

Exploring Workplace Dynamics: A Systematic Review and Bibliometric Analysis of Work Stress, Gender Diversity, and Job Satisfaction in Higher Education Institutions

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ABSTRACT

Purpose - This study aims to measure the correlation between work stress, gender diversity, and job satisfaction among employees in higher educational institutions using bibliometric analysis. It is becoming increasingly important worldwide to understand the causes of work-related stress and encourage gender diversity in higher educational institutions to improve job satisfaction.

Design/methodology/approach - This study aims to conduct a bibliometric analysis of scholarly literature on work stress, gender diversity, and job satisfaction. From 1982 until 2023, the Scopus database was employed, selecting 252 papers for examination. R-studio is used to conduct preliminary data analysis, perform citation and co-citation analysis, and perform bibliographic coupling in conjunction with co-authoring.

Findings - Synthesis facilitates our comprehension of the employees' functioning in higher educational institutions and the organization inside the paper. The collective investigation of variables such as work stress, gender diversity, and job happiness exhibited a consistent upward trend, with an average of 27.65 citations per article. According to our statistical data, the countries with the highest production of research publications are the United States, China, Iran, and Korea.

Originality/value - This study adds to the current understanding of the factors that cause work-related stress, strategies that encourage gender diversity, and improved job satisfaction among employees at higher education institutions.

Keywords: Work stress, gender diversity, job satisfaction, higher educational institution, bibliometric analysis.

INTRODUCTION

1.1 Work stress and job satisfaction

The emerging countries are undergoing a transitional development phase as they are freshly exposed to economic integration and are beginning to see greater labour variety. This shift significantly impacts the higher education sector and is crucial in guiding the nation in the correct direction. Universities generally promote research and development, enhance teaching capacity, and improve managerial discipline in countries. University faculty members are committed to addressing the significant issue of achieving higher education goals, which places considerable pressure on them. The stress-carrying ability is supported by the degree of satisfaction they have with the institutions. Teachers who experience high-stress levels and low satisfaction levels cannot assist universities in effectively addressing global concerns. Job satisfaction, gender diversity, and occupational stress are crucial human resource management concerns that contemporary firms must address. Employment is a vital component of one's

existence. The level of job satisfaction experienced by employees significantly influences their overall quality of life. While job satisfaction and occupational stress may not directly correlate, they can influence each other practically. If both factors are managed well, it can result in favourable outcomes for both people and the organization (Halkos & Bousinakis, 2010). Universities in India and other developing nations must prioritize implementing continuous programs to evaluate occupational stress and job satisfaction and explore the possible cause-and-effect connection between the two.

In India, the field of higher education is primarily controlled by two sectors: private and public. Implementing the open market policy has facilitated the entry of international universities into the Indian market. The rivalry has shifted its focus from the physical infrastructure and student enrollment to factors such as faculty quality, program offerings, academic resources, and institutional prestige. The future prosperity of colleges will heavily rely on the capabilities and effectiveness of its faculty. Given the job's focus on providing services, university faculty members directly interact with graduates or customers. When faculty members are highly satisfied and have low levels of stress, they can generate well-prepared graduates and positively impact the institution's reputation in the long run. According to (Griffin & Moorhead, 2011; Kumar et al., 2024), stress is induced by a trigger, which may manifest as a physical or psychological effect, and the individual reacts in some fashion to the trigger. In this context, stress is defined as an individual's adaptive reaction to a trigger that imposes a disproportionate amount of mental or physical strain. According to Arnold & Feldman, (1986), workers experience occupational stress when they encounter problems. Faculty members often experience low levels of occupational stress and find their careers to be gratifying, according to research. (Greenberg, 2012). Van Fleet & Yukl, (1992) they sought to unify the various interpretations of stress by providing a concise and significant definition. Stress can be defined as an individual's adaptive response to an external stimulus that triggers excessive psychological or physical demands. Occupational stress occurs when individuals know of worrisome conditions in their work surroundings. Without a doubt, the individual is experiencing work stress.

An assessment of occupational stress and job satisfaction among college and university teachers is urgently required to enhance the quality of teaching. Multiple global research has indicated that faculty members' stress levels and job satisfaction impact their performance, productivity, efficiency, and effectiveness. Investigating the correlation between these two factors is valuable to enhancing the standard of education at higher educational institutions (Kumar et al., 2024). Spector, (1997) A significant association between job stress and low job satisfaction was found. Conversely, when teachers experience job pleasure, they are more effective in educating students and facilitating learning. Researchers in the field of education were interested in faculty satisfaction due to its potential as a solution for job stress. There are numerous explicit justifications for why university professors should have contentment in their occupations, encompassing humanitarian, organizational, and utilitarian considerations. Job satisfaction, which indicates fair treatment, mutual respect, and enhanced functioning, substantially impacts the productivity of higher education teachers.

1.2 *Gender diversity and job satisfaction*

Faculty staff play a crucial role in higher education institutions (HEIs) and are essential for fulfilling their aims. The significance of academics and their job satisfaction in academia is obvious, as evidenced by previous studies (Machado-Taylor et al., 2010; Tang et al. & Piomelli Daniele, 2008). Their effectiveness as faculty members and researchers plays a crucial role in determining the satisfaction level among students and directly impacts student learning. Consequently, this affects the overall contribution of Higher Education Institutions (HEIs) to society (de Lourdes Machado-Taylor et al., 2016; Kumar, 2020; Malhan, Mohan, et al., 2021). While many studies have been conducted on job satisfaction, there is a lack of empirical evidence specifically focused on job satisfaction among university professors and even less research on gender disparities in this area (Okpara et al., 2005)(Kumar et al., 2024; Malhan, Mohan, et al., 2021). Bimrose, (2001) has identified gender disparities in the labour market that are currently being overlooked. Various political, social, cultural, and organizational barriers persist, impeding the ability of female academics to achieve their maximum potential and experience professional satisfaction. Although gender is primarily considered as a demographic factor in this study, it is acknowledged that the relationship between women's academics and higher education institutions (HEIs) is significantly more intricate.

Examining gender disparities in academic job satisfaction is of significant importance. The system can furnish institutional administrators with data that will empower them to attract and retain academicians, enhance the satisfaction of academic staff, enhance organizational dedication, and reduce turnover and absenteeism (Tansel & Gazioglu, 2006). Multiple research studies have been conducted on gender disparities regarding their satisfaction

levels with academic jobs. Kumar et al., (2023); Oshagbemi, (2000) discovered that gender did not directly impact the job satisfaction of university professors. However, there was a highly significant relationship between gender and rank. Female academics in senior positions, such as senior lecturers, readers, and professors, expressed greater levels of job satisfaction than male academics of equal rank. August & Waltman, (2004) highlighted the significance of maintaining female faculty members for higher education institutions that aim to achieve quality and diversity. They emphasized the importance of examining the elements that contribute to career happiness among female academics as a crucial first step in efforts to retain them.

The convergence of "work stress, gender diversity, and job satisfaction" offers a complex and relevant domain for bibliometric study. Understanding how these components interact is essential for comprehending their consequences in organizational environments, particularly within higher educational institutions. Work-related stress, which can be affected by workload, interpersonal dynamics, and organizational culture, can substantially impact employees' overall well-being and happiness with their employment. Gender diversity introduces an additional level of intricacy since it involves the presence of various genders in the workforce and the dynamics of authority, inclusiveness, and distribution of opportunities inside organizations. An investigation into the correlation between gender diversity, work stress, and job satisfaction can provide insights into the potential discrepancies and challenges experienced by various gender groupings. Examining the bibliographic data on research in this field could reveal patterns, deficiencies, and new topics, offering significant knowledge for academics, professionals, and legislators seeking to enhance the quality and fairness of work settings.

The objective of this study was to examine the patterns of scholarly publications on the topics of "Work stress, Gender diversity, and Job satisfaction" that have been published for 42 years, from 1982 to 2023. The research questions (RQ) of this study encompass the many components of document publication:

RQ1. What is the annual scientific output of articles about work stress, gender diversity, and job satisfaction?

RQ2. Which authors have produced the greatest number of publications in the field of Work stress, gender diversity, and job satisfaction?

RQ3. Which documents in the integrated domain have the highest number of citations?

RQ4. Which journals have the highest publication rates for research publications on work stress, gender diversity, and job satisfaction?

RQ 5. What is the ratio of research article publishing that involves collaboration between countries?

RQ 6. Which affiliations and countries have the most productivity?

RQ7. Which authors' keywords are most commonly used in the domain of work stress, gender diversity, and job satisfaction?

To address these questions, the present study used bibliometric analysis.

This paper aims to address the shortcomings of previous studies and provide a valuable contribution to the wider area of research on work stress, gender diversity, and job satisfaction. In this study, we did a thorough examination of the relevant literature to acquire information and then subjected the collected data to careful analysis. A scientific study was conducted to analyze the progress of research in a certain field from 1982 until 2023. The assessment was conducted using many relevant criteria, such as the productivity of authors, productivity by country, collaboration among authors and countries, citation analysis, thematic mapping, and keyword co-occurrence. Therefore, it became possible to clarify improvements in the issue that go beyond what is included in literature evaluations (Baier-Fuentes et al., 2019; Fairbrother & Warn, 2003; Kumar et al., 2023; Tanwar & Prasad, 2016) This study is more comprehensive than previous research and reduces the likelihood of overlooking any essential aspects of the topic matter. Previous studies have demonstrated significant variance in the timeframe considered, depending on the specific subject matter and research goals. Nevertheless, this analysis examined papers that were published during a span of nearly forty years, specifically from 1982 to 2023. This study aims to investigate work stress, gender diversity, and job satisfaction from 1982 to 2023 using scientific mapping and performance analysis.

RESEARCH METHODOLOGY

The analysis commenced by retrieving and compiling document publishing data from the Scopus database on January 22, 2024. The Scopus database was used to search for document articles about the research topic "Work stress, gender diversity, and job satisfaction." The Scopus database was selected due to its status as an indexed database, its comprehensive citation and search data, and its reputation for high quality (Burnham, 2006). For this

study, a total of 1957 documents were identified and carefully examined. The search query for the Scopus database is "((\"Work Stress\" OR \"Job Stress\" OR \"Occupational Stress\" OR \"Gender diversity\") AND (\"Job satisfaction\" AND \"Educational\"))". However, the search specifically targeted the ultimate publications of articles bearing the title and study search keywords "Work stress, gender diversity, and job satisfaction" throughout the time frame of 1982 to 2023. Data screening was conducted, and no instances of duplication were detected in the document list. A comprehensive analysis of research paper titles and abstracts resulted in the elimination of a total of 1705 publications. A total of 252 articles were selected for further examination. The data was subsequently exported as comma-separated values (.CSV) files and research information systems (.RIS) files. Furthermore, descriptive and visualization data were analyzed individually using software tools such as Microsoft Excel, R-Studio, and VOSviewer. The researchers utilized VOSviewer software for mapping analysis (Kumar et al., 2023; Perianes-Rodriguez et al., 2016), Microsoft Excel for descriptive analysis, and R-Studio for metric citation analysis, Bibliometric coupling, thematic mapping, etc. to examine the data in this work. The process of identifying and selecting documents was carried out by the instructions outlined in the study protocol, as depicted in Figure 1.

DATA ANALYSIS

The scientific article creation was quantified by employing a range of parameters. The parameters encompassed the total publication count, the average citation count per document, the average annual citation count per document, the author's keywords, the frequency of author appearances, the percentage of single-authored documents versus multi-authored documents, the number of documents attributed to each author, and the collaboration index. A grand number of 252 documents were generated between the years 1982 and 2023. The resources consisted of 219 articles and 33 review papers, obtained from the Scopus database.

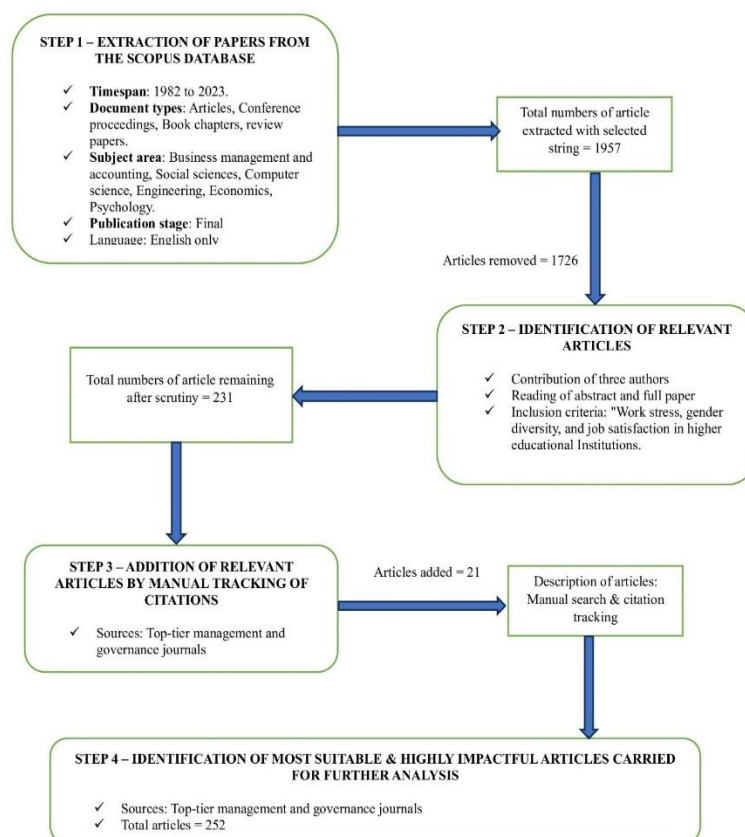


Figure 1: Process of extraction of articles.

Source: Scopus database.

The publications obtained an average of 27.65 citations per document. Table 1 displays 17 documents published in sole authorship, while multiple authors have cooperatively authored a significant proportion of 15.48 documents. The author's level of collaboration was evaluated using two metrics: the mean number of co-authors per

document and the collaboration index, which was determined to be 4.05. This indicates that there was a significant occurrence of collaborative effort and the production of papers with multiple authors in the context of work stress, gender diversity, and job satisfaction. The study's findings reveal a thorough collection of 1662 keywords and an additional 666 authors' keywords, encompassing a wide range of terminology used to examine the factors that represent work stress, gender diversity, and job satisfaction in higher educational Institutions.

Table 1: Scientific production of articles from 1982 to 2023

Description	Results
Time span	1982:2023
Documents	252
Annual Growth Rate %	8.65
Document Average Age	10.2
Average citations per Document	27.65
References	10125
Keywords Plus (ID)	1662
Author's Keywords (DE)	666
Authors	967
Authors of single-authored Document	17
Co-Authors per Document	4.05
International Co-authorships %	15.48
Article	219
Review	33

Source: Authors development using R-Studio (Biblioshiny).

3.1 Annual scientific production of articles:

To investigate Research Question 1, we examine the development of academic papers that examine the relationship between work stress, gender diversity, and job satisfaction among employees in higher education institutions. This study is performed annually within the specified timeframe, as depicted in Figure 2. This study examines articles related to work stress and gender diversity to determine the effect on employees' job satisfaction. The analysis will cover the period from 1982 until 2023. The data for this study was obtained from Scopus, a highly regarded and frequently used database by scholars and researchers for bibliometric and systematic literature evaluation. The data from the Scopus database indicates a significant increase in the scientific production of research articles, with an annual growth rate of 8.65% as shown in Table 1.

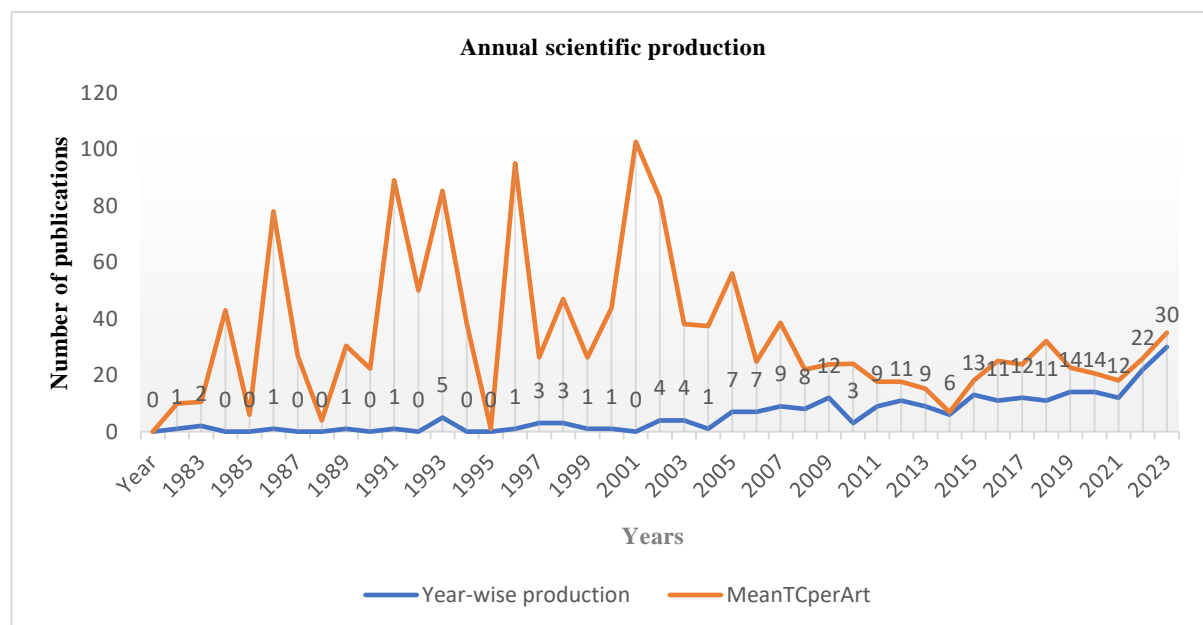


Figure 2: Annual scientific production:

Source: Authors' development Using Biblioshiny (R-Studio).

3.2 *Most prolific authors for publications related to work stress, gender diversity, and job satisfaction:*

To gain a thorough understanding of this particular field of study and address Research Question 2, we also examined the authors who have produced the most significant quantity of academic research on this topic. Throughout the 42 years under investigation, a total of 967 authors have made contributions to the current body of research on work stress, gender diversity, and job satisfaction in the setting of higher educational institutions. Table 2 displays a thorough collection of the top ten authors who have demonstrated the greatest level of production in the areas of work stress and gender diversity, specifically about enhancing job satisfaction among employees in higher education institutions. The authors listed in this table have been catalogued in Scopus, a highly acknowledged database for academic literature. The measurement of productivity is determined by evaluating the number of scholarly publications published by specific authors. In addition, the table provides detailed information on the total number of citations received by the stated authors and their affiliations, as well as their h-index values and Scopus ID inside the respective database. The analysis reveals that "Nancy Lynne Hogan", a researcher with a Scopus h-index of 34, is affiliated with "Ferris State University Big Rapids, United States" and is ranked first. "France Kittel", with an h-index of 37, is affiliated with "Universiteit Leiden, Leiden, Netherlands" and is ranked second. "Eric G. Lambert", with an h-index of 43, is affiliated with "Indiana University Northwest Gary, United States" and is ranked third. Each author contributed four articles in the integrated domain. "Cary L Cooper" has an h-index of 80 and is affiliated with "Alliance Manchester Business School, Manchester, United Kingdom", "Jun'an Liu" has an h-index of 15 and is affiliated with "Tongji Medical College of Huazhong University of Science and Technology, Wuhan, China". "Hong Lu" has an h-index of 25 and is affiliated with "Peking University, Beijing, China", and "Alison E. While" has an h-index of 50 and is affiliated with "King's College London, London, United Kingdom". They are ranked fourth, fifth, sixth, and seventh, respectively, based on their contributions to three research articles each. Temsigen Yihunie Akalu, a researcher with a Scopus h-index of 19, is currently affiliated with The Telethon Kids Institute in Perth, Australia, Bahjat Al-Awa, a highly regarded scholar with a Scopus h-index of 6, is associated with King Abdulaziz University Hospital (KAUH) in Jeddah, Saudi Arabia. Liu, Jinlin, an academic researcher with a Scopus h-index of 14, is affiliated with Northwestern Polytechnical University in Xi'an, China. They are ranked eighth, ninth, and tenth for their contributions, with each of them having published two research articles.

Table 2: Most prolific authors of the incorporated domain.

Authors	Authors' Current Affiliations	NP	TC	Scopus h_index	Scopus ID
Nancy Lynne Hogan	Ferris State University Big Rapids, United States	4	167	34	7005800163
France Kittel	Universiteit Leiden, Leiden, Netherlands	4	229	37	7004184292
Eric G. Lambert	Indiana University Northwest Gary, United States	4	167	43	7103399011
Cary L Cooper	Alliance Manchester Business School, Manchester, United Kingdom	3	165	80	35548399100
Jun'an Liu	Tongji Medical College of Huazhong University of Science and Technology, Wuhan, China	3	109	15	36090192800
Hong Lu	Peking University, Beijing, China	3	218	25	56131259100
Alison E. While	King's College London, London, United Kingdom	3	218	50	56248868500
Temesgen Yihunie Akalu	Telethon Kids Institute, Perth, Australia	2	20	19	57203189637
Bahjat Al-Awa	King Abdulaziz University Hospital (KAUH), Jeddah, Saudi Arabia	2	148	6	37016170400
Liu, Jinlin	Northwestern Polytechnical University, Xi'an, China	2	51	14	57196291775

Source: Authors' development using Biblioshiny (R-Studio).

3.3 *The most cited document in work stress and gender diversity for affecting job satisfaction:*

In accordance with RQ3, Table 3 lists the top 15 research articles that have received the most citations from the Scopus scientific databases. The study "Job Strain, effort-reward Imbalance, and Employee Well-being: a large-scale cross-sectional Study" by de Jonge et al. (2000) is noted to have been published in the journal "Social Science & Medicine" at the top position. It has received 500 citations in total. The article "Why do employees worry about their jobs? is at second position Published by Keim et al. (2014) in the Journal of Occupational Health Psychology, "A meta-analytic review of predictors of job insecurity" garnered a total of 2277 citations.

Table 3: Most cited Documents of the incorporated domain.

Authors	Title	Journal	YOP	TC	TC/Y	Normalized TC
(de Jonge et al., 2000)	Job strain, effort-reward imbalance, and employee well-being: a large-scale cross-sectional study	Social Science & Medicine	2000	500	20.00	1.00
(Keim et al., 2014)	Why do employees worry about their jobs? A meta-analytic review of predictors of job insecurity	Journal of Occupational Health Psychology	2014	227	20.64	4.63
(Godin et al., 2005)	A prospective study of cumulative job stress in relation to mental health	BMC Public Health	2005	210	10.50	2.23
(Glomb, 2002)	Workplace anger and aggression: informing conceptual models with data from specific encounters	Journal of Occupational Health Psychology	2002	203	8.83	2.53
(Alimoglu & Donmez, 2005)	Daylight exposure and the other predictors of burnout among nurses in a University Hospital	International Journal of Nursing Studies	2005	144	7.20	1.53
(Fujishiro et al., 2010)	What does "occupation" represent as an indicator of socioeconomic status? Exploring occupational prestige and health	Social Science & Medicine	2010	133	8.87	1.30
(H. Lu et al., 2007)	Job satisfaction and its related factors: A questionnaire survey of hospital nurses in Mainland China	International Journal of Nursing Studies	2007	125	6.94	2.85
(Siu et al., 2005)	Work stress, self-efficacy, Chinese work values, and work well-being in Hong Kong and Beijing.	International Journal of Stress Management	2005	123	6.15	1.31
(Golubic et al., 2009)	Work-related stress, education and work ability among hospital nurses	Journal of Advanced Nursing	2009	121	7.56	2.83
(Grosch et al., 2006)	Long Hours of Work in the U.S.: Associations with Demographic and Organizational Characteristics, Psychosocial Working Conditions, and Health	American Journal of Industrial Medicine	2006	112	5.89	4.81
(Pipe et al., 2012)	Building Personal and Professional Resources of Resilience and Agility in the Healthcare Workplace	Stress & Health	2011	111	8.54	3.26
(Delp et al., 2010)	Job Stress and Job Satisfaction: Home Care Workers in a Consumer-Directed Model of Care	Health Services Research (HSR)	2010	109	7.27	1.06

(Cocker et al., 2013)	Psychological Distress, Related Work Attendance, and Productivity Loss in Small-to-Medium Enterprise Owner/Managers	International Journal of Environmental Research and Public Health	2013	100	8.33	2.74
(Kinman & Jones, 2003)	Running Up the Down Escalator': Stressors and strains in UK academics	Quality in Higher Education	2003	97	4.41	2.54
(Y. Lu et al., 2016)	Job satisfaction and associated factors among healthcare staff: a cross-sectional study in Guangdong Province, China	Health Services Research (HSR)	2016	95	10.56	3.22

Source: Authors' development using Biblioshiny (R-Studio)

The research study titled "A prospective study of cumulative job stress in relation to mental health" by Godin et al., (2005) is highly regarded as one of the top three publications in the field. It was published in the prestigious journal "BMC Public Health" and has received a substantial number of citations (210). The research study titled "Running Up the Down Escalator': Stressors and strains in UK academics," authored by Kinman & Jones, (2003), is ranked fourteenth with respect to citation count, having a total of 97 citations. This study was published in the academic journal "Quality in Higher Education." The research article titled "Job Satisfaction and Associated Factors among Healthcare Staff: A Cross-sectional Study in Guangdong Province, China" authored by Y. Lu et al. in 2016 and published in "Health Services Research (HSR)" is ranked fifteenth in terms of citations, with a total of 95 citations, as indicated in Table 3.

3.4 Most prolific journals

In relation to the journals that have published a larger quantity of papers on the specific topic of interest, RQ4, it is noteworthy that the journal titled "International Journal of Environmental Research and Public Health" holds the top position by contributing 12 research articles. Figure 3 displays the rankings of the "Indian Journal of Public Health Research and Development" and "Social Science and Medicine". These journals hold the second and third spots, each contributing five research papers. The scholarly publications "Plos One" and "Work" have each published a total of 4 research papers. Similarly, "The Annals of Occupational and Environmental Medicine", "Iran Occupational Health", and "The Journal of Affective Disorders" have each published three studies. The journals "African Journal of Psychiatry (South Africa)" and "BMJ Open" are ranked ninth and tenth, respectively, for their contribution of two research articles each.

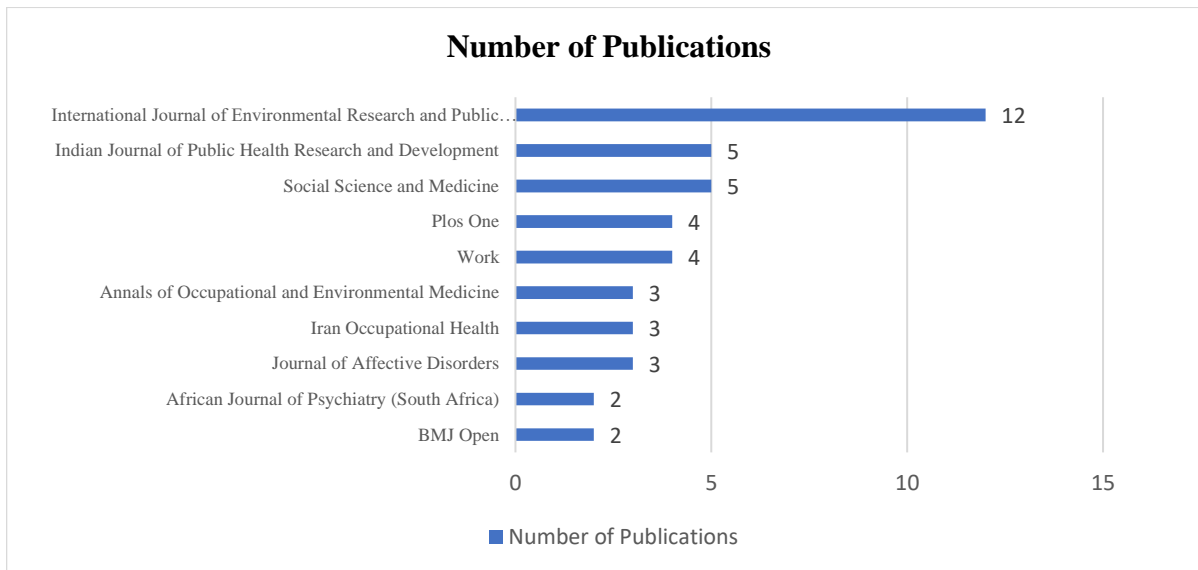


Figure 3: Most contributing journals

Source: Authors' development using Biblioshiny

3.5 Authors' collaboration (SCP/MCP ratio) for publication of research articles:

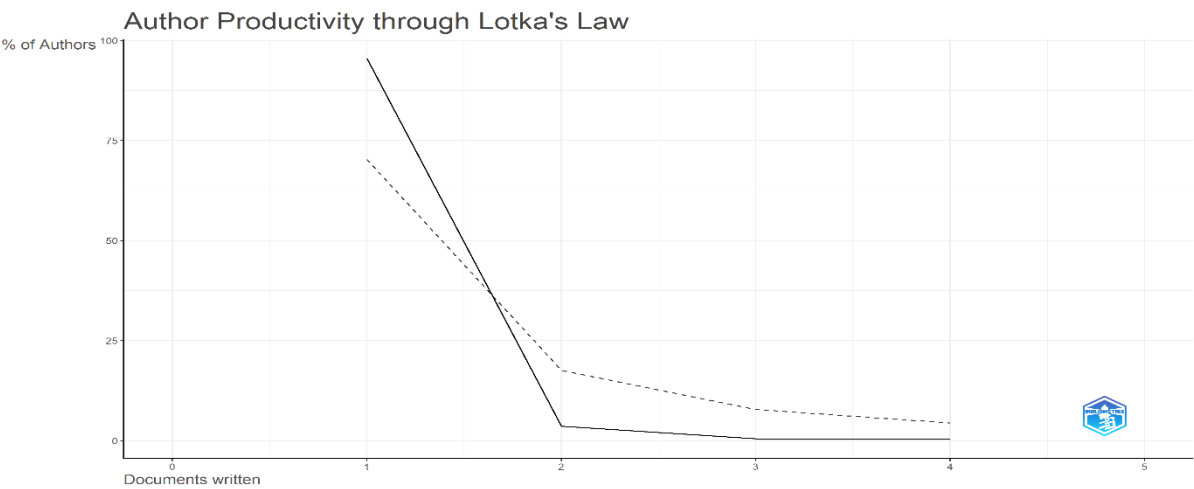
Lokta's law was employed to elucidate the quantification of publications authored by different writers in the field of work stress and gender diversity as revealed in Figure 4, specifically examining their impact on enhancing job satisfaction in higher educational institutions. Lokta's law suggests an inverse relationship between the number of articles and the frequency at which authors produce them (Kumar et al., 2023; Sahu & Jena, 2022). Based on the information provided in Table 4, it can be observed that a large majority of authors, namely 924 individuals (accounting for 95.60 percent), from various countries, have each written a single article on the topics of work stress, gender diversity, and job satisfaction. The main focus of these papers is to investigate how work stress and gender diversity impact job satisfaction among employees in higher educational institutions. In the particular field under consideration, it is clear that a group of 35 writers, constituting 03.60 percent, have made significant contributions by each generating a total of two works. Likewise, it has been noted that a group of five authors have each made contributions to three publications, while three authors have each made contributions to four papers on the same subject.

Table 4: Authors' collaboration using Lotka Law

Documents written	Number of Authors	Proportion of Authors
1	924	0.956
2	35	0.036
3	5	0.005
4	3	0.003

Source: Authors' development using Biblioshiny (R-Studio).

Figure 4: Authors' production using Lotka law

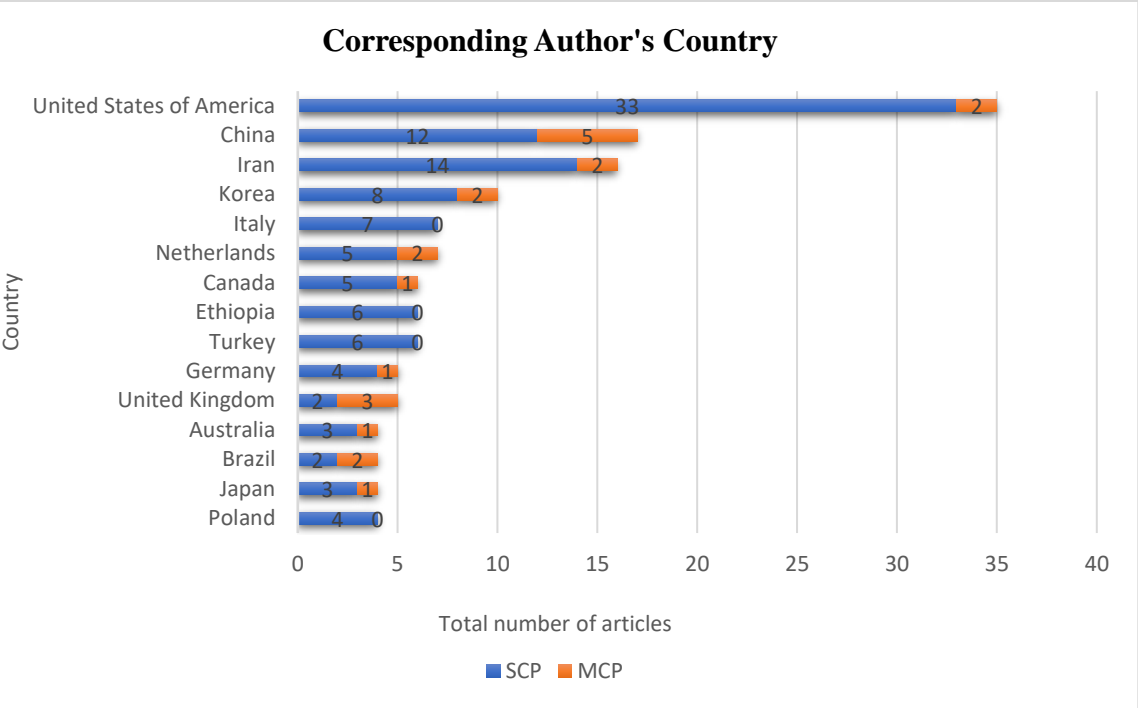


Source: Authors’ development using Biblioshiny in conjunction with R-Studio.

3.6 Corresponding authors’ country (SCP/MCP):

Based on the data depicted in Figure 5, it is evident that the United States of America has made a total contribution of 33 research publications in the areas of work stress, gender diversity, and job satisfaction. Nevertheless, the results suggest that the ratio of MCP to the total number of articles is rather low, specifically at 0.061. This study examines the scientific literature on work stress, gender diversity, and job happiness that has been published in the past four decades, using data from the Scopus databases. China has published a total of 17 research publications in the fields of work stress, gender diversity, and job satisfaction. Out of these, five articles were written in conjunction with foreign countries, indicating a modest level of international cooperation (MCP ratio of 0.294). Similarly, the United Kingdom published a total of 5 research articles, with 3 of them being co-authored with authors from foreign countries, resulting in the highest MCP ratio of 0.600.

Figure 5: Corresponding Authors’ country for the publication of articles of related domain



Source: Authors’ development using Biblioshiny in conjunction with R-Studio.

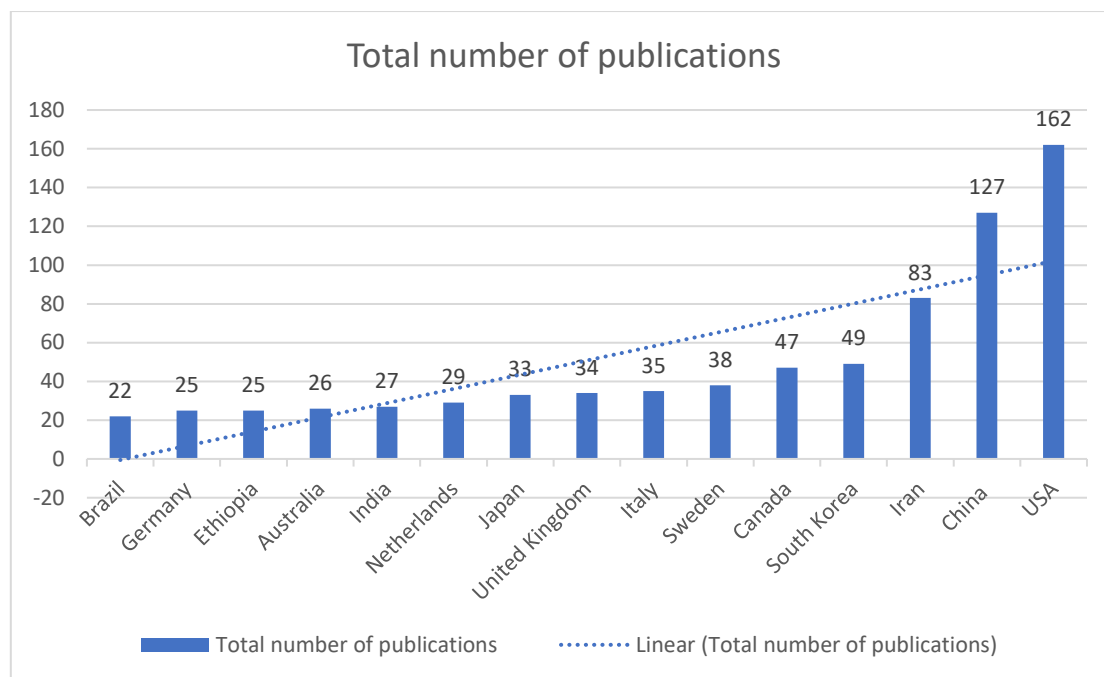


Figure 6: Countries' productivity in terms of total publications

Source: Authors' development using Biblioshiny in conjunction with R-Studio.

3.7 Most prolific countries for total publication in the incorporated area:

Figure 6, it is revealed that the United States of America has produced the maximum number of research articles (162) in term of publication of research articles in the work stress, gender diversity, and job satisfaction domain followed by China (127) research articles, Iran (83), South Korea (49) articles, Canada (47) articles, and Sweden is at the top sixth position by publishing a total of (38) research articles in the current domain. India has contributed a total of 27 research publications in the areas of gender diversity, job satisfaction, and work stress in higher education institutions, placing it in Eleventh place. Australia, Ethiopia, and Germany have consistently produced research articles (26, 25), and (25). Brazil has published a total of twenty-two research publications, placing it in fifteenth place.

3.8 Most prolific authors' affiliations for publication of research articles:

As shown in Figure 7, the results show that the Tehran University of Medical Sciences has contributed 13 papers in the areas of work stress, gender diversity, and job satisfaction. After publishing a total of 12 and 11 research articles, the University of Tasmania and Linköping University are in first, second, and third place, respectively. Huazhong University of Science and Technology, University of Southampton, and Urmia University of Medical Sciences are ranked fourth, fifth, and sixth, respectively, based on their contribution of 10 research articles each. Similarly, Debre Markos University, Peking University, and the University of Manitoba are ranked thirteenth, fourteenth, and fifteenth, respectively, based on their publication of 8 research articles each.

3.9 Occurrence of authors' keywords:

The authors conducted a thematic analysis of keywords and found that the term "Job Satisfaction" was mentioned most frequently, occurring 304 times. This was followed by the terms "Female," "Adult," "Male," "Human," and "Humans," which occurred 249, 240, 236, 204, and 137 times respectively. These terms collectively represent the concept of "Gender Diversity" in higher educational institutions. Similarly, the terms "Job Stress", "Workload", "Stress psychological", "occupational health", and "Burnout" were found 149, 71, 55, 52, and 49 times, respectively. The keywords used by these authors collectively indicate the phenomenon of work-related stress in higher educational institutions.

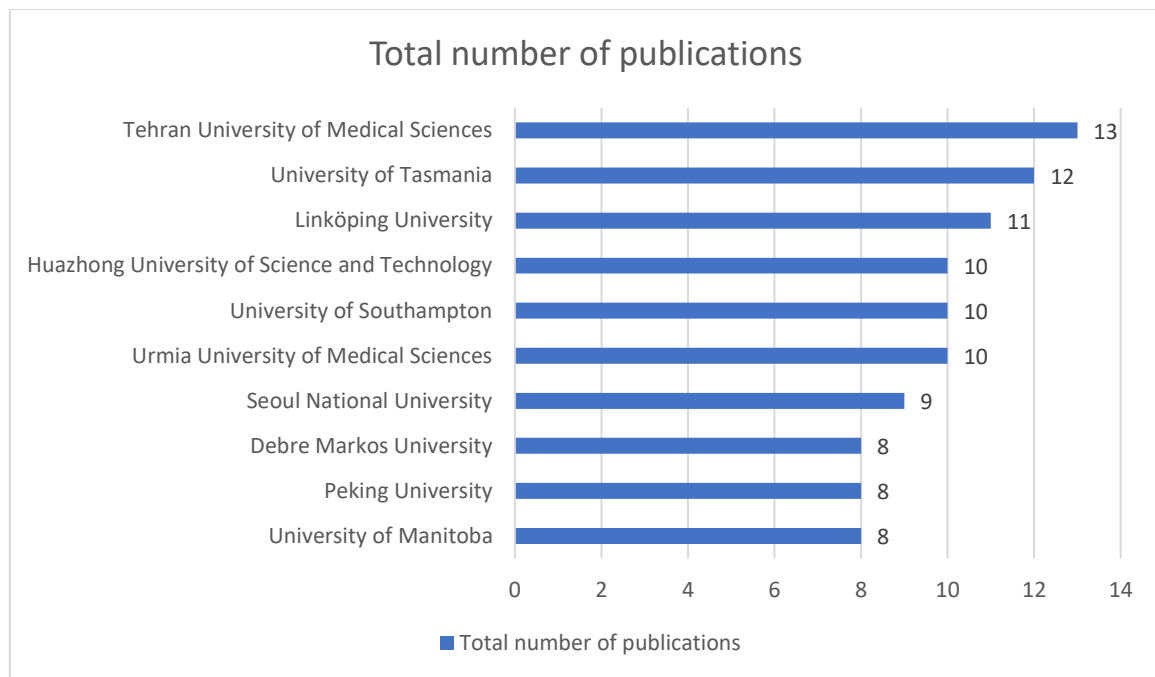


Figure 7: Total publication by different affiliations

Source: Authors' development using Biblioshiny in conjunction with R-Studio.

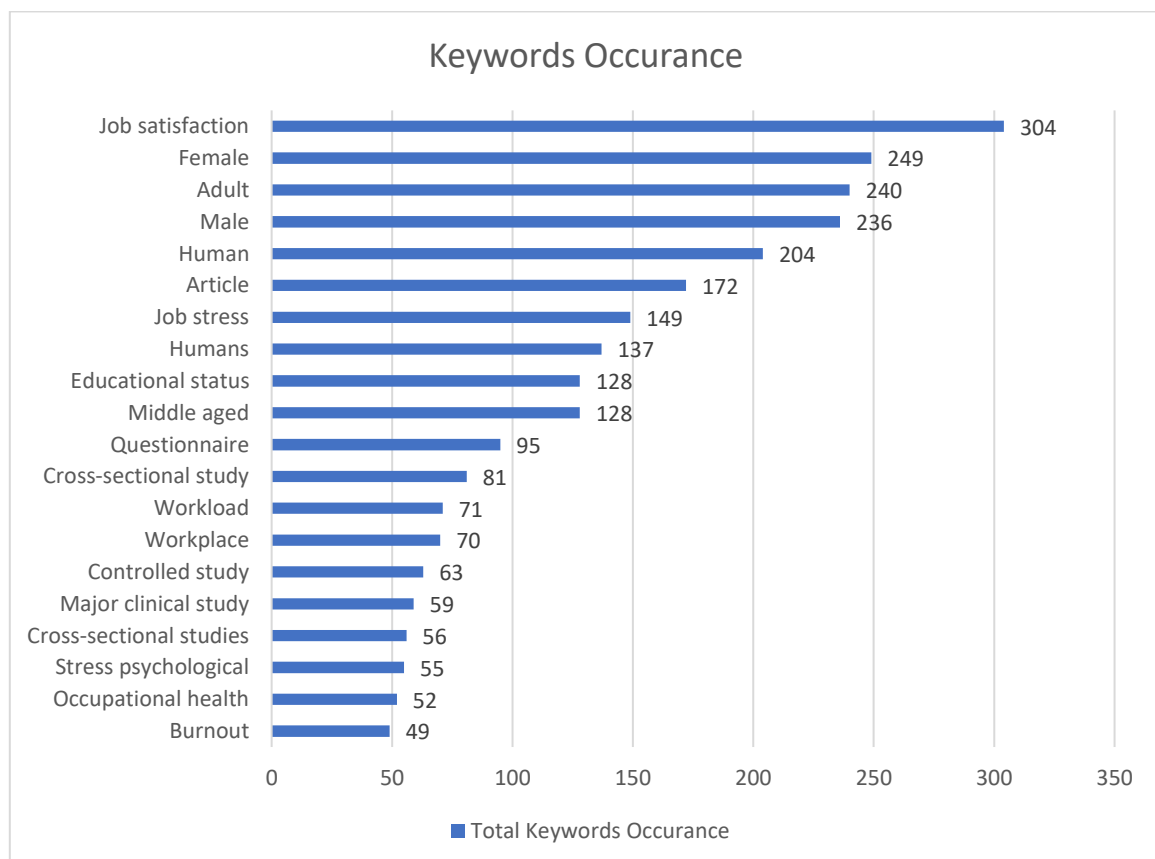


Figure 8: Authors' keywords thematic analysis

Source: Authors' development using Biblioshiny in conjunction with R-Studio.

3.10 Co-occurrence of Keyword Plus related to Work-stress, Gender Diversity, and Job Satisfaction domain:

Figure 9 illustrates the incidence of Keywords Plus, which is associated with work stress, gender diversity, and job satisfaction in higher educational institutions. A total of five clusters were discovered. The initial cluster was created by merging terms like "Job Satisfaction", "Job Burnout", "Job Stress", and "Occupational Stress". These terms represent the largest cluster. The density of the circle indicates the frequency of the term's repetition. The second cluster, consisting of "effort-reward imbalance", "Health", "Job Strain", "Social support", and "Well-being", is collectively made significant. Similarly, the terms "Education", "Gender", "Occupational health", and "Stress" constituted the third prominent cluster. The phrases "Burnout", "COVID-19", "Teachers", and "Work" were grouped to produce the fourth cluster. The terms "Depression", "Faculty", "Mental health", and "Work Stress" were significant variables in the formation of the fifth cluster.

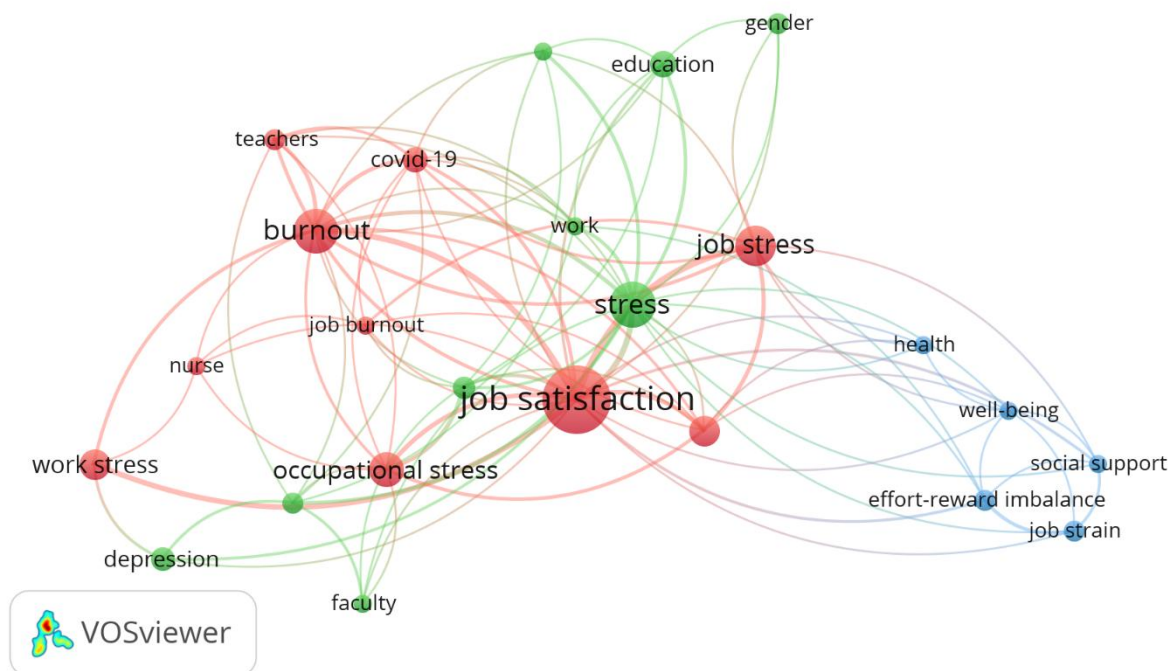


Figure 9: Co-occurrence of Keyword plus incorporated domain

Source: Authors' development using VOSviewer.

3.11 Bibliographic coupling between different countries to cite articles:

By examining the bibliographic coupling among various countries in citing articles, four distinct clusters were identified. Figure 10 depicts the most extensive cluster, which encompasses a total of eight countries. The United States of America, along with Australia, Ethiopia, India, Iran, South Korea, Taiwan, and Turkey, have been cited in study studies on work stress, gender diversity, and job satisfaction among employees in higher educational institutions. Similarly, Germany, Italy, Japan, Netherlands, Poland, and Sweden formed a second notable cluster. Countries such as Brazil, China, Saudi Arabia, and the United Kingdom made significant contributions to the third cluster in terms of bibliographic coupling of research papers. Canada is the sole country in the fourth grouping.

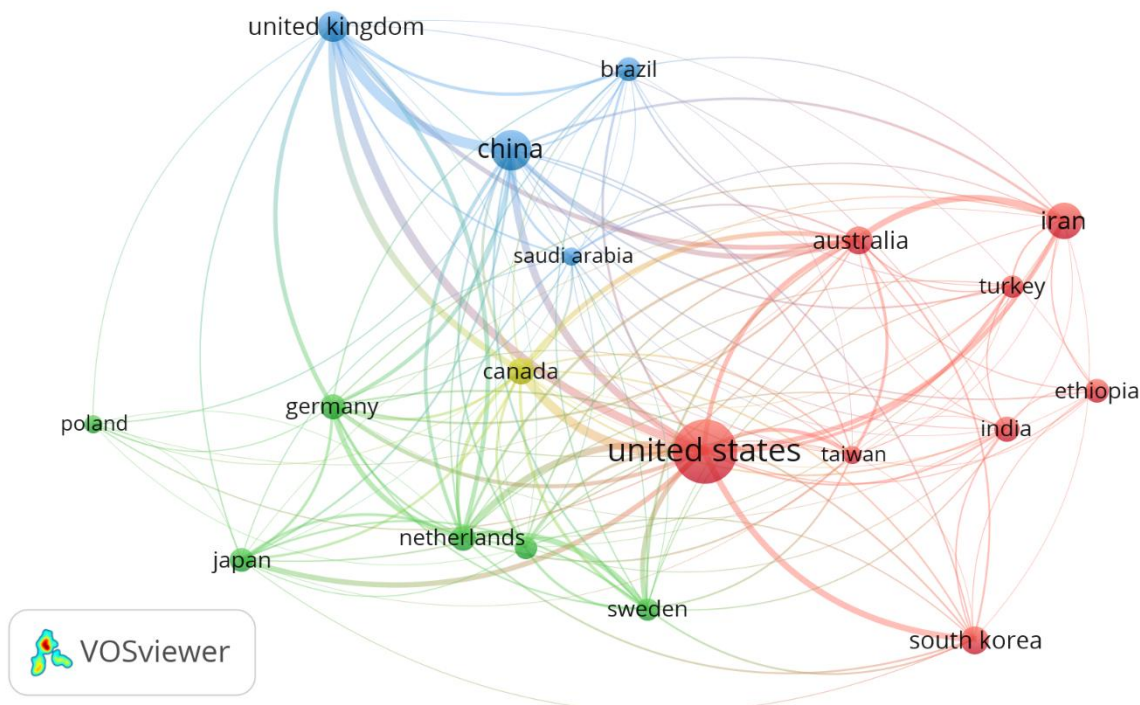


Figure 10: Bibliographic coupling between countries

Source: Authors' development using VOSviewer.

4 DISCUSSION

4.1 Theoretical implications:

The research report reveals a growing number of academic studies that examine work stress, gender diversity, and job satisfaction in higher education institutions. After examining publications from 1982 to 2023, it was observed that the rate of publication growth showed a significantly moderated pace of 8.65 percent per year for the entire time. Three prominent academics, namely Nancy Lynne Hogan, France Kittel, and Eric G. Lambert, have each produced four research publications, establishing their dominance in the field of scholarly study. Among these three, France Kittel received the greatest number of citations, with a total of 229 citations. The research article titled “Job Strain, effort-reward Imbalance, and Employee Well-being: a large-scale cross-sectional Study” holds the top position in terms of total citations, with a count of 500. Regarding the specified journals, it is not surprising that the majority of the publications have been distributed through reputable Human Resource Management magazines. The “International Journal of Environmental Research and Public” journal is particularly noteworthy in the field, with the “Indian Journal of Public Health Research and Development” ranking second among business and higher education publications.

The academic investigation of topics pertaining to factors such as work stress, gender diversity, and job satisfaction has achieved a noteworthy degree of complexity, especially in the United States and China, where a sincere quest for knowledge and comprehension has propelled it. The results suggest that China, the United Kingdom, and Brazil are leading the way in terms of collaborative efforts at both the national and institutional levels. Tehran University of Medical Sciences has published 13 publications on the topics of work stress, gender diversity, and job satisfaction. The University of Tasmania and Linköping University have published 12 and 11 research articles, respectively, placing them in the top and second positions. The researchers performed a theme analysis on keywords and determined that the term “Job Satisfaction” was the most frequently used, appearing 304 times. Subsequently, the terms “Female,” “Adult,” “Male,” “Human,” and “Humans” appeared 249, 240, 236, 204, and 137 times, respectively.

5.2 Practical contribution:

Although this publication is primarily intended for the academic and scientific community, it is important to acknowledge that the findings could also have practical ramifications. The study of work stress factors, gender

diversity promotion, and their impact on job satisfaction in higher educational institutions has gained significant scholarly attention in recent years. This study aims to enhance comprehension of the elements that effectively mitigate work-related stress, foster workplace diversity, and enhance employee job satisfaction. It has great practical use in providing information for decision-making in many situations. Understanding the factors contributing to job satisfaction among employees in higher educational institutions, such as colleges, government universities, and private universities, is important for improving overall job satisfaction. It is also worth noting that scholars and executives within organizations could collaborate to develop the topic. These tasks may help us understand work stress, gender diversity, and job satisfaction in colleges and universities. Identifying well-known scholars and influential academic publications in human resource management, particularly in work stress, gender diversity, and job satisfaction, can be a valuable resource for practitioners and researchers. It helps them find reliable and relevant sources of knowledge. The findings highlight the dominant role of the United States of America and China in work stress, gender diversity, and job satisfaction among employees working in higher educational institutions. This phenomenon provides many chances for academics from various nations to interact with these prestigious countries and institutions, thus promoting the flow of knowledge and facilitating cooperative research efforts. The study demonstrates the relevance of using performance analysis and scientific mapping tools to enhance our understanding of the relationship between work stress, gender diversity, and job happiness.

5 CONCLUSION

This bibliometric analysis provides insight into the complex correlation between work stress, gender diversity, and job satisfaction among employees in higher educational institutions. By examining scholarly literature, it becomes clear that these variables are not separate occurrences but are closely linked, affecting each other in intricate ways. The results emphasize the importance of tackling work-related stress in academics, acknowledging its harmful impact on both personal well-being and organizational efficiency. Additionally, the analysis emphasizes the significance of cultivating gender diversity as a method to improve workplace dynamics and advance inclusivity in higher education environments.

The association between job satisfaction and these variables emphasizes the necessity of implementing comprehensive methods focused on fostering supportive work environments that prioritize employee well-being and fulfilment. Institutions can work towards creating healthier and more equitable workplaces that promote academic performance and professional growth by recognizing and dealing with the many aspects of these variables. In the future, it is important for research to further investigate the intricate dynamics involved by examining other variables and potential moderating factors. This will help in the development of more focused interventions and policies. At conclusion, by utilizing the findings from our bibliometric research, stakeholders can effectively collaborate to establish prosperous and inclusive environments at higher educational institutions. This bibliometric study examines several efforts to comprehend the progression of work-related stress, gender diversity, and job satisfaction. (Mohan, et al., 2021; Miozzo & DiVito, 2016) found that employees in higher educational institutions encounter both positive and bad experiences as a result of elevated work stress. Work stress can be mitigated by employing a range of measures.

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