers.
Cites/Doc. (2 years)	Average citation per document in a 2 year period. This metric is widely used as impact index.
Ref./Doc. (2019)	Average amonunt of references per document in 2019.

Source: Vasquez, et al. (2017).

Table 2. LATAM country journals in the SJR 2019 Top 20

Rank	Title	Abbreviation for Standard Journal (ISO4)	Abbreviation	Country	SJR	SJR Best Quartile	H index	Total Docs. (2019)	Total Docs. (3years)	Total Refs. (2019)	Total Cites (3years)	Citable Docs (3years)	Cites / Doc (2years)	Ref. / Doc (2019)
1	Perspectives in Ecology and Conservation	Perspect. Ecol. Conserv.	PECON	BR	1,384	Q1	27	28	110	1844	448	104	4,01	65,86
2	Mexican Journal of Astronomy and Astrophysics	Rev Mex Astron Astrofis	RevMexAA	MX	1,282	Q1	29	32	107	1142	263	106	2,29	35,69
3	International Journal of Educational Technology in Higher Education	Int. J. Educ. Technol. High. Educ	ETHE	CO	1,066	Q1	22	42	130	2501	595	122	5,45	59,55
4	Memories of the Instituto Oswaldo Cruz	Mem. Inst. Oswaldo Cruz	memorias ioc	BR	0,913	Q1	84	88	367	2536	817	355	2,2	28,82
5	Alea	Alea	Alea	BR	0,906	Q2	12	35	108	882	87	108	0,58	25,2
6	Journal of Materials Research and Technology	J. Mater. Res. Technol.	JMR&T	BR	0,898	Q1	34	769	191	23334	886	187	4,25	30,34
7	Biological Research	Biol. Res.	BR	CL	0,841	Q1	49	61	146	319	442	143	3,05	5,23
8	Acta Scientiarum - Agronomy	Acta Scientiarum - Agronomy	ASA	BR	0,761	Q1	26	68	152	2143	233	152	1,12	31,51
9	Brazilian Journal of Microbiology	Braz. J. Microbiol	BJM	BR	0,753	Q3	56	162	429	6413	1380	425	2,63	39,59
10	Revista de Saude Publica	Rev. Saude Publica	RSP	BR	0,744	Q2	72	114	407	1449	731	395	1,58	12,71
11	Genetics and Molecular Biology	Genet. Mol Biol	GMB	BR	0,741	Q3	51	89	269	3745	592	255	2,03	42,08
12	Brazilian Journal of Infectious Diseases	Braz. J. Infect. Dis	BJID	BR	0,737	Q2	42	75	345	2041	623	280	2,01	27,21
13	Journal of Applied Oral Science	J Oral Sci	JAOS	BR	0,712	Q1	39	96	274	3302	580	258	2,01	34,4
14	Brazilian Journal of Psychiatry	Braz J Psychiatry	BJP	BR	0,708	Q2	50	107	222	2723	395	168	2,1	25,45
15	South American Journal of Herpetology	South Am J Herpetol	SAJH	BR	0,701	Q1	9	24	74	1721	121	74	1,58	71,71
16	Brazilian Journal of Physical Therapy	Braz. J. Phys. Ther.	BJPT	BR	0,697	Q1	32	107	201	4255	478	188	2,26	39,77
17	Tche Quimica Journal	tchequimica	journaltq	BR	0,689	Q1	11	265	230	8777	567	229	2,42	33,12
18	Crop Breeding and Applied Biotechnology	Crop Breed. Appl Biotechnol	CBAB	BR	0,672	Q1	21	73	183	1669	246	160	1,4	22,86
19	Brazilian Journal of Geology	Brazilian J. Geol	BJGEO	BR	0,647	Q1	15	35	126	2213	216	119	1,2	63,23
20	Pesquisa odontologica brasileira = Brazilian oral research	Brazilian Oral Res	BOR	BR	0,643	Q1	41	115	383	3500	700	375	1,9	30,43

Source: Vasquez et al. (2017); University of Granada et al. (2022); Elsevier BV., s.f.

List of indicators from LATAM country journals in the Top 20 of SJR 2019.

Below are the clusters formed by relating the SJR impact index to the indicators: H index, Total Docs. (2019), Total Docs. (3 years), Total Refs. (2019), Total Cites (3 years), Citable Docs. (3 years), Cites/Doc. (2 years), Ref./Doc. (2019); from LATAM countries journals in the SJR 2019 Top 20 (Vasquez et al., 2017).

Relationship between the SJR impact index and the H index

Fig. 1 and Table 3 show the cluster formed between the SJR impact index and the H index indicator of the LATAM countries journals in the SJR 2019 Top 20 (Vasquez et al., 2017) and their characteristics. For example, PECON (BR), RevMexAA (MX) and ETHE (CO) are located in cluster 1 with SJR>1.02 and H index<45. Likewise, memorias.ioc (BR), BR (CL), BJM (BR), RSP (BR), GMB (BR) and BJP (BR) are located in cluster 3 with values of H index>45, but SJR<1.02.
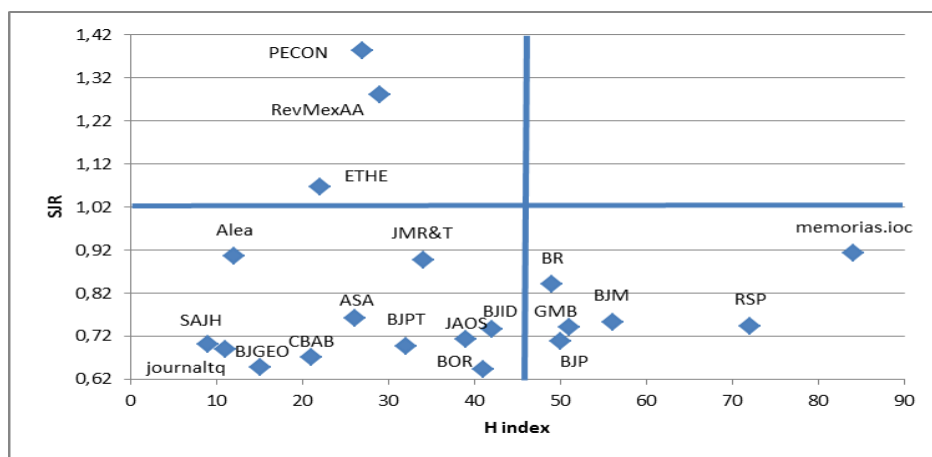
Figure 1. SJR impact index cluster and the H index of the LATAM country journals in the Top 20 of SJR 2019.

Source: Vasquez et al. (2017).
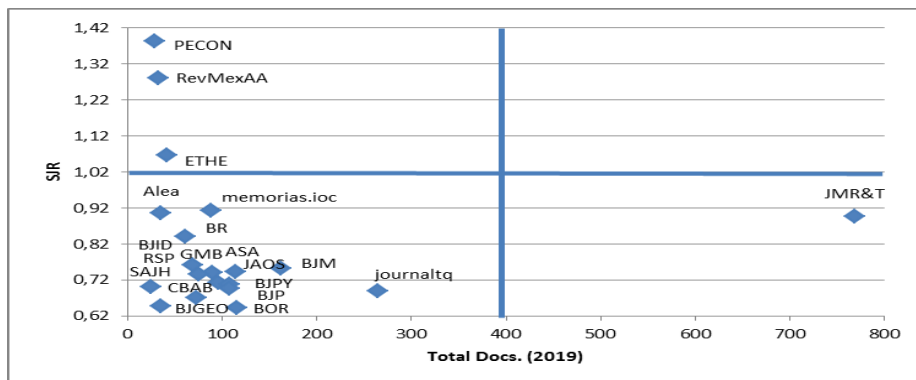
Table 3. Characteristics of the SJR impact index cluster and the H index indicator of the LATAM country journals in the Top 20 of SJR 2019.

Cluster	Journal	SJR	H index
1	PECON, RevMexAA, ETHE	SJR>1,02	H index<45
2	Alea, JMR&T, ASA, BJID, JAOS, SAJH, BJPT, journaltq, CBAB, BJGEO, BOR	SJR<1,02	H index<45
3	memorias.ioc, BR, BJM, RSP, GMB, BJP	SJR<1,02	H index>45

Source: Vasquez et al. (2017).

Relationship between the SJR impact index and the Total Docs indicator (2019)

Fig. 2 and Table 4 show the cluster formed between the impact index and the Total Docs indicator. (2019) of the LATAM countries journals in the SJR 2019 Top 20 (Vasquez et al., 2017) and their characteristics. With SJR>1.02 and TD (2019)<400, journals PECON (BR), RevMexAA (MX) and ETHE (CO) are located in cluster 1. Only JMR&T (BR) is positioned in cluster 3 with SJR<1.02 and TD (2019)>400.

Figure 2. SJR impact index cluster and the Total Docs indicator. (2019) of LATAM country journals in the SJR 2019 Top 20.
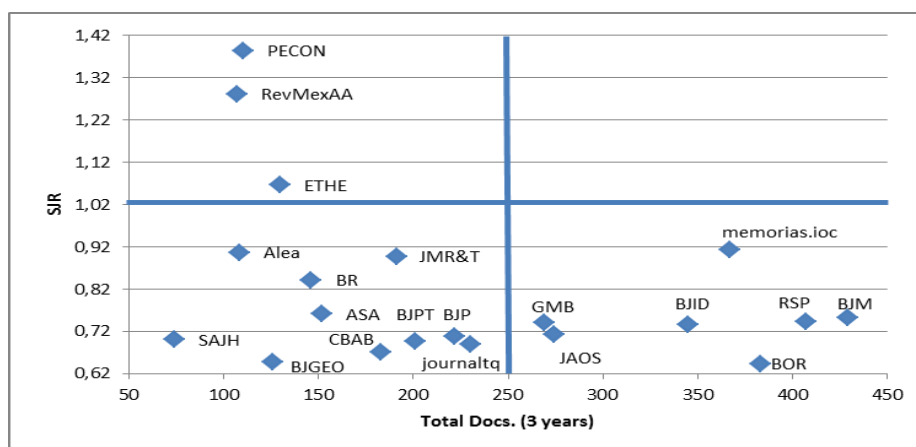
Source: Vasquez et al. (2017).

Table 4. Characteristics of SJR impact index cluster and the Total Docs indicator (2019) of LATAM country journals in the SJR 2019 Top 20.

Cluster	Journal	SJR	Total Docs. (2019)
1	PECON, RevMexAA, ETHE	SJR>1,02	TD(2019)<400
2	Alea, memorias.ioc, ASA, BJID, JAOS, SAJH, BJPT, journaltq, CBAB, BJGEO, BOR, BR, BJM, RSP, GMB, BJP	SJR<1,02	TD(2019)<400
3	JMR&T	SJR<1,02	TD(2019)>400

Source: Vasquez et al. (2017).

Relationship between the SJR impact index and the Total Docs indicator (3 years)

Fig. 3 and Table 5 show the cluster between the SJR impact index and the Total Docs indicator. (3 years) of the LATAM countries journals in the SJR 2019 Top 20 (Vasquez et al., 2017) and their characteristics. With SJR>1.02 and TD (3 years)<250, journals PECON (BR), RevMexAA (MX) and ETHE (CO) are located in cluster 1. The third cluster, with SJR <1.02 and TD (3 years)>250, memorias.ioc (BR), GMB (BR), JAOS (CL), BJID (BR), RSP (BR), BJM (BR) and BOR (BR) are positioned.

Figure 3. SJR impact index cluster and the Total Docs indicator. (3 years) of LATAM country journals in the SJR 2019 Top 20.

Source: Vasquez et al. (2017).

Table 5. Characteristics of SJR impact index cluster and the Total Docs indicator (3 years) of LATAM country journals in the SJR 2019 Top 20.

Cluster	Journal	SJR	Total Docs. (3 years)
1	PECON, RevMexAA, ETHE	SJR>1,02	TD(3 years)<250
2	Alea, JMR&T, BR, ASA, BJPT, BJP, SAJH, CBAB, BJGEO, journaltq	SJR<1,02	TD(3 years)<250
3	memorias.ioc, GMB, JAOS, BJID, RSP, BJM, BOR	SJR<1,02	TD(3 years)>250

Source: Vasquez et al. (2017).

Relationship between the SJR impact index and the Total Refs (2019)

Fig. 4 and Table 6 show the cluster between the SJR impact index and the Total Refs indicator. (2019) of the LATAM countries journals in the SJR 2019 Top 20 (Vasquez et al., 2017) and their characteristics. With SJR>1.02 and TR (2019)<12500, journals PECON (BR), RevMexAA (MX) and ETHE (CO) are

positioned in cluster 1. Only JMR&T (BR) is positioned in cluster 3 with SJR<1.02 and TR (2019)>12500.

Figure 4. SJR impact index cluster and the Total Refs (2019) indicator of the LATAM country journals in the Top 20 of SJR 2019.

Source: Vasquez et al. (2017).

Table 6. Characteristics of SJR impact index cluster and the Total Refs indicator (2019) of LATAM country journals in the SJR 2019 Top 20.
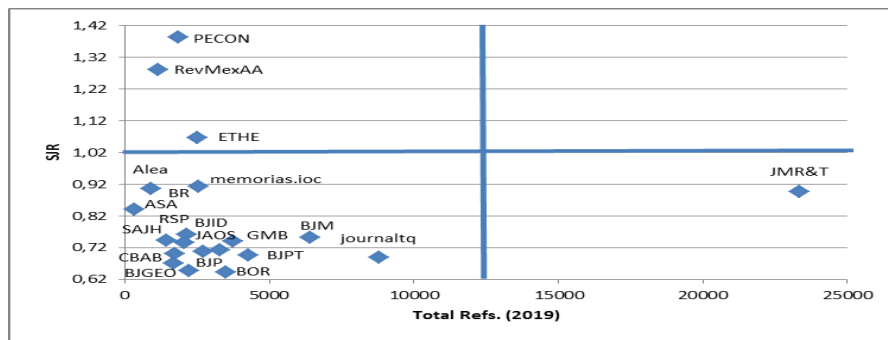
Cluster	Journal	SJR	Total Refs. (2019)
1	PECON, RevMexAA, ETHE	SJR>1,02	TR(2019)<12500
2	Alea, memorias.ioc, BR, ASA, BJPT, BJP, SAJH, CBAB, BJGEO, journaltq, GMB, JAOS, BJID, RSP, BJM, BOR	SJR<1,02	TR(2019)<12500
3	JMR&T	SJR<1,02	TR(2019)>12500

Source: Vasquez et al. (2017).

Relationship between the SJR impact index and the Total Cites indicator (3 years)

Fig. 5 and Table 7 show the clustering between the SJR impact index and the Total Cites indicator (3 years) of the LATAM countries journals in the SJR 2019 Top 20 (Vasquez et al., 2017) and their characteristics.

With SJR>1.02 and TC (3 years)<800, journals PECON (BR), RevMexAA (MX) and ETHE (CO) are located in cluster 1. Finally, in cluster 3, three Brazilian journals are positioned: memorias.ioc, JMR&T and BJM with SJR<1.02 and TC (3 years)>800.
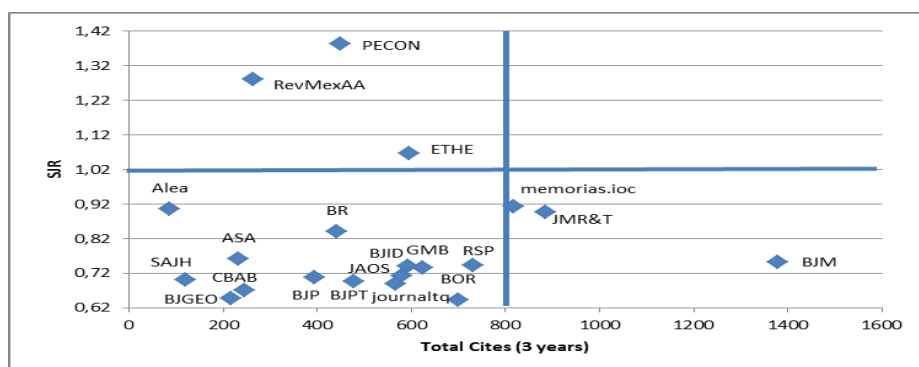
Figure 5. SJR impact index cluster and the Total Cites indicator (3 years) of the LATAM country journals in the Top 20 of SJR 2019**.**
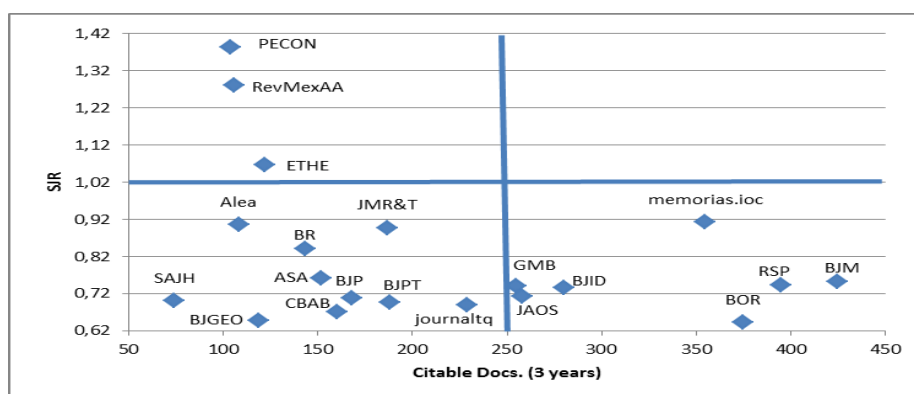
Source: Vasquez et al. (2017).

Table 7. Characteristics of SJR impact index cluster and the Total Cites indicator (3 years) of the LATAM country journals in the Top 20 of SJR 2019.

Cluster	Journal	SJR	Total Cites (3 years)
1	PECON, RevMexAA, ETHE	SJR>1,02	TC(3 years)<800
2	Alea, BR, ASA, BJPT, BJP, SAJH, CBAB, BJGEO, journaltq, GMB, JAOS, BJID, RSP, BOR	SJR<1,02	TC(3 years)<800
3	memorias.ioc, JMR&T, BJM	SJR<1,02	TC(3 years)>800

Source: Vasquez et al. (2017).

Relationship between the SJR impact index and the Citable Docs indicator (3 years)

Fig. 6 and Table 8 show the clustering between the SJR impact index and the Citable Docs indicator. (3 years) of the LATAM countries journals in the SJR 2019 Top 20 (Vasquez et al., 2017) and their characteristics. With SJR>1.02 and CD (3 years)<250, journals PECON (BR), RevMexAA (MX) and ETHE (CO) are located in cluster 1. In cluster 3, seven Brazilian journals are positioned: memorias.ioc, GMB, JAOS, BJID, RSP, BJM and BOR; with SJR<1.02 and CD (3 years)>250.

Figure 6. SJR impact index cluster and the Citable Docs. Indicator (3 years) of LATAM country journals in the SJR 2019 Top 20.
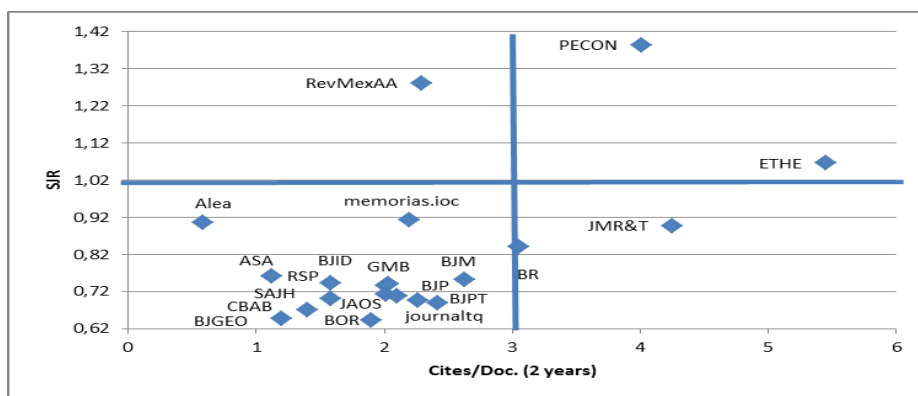
Source: Vasquez et al. (2017).

Table 8. Characteristics of the SJR impact index cluster and the Citable Docs. Indicator (3 years) of LATAM country journals in the SJR 2019 Top 20.

Cluster	Journal	SJR	Citable Docs. (3 years)
1	PECON, RevMexAA, ETHE	SJR>1,02	CD(3 years)<250
2	Alea, JMR&T, BR, ASA, BJPT, BJP, SAJH, CBAB, BJGEO, journaltq,	SJR<1,02	CD(3 years)<250
3	memorias.ioc, GMB, JAOS, BJID, RSP, BJM, BOR	SJR<1,02	CD(3 years)>250

Source: Vasquez et al. (2017).Relationship between the SJR impact index and the Cites / Doc. indicator (2 years)

Fig. 7 and Table 9 show the cluster between the SJR impact index and the Cites/Doc. Indicator (2 years) from LATAM countries journals in the SJR 2019 Top 20 (University of Granada et al., 2022) and their characteristics. With SJR>1.02 and C/D (2 years)>3, journals PECON (BR) and ETHE (CO) are positioned in cluster 1. RevMexAA (MX) is positioned in cluster 2 with SJR>1.02 and C/D (2 years)<3. Finally, in cluster 4, two journals are positioned: JMR&T (BR) and BR (CL) with SJR<1.02 and C/D (2 years)>3. .

Figure 7. SJR impact index cluster and the Cites/Doc. Indicator (2 years) of LATAM country journals in the SJR 2019 Top 20.
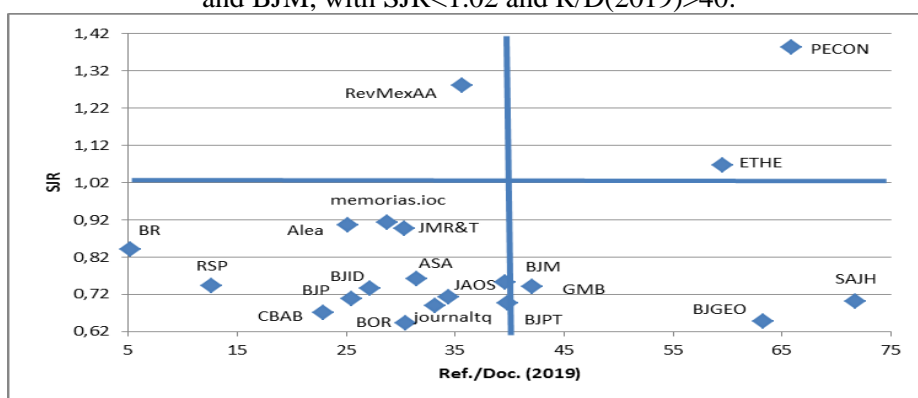
Source: Vasquez et al. (2017).

Table 9. Characteristics of the SJR impact index cluster and the Cites/Doc. Indicator (2 years) of LATAM country journals in the SJR 2019 Top 20.

Cluster	Journal	SJR	Cites/Doc. (2 years)
1	PECON, ETHE	SJR>1,02	C/D(2 years)>3
2	RevMexAA	SJR>1,02	C/D(2 years)<3
3	Alea, ,memorias.ioc, ASA, BJPT, BJP, SAJH, CBAB, BJGEO, journaltq,GMB, JAOS, BJID, RSP, BJM, BOR	SJR<1,02	C/D(2 years)<3
4	JMR&T, BR	SJR<1,02	C/D(2 years)>3

Source: Vasquez et al. (2017).

Relationship between the SJR impact index and the Ref./Doc. Indicator (2019).

Fig. 8 and Table 10 show the clustering between the SJR impact index and the Ref./Doc. Indicator (2019) of the LATAM countries journals in the SJR 2019 Top 20 (Vasquez et al., 2017) and their characteristics. With SJR>1.02 and R/D (2019)>40, journals PECON (BR) and ETHE (CO) are positioned in cluster 1. RevMexAA (MX) is positioned in cluster 2 with SJR>1.02 and R/D (2019)<40. Finally, in cluster 4, five Brazilian journals are positioned: BJPT, SAJH, BJGEO, GMB and BJM, with SJR<1.02 and R/D(2019)>40.

Figure 8. SJR impact index cluster and the Ref./Doc. Indicator (2019) of the LATAM country journals in the Top 20 of SJR 2019.

Source: Vasquez et al. (2017).

Table 10. Characteristics of the SJR impact index cluster and the Ref./Doc. Indicator (2019) of the LATAM country magazines in the SJR 2019 Top 20.

Cluster	Journal	SJR	Ref./Doc. (2019)
1	PECON, ETHE	SJR>1,02	R/D(2019)>40
2	RevMexAA	SJR>1,02	R/D(2019)<40
3	Alea, JMR&T, BR , memorias.ioc, ASA, BJP, CBAB, journaltq, JAOS, BJID, RSP, BOR	SJR<1,02	R/D(2019)<40
4	BJPT, SAJH, BJGEO, GMB, BJM	SJR<1,02	R/D(2019)>40

CONCLUSIONS

SCImago Journal & Country Rank is a free Internet tool that provides information on the quality, prestige and impact of scientific journals indexed in Scopus. The SJR impact index for a year reflects the average number of weighted citations received in that time given by the documents published in the journal in the previous three years.

In the Top 20 of the SJR 2019 are positioned 17 journals from BR, one from MX, one from CO and one from CL. Among the results of this paper, the following stand out:

1. In the indicators H index, Total Docs. (2019), Total Docs. (3 years), Total Refs. (2019), Total Cites (3 years) and Citable Docs. (3 years), the best-positioned journals are PECON (BR), RevMexAA (MX) and ETHE (CO).

2. In the indicators Cites/Doc. (2 years) and Ref./Doc. (2019), journals PECON (BR) and ETHE (CO) are located in cluster 1 and RevMexAA journal (MX) is positioned in cluster 2.

REFERENCES

Clarivate. (2022). *Analytics. Incites Journal Citation Reports Homepage*. https://jcr.clarivate.com/jcr/home

De-Moya-Anegón, F., Herrán-Páez, E., Bustos-González, A., Corera-Álvarez, E., Tibaná-Herrera, G. & Rivadeneyra, F. (2020). *Ranking iberoamericano de instituciones de educación superior 2020 (SIR Iber)*. Granada: Ediciones Profesionales de la Información.

Elsevier BV. (s.f.). *Welcome to Scopus Preview*. https://www.Scopus.com/home.uri

FAPESP, CAPES, CNPq, BVS, BIREME, OPS, OMS & FAPUNISFEP. (s.f.). *SciELO – Scientific Electronic Library Online*. https://scielo.org/es/

Gamboa, A. (2019). Tradiciones y problemas de la investigación educativa. En C. Chévez y J. Melengue (Eds.), *Tendencias y desafios de la investigación educativa: aproximaciones teóricas y metodológicas* (25-33). El Salvador: INFOD.

Google Schoolar. (2022). *Google Scholar Metrics*. https://scholar.google.com/citations?view_op=top_venues&hl=es

Mondragon Unibertsitatea. (s.f.) *Indices de Impacto de las Publicaciones*. https://www.mondragon.edu/es/web/biblioteka/indices-de-impacto-de-las-publicaciones

Ramírez, L., Huízar, A., Vergara, M., Gamboa, A., Urbina, J., Gómez, J., Ferreyra, H., Ghío, A., Tenutto, M., Vallejo, R., y Gómez, Y. (2020). *Educación superior: miradas desde las narrativas, argumentación e investigación docente en América Latina*. Tunja: Fundación Universitaria Juan N. Corpas. Centro Editorial. Ediciones FEDICOR.

Scimago Journal & Country Rank. (2007-2022). *Journal Rankings*. https://www.scimagojr.com/journalrank.php?country=Latin%20America&type=j

Universidad Nacional Autónoma de México. (2022). *Latindex homepage*, https://www.latindex.org/latindex/inicio

University of Granada, EPUC, CCHS & CSIC. (2022). *Revistas Españolas de Ciencias Sociales y Humanidades*. http://epuc.cchs.csic.es/resh/

Urbina, J. E., & Pérez, B. J. (2020). Revisión preliminar sobre publicaciones académicas relacionadas con la pandemia. En E. T. Ayala, L. K. Coronel., G. A: Espinel, L. N. Galvis, L. Y. Hernández, M. C. Jaimes, E. G. Osorio, B, J. Pérez, & J. E. Urbina (ed), El covid 19 y la reinvención del mundo: perspectivas mutantes de existir y habitar en pandemia (pp.17-57). Bogotá: Ediciones Nueva Jurídica.

Vasquez, C., Torres-Samuel, M., & Viloria, A. (2017). Public policies in science and technology in Latina American Contries with Universitiers in the Top100 of Web Ranking. *Journal of Enginerring an Applied Sciences, 12*(11), 2963-2965.