Bibliometric Analysis of the Journal *Sendebar* (2005-2020): Authorship Patterns, Collaboration and Publishing Trends

Cristina Rodríguez-Faneca[1], Astrid Cuida[2]

[1]Departamento de Filologías Inglesa y Alemana, Universidad de Córdoba, Córdoba, Spain
[2]Didáctica de las Ciencias Experimentales, de las Ciencias Sociales y de la Matemática, Universidad de Valladolid, Valladolid, Spain
Email: cristina.rodriguez@uco.es, mariaastrid.cuida.gomez@uva.es

Abstract

This paper presents a bibliometric analysis of the journal *Sendebar*, a Spanish scientific journal of reference in the translation field. The main objective of this study is to analyse the scientific production patterns of this journal between the years 2005 to 2020, as well as to identify the most prolific authors or countries. Also, the publishing trends were also pointed out. It was concluded that *Sendebar's* production is of a local nature and that individual authorship is preferred as opposed to collaboration, as the Degree of Collaboration between authors, calculated for the publishing period studied (2005-2020), is low. The publishing trends of this journal revolve around 4 areas of knowledge within the discipline of Translation itself: techniques and methods, translator training, translation theory and interpreting.

Subject Areas

Library Science

Keywords

1. Introduction

The sociology of knowledge argues that science is a social construct in which scientists share a series of models, rules and patterns, including scientific publications [1]. This is the reason why bibliometric studies are a source of information that allows us to obtain clear and precise data regarding the patterns of scientific communication and dissemination of knowledge. In this sense, there

are several tools and documents from which it is possible to obtain bibliometric information: scientific articles, books, doctoral theses, research projects or patents.

Therefore, the study of scientific journals is essential when it comes to diagnose the level of development of certain areas of knowledge, as well as to identify research trends, to identify which institutions are the most productive or to calculate the degree of scientific collaboration in a particular field of knowledge. In this respect, we can differentiate between different types of collaboration, such as collaboration between authors, departmental sections, research groups, universities or even between different countries or geographical areas [2].

The role of scientific journals in the dissemination of specialised knowledge has been explained by Guédon [3] as a social register of inventions and innovations. It has also been defined by Torres [4] as a tool for the collective construction of knowledge; although, on the other hand, the role of journals in university accreditation systems and in the evaluation of research activity is undeniable [5].

Despite the existence of studies of great quality and relevance in the field, it is not yet possible to state that there is a well-established tradition of bibliometric studies in the field of Translation and Interpreting (T & I), since this type of research has only flourished in the last decade [6].

In the field of Translation and Interpreting (T & I), at an international level, we must highlight the bibliometric studies carried out by Zanettin, Saldanha and Harding [7], where the different sub-disciplines of translation were studied based on the data obtained in the Translation Studies Abstracts (TSA) database. Also, it is worth mentioning a research by Van Doorslaer and Gambier [8] where the academic affiliation of the authors present in the same database (TSA) was analysed. A more recent study [9] carried out an international bibliometric study of scientific production in the field of Translation and Interpreting.

At the local level, in Spain, we must name the bibliometric studies carried out by Rovira-Esteva and Orero [10] Rovira-Esteva, Coré, Lopo and Varona [11] and by Rovira-Esteva, Aixelá and Olalla-Soler [12], among others.

In relation to specific subjects within T & I, we should mention bibliometric studies regarding medical translation [13], audiovisual translation [14], or economic translation [15].

Other bibliometric studies have dealt with doctoral theses in the field [16], [17] or the composition of their examining boards [18]. Furthermore, the end-of-degree theses of the Master's Degree in Intercultural Communication, Interpreting and Translation in Public Services in the Chinese-Spanish language combination of the University of Alcalá have also been the subject of study [19].

The importance of this research's subject matter, *Sendebar*, lies in its pioneering nature within the Translation & Interpreting research in Spain, since it began to be published in 1990, when Translation Studies were just beginning to develop in this country. Besides, it is undeniable that its role in the dissemination of knowledge generated by the study of all disciplines related to T & I is en-

dorsed by the journal's inclusion in several high-quality databases.

This journal is currently included in the *Scimago Journal & Country Rank* (SJR), the *Emerging Sources Citation Index* (ESCI) of Clarivate Analytics, SCOPUS or *Linguistics & Language Behavior Abstracts* databases, among many others. On the other hand, the journal holds the FECYT (*Spanish Foundation for Science and Technology*) quality seal, an accreditation that recognises the quality of this publication and corroborates the implementation of good practices in it. We believe that, for all these reasons, a bibliometric analysis of this journal can provide relevant data in relation to the development of Translation & Interpreting research in Spain and, furthermore, of the editorial work that *Sendebar* has carried out since its beginnings.

2. Objectives

The main objective of this study is to analyse the scientific production patterns of the journal *Sendebar*, as well as to achieve the following secondary objectives:

- To analyse the production and authorship patterns of the journal, including the most prolific authors or countries within the scientific production of the journal.
- To identify the Degree of Collaboration (DC) between the authors who publish in the journal, as well as the degree of collaboration between countries.
- To identify the publishing trends within the scientific production of the journal.

3. Methodology

The study presented is descriptive, exploratory and *ex post facto*. The *Web of Science* (WOS) database was consulted in March, 2021. The parameter "SENDEBAR-REVISTA DE TRADUCCIÓN E INTERPRETACIÓN" was entered under the "Publication Name" indicator. The records found correspond to the 15-year period between 2005 and 2020, although no time limitation was indicated in the search parameters. A total of 352 records linked to the publication were retrieved.

The variables considered in the study are 5; the name of the author(s) of each article (V_1), the institutional affiliation (V_2), geographical affiliation (V_3) and the keywords associated by the author with each article (V_4).

The information obtained was dumped into an ad hoc relational database in *Microsoft*® *Access*® 2019, so that the information contained in the register provided by WOS could be standardised.

The problem regarding the standardisation of records in bibliometric studies has been pointed out in previous studies [18]. In this case, the case of authorship naming deserves special attention, since, if the names of authors are not standardised, the information appears to be duplicated (or, sometimes, triplicated) and the count of authors carried out by the database may not reflect the reality.

Four types of incidents related to authorship were found: problems related to

the juxtaposition of surnames (e.g. "Morón Martín, Marian; Morón-Martín, Marian"), lack of homogeneity when naming a compound name (e.g. "Barceló Martínez, Tanagua; Barceló Martínez, María Tanagua"), lack of a surname (e.g, "Bestue Salinas, Carmen; Bestue, Carmen") and other complex errors involving two or more of the above (e.g., "Del Pozo Triviño, Ma Isabel; del Pozo Triviño, María Isabel; Del Pozo-Triviño, Maribel").

This type of issue regarding authors' names is frequent, because occasionally authors change their academic signature over the years or do not follow the same criteria throughout their academic career. On other occasions, this problem is especially related to Spanish names, as the WOS classification system identifies compound names or middle names as if it were a surname.

To determine the Degree of Collaboration (DC), we applied the formula proposed by Subramayan (1983), which relates the rate of the number of articles signed collaboratively to the total number of research articles in a given discipline during the period studied (Figure 1). Here, the DC results from the application of the following formula [20]:

N_m represents the number of articles signed by more than one author during a given year. N_s represents the number of articles signed by a single author during the same year.

In this way, three categories of collaboration were determined: non-collaborative (that is, the article is signed by a single author), national collaboration (the article is signed by several authors from the same country) and international collaboration, if the article is signed by at least one author whose country of origin is different from the rest. For the assignment of authorship and country of origin, the guidelines of Cronin and Overfelt [21] were followed by means of a full count, considering each author equally when attributing full authorship to each of them.

4. Results

The records found (N = 352) correspond, in general, to three types of document (Table 1): original research articles (N = 215), book reviews (N = 121) and

$$DC = \frac{N_m}{N_m + N_s}$$

Figure 1. Degree of Collaboration (Subramanyam, 1983).

Table 1. Published documents Types.

Type	Number	%
Articles	215	61.07%
Reviews	121	34.37%
Editorials	13	3.69%
Other	3	0.85%

Source: compiled by author.

editorial pieces (N = 13). Other document types, such as critical reviews or bibliographic lists (N = 3) account for a marginal amount of the documents published in the journal. The documents found were published in the 15-year period between 2005 and 2020.

The scientific articles published in the journal *Sendebar* have been signed by a total of 256 different authors. Mos of the research articles (N = 161) are signed by a single author. A smaller number of them are co-authored by two (N = 41), three (N = 11) and even four authors (N = 2). 86.51% of the journal's articles have been published in Spanish, while 13.48% have been published in English.

The authors with the highest number of documents in the journal are José María Pérez Fernández, who has signed a total of 7 documents, while Esperanza Alarcón and José Antonio Sabio have signed 6 documents each. On the other hand, we must highlight the authors with the highest number of articles in the journal. María Isabel del Pozo Triviño (University of Vigo) has signed 4 research articles, while Robert Neal Baxter (University of Granada), Gemma Andújar Moreno (Pompeu Fabra University) and Carmen Valero Garcés (University of Alcalá) have signed 3 research articles each. There are no authors with a particularly high production, as 26 other authors have signed up to two research articles in *Sendebar*, sharing third place in terms of productivity. No major producers were identified in terms of Lotka.

The authors who have published in *Sendebar* belong to 78 different institutions. In this sense, the University of Granada stands out as the most productive institution, with a total of 33 research articles signed by researchers belonging to it. The Autonomous Universities of Barcelona and Vigo are the second and third most productive institutions, with 20 research articles published in this journal. The manuscripts have been signed almost entirely by authors from universities, although some authors belonging to other types of organisations or institutions (secondary schools, translators' associations, vocational schools, etc.) have also participated in the production of the journal.

The rest of the most productive institutions (n > 6) are shown in Table 2. The production of these 12 institutions (70.69%) accounts for almost three quarters of the total number of documents published in the journal during the period under study, 2005-2020.

Furthermore, the articles published in this journal have been produced in 26 different countries, although Spanish authors have published a remarkable 83.25% of the total production, confirming its local nature.

In terms of the number of documents published (including reviews or editorial pieces), the University of Granada is the most productive institution, with a total of 95 documents signed by researchers associated to it. The University of Malaga is the second with 30 documents and the University of Vigo arises as the third most productive institution, with 25 documents published in the journal.

In relation to the Degree of Collaboration (DC) in the journal, determined in the table below in relation to the total number of documents and for each year (Table 3), it should be noted that, although collaboration has been increasing

Table 2. Most prolific institutions (2005-2020, n > 6).

University	Number	%
Universidad de Granada	33	15.35%
Universidad Autónoma de Barcelona	20	9.30%
Universidad de Vigo	20	9.30%
Universidad de Málaga	14	6.51%
Universidad Pablo de Olavide	13	6.05%
Universidad de las Palmas de Gran Canaria	9	4.19%
Universidad de Valencia	9	4.19%
Universidad Jaume I	8	3.72%
Universidad Pompeu Fabra	7	3.26%
Universidad de Alcalá	7	3.26%
Universidad de Córdoba	6	2.79%
Universidad de Salamanca	6	2.79%

Source: compiled by author.

Table 3. Degree of Collaboration (2005-2020), determined in relation to the total number of documents.

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
DC	0.05	0.17	0.14	0.08	0.08	0.04	0.04	0.16	0.00
Year	2014	2015	2016	2017	2018	2019	2020	[2005-2020]	
DC	0.20	0.21	0.28	0.41	0.40	0.25	0.41	0.18	

Source: compiled by author.

especially since 2014, the values achieved are generally quite low. The overall DC for the entire period analysed (2005-2020) is 0.18. It is worth mentioning that the analysis of collaboration between institutions and countries that have published in the journal did not produce any relevant co-authorship networks.

Regarding the diachronic productivity of the journal (Figure 2), it can be noted that there is a slightly increasing linear pattern. The average number of articles published per year is 14.30. During the period analysed, the highest positive rate of change was observed in 2020, reaching 73.33%. The highest negative rate of change was observed in 2015, reaching 23.08%.

It is observed that the number of citations has decreased in recent years (Figure 2). The year with the highest number of citations received was 2012. In 2019 the journal has not yet received any citations, probably because it is a recent issue.

In order to analyse of the publishing trends (or thematic trends) in the scientific production of the journal, a map of co-occurrence of terms was generated using the software VOSviewer. This map is based on the author keywords and the titles of the published manuscripts.

After selecting the keywords present in at least ten articles (n > 10), and using a complete count (Cronin and Overfelt, 1994), a network of co-occurrence of keywords based on 4 clusters has been found (Figure 3). It should be noted that empty words (e.g. "fact", "use", "example", "point", "person", "name", etc.) were removed from the network.

- Cluster 1, "*Translation, techniques and modalities*" (23 terms), where "language", "strategy", "English" and "Spanish" are the most representative nodes.
- Cluster 2, "*Translation Didactics*" (13 terms), where the nodes "training", "degree", "student" and "competence" stand out.
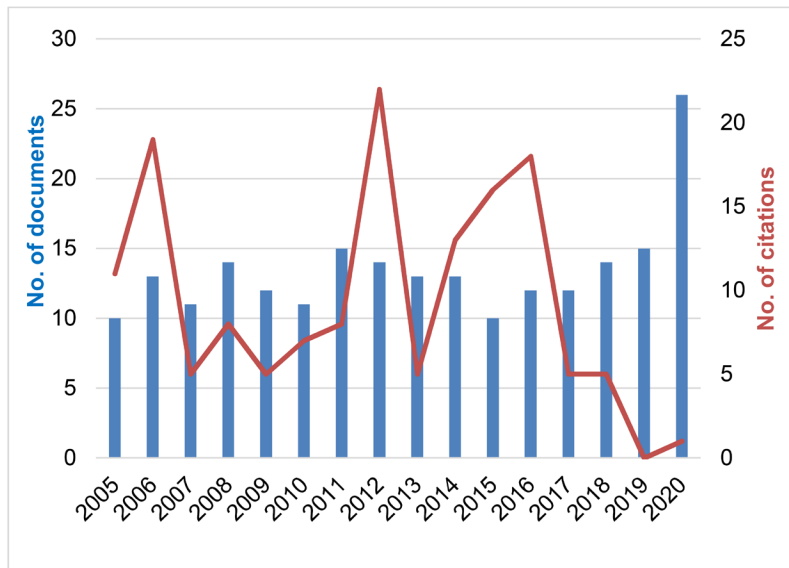

Figure 2. Diachronic journal production and number of citations (2005-2020).
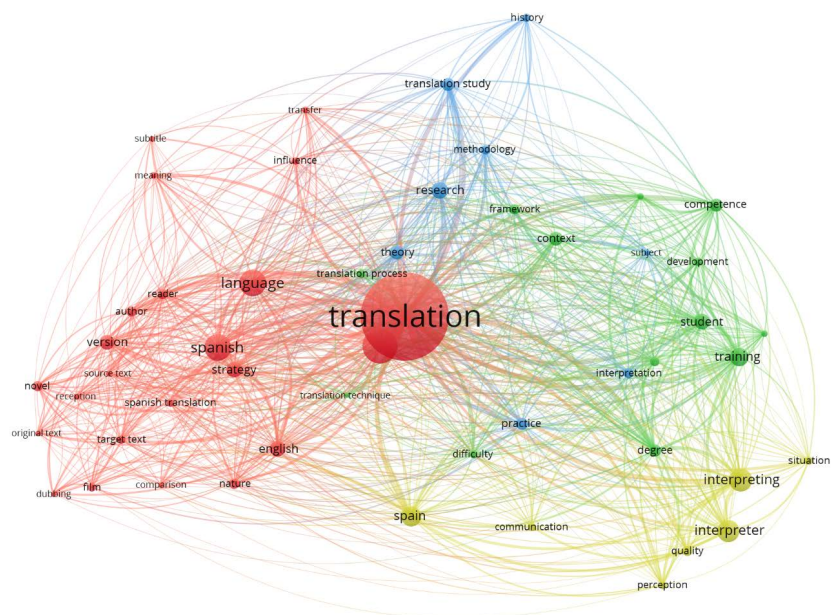

Figure 3. Keyword co-occurrence network.

- Cluster 3, "*Translation Theory*" (8 terms), where the nodes "research", "theory", "translation study" and "methodology" are the most relevant ones.
- Cluster 4, "*Interpreting*" (7 terms), where the nodes "interpreter/interpreting" associated with nodes such as "perception", "situation" and "communication" are the most representative ones.

5. Conclusions

There is no doubt that the journal *Sendebar* has been, since the Translation & Interpreting Studies began to develop in Spain, an indispensable tool for disseminating scientific production in this field. This journal has also been essential when it comes to give visibility to this research.

With reference to the patterns of authorship and collaboration, it can be observed that individual authorship prevails. Collaboration is minimal and does not correspond to scientific trends in other areas, which point towards an increase in scientific collaboration.

On the other hand, and in terms of production patterns, a slight increase in diachronic production is observed in recent years, especially in the last issue published by the journal, corresponding to the year with the highest variation rate in the publication. The regularity in the number of documents published per issue has also been reflected in the number of citations received annually. The large number of book reviews published by the journal in relation to the total number of documents is also a relevant figure.

In relation to the most recurrent topics in the scientific production of the journal, we have found four clusters related to "*Translation*, *techniques and modalities*" (cluster 1), "*Translation Didactics*" (cluster 2), "*Translation Theory*" (cluster 3) and "*Interpreting*" (cluster 4). Those clusters correspond to the most prolific themes of the journal.

Finally, it has been noted that the journal's production is of a local nature, as corroborated by the most productive authors and institutions, although this fact corresponds to the vocation and mission of the journal, whose main vehicle of communication is the Spanish language.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Meroom, R.K. (1942) La sociología de la ciencia. Alianza, Madrid.

[2] Katz, J.S. and Martin, B.R. (1997) What Is Research Collaboration? *Research Policy*, **26**, 1-18. https://doi.org/10.1016/S0048-7333(96)00917-1

[3] Guédon, J. (2001) Beyond Core Journal and Licenses: The Path Store Form Scientific Publishing. *Informe bimensual de la ARL*, **218**.

[4] Torres, C.H.S. (2009) La importancia de publicar nuestros resultados de investiga-

ción. *Revista de la Facultad de Ciencias de la Salud Universidad del Cauca*, **11**, 7-8.

[5] Meneses, E.L., Cano, E.V. and Sánchez-Serrano, J.L.S. (2015) Estudio bibliométrico de Pixel-bit, revista de medios y educación (2000-2013). *Pixel-Bit. Revista de Medios y Educación*, **46**, 65-85. https://doi.org/10.12795/pixelbit.2015.i46.05

[6] Aixelá, J.F. (2019) La bibliometría y los estudios de traducción. La investigación en gallego como estudio de caso. *Tonos digital: Revista de estudios filológicos*, **36**, 1-20.

[7] Zanettin, F., Saldanha, G. and Harding, S.A. (2015) Sketching Landscapes in Translation Studies: A Bibliographic Study. *Perspectives*, **23**, 161-182. https://doi.org/10.1080/0907676X.2015.1010551

[8] Van Doorslaer, L. and Gambier, Y. (2015) Measuring Relationships in Translation Studies. On Affiliations and Keyword Frequencies in the Translation Studies Bibliography. *Perspectives*, **23**, 305-319. https://doi.org/10.1080/0907676X.2015.1026360

[9] Huang, Q. and Liu, F. (2019) International Translation Studies from 2014 to 2018: A Bibliometric Analysis and Its Implications. *Translation Review*, **105**, 34-57. https://doi.org/10.1080/07374836.2019.1664959

[10] Rovira-Esteva, S. and Orero, P. (2012) Evaluating Quality and Excellence in Translation Studies Research. *Babel*, **58**, 264-288. https://doi.org/10.1075/babel.58.3.02rov

[11] Rovira-Esteva, S., Coré, R., Lopo, A. and Varona, M. (2014) Índice h de las revistas de Traducción e Interpretación de acuerdo con el Google Scholar Metrics (2010-2014). https://core.ac.uk/download/pdf/78528521.pdf

[12] Rovira-Esteva, S., Aixelá, J.F. and Olalla-Soler, C. (2020) A Bibliometric Study of Co-Authorship in Translation Studies. *Onomázein: Revista de lingüística, filología y traducción de la Pontificia Universidad Católica de Chile*, **47**, 178-194. https://doi.org/10.7764/onomazein.47.09

[13] Aixelá, J.F. (2010) Una revisión de la bibliografía sobre traducción e interpretación médica recogida en BITRA (Bibliografía de Interpretación y Traducción). *Panace@. Boletín de Medicina y Traducción*, **11**, 151-160.

[14] Pérez-Escudero, F. (2018) Análisis bibliométrico y webmétrico de los estudios de traducción audiovisual. In: Cutillas-Orgilés, E., Ed., *Convergencia y transversalidad en humanidades. Actas de las VII Jornadas de Investigación de la Facultad de Filosofía y Letras de la Universidad de Alicante*, Universidad de Alicante, Facultad de Filosofía y Letras, Alicante, 115-122.

[15] Gallego Hernández, D. (2020) Traducción económica e investigación en España. Estudio bibliométrico. Comares, Granada.

[16] Aixelá, J.F. (2020) Tesis doctorales y estudios de traducción en España. Un análisis bibliométrico basado en BITRA. *Sendebar*, **31**, 9-32. https://doi.org/10.30827/sendebar.v31i0.11773

[17] Maz-Machado, A., Rodríguez-Faneca, C., Gutiérrez-Rubio, D. and Jiménez-Fanjul, N. (2020) Análisis bibliométrico de la producción de tesis doctorales sobre traducción e interpretación en las universidades españolas (1997-2018). *Tonos Digital: Revista de estudios filológicos*, **39**, 25.

[18] Rodríguez-Faneca, C., Maz-Machado, A. and Gutiérrez-Rubio, D. (2021) Análisis de la composición de los tribunales de tesis doctorales españolas en Traducción e Interpretación. *Revista Española de Documentación Científica*, aceptado: en prensa.

[19] Valero-Garcés, C. (2018) Research Tendencies in Translation and Interpreting Studies and Intercultural Communication. *International Journal of Linguistics*, **10**, 96-107. https://doi.org/10.5296/ijl.v10i1.12750

[20] Subramanyam, K. (1983) Bibliometric Studies of Research in Collaboration: A Review. *Journal of Information Science*, **6**, 33-38.
https://doi.org/10.1177/016555158300600105

[21] Cronin, B. and Overfelt, K. (1994) Citation-Based Auditing of Academic Performance. *Journal of the American Society for Information Science*, **45**, 61-72.
https://doi.org/10.1002/(SICI)1097-4571(199403)45:2<61::AID-ASI1>3.0.CO;2-F