POST-PANDEMIC ORGANIZATIONAL

TRANSFORMATION FOR COMPETITIVENESS

Tania Marcela Hernández-Rodríguez
José Sánchez-Gutiérrez
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(Coords)

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Universidad de Guadalajara

This book was dictated by a double-blind process by nationally and internationally recognized specialist researchers, members of the National Research System in México (*Sistema Nacional de Investigadores*).

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This work is the product of the members of the International Network of Researchers in Competitiveness (RIICO) with external contributions. The results, interpretations and conclusions expressed in this book do not necessarily reflect the point of view of the University of Guadalajara, nor of RIICO.

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First edition, 2023

Centro Universitario de Ciencias Económico Administrativas
Av. Periférico Norte 799, Edificio G – 306
Núcleo Universitario Los Belenes
Zapopan, Jalisco
45100, México
Tel-fax: +52 (33) 3770 3300, ext. 25608
ISBN: 978-84-19803-65-8
Printed and made in Mexico

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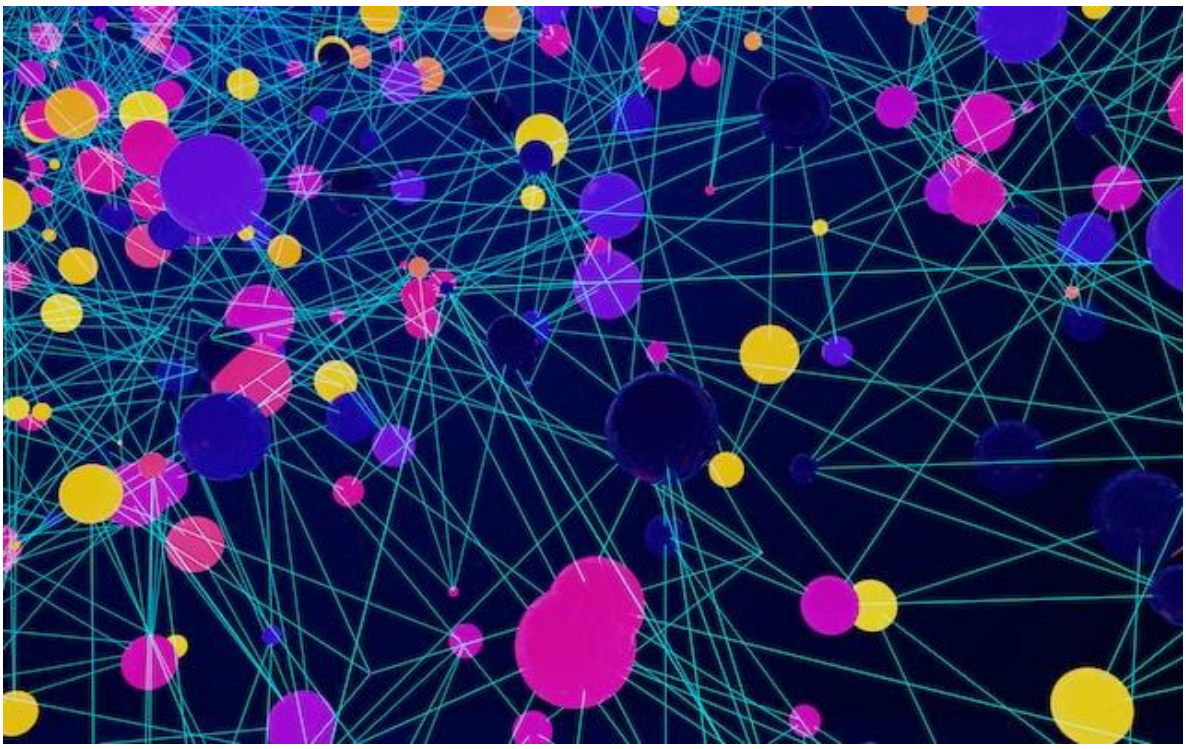
Chapter 1

Gender perspective in organizational studies research: a systematic review whit bibliometric analysis



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Gender perspective in organizational studies research: a systematic review with bibliometric analysis

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INTRODUCTION

Since the emergence of Organizational Studies (OS) in the seventies of the last century, a significant volume of research papers have accumulated, which places it as a field of knowledge that is explored from multiple and diverse disciplines. This has sparked interest in some reviews of the state of the art and bibliometric behavior (Ertem & Aypay, 2021; dos Santos et al., 2021; Kataria et al., 2021; Oliveira et al., 2020; Zhang et al., 2017; Martins et al., 2016; Sanabria et al., 2014; Vogel, 2012), where the authors themselves recognize the presence of some methodological restrictions such as the delimitation, collection, and analysis of the data, which focus on the field of knowledge of the OS, without being associated with the research behavior of a disciplinary field of study such as gender.

In a bibliometric work that precedes the present one, Hernández et al., (2022) identified an emerging field of research within the gender category that particularly involves women, in the different approaches from which the OS field of knowledge is approached, so that new questions arise about what is known about OS and gender, how research on this field of knowledge has evolved, as well as what are the emerging gender issues in OS. This

work made a systematic review of OS publications that include gender as part of their research focus and that are deposited in digital databases hosted in Web of Science (WoS), using bibliometric analysis to answer the questions posed. The results of this analysis showed the current state of knowledge on gender in OS and are intended to outline the path for future research in this field of knowledge.

This chapter is organized as follows: first, the methods, resources, and research process are described; then the results are presented, organized in two parts: the descriptive results of the systematic review are shown, followed by the networks and correlation maps of the OS and gender. Finally, a conclusion of the research is presented, including limitations and recommendations for future work.

SYSTEMATIC REVIEW

A systematic review involves conducting literature reviews adhering to scientific methods to reduce bias (Petticrew & Roberts, 2006), which through planning for data collection answers specific questions (Rother, 2007), and provides a descriptive synthesis on a particular topic (Aguilera, 2014). A systematic review analyzes what has already been researched and provides a synthesis of the current state of knowledge, which allows for filling research gaps and avoids replicating scopes already explored (Oh & Lee, 2020). To reduce the subjectivity of these results, there are some established guidelines for the systematic collection, evaluation, and synthesis of publications (Nagyova, 2015; Clarke, 2001). Some key strategies are suggested: a) Use academic databases as a source (Ferreras, 2016); b) design clear inclusion and exclusion criteria to recognize relevant publications (Ferreras, 2016, Nagyova, 2015); c) Develop measurements on the impact of publications; and d) Present findings in a synthesized and coherent manner (Clarke, 2001). They also recommend that this review be the result of collegial work (Oh & Lee, 2020); for this work, these guidelines were followed in developing a systematic review of publications on OS and gender.

BIBLIOMETRIC ANALYSIS

Bibliometric analyses provide an overview of large volumes of academic information (Van Nunen et al., 2018), enable the study of the structure and dynamics of scientific fields (Noyons, 2004; Van Eck et al., 2010), retrospectively identify the objects of study and recognize the potential for research on them (Allen et al., 2009). This methodological strategy is common in works such as this one, which analyzes research behavior in the OS field of knowledge and the disciplinary area of gender, through authors, journals, countries, institutions and collaborative networks among them (Li & Zhao, 2015; Van Nunen et al., 2018; Satish et al., 2020), identifies the research direction and main topics in a specific disciplinary field (Wang et al., 2014), as well as the existing gaps in them (Gall et al., 2015). From previous work on this method, common guidelines for carrying it out are identified: a) Establish the research corpus from which data will be obtained: databases and journals (Li & Zhao, 2015; Van Nunen et al., 2018; Satish et al., 2020); b) Design clear inclusion and exclusion criteria for publication searches: Search equation, search fields, temporality, document types, knowledge fields/categories (Li & Zhao, 2015; Van Nunen et al., 2018; Satish et al., 2020); c) Describe methods, techniques and tools for data analysis (Van Nunen et al., 2018; Van Eck & Waltman 2010); e) Develop metrics on the impact, reach, and networks of publications (Ovalles-Toledo et al., 2018); and e) Present findings in a synthesized and coherent manner (Satish et al., 2020).

Defining the OS and the gender perspective.

To create clear criteria for inclusion and exclusion, it is necessary to narrow down the definition of both OS as a field of knowledge and gender as a disciplinary field of study within OS, due to the lack of a single term to define them or the linguistic confusion that can become a limitation for the systematic review and retrieval of bibliometric data. At this point, it is necessary to assume that this paper does not discuss the concepts of organizational studies or gender as a category of social analysis, but only establishes the linguistic scope for the search for information.

The OS is mainly based on organizational theory (Medina, 2007; Gonzales, 2014), but is the result of the incursion of several humanistic disciplines in the study of social phenomena that go beyond the disciplinary field of organizational management, but involve the relationships between the various members that make up the organizations and reflect all the elements of the environment with which they interact (Pérez & Guzmán, 2015). While the gender perspective in OS considers the dynamics and power relations that are created from the gender or sex of the members of the organizations that promote practices of inequality or discrimination between men and women and hinder change (Calás & Smircich, 2017; Fernández & Páramo, 2017; Calás et al., 2014).

Based on these definitions as inclusion and exclusion criteria, this research excluded articles that: a) do not include gender or sex as a dimension of analysis of the OS; 2) focus on the analysis of the administrative processes of the organization; 3) include sex as a comparability variable without considering interaction or power relations; 4) contain gender and/or organization in the abstract and keywords, but do not correspond to the field of knowledge of the OS.

DATA

Source of data

Based on the inclusion and exclusion criteria of the concepts, the research corpus was obtained from the Clarivate Analytics Web of Science (WoS) server, whose collection of databases of references and citations of publications collect information from more than 100 years and is widely used by other researchers in the bibliographic field (Pilkina & Lovakov, 2022; Sarkar et al., 2022; Oh & Lee, 2020; Van Nunen et al., 2018; Wang et al., 2014). This collection of databases offers several advantages: a) it houses a large collection of publications in the OS field of knowledge; b) it provides descriptive data on authors, references, scientific categories, research area, and funding sources, among others; c) it provides metrics and citation indicators, as well as the impact factor of publications (Sarkar et al., 2022); in addition, it allows the use of software to analyze bibliometric data such as VOSviewer (Van Eck and Waltman, 2020).

Data collection

The data collection for this analysis of the gender approach in the OS was carried out on February 1, 2023, and the following procedure was followed. The number of publications retrieved is shown at the end of each step.

1. To retrieve articles with a gender focus in OS, three search equations were used: organizational studies and wom*; organizational studies and masc*; organizational studies and gender (N=7,743).
2. The search was limited to the Social Sciences Citation Index SSCI database (N=5,952).
3. The documentary typology of this analysis was limited to research articles only, excluding reviews, book chapters, books and editorial materials (N=5,619).

Once the data retrieval was done, a quality review was done to take care of the integrity of the data and it was identified that from these filters some of the articles that do not have the terms organizational studies, and gender in titles, keywords and abstracts could be excluded, or conversely, some papers on women and management of organizations that do not have the gender approach in organizational studies could be retrieved, which according to Oh & Lee (2020), this is because the use of electronic databases retrieves papers that use the same terms but do not share the focus, given the nature of the broad meaning of the search terms, so to improve the criteria for inclusion, exclusion and completeness of the data, the search was refined with the following steps:

4. Of the 3500 journals in the SSCI database, one journal specialized in organizational studies and two more on gender and organizational research were identified, so articles were retrieved from these journals: Journal of Leadership & Organizational Studies, Gender in Management, Gender Work and Organization (N=7,377).
5. Step 4 added 1,758 articles, but duplicated some papers collected in the previous steps, so 300 records were eliminated (N=8,835).
6. The authors reviewed the titles and abstracts of the collected articles to select only research papers on the gender approach in OS, retrieving the definitions with which

the observables were operationalized for analysis and using MAXQDA software for coding (N=4,983).

This review identified that, with the defined search terms, some approaches related to organizations and gender are oriented to health disciplines such as medicine or psychiatry, adding non-relevant publications associated with women's and/or men's health, as well as research on leadership styles, but not analyzed from a gender perspective, which did not make significant contributions to the objective of the work. The data collected corresponds to studies dating back to 1989, since the first study on the subject was recorded in that year, and 2022 was established as the closing date for obtaining results for complete years. Therefore, previous or subsequent studies are not included.

METHOD

For this research work, we resorted to a bibliometric analysis that allowed us to recognize the behavior of the gender approach in organizational studies. The first part describes the frequencies and impact indicators[1] on the selected publications, since they show the influence and transcendence of the works on the disciplinary field of the subject of analysis (Ovalles-Toledo et al, 2018); The publications with the highest frequency of citations are also presented, both by publication, as well as by authors, journals, institutions and countries, which although it is true, does not directly show the research trend, allows recognizing how some research works are significant and important over time.

The second part analyzes the frequency of connection and interaction between authors, institutions, keywords and references, in addition to mapping the structure and scientific networks on the scope of research. VOSviewer is used for the analysis of networks and density maps, which through nodes represent the distance between articles, authors, keywords, and lines and the degree of connection between them (Van Eck et al., 2020; Van Nunen et al., 2018; Van Eck & Waltman 2010). Concerning citations, this type of analysis uses direct citations, co-citation, and bibliographic linkage. Citation measures the frequency

[1] JCR (Journal Citation Reports); CitieScore; SJR (Scimago Journal Rank); SNIP (Source Normalized Impact per Paper) and H. Index.

of direct interactions between two articles, but it is rare because citation networks are sparse. Co-citation reflects when two papers are cited by a third party. Coupling reflects the opposite of co-citation, if two papers cite the same publication, they are coupled; this indicator shows the similarity between the references that two articles have in common (Van Eck et al., 2020). This work reflects co-citation and bibliographic coupling, as it allows to significantly broaden the range of data analyzed since it adds other types of important publications on the topic that are not included in the main WoS collection (Oh & Lee, 2020).

Text mining of VOSviewer software was also used to measure the frequency of co-occurrence of a set of keywords in titles, abstracts and the author's own words. The frequency, trends, and changes in lines of research over time were analyzed. A so-called complete count was used for this analysis, which gives equal weight to all words (Van Eck et al., 2020). To ensure the completeness of the analysis, a thesaurus was manually constructed, in which general terms were eliminated and synonyms were substituted (for example female for woman). Finally, the temporal density by research topics is identified, since this allows us to recognize the trends and limits of knowledge on organizational studies with a gender focus and to identify future lines of research.

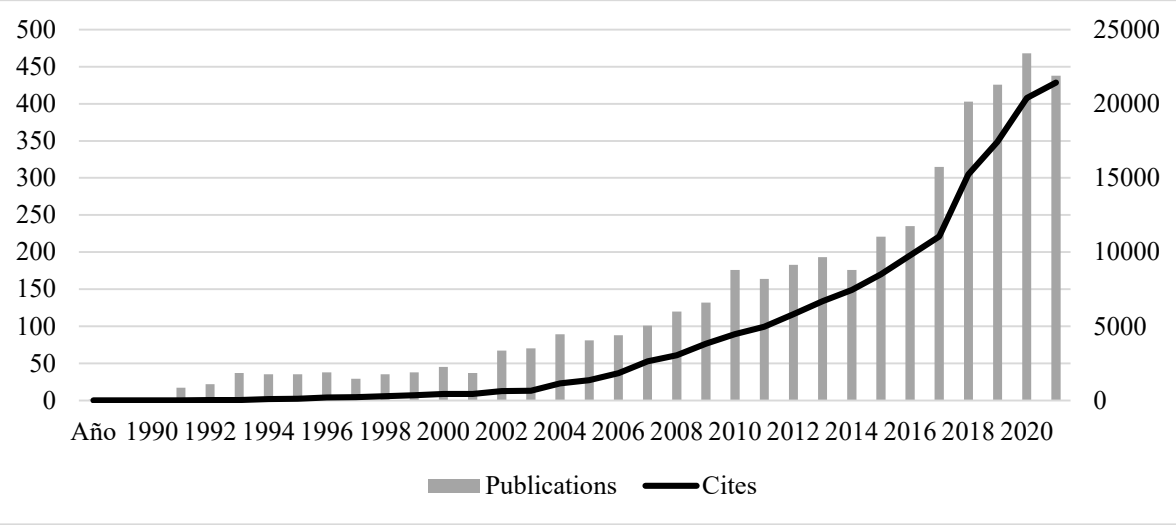
RESULTS

Descriptive Bibliometric Analysis

This section presents the descriptive analysis of the 4,983 articles on OS that address the gender approach and that have been published from 1989 to 2022. Figure 1 shows the citations and publications of articles on OS with a gender focus in WoS during this period, which shows an increasing trend in the metrics presented.

Figure 1

Number of publications and citations on gender approaches in OS by year.



The authors who have carried out the greatest number of research works on the gender approach in the OS during the study period are described in Table 1. The results are presented in order of the number of publications as first author, followed by the total number of research papers in which they collaborate, with Tammy Allen, with 16 research papers, 6 as first author, being the one who has made the greatest contribution to the disciplinary field from the gender approach in OS.

Table 1

Main authors of articles on OS with a gender approach.

Author	Affiliation	FA	TP	TC	C/P	H.Index
Allen, Tammy D.	State University System of Florida	8	16	1430	89.38	60
Burke, Ronald	Canadian Psychol Assoc	8	15	401	37.53	36
Rumens, Nick	Oxford Brookes University	6	13	410	31.54	4
Benschop, Yvonne	Radboud University Nijmegen	5	18	1087	60.39	18
Van Den Brink, Marieke	Radboud University Nijmegen	5	14	563	37.53	3

The 4,983 articles were published in a total of 909 journals, among which Gender Work and Organization stands out, accounting for 18% of the publications on the gender approach in OS, with the categories of Organizational Behavior and Human Resource Management and Gender Studies grouping the largest number of publications on this field of knowledge.

Table 2

Main journals with publications on gender approaches in OS.

Publication Titles	No.	JCR	SJR 2021	H Index	Subject area	Category
Gender Work and Organization	914	5.428	1.301	80	Business, Management and Accounting Social Sciences	Organizational Behavior and Human Resource Management Gender Studies
Journal of Leadership Organizational Studies	323	3.611	1.227	47	Business, Management and Accounting	Organizational Behavior and Human Resource
Gender in Management	284	3.337	0.777	54	Business, Management and Accounting Social Sciences	Organizational Behavior and Human Resource Management Gender Studies
Journal of Vocational Behavior	67	12.082	2.805	161	Business, Management and Accounting	Organizational Behavior and Human Resource
Frontiers in Psycology	66	4.232	0.873	133	Business, Management and Accounting	Business, Management and Accounting (miscellaneous)

For the thematic areas, WoS classifies the same publication in different categories; in the case of organizational studies with a gender focus, there are up to five. The analysis of WoS results by research area shows that most of the papers in this field of knowledge are classified as Business and Economics Research, followed by Women's Studies (Figure 2). In the specific analysis of the documents, it is identified that 55% of the papers coincide with the classification of the main WoS category, however, while for WoS, the second place is for

women's studies, less than 1% of the documents have this as the first area of research (Figure 3).

Figure 2

Ranking of WoS category and research publications.

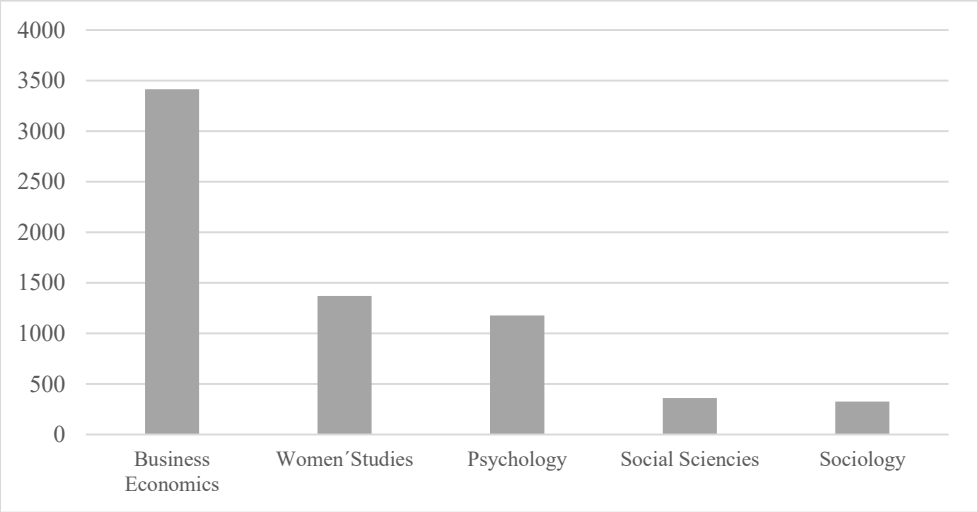


Figure 3

Ranking of the first category of research by publication retrieved from WoS.

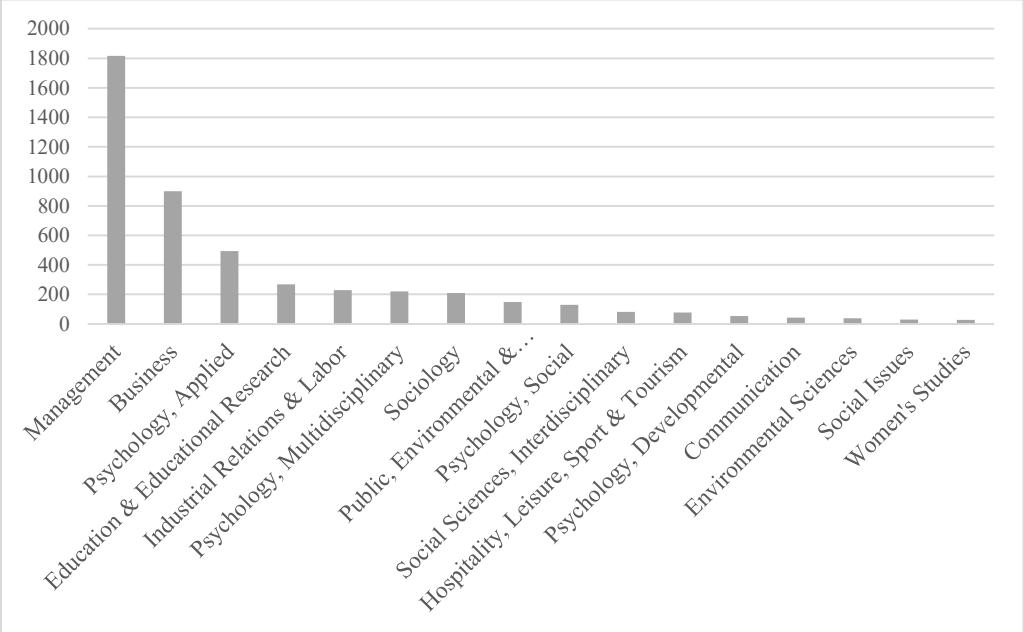


Table 3 contains a list of the main countries that contribute the most to the work on the gender approach in OS. As in the rest of the disciplines, the country that generates the most publications is the United States with 38% of the publications and 86,915 citations, followed by Great Britain with

13% of the documents and 18,790 citations, which shows the dominance of North American authors in this disciplinary field.

Table 3

Contributions by country on OS with a gender perspective.

Country	Publications	%	Citation	Citation/Publication
United States of America	1845	38.21	86915	47.11
England	622	12.78	18790	30.21
Canada	308	6.42	7132	23.16
Australia	290	5.88	6917	23.85
Peoples Republic China	252	5.08	6045	23.99

Figure 4 shows the percentage distribution by country of the contribution of research papers on the gender approach in SWs. The articles originate from 105 different countries, which, when classified by continental regions, it is possible to recognize that OS with a gender approach are associated with the level of economic and technological development of the countries (Van Nunen et al, 2018) and have an ethnocentric view located in North America and Europe (71%).

Figure 4

Density of publications on OS with a gender perspective by region.

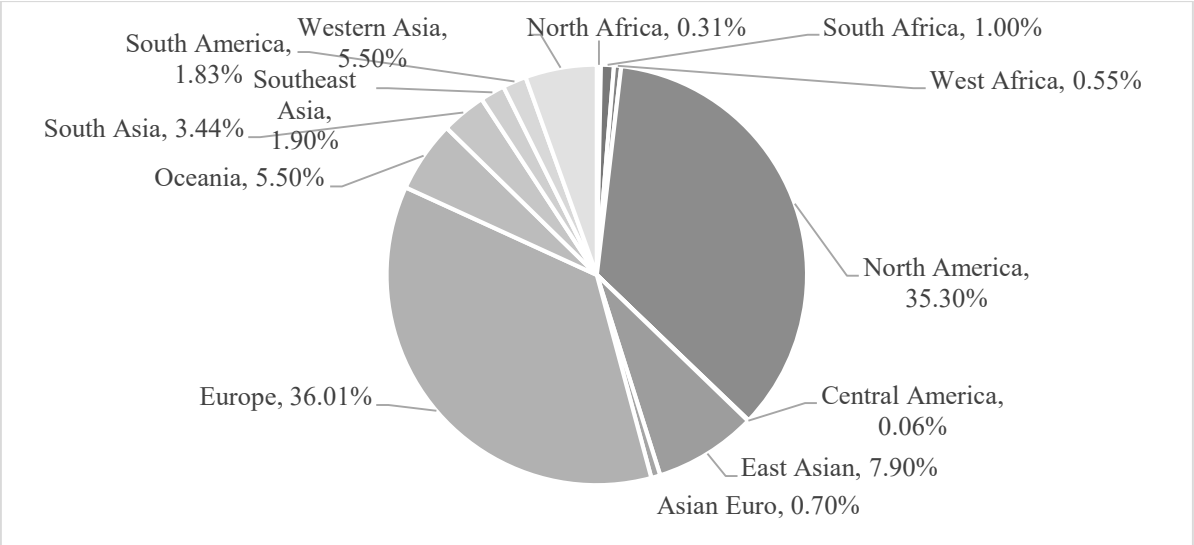


Table 4 shows the institutions that allocate the most funding to research projects on the gender approach in the SBs. Of the 4983 publications, only 34% report funding sources, all of them less than 2%, including public organizations based in China, the European Union and the USA.

Table 4

Institutions that finance research projects on gender approaches in SO´s.

Organization	Function	Location	TP	%
National Natural Science Foundation Of China Nsfc	Gestión del Fondo Nacional de Ciencias Naturales	People's Republic (of) China	54	1.084
European Commission	Poder legislativo de la Unión Europea	Belgium	46	0.923
National Science Foundation Nsf	Agencia gubernamental que impulsa investigación y educación	USA	39	0.783
Uk Research Innovation Ukri	Organismo público no departamental patrocinado por el Departamento de Negocios, Energía y Estrategia Industrial	Great Britain	38	0.763
Economic Social Research Council Esrc	Economic and Social Research Council (ESRC)	Great Britain	33	0.662

Table 5 identifies the five publications that, based on their impact indicators, have the greatest influence on research work in the area of OS knowledge from a gender perspective, with the work of Venkatesh et al, published in 2003, being the one that has received the greatest number of citations since its publication, with an average of 700 citations per year.

Table 5

Articles on OS with a gender focus with the highest number of citations

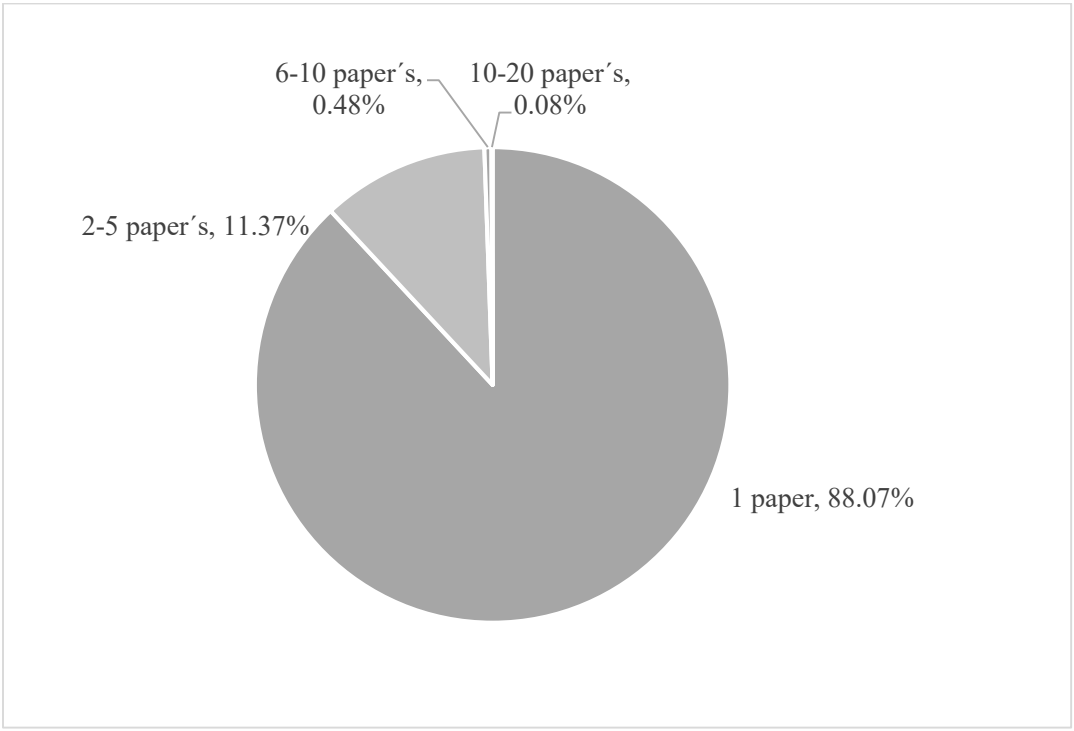
TC	Author	Title	Keywords of abstract	Year	Source Title	Average per Year
14773	Venkatesh, V; Morris, MG; Davis, GB; Davis, FD	User acceptance of information technology: Toward a unified view	Sex-Role Orientation; Innovation Characteristics; Intrinsic Motivation; Decision-Making; Gender	2003	Miss Quarterly	703.48
1531	Acker, Joan	Inequality regimes - Gender, class, and race in organizations	Gender; Class; Race; Intersectionality; Organizations	2006	Gender & Society	85.06
1102	Ibarra, H	Homophily and Differential Returns-Sex Differences in Network Structure and Access in an Advertising Firm	Social Network; Organizations; Women; Power; Communication; Technology; Management; Patterns; Roles; Work	1992	Administrative Science Quarterly	34.44
1003	Gefen, D; Straub, DW	Gender differences in the perception and use of E-mail: An extension to the technology acceptance model	Technology Acceptance Model; Gender Differences; Cross-Cultural IT Research; IT Adoption And Diffusion; E-Mail	1997	Miss Quarterly	37.15
876	Seibert, SE; Crant, JM; Kraimer, ML	Proactive personality and career success	Dispositional Approach; Job-Performance; Organizations; Satisfaction; Gender	1999	Journal 0f Applied Psychology	35.04

Bibliometric Network Analysis

The 4,983 publications were written by a total of 12,994 different authors, of which 88% (11444/4983) of authors have one publication, 11% (1478/4983) with up to 5 publications, 0.48% (62/4983) with up to 10 publications and 0.08% (10/4983) with up to 20 publications (Figure 5). This behavior is not exclusive to the gender approach in OE, since in most areas of knowledge it is a small group of authors who contribute significantly (Danvila et al, 2019; Liu et al, 2012; Crane, 1972).

Figure 5

Articles on gender focus in the OS by author.

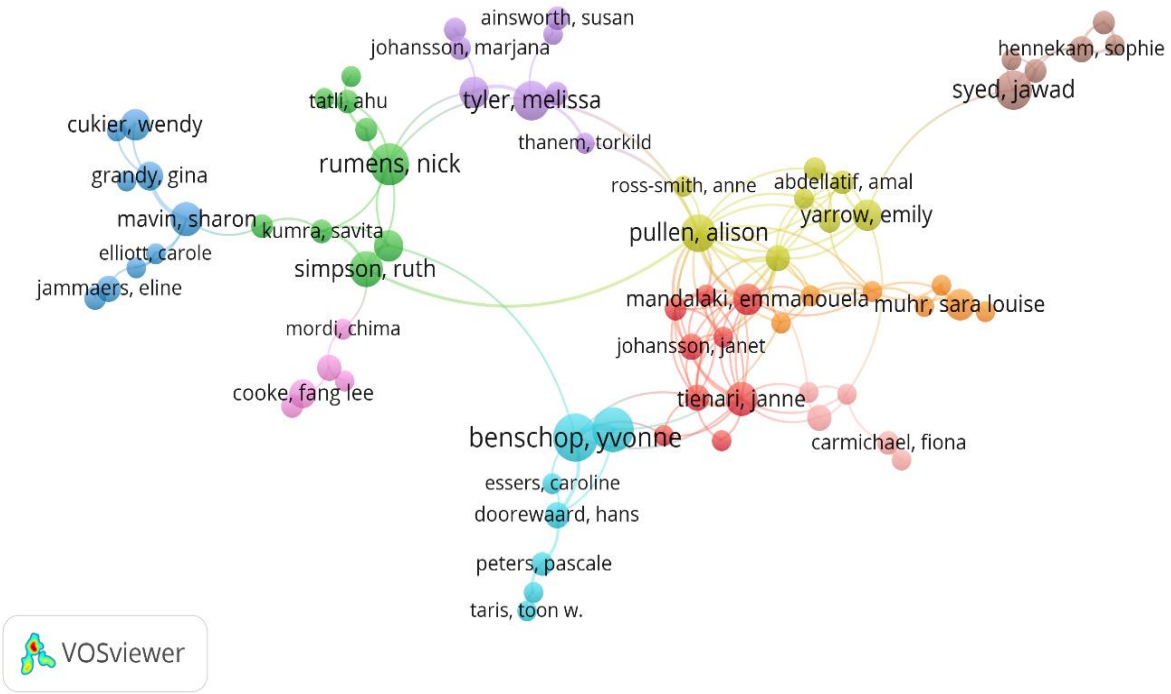


The average number of authors per publication was 2.6 (4983/12994). Twenty-three percent (1142/4983) of the publications were written by one author, 32% (1159/4983) by two authors, 24% (1597/4983) by three authors, 13% (629/4983) by 4 authors, 4% (224/4983) by

5 authors; the remaining 4% were written by 6 to 26 authors[2] (188/4983). The gender approach in OS is generated as a product of collegial work, 77% of them are the result of the work of two or more authors in which as in other disciplines there is synergy for collaborative work (Wang et al., 2014). The behavior of collaborative publications (co-authorship) on OS with a gender focus was analyzed with VOSviewer, where authors who have written three or more publications on the topic are presented. Authors who are not connected with others are not included. The results are presented in figure 6, the size of the circles represents the number of publications and the line between them represents the collaboration between them. Each color represents a collaboration cluster. In the collaboration network, 10 main clusters of authors can be identified; the principal investigator of the network is Yvonne Benschop (blue cluster appearing at the center at the bottom), followed by Alison Pullen (yellow cluster placed at the center) and Melissa Tyler (purple cluster located at the top center). The rest of the authors are connected to these.

Figure 6

OS Author Clusters



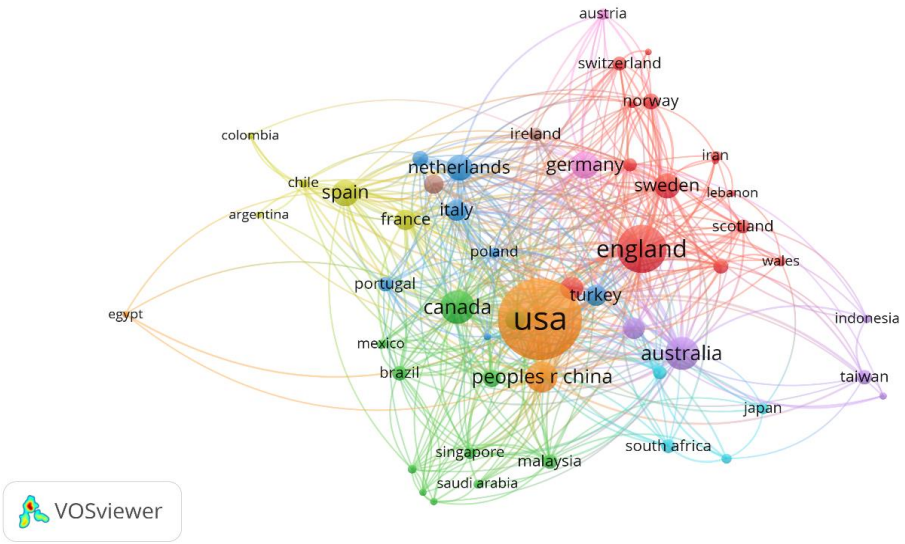
[2] It corresponds to the publication entitled: A new tool for academic quality at work (AQ@workT) to assess the quality of life at work in the Italian academic context.

As with the authors, collaboration networks between countries are identified based on their place of origin; these are between countries of the same continent and intercontinental countries. The cluster of collaboration (co-authorships) between countries publishing on the gender approach in OS was analyzed with VOSviewer. Countries that published at least 10 publications on the topic were included; countries that are not connected to other countries in the network were not included. Figure 7 presents the result of the collaboration network between countries, the size of the circles represents the number of publications per country and the lines the interaction between the collaborations; the colors show the collaboration clusters.

Nine nodes of interaction between countries researching OS from a gender perspective can be recognized. Eight of them are intercontinental and only one is made up of countries from the same continent. The one with the largest number of countries is red, made up of 14 countries from three continents (Europe 9, Asia 5, Oceania 1) and is headed by England; the second node of the network (green) is made up of 11 countries from three continents (America 3, Europe 4, Asia 4), with Canada leading the cluster. The third node (dark blue) is made up of 7 countries from Europe (5) and Asia (2) and is headed by the Netherlands; the fourth cluster (yellow) is made up of 5 countries (2 European and 3 American) and is headed by Spain. Node five (purple), headed by Australia, is also made up of 5 countries (4 Asia and 1 Oceania). The sixth smallest cluster, in light blue, is made up of 4 countries (2 Asian and 2 African) and is headed by South Africa; the next node, the seventh, made up of three countries, represents the largest number of investigations (orange) and is made up of two Asian countries (Russia and China) and the United States of America, which heads it. The last two nodes are integrated by two countries, cluster 8 (brown color) by Ireland (Europe) and Israel (Asia); finally, the pink one, the only intercontinental one integrated by Austria and Germany, a situation that can be explained from two factors: geography and language that strengthen collaboration between countries (Zheng et al., 2016).

Figure 7

Cooperation networks between countries



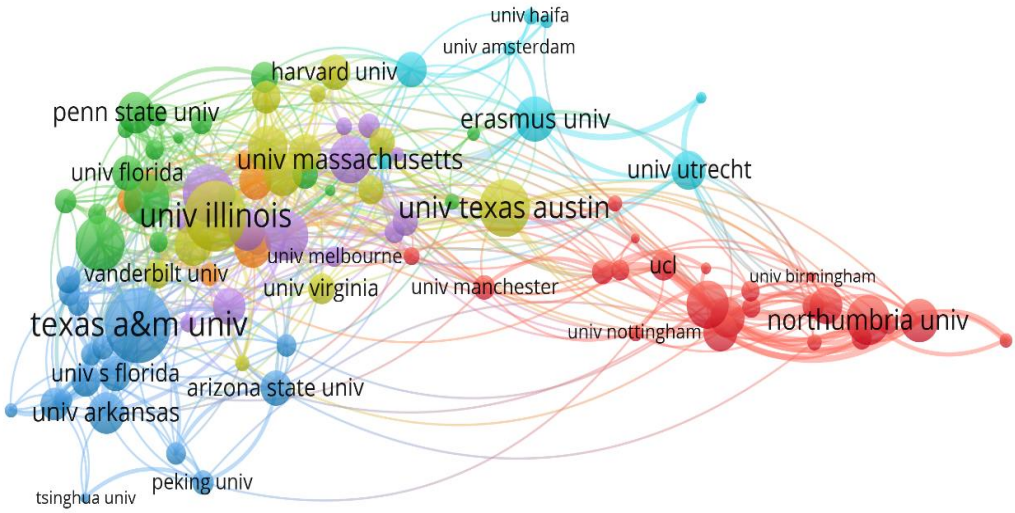
To collaborative networks between institutions, 3055 institutions are participating in 4983 articles (an author can have more than one affiliated institution, or a publication can be written or financed by authors from different institutions). Of the total number of institutions, 60% (1739) only participated in one publication, 26.8% (819) between two and five publications, 7.8% (240) produced between 6 and 10 publications; 5.6% (174) between 11 and 20 publications. The remaining 2.7% (83) participated in more than 20 publications on Organizational Studies with a gender perspective, reaching 142 publications from the State University System of Florida. One of the limitations in analyzing the results of collaboration between institutions is that WoS does not record the type of funding or the type of organization of the affiliation of the authors who generate the publications, so the search for this data must be done manually; however, including this information in the databases would make it possible to identify the areas of interest: political, social, economic and by sources of funding: public and private, in which research on the gender approach in the OS is located.

The cluster of collaboration (co-authorships) between institutions publishing on OS was analyzed with VOSviewer. The 100 institutions that published at least 10 publications on the subject were included; institutions that are not connected to the network were not included. Figure 8 presents the result of the collaboration network between institutions, where the size of the circles represents the number of articles, the lines of the relationship

between collaborations, and the colors of the collaboration clusters. Seven research clusters are identified; the largest cluster (red color), made up of 23 institutions located in England, with the University of Essex and North Umbria University standing out; a second cluster is made up of 18 institutions in the United States (green color), among which is the one with the most research papers on the gender approach in OS, the State University System of Florida. The third cluster, made up of 17 institutions, is also located in the United States (bright blue) and is headed by the University of Texas System. The next cluster (yellow) is made up of 14 institutions also located in the United States, headed by the University of Illinois System; cluster five (purple) is also made up of 14 institutions located in the United States and Canada, headed by the University of Massachusetts System. Cluster six (light blue) is made up of 8 institutions of European and West Asian origin, where Erasmus University Rotterdam stands out. The last cluster (orange) is made up of 6 institutions from the United States, where the University of North Carolina stands out.

Figure 8

Cooperation networks between institutions



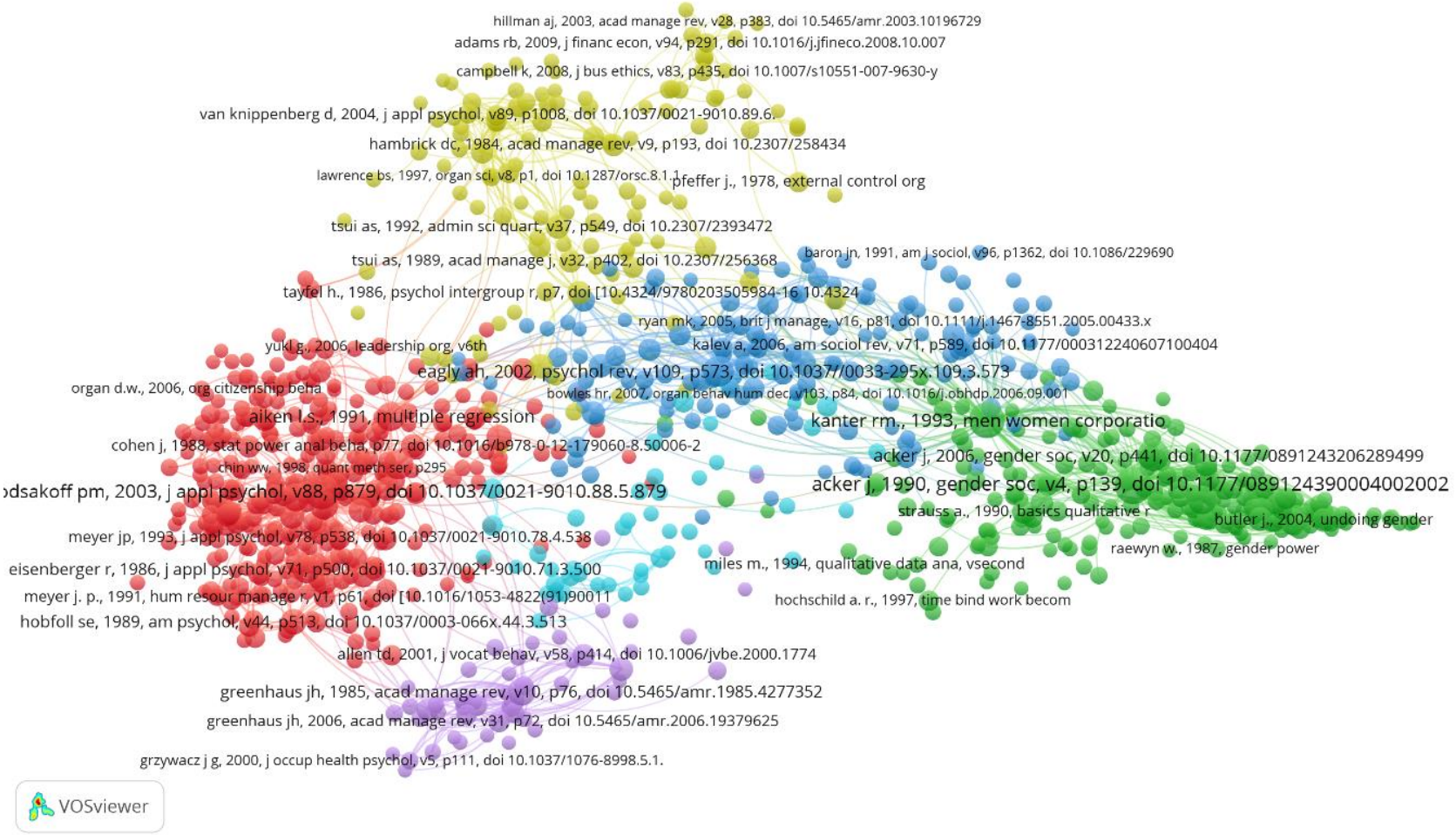
Citation and co-citation networks, allow recognition of the sources with the highest number of citations and their characteristics (Hauke et al., 2017). The analysis can be focused

in two directions: 1) to analyze the references used in the publication (citation analysis) and 2) to track third-party citations through the analysis of references in publications (co-citation analysis) (Li & Hale, 2015). Citations are under two assumptions: 1) that their number reflects the quality of a publication (Van Noorden, et al, 2014; Kim et al., 2006) and 2) quantity does not always reflect quality but rather measures its visibility (Civera et al., 2020; Walter et al, 2003; Chiu & Ho, 2007). The number of times a publication is cited correlates with the time that has elapsed since its publication, so the older it is, the greater the possibility of being cited (Martín et al., 2018). For this paper, the citation analysis provides the number of times that OS publications with a gender focus have been cited by other publications. In total, the 4983 publications have been used as references in other publications 339,381 times. At the date of data collection, the average citation per publication is 68, however, 13% (652/4983) of the publications had not been cited on any occasion; 39% (1955/4983) were cited up to 10 times; 34% (1688/4983) up to 50 times; 8% (412/4983) up to 100 times; 3.5% (176/4983) up to 200 times; 2% (82/4983) up to 500 times; and .5% (18/4983) more than 500 times.

The analysis of co-citations within the 4983 publications on gender in OS presented a total of 192358 references used (VOSviewer, co-citation, cites references, 2023), this analysis describes the interaction between publications and publications that have been co-cited in other publications, which identifies the similarity between them (Li & Hale, 2015). To analyze co-citation between authors VOSviewer was used, and it was established that OS publications shared at least 20 references. Of the 192358 references, 944 publications reach this condition. The result of the co-citation analysis is presented in figure 9, where the size of the circles represents the number of citations and the separation between the circles represents the similarity between publications; the references that share the same colored circle represent the greater similarity between publications. The co-citation map on OS with a gender focus presents 6 dominant clusters, the first one composed of 335 publications in red color; followed by the green cluster, composed of 246 references. The third cluster is blue, made up of 145 citations. The fourth cluster, yellow, is made up of 117 references. The fifth cluster, purple, is made up of 51 citations. Finally, the smallest cluster is light blue, with 49 references.

Figure 9

Reference co-citation networks



Regardless of the cluster to which the references correspond, the three most cited documents in gendered OS research are Inequality regimes: gender, class, and race in organizations by Acker (2006) which appears in 436 of the references of the 4983 publications, followed by 404 citations of the book Men and women of the corporation: new edition by Kanter (2008) and 377 of the article by Podsakoff et al., (2012) entitled Sources of method bias in social science research and recommendations on how to control it. From the review of the main references of the publications of the six groups it was possible to identify a general theme for each of them: the red group focuses on organizational behavior and learning; the green on discrimination and the role of women in organizations; the blue focuses on female leadership; the yellow on gender obstacles in professional development; the purple has a greater orientation to social identity at work; the light blue focuses on women's conflicts and interdependence in the home and roles at work.

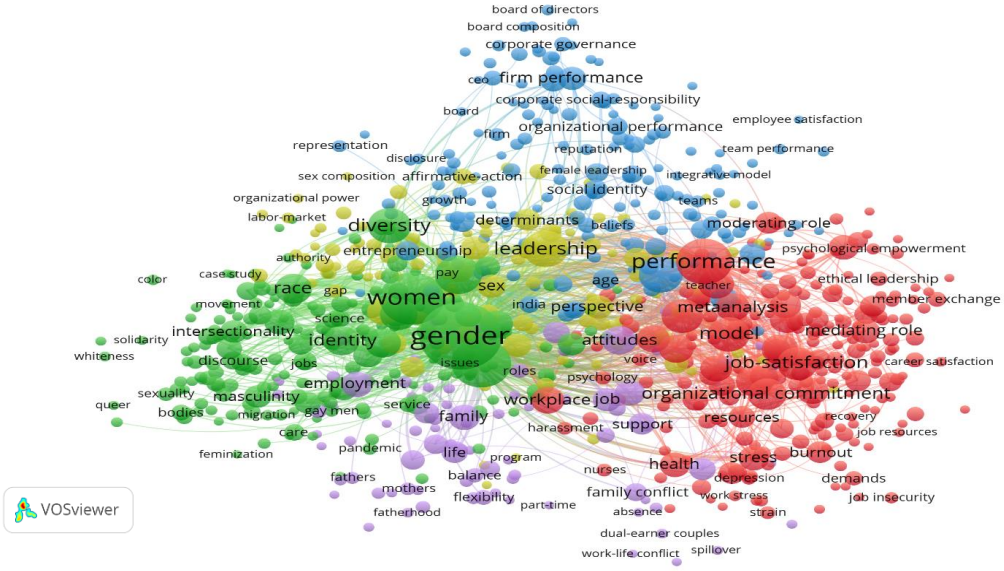
Finally, the last element included in this bibliometric analysis is the analysis of trends in the general lines of research from the 4983 publications on gender in OS, which was done using VOSviewer text mining, in which the frequency of co-occurrence of a set of words included in titles, abstracts and author's words is measured, which accompanied by temporal visualization, allows recognizing the evolution of the specific field of knowledge (Van Eck & Waltaman, 2020). General terms such as method, objective, and conclusion were eliminated. Plural and singular terms were merged. Interactions are established by counting the number of times keywords match in publications and color group clusters (Van Eck & Waltaman, 2013). The size of the circles represents the number of times a term appears, the larger the size the higher the frequency of the word among authors. The lines joining the circles allow identifying their interactions, the smaller the distance between the words, the stronger their relationship. Only words that appear in at least 10 articles are considered, where 810 terms meet these criteria.

The result of the analysis is shown in figure 10. The red cluster seems to involve publications on organizational performance and behavior and job satisfaction, associated with external factors, including terms such as performance, behavior, personality, job satisfaction, perceptions, workplace, burnout, health, and stress. The green cluster is undoubtedly the one most oriented to the role of women in organizations, words such as gender, women, management, diversity, identity, inequality, masculinity, and differences,

make this clear. The blue cluster focuses on the impact of gender differences in organizations of different natures, words such as firm, executive, entrepreneur, collaborator, financial and corporate performance, and female directors, are the most frequent terms. From the yellow cluster, research related to leadership and stereotypes is inferred, terms such as glass cliff, sex segregation, stereotypes, career, managers, and networking, are the most recurrent. Finally, the purple cluster, which is the smallest, seems to focus on the conflicts between the roles played by women in the home and in organizations, terms such as work life balance, family, employment, flexibility, time, mothers, fathers, child care, are indicative of this approach.

Figure 10

Co-occurrence analysis of terms



CONCLUSIONS

The starting point for this bibliometric review was the compilation in WoS and analysis of articles on the gender approach in organizational studies. Given the complexity of the field of knowledge in organizations, this study is extensive and complex, showing constant and permanent growth. The bibliometric analysis included 4983 articles on the gender approach in organizational studies written by 12,994 authors, 909 journals, 105 countries, and 5055 institutions. Five general lines of research on the gender approach in OS can be distinguished: a) Organizational behavior, job satisfaction and organizational performance; b) The role of

women in organizations; c) Gender differences in organizations; d) Leadership and gender stereotypes in organizations; e) Role conflicts and gender stereotypes and organizations.

For the descriptive and network analysis of productivity, Lotka's Law (Tran & Aytac, 2021) was used, which explains the behavior of various indicators:

- Most authors (88%) have one publication and only a small group of authors wrote a representative part of the research (0.56% of the authors published at least 10 articles).
- Of all the journals that publish on the subject, 31% are published in 3 journals, the remaining 69% are published in 878 journals.
- Of the regions that publish on OS with a gender perspective, 86% of the articles were produced by 10 countries, while the remaining 14% of the publications were produced by 95 countries.
- 60% of the institutions participated in one publication, and 2.7% of the institutions produced at least 20 publications on the gender approach in the OS.
- A large proportion of the publications on gender focus in OS have not been cited by other researchers (13%) and only a small number of publications (0.5%) were cited more than 500 times.
- Tammy Allen, the most productive author on gender research in OS, is affiliated with the State University System of Florida, her research interests are in Psychology Business & Economics Public & Occupational Health Women's Studies.
- Twenty-three percent of the publications were written by a single author, so co-authorship networks are relevant in OS with a gender focus, since 77% of the articles were written by two or more authors.
- The most cited article is Acker's (2006) Inequality regimes: Gender, class, and race in organizations.
- The journal Gender Work and Organization is the key journal for publications on the gender approach in OS with 914 articles published.
- The United States, England and Canada are the countries that dominate research on the gender approach in OS. In the cooperation network, other countries are linked, directly or indirectly, with some of these countries (China, Australia, Germany, and the Netherlands). Europe and North America are the regions that dominate the production of research on the subject.

- The National Natural Science Foundation Of China (NSFC) is the leading institution in productivity on gender focus in OS.
- Authors on the gender approach in OS that are influential in other research on this topic include Kanter (2008) and Podsakoff et al., (2012.

Concerning the challenges involved in research on organizational studies with a gender approach, it can be pointed out in the first place, a lack of multidisciplinary integration, since most publications are classified in the areas of management and business, due to the fact that they have been largely absorbed by the study of organizations, without considering the social role of individuals (Montaño, 2020).

There is also a geographical inequality in the research on the gender approach in the OS, which is related to globalization and the economic and social development of the regions. The participation of Central America, South America, and especially Africa is very limited, so few sources of consultation reflect the cultural and social role of the South in gender differences and their dimensions within the study of organizations.

Finally, it is necessary to recognize some limitations of this bibliometric analysis. First, the search for publications was limited to WoS, which, although it is a recognized database and considered one of the largest scientific databases in the research world, does not contain all the publications in the disciplinary field of a gender focus in OS. Additionally, the bibliometric analysis uses quantitative methods, therefore, the content of the publications cannot be interpreted (Dunk & Arbon, 2009), which may imply that some of the publications that were included in the analysis address a topic other than gender in OS. Another limitation of bibliometrics is that the analyses are performed on the information and classification generated by the database itself (WoS), so information such as the identification between theoretical and empirical discussions and some other data such as the method and scope of the research is omitted, so it is recommended to complete these works with content analysis for future research on the gender approach in OS.

REFERENCES

Aguilera Eguía, R. (2014). ¿Revisión sistemática, revisión narrativa o metaanálisis?. *Revista de la Sociedad Española del Dolor*, *21*(6), 359-360.

Allen, L., Jones, C., Dolby, K., Lynn, D., & Walport, M. (2009). Looking for landmarks: the role of expert review and bibliometric analysis in evaluating scientific publication outputs. *PloS one*, *4*(6). doi: 10.1371/journal.pone.0005910

Calás, M. B., Smircich, L., & Holvino, E. (2014). Theorizing gender-and-organization: Changing times... Changing theories? In S. Kumra, R. Simpson, & R. J. Burke (Eds.), *The Oxford handbook of gender in organizations* (pp. 17–52). Oxford University Press.

Calás, B. & Smircich, L. (2017). Desde la perspectiva de la mujer, diez años después. Aportaciones del feminismo a los estudios organizacionales. En Ramírez, G y Gonzales-Miranda (Eds), Tratado de estudios organizacionales. Vol. 1, Teorización del campo pp. 591-680. Editoria EAFIT

Chiu, W.-T., Ho, Y.-S. (2007). Bibliometric analysis of tsunami research. *Scientometrics 73*(1), 3–17.

Civera, A., Lehmann, E. E., Paleari, S., & Stockinger, S. A. (2020). Higher education policy: Why hope for quality when rewarding quantity?. *Research Policy*, *49*(8), 104083.

Clarke, M. (2001). *Cochrane Reviewers Handbook 4.1*. The cochrane library. http://www.cochrane.dk/ cochrane/handbook/hanbook.htm

Crane, D. (1972). *Invisible Colleges. Diffusion of Knowledge in Scientific Communities*. The Chicago University Press

Danvila-del-Valle, I., Estévez-Mendoza, C., & Lara, F. J. (2019). Human resources training: A bibliometric analysis. *Journal of Business Research*, *101*, 627-636.

dos Santos, N. I. F., do Vale, A. F. N., Costa, Y. P. D., de Oliveira, A. M. B., & Giesta, L. C. (2021). Bibliometric Review: Organizational Studies with a Qualitative Methodology in Qualis a Journals in Brazil/Revisão Bibliométrica: Estudos Organizacionais com Metodologia Qualitativa em Revista Qualis a no Brasil. *Revista FSA (Centro Universitário Santo Agostinho)*, *18*(10), 3-24.

Dunk, A. M., & Arbon, P. (2009). Is it time for a new descriptor'pressure injury': a bibliometric analysis. *Wound Practice & Research: Journal of the Australian Wound Management Association*, *17*(4):201-207.

Ertem, H. Y., & Aypay, A. (2021). Bibliometric review of studies on organizational and administrative dynamics in higher education. *Journal of Higher Education Policy And Leadership Studies*, *2*(3), 77-98.

Ferreras Fernández, T. (2016). *Visibilidad e impacto de la literatura gris científica en repositorios institucionales de acceso abierto. Estudio de caso bibliométrico del repositorio Gredos de la Universidad de Salamanca.* [Doctoral dissertation, Universidad de Salamanca]. https://gredos.usal.es/handle/10366/132444

Gall, M., Nguyen, K.H., Cutter, S.L., 2015. Integrated research on disaster risk: is it really integrated? *International Journal Disaster Risk Reduct*. 12: 255–267. doi:10.1016/j.ijdrr.2015.01.010

Gonzales-Miranda, D. R. (2014). Los estudios organizacionales. Un campo de conocimiento comprensivo para el estudio de las organizaciones. *Innova, 24*(54):43-58

Hauke, J., Lorscheid, I., & Meyer, M. (2017). Recent development of social simulation as reflected in JASSS between 2008 and 2014: A citation and co-citation analysis. *Journal of artificial societies and social simulation*, *20*(1).

Hernández Rodríguez, T. M., Mora Pérez, C. O., & Castellanos Gutiérrez, J. A. (2022). Análisis bibliométrico y mapeo de redes científicas sobre Estudios Organizacionales. In *Transformación digital como propuesta de valor para la competitividad* (pp. 264–265). Red Internacional de Investigadores en Competitividad. https://www.riico.net/index.php/riico/article/view/2133/1928

Kataria, A., Kumar, S., & Pandey, N. (2021). Twenty-five years of Gender, Work and Organization: A bibliometric analysis. *Gender, Work & Organization*, *28*(1), 85-118.

Kim, H., Morse, A. & Zingales, L. (2006). What Has Mattered to Economics Since 1970. *Journal of Economic Perspectives, 20*(4):189–202.

Li, J., & Hale, A., (2015). Identification of, and knowledge communication among core safety *science journals. Saf. Sci*. 74:70–78.

Li, W., & Zhao, Y., (2015). Bibliometric analysis of global environmental assessment research in a 20-year period. *Environ. Impact Assess*. Rev. 50:158–166. doi:10.1016/j.eiar.2014.09.012

Liu, X., Zhan, F.B., Hong, S., Niu, B. & Liu, Y., (2012). A bibliometric study of earthquake research: 1900–2010. *Scientometrics 92*:747–765.

Martins-Silva, P. D. O., Silva Junior, A. D., Peroni, G. G. H., Medeiros, C. P. D., & Vitória, N. O. D. (2016). The social representation theory in Brazilian organizational studies: a bibliometric analysis from 2001 to 2014. *Cadernos EBAPE. BR*, *14*, 891-919.

Martín-Martín, A., Orduna-Malea, E., Thelwall, M., & López-Cózar, E. D. (2018). Google Scholar, Web of Science, and Scopus: A systematic comparison of citations in 252 subject categories. *Journal of informetrics*, *12*(4):1160-1177.

Montaño Hirose, L. (2020). Encrucijadas y desafíos de los estudios organizacionales. Una reflexión desde las perspectivas institucionales. *Innovar*, *30*(78):19-34.

Nagyova, I. (2015). Systematic Reviews: what have they got to offer evidence-based policy and practice? *Eur. J. Publ. Health 25* (3). https://doi.org/10.1093/ eurpub/ckv173.021.

Noyons, C.M. (2004). Science Maps Within a Science Policy Context. In: Moed, H.F., Glänzel, W., Schmoch, U. (eds) *Handbook of Quantitative Science and Technology Research. Springer, Dordrecht*. 237–255. doi:10.1007/1-4020-2755-9_11

Oh, N., & Lee, J. (2020). Changing landscape of emergency management research: A systematic review with bibliometric analysis. *International Journal of Disaster Risk Reduction*, *49*, 101658.

Oliveira Junior, M., Pereira, A. L. C., Sadocco, R. R. S., Souza, J. D. O. B., & Teodoro, A. J. D. S. (2020). Organizational studies in post-modernity: a bibliometric study in the new millennium.

Pérez, A., & Guzmán, M. (2015). Los estudios organizacionales como programa de investigación. *Cinta de moebio*, (53), 104-123.

Petticrew, M., & Roberts, H. (2006). Systematic Reviews in the Social Sciences: A Practical Guide. cebma.org. http://doi.org/10.1027/1016-9040.11.3.244

Pilkina, M., & Lovakov, A. (2022). Gender disparities in Russian academia: a bibliometric analysis. *Scientometrics*, *127*(6), 3577-3591.

Rother, E. T. (2007). Revisión sistemática X Revisión narrativa. *Acta paulista de enfermagem*, *20*, v-vi.

Sarkar, A., Wang, H., Rahman, A., Memon, W. H., & Qian, L. (2022). A bibliometric analysis of sustainable agriculture: based on the Web of Science (WOS) platform. *Environmental Science and Pollution Research*, *29*(26), 38928-38949.

Sanabria, M., Saavedra, J. J., & Smida, A. (2014). *Los estudios organizacionales: Fundamentos evolución y estado actual del campo*. Editorial Universidad del Rosario.

Satish Kumar, Nitesh Pandey & Arunima Haldar (2020) Twenty years of *Public Management Review (PMR)*: a bibliometric overview, *Public Management Review*, *22*(12):1876-1896. doi: 10.1080/14719037.2020.1721122

Tran, C. Y., & Aytac, S. (2021). Scientific Productivity, Lotka's Law, and STEM ibrarianship. *Science & Technology Libraries*, *1*(9).

Van Eck N. J., Waltman L., Noyons E. C. & Buter R. K. (2010). Automatic term identification for bibliometric mapping. *Scientometrics*. *82*(3):581-596. doi:10.1007/s11192-010-0173-0

Van Eck, N. J., & Waltman, L. (2020). VOSviewer manual: Manual for VOSviewer version 1.6. 15. *Leiden: Centre for Science and Technology Studies (CWTS) of Leiden University*.

Van Noorden, R., Maher, B., & Nuzzo, R. (2014). The top 100 papers. *Nature News*, *514*(7524), 550.

Van Nunen, K., Li, J., Reniers, G., & Ponnet, K. (2018). Bibliometric analysis of safety culture research. *Safety science*, *108*: 248-258. doi: 10.1016/j.ssci.2017.08.011

Vogel, R. (2012). The visible colleges of management and organization studies: A bibliometric analysis of academic journals. *Organization Studies*, *33*(8), 1015-1043.

Walter, G., Bloch, S., Hunt, G., & Fisher, K. (2003). Counting on citations: a flawed way to measure quality. *Med. J. Aust. 178* (6):280–281

Wang, B., Pan, S.-Y., Ke, R.-Y., Wang, K., & Wei, Y.-M., (2014). An overview of climate change vulnerability: a bibliometric analysis based on Web of Science database. *Nat. Hazards 74*: 1649–1666. doi:10.1007/s11069-014-1260-y

Zhang, J., Zhu, F., Sun, X., Wang, P., & Song, H. (2017). The evolution of intellectual structure in organization studies between 1990 and 2010: a research based on bibliometric analysis. *Open Journal of Business and Management*, *5*(3), 430-449.