

REVIEW

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# A bibliometric review on gender equity in human resource management

Ghousia Jabeen<sup>1\*</sup> , Gurunadham Goli<sup>1</sup>, Kafila<sup>1</sup> and R. Gobinath<sup>2</sup>

## Abstract

This research paper outlines the fundamental areas and current complexities of the gender equity in HRM domain; given the importance of HR and gender equity-centre stage of developing this paper, there has been a noticeable rise in publications in recent years, indicating a rising interest in gender equity concerns within HRM. The influence of leadership styles on gender equality, work-life balance, diversity and inclusion policies, and gender bias in recruitment and promotion are some of the major issues that have been discovered gender equity, as shown by the study's emphasis on inter-connectedness. The connection between gender and other social characteristics such as race, ethnicity, and socioeconomic status is a complex issue. Thus, we suggest potential directions for future research. Analysis was conducted on 1555 studies sourced from the Scopus database between 2005 and 2023. This study aimed to identify research initiatives that concentrate on achieving gender equality in HRM. To ascertain the most influential articles and authors, their citation and publication counts were determined. The predominant area of investigation in HRM research is gender equity, a key issue, while other factors, such as age, nationality, ethnicity, professional background, and cognition, are often neglected.

**Keywords** Gender equity, Human resource management, Bibliometric analysis, SPAR-4 SLR

## Introduction

Contemporary perspective of human resource management and its influence on organisational effectiveness in the present era are described [1]. The importance of aligning human resource systems with their relevant context, particularly the organisation's business plan, [2] cannot be overstated. Consequently, it can be argued that HRM exhibits superior performance compared with other systems under specific conditions [3]. Gender equality has emerged as a major area of study and application in human resource management (HRM), reflecting larger social trends towards inclusivity and diversity [4]. An increasing number of companies are realising that

closing the gender gap [5] in their workforce is essential to fostering innovation, increasing efficiency, and advancing social justice [6]. As a result, researchers have given more attention to the connection between gender and human resources management practices [7]. Since gender equity in HRM impacts many facets of organisational life, including hiring, selection, training, development, and promotion, in addition to wage and work-life balance policies, it is difficult to overstate its significance [4]. In addition to increasing worker happiness and well-being, gender-inclusive HRM strategies boost business success [8]. Moreover, promoting gender parity aligns with the broader societal goals of increasing equality and reducing prejudice in the workplace [9]. Studies suggest that the influx of women into management positions does not necessarily result in a proportional increase in the number of female managers, as Calás and Smircich [10] observe.

Human resource management (HRM) has received renewed interest because of the belief that an optimal

\*Correspondence:

Ghousia Jabeen  
ghousiajabeen786.gj@gmail.com

<sup>1</sup> School of Business, SR University, Warangal, Telangana, India 506371

<sup>2</sup> School of Civil Engineering, SR University, Warangal, Telangana, India 506371

approach known as human resource management (HRM) can ensure superior organisational performance. Bjarnadottir et al. [11] whether one is now a practicing professional or intends to utilise HR expertise in their career. Women have not managed to secure many line management positions that are crucial to the organisation Simpson [12]. However, organisational changes can present opportunities for female managers to enhance their participation [13–15]. In addition, women leaders face an external gender-based bias which can be elevated by leading in unconventional areas, and women's mobility in male-dominated fields has decreased over time [16].

Multiple theoretical frameworks have attempted to elucidate the underlying factors contributing to subordinate treatment of women within the professional sphere [2]. One primary argument is that women exhibit lower levels of competitiveness than men [17]. Therefore, it is imperative that women enhance their competitiveness in the professional sphere [18]. This observation indicates that complexities extend beyond the dichotomy between universalism and contingency theories [19]. These actions included several procedures related to employee recruitment, selection, training, remuneration, retention, and incentives [18]. Ensuring and maintaining workplace equity is a major responsibility of the human resource management (HRM) division [20]. Ensuring that men and women are paid equally for equivalent occupational tasks is essential to achieve equity.

## Background

Gender equality refers to treating everyone equally and impartially regardless of gender to avoid discrimination. Gender equality is a systematic effort to treat women and men equally [21]. To promote equity, laws and actions must address historical and societal obstacles that prevent women from competing equally with males [22]. The goal of promoting gender equality in the workplace is to provide equal opportunities and outcomes for men and women, without mandating complete uniformity [23]. To make choices about their lives, participate in decision-making processes, and exercise their rights. Workplace gender equality is attained when men and women have equal access to opportunities, resources, and incentives full and equal employment. Equal access to all jobs and sectors, including leadership roles, regardless of gender eliminates gender-based discrimination in family and care [24]. People from different socioeconomic, gender, and political backgrounds tend to exhibit greater resilience in care interactions when participating in decision-making processes. This phenomenon pertains to gender equality in ocean conservation [25, 26].

The message conveyed by Rosener [15] and Bacchi [27] is that organisations must leverage feminine qualities to

succeed and thrive. Women are considered the foundation of the 'new manager', offering an entry point into a male-dominated hierarchy Maile [28]. The management practices and vision of the women who took part in the study align with the current theory Maddock [29]. Recent studies have examined how race exacerbates gender gaps in the workplace by focusing on the intersection of gender and race. Future research in this area could help us better understand the particular difficulties women face in different organisational situations [30].

## Important role of gender equity in HRM

This study provides evidence that welfare women raise their awareness of women's rights and that equitable opportunities for both genders to achieve their goals and gain access to political, legal, and social frameworks motivate women to engage in the control of these frameworks in political, legal, and social contexts.

Given its intricate implications for social equality, corporate performance, and employee well-being, gender equity in human resource management (HRM) is of utmost importance.

### (A) Performance enhancement

Gender diversity in the workplace has been linked to improved organisational performance and innovation [31]. Team diversity, including a mix of genders, is more adept at addressing complex problems and devising novel solutions Kossek and Zonia [4]. Innovation and a competitive edge may eventually lead to this. Working women should speak up for fair treatment, seek mentorship, and exercise their self-assurance [32]. To reduce gender prejudice in professions where males predominate, organisations must adopt objective recruitment and promotion procedures, provide gender-sensitive training, create support systems, and encourage inclusive leadership.

### (B) Job satisfaction and employee well-being

Research indicates that implementing gender-inclusive HRM practices has a favourable effect on job satisfaction and employee well-being. When workers feel that their employers promote gender equity and provide equal opportunities for professional development, they are more likely to feel motivated, engaged, and committed to their work [8]. In addition, equitable human resource management techniques, Neshovski [33] such as allowing flexible work hours and supporting work-life policies, can help all workers—male or female—decrease stress and raise their overall job satisfaction. According to Babcock-Roberson and Strickland [34], men tend to exhibit higher

levels of aggression when negotiating resources, training, and other elements of considerable importance. It is imperative for women to cultivate self-confidence [35]. Gender equity has been emphasised in recent HRM literature as essential to organisational development [33]. To improve organisational culture and performance, academics have emphasised equitable practices, diversified leadership, and inclusive policies [36]. This change emphasises the importance of gender-inclusive initiatives for long-term organisational performance.

(C) Equality and social justice

Promoting gender parity in HRM aligns with broader societal goals of improving social justice and equality. In addition to violating people’s rights, gender discrimination maintains structural inequities in society [9]. By implementing fair and transparent HRM practices, organisations’ contributions, skills, and abilities should be valued over gender in a more equitable society, where obstacles can be removed [37]. To achieve gender equity, governments, organisations, communities, and people must work together to question and alter the institutions and mindsets that perpetuate gender inequities [38].

In 2011, the Aurat Foundation implemented the gender equity program (GEP), which served as the primary gender program for the United States Agency for International Development in Pakistan (USAID/Pakistan)

years from August 2010 to August 2017 [39]. During this period, a comprehensive baseline survey was conducted by the GEP to assess prevailing knowledge, attitudes, and practices related to various aspects of gender equity in the global survey with the aim of providing a representative overview of the country’s gender landscape. The result is a comprehensive and theoretical definition of indicators for measuring gender inequality [40].

Using daily data from fractional integration techniques, Del Rio et al. [41] examined the SPDR SSGA gender diversity index ETF from 8 March 2016 to 8 January 2021. The findings revealed that ETF demonstrated high persistence, with an order of integration smaller than its proximity to Frist. Furthermore, the study found that the COVID-19 pandemic had an impact on the persistence of the SPDR SSGA gender diversity index ETF, affecting both its magnitude and the level of persistence [42]. The responsibility to assess and address sex and other disparities in compensation involves a limited array of quantitative instruments that can assist them in this endeavour [43].

Enhancing corporate success, fostering employee well-being, and achieving social justice depend on gender equity in HRM. Figure 1 exhibits the steps from equity to equality [44]. Researchers can uncover important trends, foundational work, and new research paths using bibliometric analysis, which provides a methodical way to assess the scholarly environment of gender equity

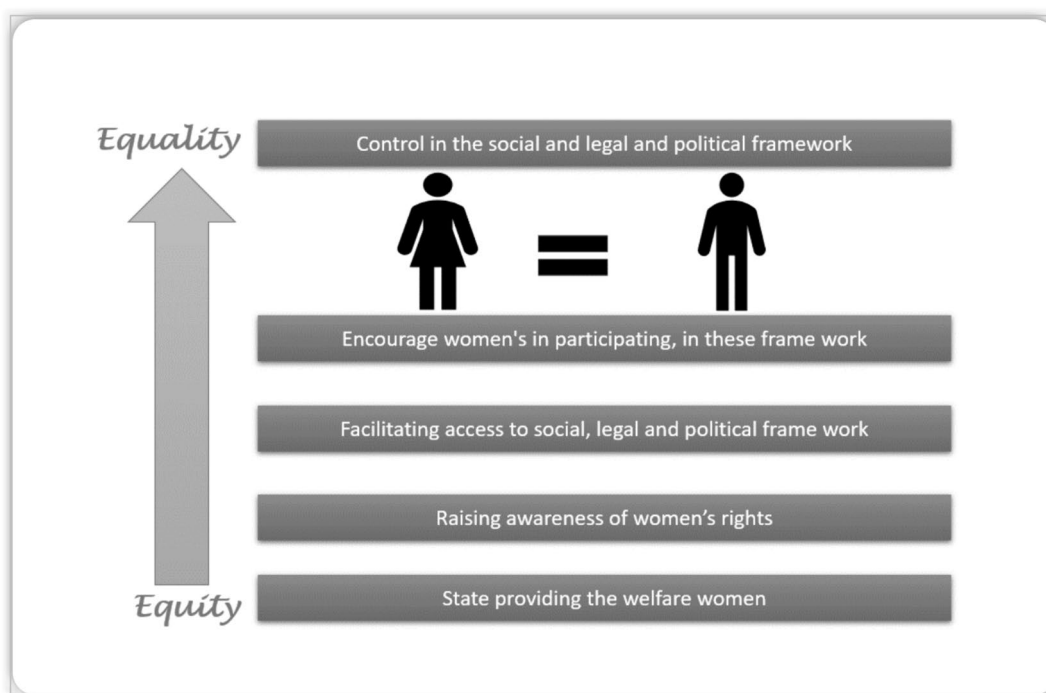


Fig. 1 Steps provided for women gender equity

and HRM [45]. Through a review and analysis of several articles, this study aims to advance the understanding of gender dynamics in HRM practices, with a focus on uncovering new insights and perspectives [46].

#### HRM techniques to lessen the impact of gender prejudice

Organisations can implement several strategies to mitigate the effects of gender bias on women's advancement in a male-dominated field [47]. One strategy is for female leaders to position themselves in unconventional areas as an external gender bias against their dimensions in these contexts [48]. However, it is important to recognise that gendered social practices and unconscious bias still create obstacles for women in the male-dominated sector [27] and executive leaders play a crucial role in changing systematic sexism and discrimination. It is also essential to address second-generation gender bias which is a deep ingredient in organisational practice, and policies organisations can work together to mitigate the effect of gender bias and promote women's advancement in male-dominated fields.

It would appear from the body of material that is now available that there is a dearth of understanding that is both comprehensive and up-to-date about the topic of the growth of organisations that are responsible for human resources. Considering this gap, the primary aim of the current research was to address the following questions using a scientometric approach:

1. What are the current trends in HRM and gender equity based on production, over time?
2. Which articles on human resource management and gender equality had the most impact?
3. What issues and factors are related to the human rights and gender equality considered by the authors?
4. What is the conceptual framework of present HRM and gender equality research?

#### Methodology and data

In this study, we use the bibliometric review method [49], which is a type of systematic literature review (SLR) [50]. A well-liked and exacting technique for examining and evaluating massive amounts of scientific data is bibliometric analysis [51]. A comprehensive bibliographic review of gender equity in human resource management. A bibliometric analysis was conducted using the Scopus research data platform introduced by [52]. A study of 1555 publications between 2005 and 2023. Collected from Scopus, following the characteristics and methods of research in other published bibliometric investigations [53]. SLR requires a large dataset of all known studies [54]. SLR stands apart from other review methods owing to its guiding concepts [55] (Fig. 2).

#### SPAR-4 review protocol

The SPAR-4-SLR protocol was implemented, as outlined in a subsequent section [56]. To select the appropriate methodology for our systematic literature review, we opted for SPAR-4-SLR over other protocols, such as PRISMA, which originated in the scientific domain [57]. The assembly, arrangement, and assessment processes comprised SPAR-4-SLR (Fig. 3). The research procedure associated with this methodology is as follows. Data were assembled, and 1555 publications were arranged based on keywords collected from the Scopus data (Table 1).

#### Bibliometric investigation

The recent years have witnessed a significant increase in the use of bibliometric analysis [58] in business research, as evidenced by studies such as those conducted by Donthu et al. [59]. To conduct this analysis, the R package bibliometrics was utilised [49]. This software is commonly used in bibliometric research published in esteemed academic journals. The citation analysis component of bibliometric analysis incorporates well-established methods such as those outlined [60–62].

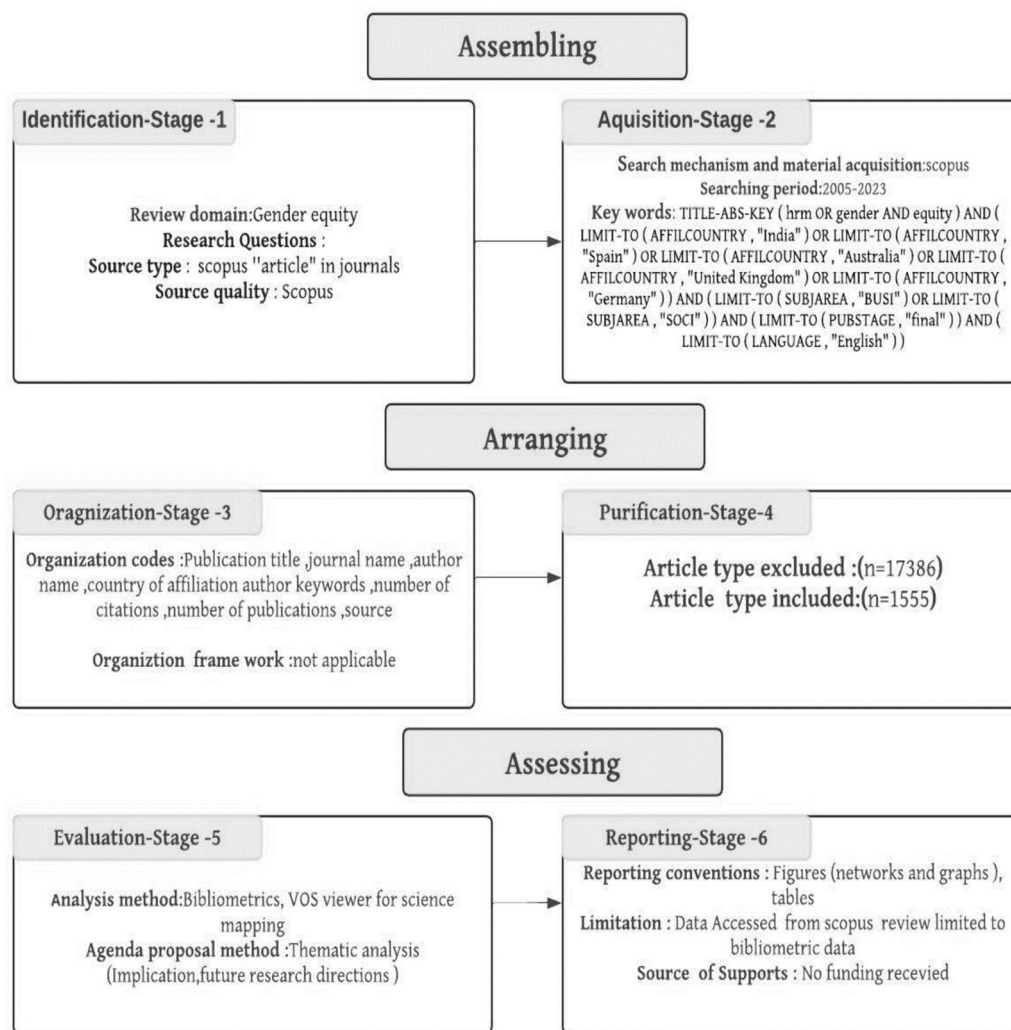
The frequency of keywords related to the Scopus database for the period 2005–2023 was examined. The keywords used gender equity and human resource management [45]. The aim of this research is to conduct an in-depth analysis of the connection between organisational ambidexterity and performance to resolve the conflicting results of previous studies, which were analysed according to h-index quality criteria [63]. The leading publications, federations, and nations in terms of gender equality and HRM identification studies are significant, influential, prestigious, influential, and high quality. This helped identify the disciplines in this field of study that were the most pertinent.

We utilised the total production of each year, country, source, contributing author, and organisation to analyse the evolution of HRM and gender equality [64]. The Scopus database was used to calculate the study's information using the bibliographic data obtained from it.

#### Annual scientific production

Figure 4 illustrates the number of articles on human resource management and GENDER EQUITY published between 2005 and early 2023. There was a noticeable spike in publications after 2008, which coincided with the start of the global financial crisis and the Norwegian parliament passing a quota rule guaranteeing at least 40% of members of each gender. Some experts attribute lax oversight of bank boards as a contributing factor to the Great Financial Crisis [65]. Furthermore, there was an increase in publications after 2018 and the





**Fig. 2** SPAR-4 review protocol stages. Source: **Author** (By Using SPAR-4 Methodology)

COVID-19 pandemic, suggesting that recent changes in organisations may provide opportunities for female managers and increase female participation [14].

**Source of production analysis**

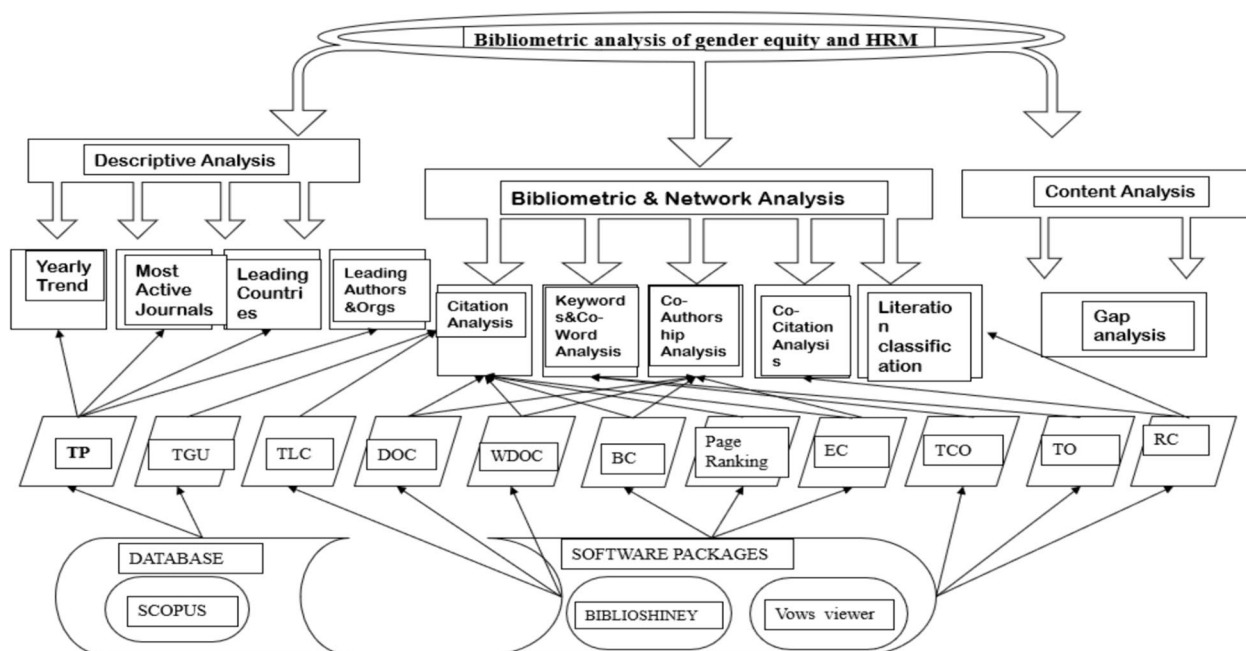
Analyses of the Source Information of HRM and gender equity [66] are concerned with the limitations of India, Spain, Australia, the UK, Germany, and the period from 2005 to 2023. We took sources 920 and documents taken here 1555, with an annual growth rate of 26.62%, and authors 4006. Table 2 shows the rankings. A workforce that promotes gender equality can give an organisation a competitive advantage and improve performance. This has both theoretical and practical implications, as well as significant research implications. Australian Bureau of Statistics. In Table 2,

presented organisations’ gender-focused HR policies and practices demonstrate their gender-equity stance [66] (Fig. 5).

Gender equity in HRM was first addressed in 2009, and its implications for social justice, employee well-being, and organisational success were evaluated [9, 31]. The bibliometric analysis approach is briefly described, mentioning the databases used, [67]. Search terms used, and inclusion criteria, Therefore, the area of research has been attention in some journals of management filed.

**Production activity by author and affiliations**

The Keddie [68] school of education within the faculty of social and behavioural sciences at the University of Queensland in Brisbane, Australia, is the leading authority on gender equity. The author of gender equity received the most citations in Australia. Keddie A authored the



**Fig. 3** Structure of research for our investigation. The analytical framework of our study encompasses several variables, including TP, total publications; TGC, total global citations; TLC, total local citations; DOC, degree of centrality; WDOC, weighted degree of centrality; BC, betweenness centrality; EC, Eigen-centrality; TCO, total co-occurrence; TO, total occurrence; RC, research clustering

most articles, 0.8%, that were published in the 13-article collection titled. The future of education lies in school autonomy: concerns over fairness, public responsibility, and moral guidance. Research on this topic gained prominence due to its impact on fairness and diversity [69, 70]. We can see in Table 3, where we identify the most cited author. Gender equality bargaining: Developing theory and practice, a journal article by Williamson, garnered 26 citations in 2014, presenting information on the progression and gender equality bargaining of the past 25 years [70]. Over all, Table 3 shows all the structures, total number of papers, and total number of citations. The distribution of academic authorship in research publications, along with authors’ corresponding affiliations and citation counts, is presented in an easily readable manner. Here, most of the studies were conducted in “London” and “USA” and countries where this area has contributed worldwide.

**Publication activity by countries**

The UK’s Cluster-4 exhibits strong connections with a total of 40 countries, resulting in a link strength of 424. As based on the analysis of 1555 documents, similar linkages have been observed in other countries. This information is presented in the figure below. This result reveals the countries with the greatest number of publications. Figure 6 illustrates the distribution of corresponding authors across different countries. It categorises publications

into two categories: single-country publications (SCP) and multicountry publications (MCP). The graph reveals that Australia has the highest number of single-country publications at 283, while South Africa and Norway also have a substantial number of publications. China mandates women’s participation in the workforce, and Malaysia was among the first countries to establish a quota for women on corporate boards (Table 4).

**Citation networks**

Finding the most important papers on gender equity and HRM, our RQ2 (Which Articles Production on human resource management and gender equality have had the most impact?) We examined the citation networks of 1555 papers in response to RQ2. Citation analysis is the most frequently used technique to assess the influence of research publications, although other approaches have also been used [71]. Intellectual connections may be created through citations and references [72]. Local citations are indicative of the local popularity within a network of 1555 articles; local citations are indicative. Across the globe, “J Financ Econ” by Adams and Ferreira [73] holds the record for the highest number of citations, amounting to 2593. Adams and Ferreira [73] both received 2593 citations locally. Local citations indicate an article’s impact on the GE literature corpus and serve as a gauge of its contextual citations. Therefore, articles with more local citations

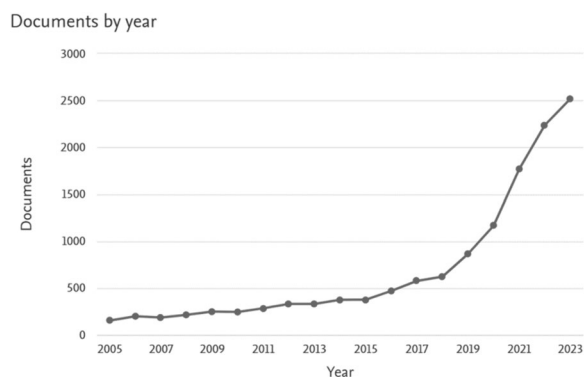
**Table 1** SPAR-4 SLR protocol for systematic literature reviews includes scientific procedures and rationales

Stage	Sub-stage	Criterion	Action	Rationale(s)
Assembling	Identification	Domain	Define domain	A review on Gender equity and Human resource management: A Bibliometric Analysis
		Research question	1. What are the current trends in HRM and gender equity based on production over time? 2. Which Articles publications on human resource management and gender equality have had the most impact?	Recent bibliometric analysis reveals a growing body of research focused on diversity, wage parity, adaptable work schedules, women in positions of authority, and intersectionality. These findings reflect the changing trends in human resource management towards achieving gender equality and fostering inclusivity
			3. What are the issues and factors related to human rights and gender equality consider by authors?	Based on bibliometric analysis, significant works in the field of human resource management and gender equality focus on topics such as diversity in leadership, fair compensation, intersectionality, and inclusive workplace policies. These papers have had a substantial impact on research and implementation in advancing gender equality in HRM
			4. What is the conceptual framework of the present HRM and gender equality research?	Authors address many concerns including gender prejudice, unequal compensation, lack of women in leadership roles, workplace harassment, rules regarding maternity leave, and the interconnection between gender and other aspects of diversity. Factors include company culture, HR policy, and cultural standards The present HRM and gender equality study incorporates several variables within its conceptual framework, such as diversity management, organisational culture, leadership, pay equity, work-life balance, and intersectionality. Researchers investigate the interplay of these elements in shaping gender equality results in the workplace, providing insights for HRM practices and policy formulation
			Define inclusion and exclusion of sources of published material	For a number of reasons Other scholarly source are not to describe because they are less likely to significantly contribute to scholarly development books and book chapters. Rs. recommended (exclamatory > exploratory). Conferences proceedings are not as a favourite, since they are frequently research in progress and do not go through peer review, typically, they receive title to none at all. These and dissertations are less desirable since, particular at The Bachelors and master level, They are typically done to show off one's capacity for research, rather than to add something new to the field. However, scholarly source outside academic journals can be include if they are 1) required to proceed a substitutional body of literature or 2) constitute an integral part of the standards in that field. (Included document = 1,555; excluded document = 1,831; total founded documents = 17,386)

**Table 1** (continued)

Stage	Sub-stage	Criterion	Action	Rationale(s)
		Source quality	Define the quality of source of publication	The selection of journals where papers for review are obtained might be guided by the numerous source quality listening available in Scopus as database journal. Scopus is the most popular journal quality listed because they transcend across discipline. wOS Index, less journals than Scopus due to its highly stringent index criteria (Example, SSCI and SCI database ESCI does not have impact factor Whereas Scopus has a board range of subject areas and catheterisms than vos, which enables scholars to better locate journals based on areas that are most relevant to the review domain. So preferred Scopus database
Arranging	Acquisition	Search mechanism and material acquisition	Define the search mechanism used to source of articles	There are several particle methods, for finding and obtaining papers for evaluation. Google Scholar, Wos But for this SLP, I preferred Scopus database
		Search Period	Define the period of search	2005–2023
		Search keywords	Define the keywords for search	TITLE-ABS-KEY (hnm OR gender AND equity) AND (LIMIT-TO (AFFIL-COUNTRY, "India") OR LIMIT-TO (AFFILCOUNTRY, "Spain") OR LIMIT-TO (AFFILCOUNTRY, "Australia")) OR LIMIT-TO (AFFILCOUNTRY, "United Kingdom") OR LIMIT-TO (AFFILCOUNTRY, "Germany") AND (LIMIT-TO (SUBJAREA, "BUSJ") OR LIMIT-TO (SUBJAREA, "SOC")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (LANGUAGE, "English"))
	Organisation	Organisation code	Define the code	Bibliometric analysis annual average citations per year, most relevant author world frequency over time. Author analysis and the production overtime country sources publication sources
	Purification	Article type	Define article for inclusion exclusion	While I enter my topic, it shows 17,386, where I limited area, location and subject area. Language, document languages, Documents 1908. After that, I remove duplicates. Then predatory title removed. After that, I got 1555 documents this sample I use for my paper
Assessing	Evaluation	Analysis method	Define methods to analyse articles under review	Bibliometric coupling by VOS Viewer
		Agenda proposal method	Define best practise gap and area	Implementation and future research direction thematic evaluation
	Report	Report convention	State acknowledgments and summarise findings	Figures network and graphs table data access from Scopus Review Limited to bibliometric





**Fig. 4** Annual scientific production of gender equity and human resource management from the Scopus database. This graph shows the number of articles on gender equity and human resource management taken annually between 2005 and 2023

**Table 2** Source of production analysis: This table shows the top journal published article rankings and the year in which the top 20 sources are taken

Source	Rank	Articles	Year
Sustainability (Switzerland)	1	41	2016
Social Science and Medicine	2	25	2006
Gender, Work and organisation	3	20	2006
Gender and Education	4	18	2010
Journal of Industrial Relations	5	15	2009
Journal of Gender Studies	6	12	2010
Higher Education Research and Development	7	11	2009
Sport, Education and Society	8	10	2008
Ssm—Population Health	9	10	2015
Journal of Higher Education Policy and Management	10	9	2010
Palgrave Studies in Gender and Education	11	9	
World Development	12	9	2006
Gender and Development	13	8	2006
Women's Studies International Forum	14	8	2018
Journal of Education Policy	15	7	2020
Journal of International Women's Studies	16	7	2014
Australian Journal of Public Administration	17	6	2013
Compare	18	6	2006
Culture, Health and Sexuality	19	6	2014
Development in Practice	20	6	2007

have a greater impact on GE and HRM advancement. Farrell and Hersch [74] conducted an early enquiry on this subject by analysing the impact of established board structures on the process of selecting female directors. This may explain the heightened importance attributed to this (Table 5).

**Page ranking analysis**

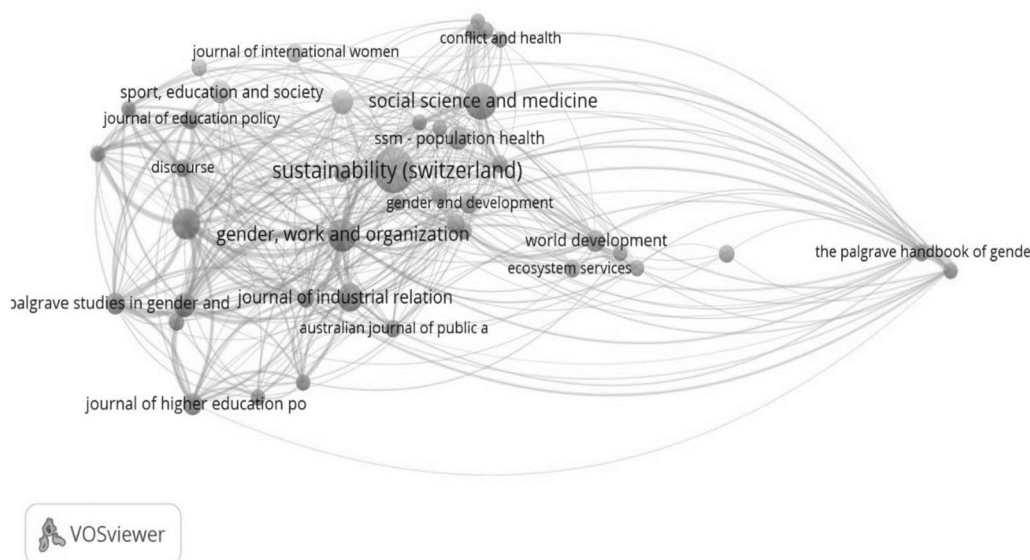
A method for determining the esteem of an article is through PageRank analysis [75]. This method assesses the mention of an article in other highly esteemed pieces of writing, thereby enhancing its reputation. Despite the occasional correlation between citations and prestige, having more citations may not always translate into a high status. Prestige can be gauged using a PageRank [76]. PageRank was used to determine the impact of the research publications. It was first created to prioritise websites during keyword search. The following formula is used to determine PageRank:

$$PR(A) = \frac{(1 - d)}{N} + d \left( \frac{PR(T1)}{C(T1)} + \dots + \frac{PR(Tn)}{C(Tn)} \right)$$

where  $T1, T2, T3, \dots, Tn$  are the articles that quote  $A$ ,  $PR(T1)$  is the paper's PageRank,  $d$  is a citation, and  $C(T1)$  is the paper's citation count. Damping factor, and the initial Google algorithm value is 0.85. This was based on the finding that an online user clicked on approximately six hyperlinks before giving up, where  $N$  denotes the network size. According to the citation network cross-referencing, the data suggest that the probability of referencing any of these articles lies somewhere between the two numbers mentioned.

The results of the PageRank examination are presented (Table 6). A discrepancy seems to exist between PageRank and citation outcomes, as per research conducted by Adams and Ferreira [73] documents with fewer local and global citations tend to have a higher PageRank. However, it is worth noting that there is disparity between the results obtained from PageRank and the centrality metrics. For instance, female directors significantly influence board inputs and firm outcomes [77]. Nonetheless, the use of citations, references, or in-line citations is prohibited and modifications to the numbers in the text are not allowed. The language must strictly adhere to British English, including its spelling, specific terms, and phrases. These findings indicate that boards with a greater gender diversity devote more resources to monitoring, while [78] under representation of women in the global academy as knowledge producers and leaders. Both are regarded as "firsts", which elevates their prestige. This implies that an article's esteem may be influenced not only by the number of citations it attracts but also by the frequency at which it contributes to other esteemed scholarly investigations.

Based on the citations received by an article, these PageRank values indicate the importance of a document in relation to other documents in the network. With the greatest PageRank value in the network, the



**Fig. 5** Source of production analysis on gender equity in human resource management. Source: **Author** (By Using VoS Viewer Tool)

**Table 3** Production activity by author and affiliation

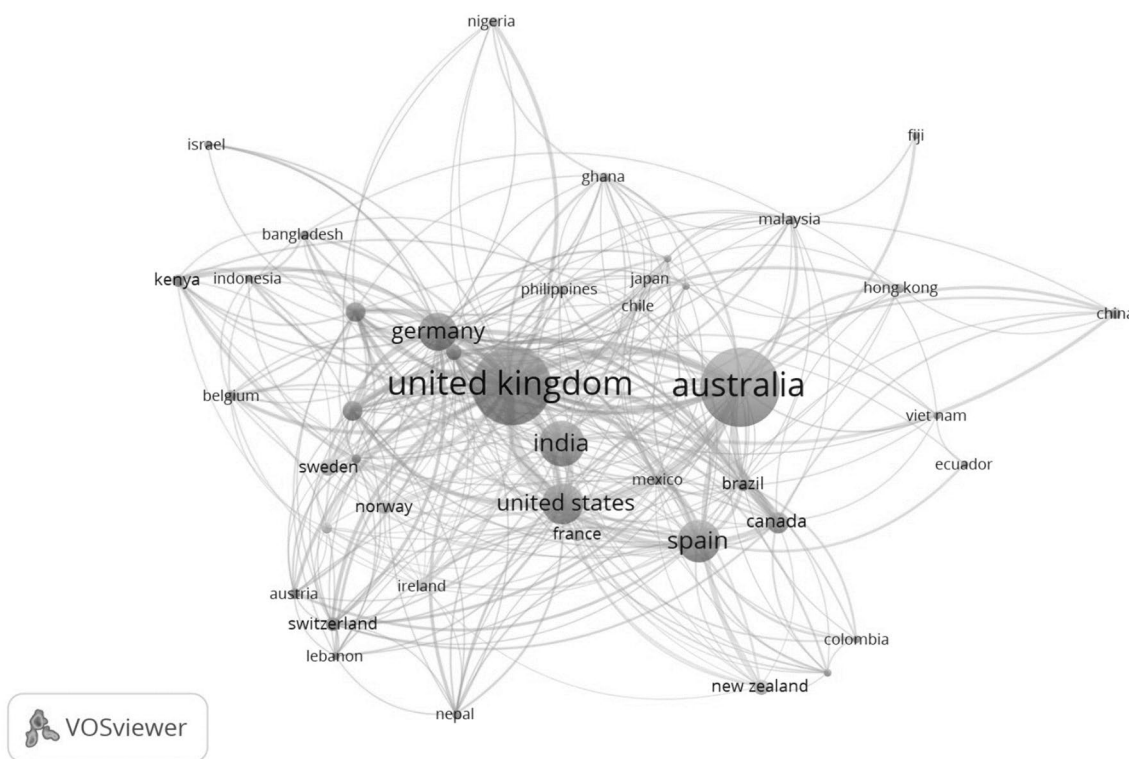
Authors	Articles	Tc	Np	Affiliation	Articles
Keddie A	13	141	13	Monash University	57
Williamson S	9	150	9	University of Queensland	46
Blackmore J	8	494	8	Griffith University	41
Morley L	8	273	8	University of Cambridge	41
Smith Ja	8	320	8	Curtin University	39
Theobald S	8	159	6	University of Melbourne	34
Lipton B	7	164	5	RMIT University	33
Prenzler T	7	106	5	Liverpool School of Tropical Medicine	31
Smith M	6	159	7	University of Newcastle	30
Wright M	6	76	6	University College London	28
Burke PJ	5	312	4	University of Sussex	28
Crimmins G	5	122	4	London School of Hygiene and Tropical Medicine	26
Doyal L	5	64	4	University of Oxford	26
Flintoff A	5	82	4	University of Adelaide	25
Lawless S	5	61	4	James Cook University	23
Morgan R	5	312	4	La Trobe University	22
Norman L	5	82	4	Universitat Pompeu Fabra	22
Payne S	5	83	4	University of Tasmania	21
Woodcock J	5	38	5	Edith Cowan University	19
Aldred R	4	150	4	Flinders University	19

document “ADAMS RB, 2009, J FINANC ECON” is the most influential.

**Co-citation network**

Co-citation evaluation: Co-citation is defined as the number of times two articles are jointly referenced. Co-citation analysis in a bibliometric network analysis

may reveal the intellectual hierarchy of a field [79]. It is also helpful in illuminating the composition, paths, and advancements in the field of study [80]. Our study aimed to understand the intellectual framework of GE research by analysing co-citation and content. We used co-citation analysis, which connects two articles as nodes when they co-occur in any research piece,



**Fig. 6** Publication by countries

to understand the intellectual structure of current research on GE and HRM. When the two papers are jointly mentioned, we see them as comparable because they probably deal with related topics [81] (Fig. 7).

**Table 4** Most relevant Author's countries

Country	Articles	SCP	MCP	Freq	MCP_Ratio
	442	321	121	1161	0.27
Australia	345	285	60	988	0.17
UK	284	203	81	430	0.29
Spain	116	87	29	383	0.25
India	100	83	17	306	0.17
Germany	77	52	25	243	0.32
USA	47	0	47	86	1.00
Canada	19	1	18	81	0.95
Sweden	11	0	11	59	1
China	9	0	9	45	1
Italy	8	0	8	43	1
New Zealand	8	0	8	40	1

SCP, single-country publication; MCP, multiple-country publication; Freq, frequency

**Keywords occurrences**

The rationale for conducting co-occurrence and keyword analyses is to verify that the keywords employed by the author sufficiently represent the content of the article [82]. The presence of two keywords in the same article implies a relationship between these two concepts. The Biblioshiny software’s keyword and co-occurrence analysis features are used to identify the prevalent topics of study among researchers examining human resource management and gender equality (RQ3). Scientometrists frequently use co-occurrence (or co-word) analysis to determine knowledge within the fields of strategy and management [83]. Scientific researchers employ this approach to ascertain the origins of innovations and information flows, as well as to evaluate performance [84]. To examine recurring trends in gender equity and HRM, analyses involving keywords and keyword co-occurrence were conducted. The Table 7 data indicate that the term “female” is the most frequently occurring in the literature concerning gender equity [85]. The rationale behind this discovery is that female attention is directed towards its potential to improve corporate governance. The fact that “male” ranks second in frequency of occurrence suggests that GE has dedicated a significant portion of its research efforts to the subject of board representation of women. India, feminism, higher education,

**Table 5** The top 20 articles local citation and global citation

Document	Year	Local. citations	Global. citations
Adams RB, 2009, J Financ Econ	2009	12	2593
Morley L, 2014, High Educ Res Dev	2014	9	194
Aldred R, 2016, Transp Rev	2016	6	146
Sotiriadou P, 2019, Int J Sport Policy	2019	5	40
Reilly D, 2015, J Educ Psychol	2015	5	112
Prenzler T, 2013, Int J Law, Crime Justice	2013	5	80
Prenzler T, 2010, Int J Polic Sci Manag	2010	5	43
Morley L, 2007, Teach High Educ	2007	5	40
Lipton B, 2017, High Educ Res Dev	2017	4	44
Aldred R, 2017, Transp Rev	2017	4	125
Mcdonald P, 2013, Demogr Res	2013	4	144
Blackmore J, 2014, High Educ Res Dev	2014	4	77
Pyke J, 2013, J High Educ Policy Manage	2013	4	46
Cooke LP, 2009, J Soc Policy	2009	4	91
Keddie A, 2009, Sex Educ	2009	4	37
Winchester H, 2006, Employee Relat	2006	4	53
Morley L, 2006, Women's Stud Int Forum	2006	4	72
Leathwood C, 2006, High Educ	2006	4	90
Campbell-Montalvo R, 2022, J Microbiol Biol Educ	2022	3	3
Smith JA, 2020, Int J Men's Soc Community Health	2020	3	30

**Table 6** Top 20 articles page ranking on gender equity and human resource management

Papers	Period	Local. citations	Global. citations	PageRank
Adams RB, 2009, J Financ Econ	2009	12	2593	0.251
Morley L, 2014, High Educ Res Dev	2014	9	194	0.064
Aldred R, 2016, Transp Rev	2016	6	146	0.05
Sotiriadou P, 2019, Int J Sport Policy	2019	5	40	0.05
Reilly D, 2015, J Educ Psychol	2015	5	112	0.05
Prenzler T, 2013, Int J Law, Crime Justice	2013	5	80	0.05
Prenzler T, 2010, Int J Polic Sci Manag	2010	5	43	0.05
Morley L, 2007, Teach High Educ	2007	5	40	0.05
Lipton B, 2017, High Educ Res Dev	2017	4	44	0.05
Aldred R, 2017, Transp Rev	2017	4	125	0.05
Mcdonald P, 2013, Demogr Res	2013	4	144	0.05
Blackmore J, 2014, High Educ Res Dev	2014	4	77	0.05
Pyke J, 2013, J High Educ Policy Manage	2013	4	46	0.05
Cooke LP, 2009, J Soc Policy	2009	4	91	0.05
Keddie A, 2009, Sex Educ	2009	4	37	0.05
Winchester H, 2006, Employee Relat	2006	4	53	0.05
Morley L, 2006, Women's Stud Int Forum	2006	4	72	0.05
Leathwood C, 2006, High Educ	2006	4	90	0.05
Campbell-Montalvo R, 2022, J Microbiol Biol Educ	2022	3	3	0.05
Smith JA, 2020, Int J Men's Soc Community Health	2020	3	30	0.05

and gender diversity are all significant words. The words gender, equity, higher education, and higher growth can be seen in the image below. These were linked to the

ten keywords that occurred most frequently. Furthermore, the subject of corporate social responsibility has emerged as a recurring theme in academic literature. The



**Fig. 7** Co-citation network. Source: Author (By Using R Studio)

**Table 7** Words frequency

Words	Occurrences
Female	244
Male	204
Human	180
Equity	143
Article	135
Adult	115
Humans	115
Gender	111
Gender equity	91
Women status	71

figure presented below illustrates that the term “female” exhibits the highest level of popularity occurrence 244. As depicted in Fig. 8, the network’s most prominent nodes are corporate governance and gender equity. This demonstrates the comparative importance of these concepts in the fields of human resource administration and gender parity. An additional emerging theme is human resource management and gender equity, which are by

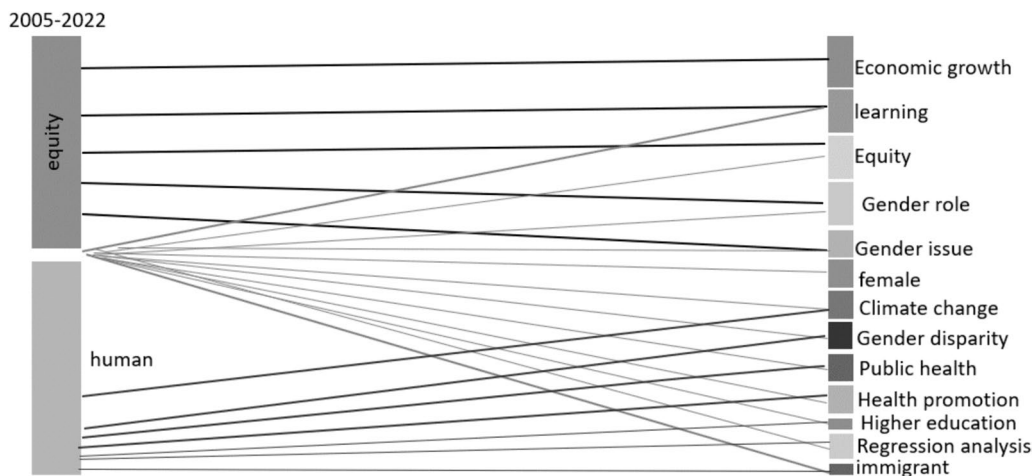
far the most discussed research topics in equity. Considerable attention has been paid to gender equality, as gender is the most influential demographic variable.

**Literature classification**

Prior studies have used clustering to compile collections of research articles [86]. By employing data clustering, patterns of collaboration and interrelations can be identified during co-citation analysis [87]. The default tool employed in Gephi to generate these clusters is the Louvain algorithm, an iterative model designed to optimise the number of partitions to maximise the modularity index [88]. The modularity index measures the density of connections between and within communities. In order to calculate the modularity index Q,

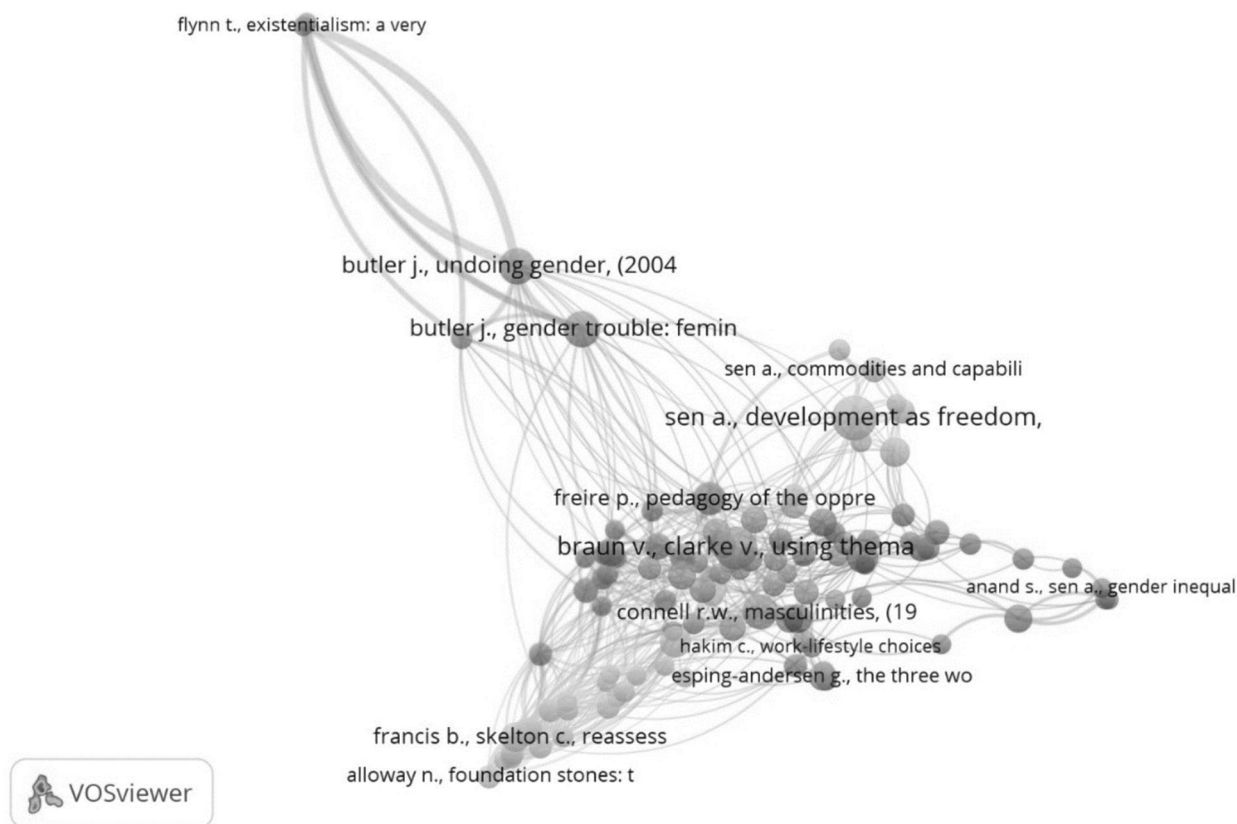
$$Q = \frac{1}{2m} \sum \left[ A_{ij} - \frac{K_i K_j}{2m} \right] \delta(c_i, c_j)$$

In this context,  $A_{ij}$  represents the edge weight that is directed towards element  $j$ , whereas  $k_i$  signifies the total of the edge weights that are connected to  $i$ . Additionally,  $c_i$  represents the community of  $i$ ,  $\delta(c_i, c_j)$  is 1 when  $c_i = c_j$  and 0 otherwise, and  $m$  denotes the sum of all edge weights. Except when explicitly mentioned otherwise,  $c_i$  is considered equal to  $c_j$ , where  $m$  represents the sum of edge weights. This algorithm was implemented to filter the 1555 node co-citation networks, resulting in the formation of three research clusters. Cluster 1 comprised 54 articles, while cluster 2 had 110. The number of publications in each cluster for the ten articles with the highest PageRank from 2005 to 2023 was also calculated.



**Fig. 8** Words frequency





**Fig. 9** Thematic evaluation. Source: **Author** (By Using VoS Viewer Tool)

**Thematic evolution**

In the changing environment of equity and human development, serious debates on gender roles, inequities, and women’s positions have emerged. The intersection of equity issues and climate change governance requires a comprehensive strategy. Gender equality and economic development are intertwined, reflecting the cultural dynamics. Education and health promotion are essential to inclusion and empowerment. Perceptions of gender and the integration of immigrants influence governmental choices in different locations such as Europe and Australia, underscoring the interdependence of social development (Fig. 9).

**Finding and discussion**

In this section, we provide a concise overview of our findings and propose avenues for future research. Specifically, we explored the obstacles that impede research on gender equity (GE) and identified areas at the intersection of GE and human resource management (HRM), which require further investigation. In addition, we recognised the obstacles encountered by contemporary researchers. A descriptive analysis elucidated the present trajectory of GE research (RQ1).

Conduct a comparative analysis of gender equity in human resource management (HRM) across various countries and cultural contexts. Investigate the impact of cultural norms, legal frameworks, and societal attitudes on gender dynamics in the workplace and identify effective strategies for promoting equity in diverse cultural settings. Examine the potential for bias in HRM technologies such as AI-driven recruitment tools and performance evaluation systems. Assess how algorithmic decision-making processes could amplify or perpetuate gender disparities, and develop frameworks for minimising bias and ensuring fairness in the application of technology in HRM.

Our citation analysis indicated that only a few papers significantly influenced the field (RQ2). The research conducted by Adams and Ferreira [73] identify the most notable nodes in a network. It has the utmost level of centrality and garners the most citations both locally and worldwide. Campbell and Mínguez-Vera [47] and Carter et al. [89] found a noticeable inconsistency between the citation and PageRank assessments. Undertake an investigation into the role of leadership in the pursuit of organisational change that fosters greater gender equity. This research could encompass

a study of the characteristics and behaviours of leaders who promote inclusivity, explore strategies for enlisting male allies in gender diversity initiatives, and assess the effectiveness of leadership development programs in creating workplaces that are gender-balanced.

The PageRank analysis indicates that Adams and Ferreira's [73] work is held in higher esteem despite having fewer citations than others. In such cases, the prestige of an article is not determined by the number of citations it receives but rather by the frequency with which other prominent pieces reference its material. To identify the prevalent topics in GE literature (RQ3), keyword and co-occurrence analyses were conducted. The results revealed that gender diversity is a dominant topic in this sector. Moreover, our findings indicate that substantial research has explored the relationship between board diversity, corporate governance, and business success.

#### **Future area of research**

After conducting a bibliometric review of gender equity in human resource management (HRM), several promising pathways for future research may be identified. Studies emphasise the importance of gender mainstreaming, diversity management, and the intersectionality of social categories in HRM models [90]. The reoccurring themes encompass representation, wage equity, and organisational policies. Intersectionality in organisational contexts can reveal how social categories interact [91]. This can help create holistic diversity management plans that address multiple [92] diversity aspects at once. Promoting workplace diversity requires an understanding of how diversity improves organisational performance and efficiency [93]. The primary topic of research, predominantly in Western nations, is focused on certain domains. Analysing the impact of technology and remote labour on gender equality in the workplace. Research examining the impact of incorporating males into efforts aimed at promoting gender parity. Research on gender parity in tiny enterprises, which often receive inadequate recognition. Continuously evaluating the impact of work-life balance legislation on gender equality. Identifying and addressing internal opposition within an organisation towards initiatives aimed at promoting gender equality. Investigating the role of diversity training programs in advancing gender equality in HRM. Analysing the impact of technology on gender equity in HRM. Investigating the nexus between gender equity and organisational performance in HRM that promote and hinder gender equity in health workforce planning, management, and development [94]. The future research might be focused on diversity management's economic benefits, such as employee engagement and work satisfaction, this would illuminate how

diversity boosts productivity and organisational success for workplace diversity programs. Numerous studies have stressed the need of HRM gender equity research. The research shows that gender discrimination in the workplace, especially in management, persists. Future studies may analyse bibliographic coupling, research clustering, and other bibliometric markers to validate research findings, qualitative methodologies, including content analysis [95]. Analyse bibliographic coupling, clustering, and other bibliometric markers to validate research findings and get insights on gender diversity and leadership.

#### **Limitation**

By utilising the dataset obtained from the Scopus database, it is possible to extract a significant quantity of papers from the Web of Science and other databases. It is possible that some pertinent pieces are not included in the 1555 documents, particularly those that are older or published in more difficult-to-access periodicals. Some writings may not meet the highest academic standards. There may be more publications in English compared to other languages, which could result in the marginalisation of important papers written in those other languages. Although there are a lot of empirical studies on gender equity in HRM, more conceptual papers that provide a theoretical framework to guide future research are needed. In view of the lack of a widely accepted theoretical model for board diversity, more research must be conducted in order to create a thorough framework. Historical documents may not accurately depict current concerns or developments in the field of gender equity. The assessment may ignore interdisciplinary perspectives that have the potential to enhance our understanding of gender equity. The scope and accuracy of the results may be hindered by the constraints of the instruments employed for bibliometric analysis. By relying solely on citation numbers, the quality of individual studies or the overall impact of research may be disregarded.

#### **Conclusion**

The bibliometric analysis performed in this study provides a comprehensive picture of gender equity and human resource management. We used bibliometric analysis focusing on citations per year, keywords, sources, and countries, documents between 2005 and 2023 to better map developments and opportunities in gender equity in HRM. By using of SPAR-4 SLR methodology data collected from the Scopus data base, this research illustrates that writers from various countries have made significant contributions to the subject matter. Additionally, we have compiled a list of the most renowned and influential pieces by nation. These works'

substantial influence may be underestimated by their local and global citations. Academic researchers should continue to investigate gender equity, corporate governance, and business performance, as indicated by our co-occurrence and keyword-based analyses. The demographic variable that has been the subject of the most research is gender. This study makes substantial contributions to the discipline by utilising co-citation analysis. We evaluate annual publications and contributions to this subject from authors, nations, and institutions. Utilising co-authorship and citation networks, we identify the most influential writers and research. In order to assist researchers in furthering the field, we utilise co-occurrence and co-citation studies to map the intellectual structure of this issue by identifying the most prevalent themes and intellectual structure. Fourth, this study employs bibliometric analysis and a systematic literature review to conduct an objective analysis of the literature. Fifth, we provide a comprehensive list of obstacles to the expansion of knowledge in this field. It helps research, particularly in the HRM domain. With regard to this technique, the current study offers a credible portrayal of a bibliometric approach within the scientific community, which are typical of bibliometric research. As well as its impact on female employee turnover intentions. The findings suggest that implementing human resource management strategies that provide equitable career prospects can significantly reduce women’s intention to leave their jobs. HRM plays a crucial role in fostering and maintaining equity in the workplace by investing in progressive initiatives that promote diversity, inclusion and equality. In terms of theoretical implications, outcomes show that the contemporary keywords in women’s studies, identified by this bibliometric analysis, such as ‘employment, social media, culture, and gender equity, indicate the focus of current research in this area, which will be reinforced by employees, and that social media has served as a catalyst for women’s empowerment and cultural transformation.

**Abbreviations**

HRM	Human resource management
GE	Gender equity
SPAR-4 SLR	Scientific procedure and rationales for systematic literature review
RQ	Research question
GEP	Gender equity program
SCP	Single country publication
MCP	Multiple-country publication
Freq	Frequency
TP	Total publications
TGC	Total global citations
TLC	Total local citations
DOC	Degree of centrality
WDOC	Weighted degree of centrality
BC	Betweenness centrality

EC	Eigen-centrality
TCO	Total co-occurrence
TO	Total occurrence
RC	Research clustering

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**Author contributions**

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**Declarations**

**Ethics approval and consent to participate**

Not applicable.

**Consent for publication**

We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed. We further confirm that the order of the authors listed in the manuscript has been approved by all of us.

**Competing interests**

The authors declare that they have no competing interests.

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