

## MAPPING THE LANDSCAPE OF WORKPLACE HAPPINESS: A COMPREHENSIVE ANALYSIS OF PUBLICATION PATTERNS AND TRENDS

<sup>1</sup>Dr. Rupa Rathee, <sup>2</sup>Seema Malik\*

<sup>1</sup>Associate Professor, Department of Management Studies, Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Haryana, India, \_

<sup>2</sup>Research Scholar, Department of Management Studies, Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Haryana, India, \_

*\*Corresponding Author: Seema Malik\**

### ABSTRACT:

Our primary goal is to perform a thorough bibliometric analysis that clarifies the intellectual framework of workplace happiness research. By utilizing bibliometric tools, we intend to reveal publication trends, key contributors, and the development of thematic focuses over time. This study aims to summarize current knowledge, identify gaps, and highlight emerging areas for future exploration. We examined the state of the field from 2000 to 2023 using bibliometric techniques and assessed the global scientific output of studies on workplace happiness. The R bibliometric package was used to analyze author contributions and publication outputs both quantitatively and qualitatively. The final analysis included a total of 519 relevant papers. Significant findings were uncovered through detailed examination of highly cited publications and diverse contributions to workplace well-being research from various authors, countries, academic institutions, and journals. Additionally, this research employs co-occurrence and cluster analyses to identify major trends and themes in workplace happiness. This comprehensive review not only sheds light on existing research but also points out potential future research directions. Through this bibliometric analysis, we aim to contribute to the ongoing discourse on workplace happiness by providing a detailed synthesis of existing studies. This analysis is intended to inform scholars, practitioners, and organizational leaders about key aspects of workplace happiness, thereby aiding evidence-based decision-making and interventions to promote positive workplace cultures.

**Keywords:** *Workplace Happiness, employee wellbeing, happiness at work, Bibliometric analysis, Review, Biblioshiny*

### 1. INTRODUCTION

Workplace happiness and employee well-being are essential for organizational success and sustainable productivity. Studies consistently show that a happy work environment positively influences individual job satisfaction and overall employee well-being (Wright & Cropanzano, 2000). Employee well-being includes physical, mental, and emotional health, and workplace happiness plays a crucial role in nurturing these aspects (Grant et al., 2007). A positive workplace atmosphere enhances job satisfaction and is associated with increased engagement and commitment, thereby improving organizational performance (Diener et al., 2010; Harter et al., 2002). The well-being of employees is closely tied to

organizational outcomes, highlighting the need for proactive measures to create a positive workplace culture (Judge & Bono, 2001). As organizations navigate the complexities of the modern business world, recognizing and prioritizing workplace happiness is a strategic necessity for fostering employee well-being and achieving long-term success (Lyubomirsky et al., 2005).

In recent years, research on workplace happiness has become more prominent, indicating a growing awareness of its importance in creating a positive work environment and improving organizational outcomes. The pursuit of workplace happiness is not just a personal experience; it has concrete effects on employee performance, job satisfaction, and organizational success (Achor, 2010; Lyubomirsky et al., 2005). As organizations increasingly focus on employee well-being, understanding the academic landscape of workplace happiness through bibliometric research is crucial.

Bibliometric analysis offers a structured and quantitative approach to examining the scholarly output, trends, and impact of research in a specific field (Aria & Cuccurullo, 2017). This study aims to conduct a comprehensive bibliometric analysis of the literature on workplace happiness, identifying key contributors, influential journals, and emerging trends. By synthesizing the existing body of knowledge, this study seeks to provide insights into the development of workplace happiness research and its current status, guiding future research in this vital area.

## RESEARCH METHODS

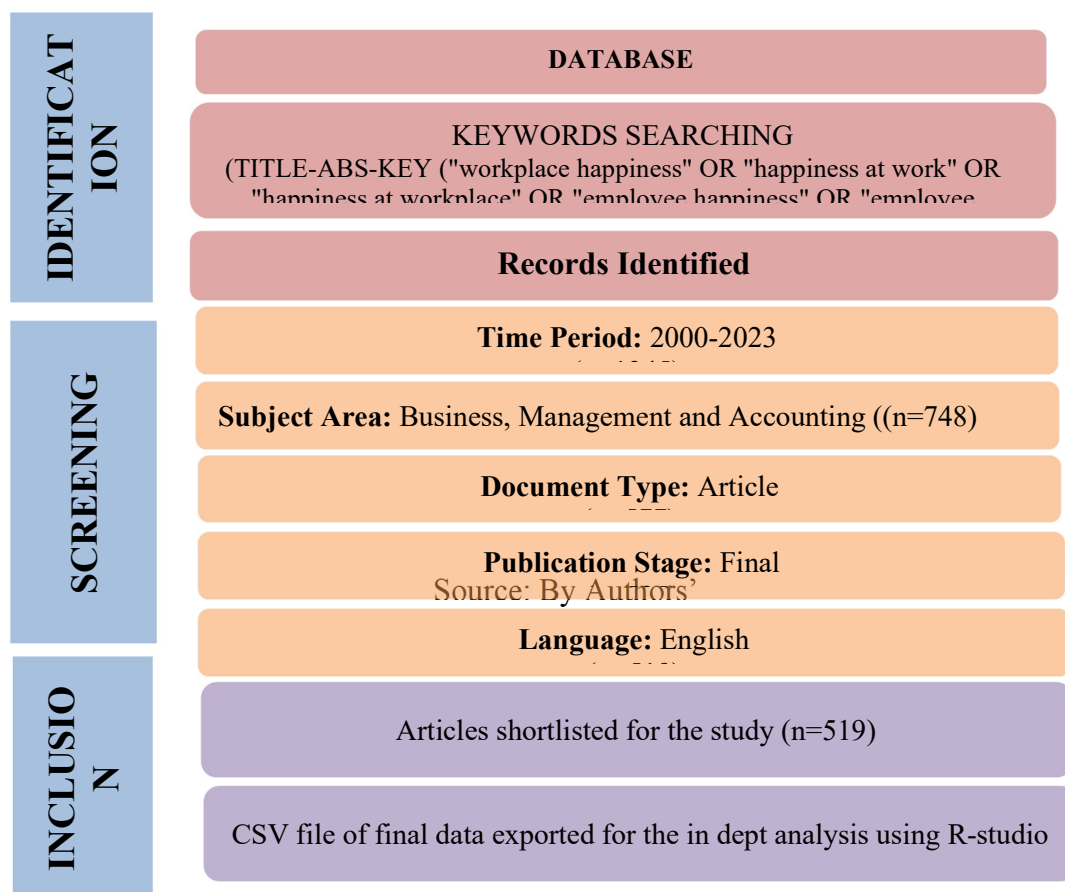
Bibliometric analysis is a quantitative technique used to evaluate and assess the scholarly impact, productivity, and trends within a specific research field (Van Raan, 2005). This systematic method involves the statistical examination of academic publications, including articles, journals, and citations, to identify patterns, key contributors, and emerging topics. Serving as a crucial tool for mapping the intellectual structure of a field, bibliometric analysis helps understand the evolution of research, track academic collaborations, and provide insights for future studies (Aria & Cuccurullo, 2017). One significant component of bibliometric analysis is the examination of citation patterns, which allows researchers to measure the impact and influence of specific works within a given field (Garfield, 1979). Metrics such as the h-index and citation counts offer quantitative indicators of a researcher's or publication's impact, enabling comparisons across disciplines and over time (Hirsch, 2005). Additionally, co-citation analysis uncovers intellectual connections between authors and the development of research themes (Small, 1973). The popularity of bibliometric analysis has increased recently, primarily due to the availability of extensive digital databases and advanced analytical tools. Software packages like VOSviewer, CiteSpace, and bibliometrix have equipped researchers with the ability to perform detailed analyses of publication patterns, collaboration networks, and the identification of research frontiers (Aria & Cuccurullo, 2017; Chen et al., 2010; Van Eck & Waltman, 2010). This paper aims to apply bibliometric analysis to thoroughly review the scholarly landscape of a specific research domain, highlighting key contributors, influential works, and emerging trends. By synthesizing bibliometric data, researchers can gain a comprehensive understanding of the intellectual framework within a field, aiding in strategic decision-making, research prioritization, and identifying gaps for future exploration.

**Research Objectives:**

The primary research objectives guiding this study are multifaceted and aim to provide a comprehensive understanding of workplace happiness research. Firstly, the study seeks to determine the current status and publication patterns related to workplace happiness, identifying trends and shifts over time. It aims to examine which articles, authors, and sources have the most significant influence on the field, highlighting key contributors and seminal works. Additionally, the study investigates the relationships between journals, keywords, and nations, uncovering patterns of collaboration and thematic focus across different regions. Another objective is to analyze the evolution of thematic focuses within workplace happiness publications, tracing how topics of interest have changed over time. The study also aims to identify the current research trends in happiness management, providing insights into emerging themes and directions. Furthermore, it involves examining bibliographic data and integrating it into a cohesive set of components to better understand the intellectual structure of the field. Finally, the study seeks to identify research gaps in workplace happiness, pinpointing areas that require further investigation and offering directions for future research.

**Methodology:****a. Data Collection**

Figure 1: The PRISMA diagram used for bibliometric review



## 2.2 Data Analysis Procedure and Methodological Framework

The methodological framework for this research comprises a series of focused inquiries designed to systematically explore different facets of workplace happiness. The first research objective seeks to understand the current state and publication trends in the field, employing performance analysis techniques such as tracking publication and citation trends, annual scientific production, and source growth. The second objective involves a citation analysis to identify influential articles, authors, and sources by examining metrics like top author productivity, author impact, Lotka's Law, source impact, and Bradford's Law. The third objective employs network analysis to unravel the relationships between journals, keywords, and nations through co-citation networks, co-occurrence networks, and collaboration networks. The fourth objective utilizes content analysis methods, including thematic evolution maps, word clouds, and word growth, to discern how themes in workplace happiness publications have evolved over time. The fifth objective investigates the current research trend in happiness management using bibliographic coupling and multidimensional scaling. The sixth objective employs bibliographic coupling and cluster analysis to examine the bibliographic data, creating coupling networks of sources and authors. The final objective aims to identify research gaps through factorial analysis, employing techniques such as multiple correspondence analysis (MCA). The final part elaborates on the research results. The discussion and conclusions section of this paper emphasizes the findings of the study, providing a detailed description of the main discoveries and their significance, while also addressing the study's constraints and future paths. This comprehensive methodological framework ensures a nuanced and holistic exploration of workplace happiness, combining diverse analytical tools to address distinct research questions.

## RESULT AND ANALYSIS

Table2: Main information about data

Description	Results
Timespan	2000:2023
Sources (Journals, Books, etc)	292
Documents	519
Annual Growth Rate %	17
Document Average Age	4.33
Average citations per doc	18.23
References	30980
DOCUMENT CONTENTS	
Keywords Plus (ID)	796
Author's Keywords (DE)	1534
AUTHORS	
Authors	1397
Authors of single-authored docs	62
AUTHORS COLLABORATION	
Single-authored docs	65
Co-Authors per Doc	3.04

International co-authorships %	22.54
--------------------------------	-------

DOCUMENT TYPES
----------------

Article	519
---------	-----

This table presents details regarding a dataset covering the period from 2000 to 2023, sourced from 292 outlets such as journals, books, and other references. The dataset consists of 519 records, experiencing a notable yearly growth rate of 17%. The documents are quite current, having an average age of 4.33 years. The documents within this dataset have received an average of 18.23 citations each, highlighting their significance and impact within the academic community. The dataset contains a substantial number of references, totaling 30,980.

In terms of document content, there are 796 Keywords Plus (ID) and 1534 Author's Keywords (DE), offering further insights into the subjects addressed in the documents. The dataset involves contributions from a diverse group of 1397 authors, with 62 single-authored documents.

The collaboration among authors is evident, with 65 documents authored by a single individual and an average of 3.04 co-authors per document. International collaboration is notable, accounting for 22.54% of co-authorships.

Regarding document types, all 519 documents fall under the category of "article," suggesting a focus on detailed and in-depth scholarly discussions.

Overall, this dataset represents a robust and dynamic collection of academic works characterized by significant growth, international collaboration, and a diverse range of topics covered by many authors.

## Performance Analysis

### Publication Trend

**Table 3(a): Number of publications by year**

Year	Articles
2000	2
2001	1
2002	3
2003	1
2004	1
2005	1
2006	2
2007	3
2008	5
2009	11
2010	17
2011	9
2012	11
2013	9
2014	13

**Table 3(b): Country Scientific Production**

Region	Frequency
USA	283
AUSTRALIA	117
SPAIN	117
UK	113
INDIA	94
MALAYSIA	59
NEW ZEALAND	56
CANADA	49
PAKISTAN	49
NETHERLANDS	48
SOUTH AFRICA	48
CHINA	43
ITALY	38
PORTUGAL	38
INDONESIA	33

2015	14
2016	12
2017	27
2018	29
2019	38
2020	68
2021	64
2022	104
2023	74

MEXICO	22
UNITED ARAB EMIRATES	22
LITHUANIA	20
SAUDI ARABIA	17
TURKEY	16

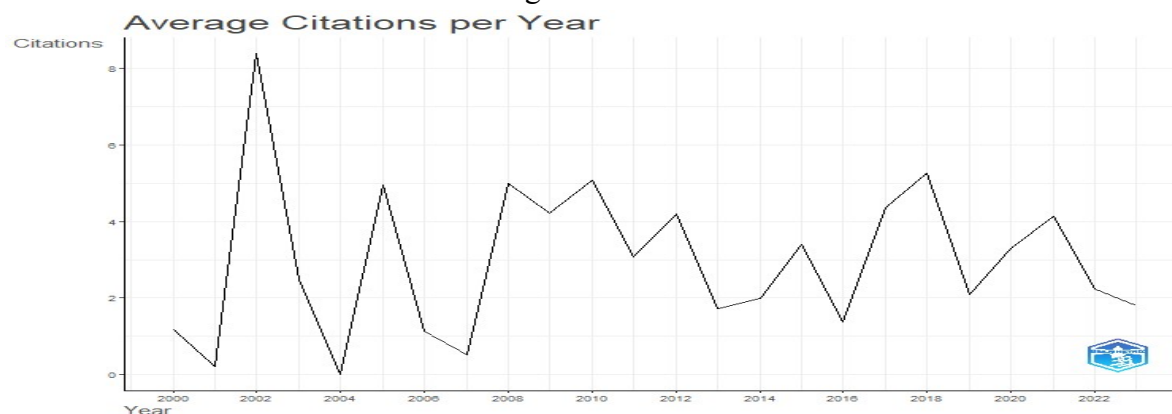
The examination of publication numbers per year illustrates a vibrant and evolving research environment throughout the last two decades. The early 2000s exhibited a modest number of publications, with a notable increase in 2002, indicating a potential growth in research activities. Subsequently, there is a steady upward trajectory, with a substantial surge in publications starting from 2008. The years 2010, 2018, 2019, and 2022 stand out with high publication counts, suggesting periods of prolific scholarly output. The peak in 2022, with 104 publications, indicates a remarkable surge in research productivity. The slight decline in 2023 may signify a shift in research dynamics or external factors influencing publication rates. Overall, this analysis provides a comprehensive summary of the annual variations in publication numbers, reflecting the dynamic nature of academic contributions and trends within the given timeframe.

### **Country Scientific Production:**

The analysis of country-wise scientific production, as evident in the provided data, sheds light on the distribution of scholarly contributions across various regions. The United States is the leading contributor to 283 scientific productions, underscoring its prominent role in global research. Australia and Spain closely follow with 117 publications each, demonstrating robust research activity in these nations. The United Kingdom and India also exhibit noteworthy contributions, with 113 and 94 publications, respectively. Malaysia, New Zealand, Canada, Pakistan, and the Netherlands contribute substantially, reflecting a diverse global participation in scientific endeavours. This data underscores the internationalization of research, with countries like China, Italy, and Portugal making significant contributions to the global scientific landscape. The diversity in scientific production across regions signifies a rich and collaborative environment, fostering the exchange of knowledge and ideas on a global scale.

## Citation Trend

Figure 3: Citation Trend

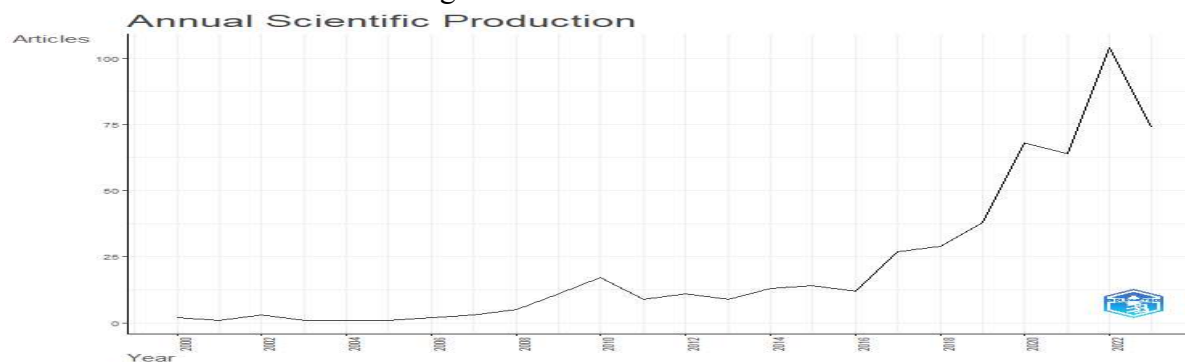


(Source: R-Studio 2023)

The analysis of average citations per year provides a nuanced understanding of the temporal impact and recognition of scholarly articles over the years. The data reveals a dynamic pattern in the mean total citations per year (MeanTCperYear) across different years. In the earlier years, such as 2000 and 2001, the mean total citations per year were relatively modest, indicating a gradual establishment of the research's impact. A notable spike occurred in 2002, with an impressive MeanTCperYear of 8.38, suggesting a substantial increase in citations. Subsequent years, particularly 2008, 2010, 2017, and 2018, exhibit peaks in MeanTCperYear, highlighting periods of heightened citation impact. The data also shows a decline in MeanTCperYear in recent years, such as 2020 and 2021, indicating a potential shift in research focus or citation patterns. The analysis of MeanTCperYear provides valuable insights into the temporal dynamics of scholarly impact, aiding researchers and stakeholders in understanding the ebb and flow of citation trends over time.

## Annual Scientific Production

Figure 4: Annual Scientific Production



(Source: R-Studio 2023)

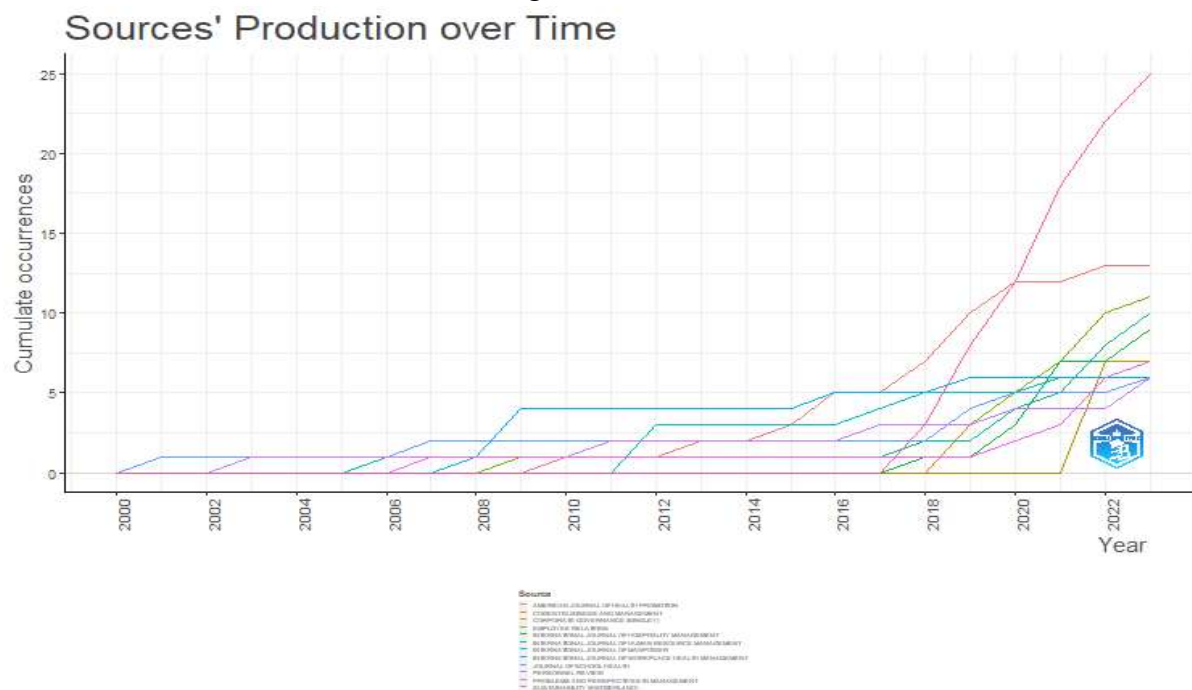
The analysis of annual scientific production, as reflected in the provided data, unveils a compelling trajectory of scholarly output over the years. The early 2000s witnessed a relatively modest number of articles, with a notable increase in 2002, signaling a potential uptick in research activities. Subsequent

years, particularly from 2008 onwards, reveal a substantial growth in annual scientific production, reaching its zenith in 2022 with 104 articles. This significant spike may indicate an expanding research landscape, increased academic engagement, or a surge in publication opportunities. The consistent upward trend up to 2022 underscores a sustained commitment to scholarly contributions. However, the slight decrease in 2023 may indicate a potential shift in research dynamics or factors influencing publication output. This analysis provides a valuable overview of the annual ebb and flow of scientific production, aiding in understanding evolving research patterns and their implications over the years.

### Source Growth:

The growth of journals—the primary source of studies on workplace happiness—was also observed in this study. As shown in Figure 5, the growth of the top 10 journals is taken into consideration based on the analysis. This figure depicts that Sustainability (Switzerland) has published the highest number of articles since 2020, it shows a rapid increase in the publication from 2018 onwards. Since 2020, the American Journal of Health Promotion has published the second-highest number of papers, and in 2022, it published the most. Furthermore, in the current year, the Employee Relations and International Journal of Human Resource Management both published eleven and 10 papers, respectively. Despite the steady increase in publications in other journals over the preceding few years, this may indicate the emergence of an area of interdisciplinary research study.

Figure 5: Source Growth



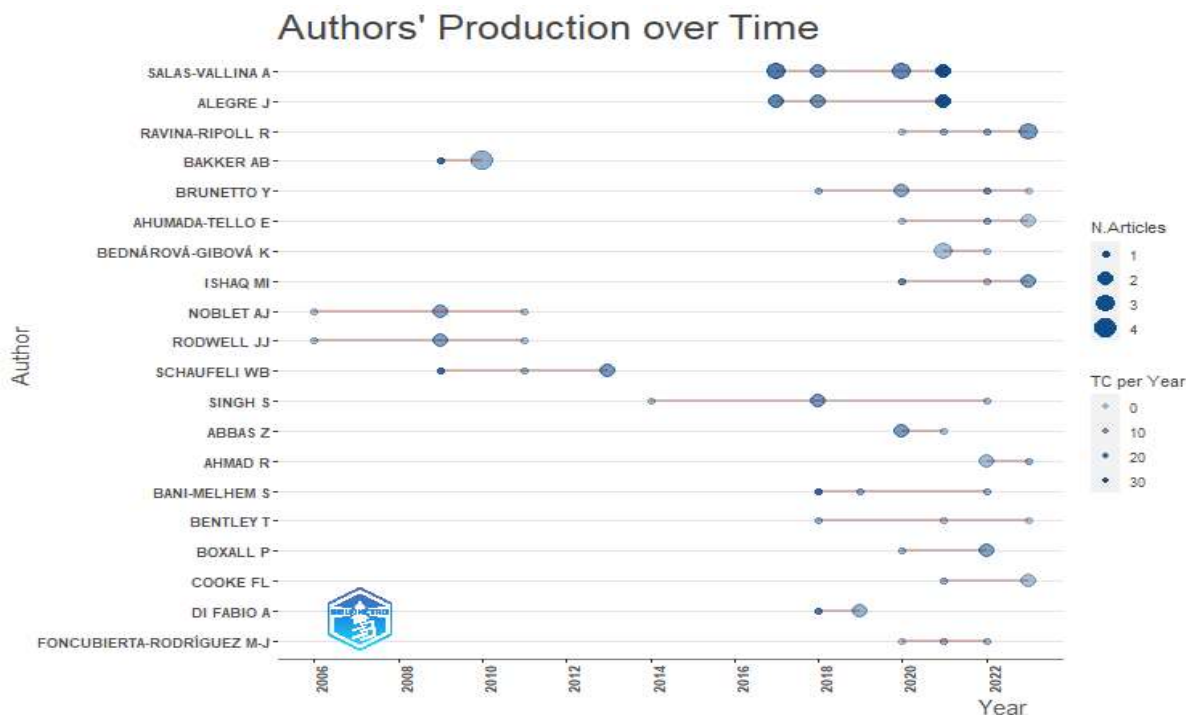
(Source: R-Studio 2023)

### a) Bibliometric Citation Analysis

#### Top Author's Productivity:



Figure 6: Top Author's productivity



(Source: R-Studio 2023)

Moreover, author productivity can be illustrated through their yearly publications. Figure 6 showcases the productivity of authors by depicting the distribution of publications from one year to the next. The productivity is indicated by the red line, which spans from the initial publication of the author's study to the most recent year they are documented as publishing their research. Each year's number of published papers is denoted by the circle along the red line. Salas-vallina A was discovered to have written 10 papers, three of which were published in 2016, two in 2017, three in 2019, and two in 2020. Meanwhile, Alegre, who has 6 articles, was discovered in 2016 with two articles, 2017 with two articles, and 2020 with two articles. Singh S, who has been publishing since 2014, is the author who has spent the most time investigating workplace happiness. However, his output is less steady. He wrote again in 2018 and then again in 2022, according to records.

### Author Impact

Authors whose articles have been published can also be categorized by the impact they have made using the “h-Index” (Hirsch, 2005). The h-Index signifies the most commonly used index, where the researcher has an h-index of h if they have at least h works referenced h times. On the other hand, the “g-Index” comprises the g articles with the highest number of citations (Friedman, 2015). Additionally, the h-Index is normalized by the scientist's years of activity to calculate the m-index.. Table 4 provides a detailed summary of the author's impact based on various bibliometric indices. Among the noteworthy authors, Salas-Vallina A stands out with an g-index of 10, h-index of 9, and an m-index of 1.28571429, showcasing a significant and comprehensive impact. Alegre J and Brunetto Y exhibit moderate impact scores, with an h-index of 6 and 4, respectively. Ishaq MI, Rodwell JJ, and Schaufeli WB share similar

metrics, each having an h-index and g-index of 4. Notably, Raza A demonstrates a noteworthy impact with an h-index of 3 and a high g-index of 6, indicating a strong influence on the field. The publication years (PY\_start) further provide context to the authors' impact trajectories, ranging from as early as 2006 to more recent entrants in 2022. The diverse impact profiles captured in this table underscore the dynamic nature of scholarly contributions within workplace happiness research.

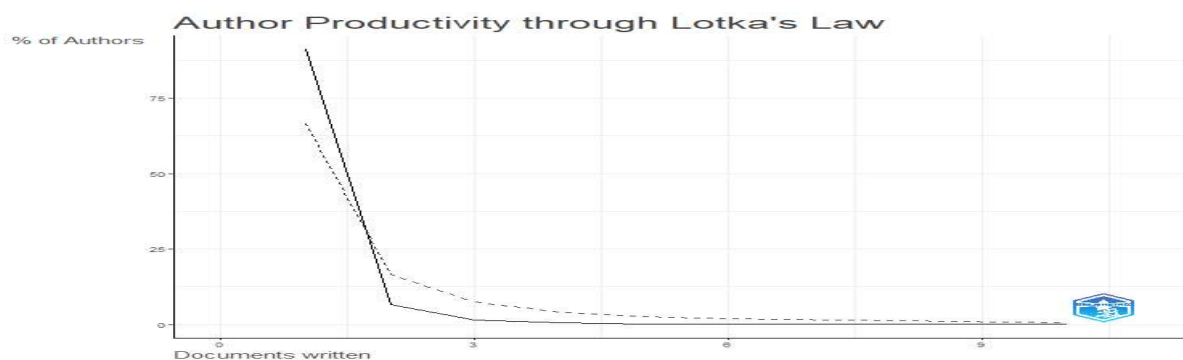
Table 4: 10 most impactful authors.

Element	h_index	g_index	m_index	TC	NP	PY_start
SALAS-VALLINA A	9	10	1.28571429	376	10	2017
ALEGRE J	6	6	0.85714286	290	6	2017
BRUNETTO Y	4	5	0.66666667	84	5	2018
ISHAQ MI	4	4	1	76	4	2020
NOBLET AJ	4	4	0.22222222	189	4	2006
RODWELL JJ	4	4	0.22222222	189	4	2006
SCHAUFELI WB	4	4	0.26666667	518	4	2009
SINGH S	4	4	0.4	90	4	2014
ABBAS Z	3	3	0.75	50	3	2020
BANI-MELHEM S	3	3	0.5	182	3	2018
DI FABIO A	3	3	0.5	136	3	2018
FONCUBIERTA-RODRÍGUEZ M-J	3	3	0.75	28	3	2020
GULZAR S	3	3	0.75	50	3	2020
HAAR J	3	3	0.5	43	3	2018
KUMAR S	3	3	0.2	25	3	2009
MEHTA P	3	3	0.75	36	3	2020
MOUSA M	3	3	0.75	69	3	2020
RAVINA-RIPOLL R	3	6	0.75	49	6	2020
RAZA A	3	3	1.5	17	3	2022
REGO A	3	3	0.1875	285	3	2008

(Source: R-Studio 2023)

### Lotka's Law

Figure 7: Author Productivity through Lotka's Law



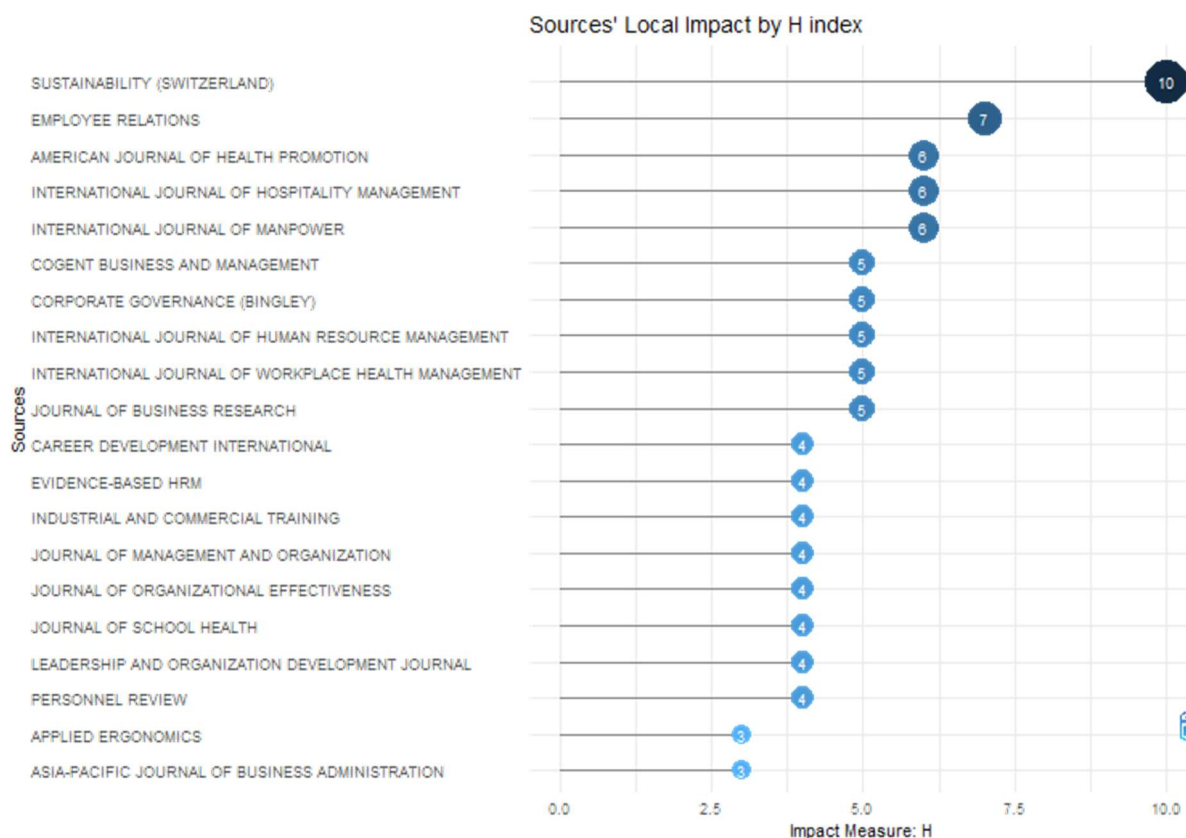
(Source: R-Studio 2023)

Lotka's Law is the well-known "inverse square law of scientific creation." It states that the proportion of authors who publish a certain number of publications vs those who publish a single article remains constant (Machado et al., 2017). In other words, it describes the frequency with which the authors publish in any discipline (Van Eck & Waltman, 2021). Lotka's Law has since been used by multiple researchers from various fields to assess author productivity and publications (Machado et al., 2017). Lotka's Law, formulated by Alfred Lotka, posits that in scholarly literature, there is a consistent pattern of productivity among authors, suggesting that a small percentage of authors contribute the majority of the articles. At the same time, a larger group produces fewer contributions. The law is evident in the provided table, where the frequency distribution of the number of articles authored by individuals follows a power-law distribution. In this case, the majority of authors (0.91) have only written one article, reflecting a high concentration of single-article authors. As the number of articles per author increases, the frequency sharply decreases, adhering to Lotka's Law. This observation aligns with the principle that a small core of prolific authors contributes significantly to the overall scholarly output, emphasizing the skewed distribution of productivity in academic writing.

### Source Impact

The importance of journals is considered not simply in terms of number and relevancy. R displays it as a blue bar chart. R represents it through a blue bar chart, where the darker and longer the blue color on the chart, the higher the influence of the journal.

Figure 8: Sources' Local Impact



(Source: R-Studio 2023)

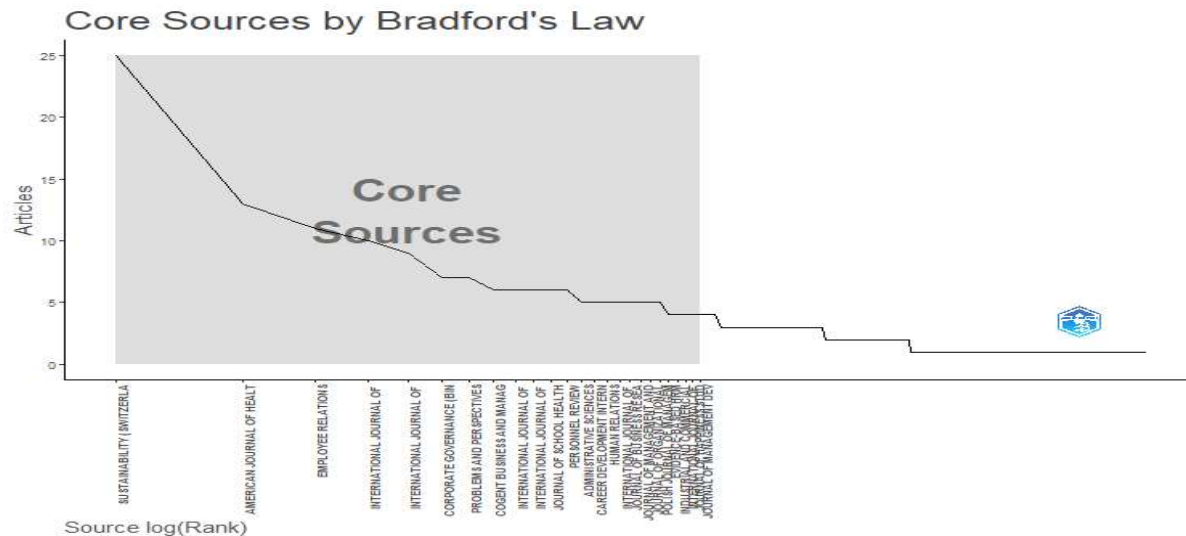
The H-index, a widely recognized metric for quantifying the impact of scholarly publications, is employed here to assess the local impact of various sources within the academic landscape. Sustainability (Switzerland) emerges as a significant contributor, boasting an “h-index” of 10 and a “g-index” of 16, suggesting a substantial and influential body of work. Following closely, “Employee Relations” and the “American Journal of Health Promotion” display commendable H-indices of 7 and 6, respectively. Corporate Governance (Bingley) stands out with an impressive m-index of 2.5, indicative of a concentrated impact across its publications. Noteworthy are journals such as the “International Journal of Hospitality Management” and the “International Journal of Manpower”, each with an H-index of 6, reinforcing their importance in the academic discourse. This analysis provides a snapshot of the local impact of various sources and underscores the diversity and significance of contributions within specific academic domains.

### Bradford's Law

Bradford's Law, a bibliometric principle, is shown in the data, which depicts the distribution of publications among different journals. Bradford's Law states that the frequency of publications in a specific field or journal follows a pattern in which a small core of sources produces the majority of the articles. In this case, Sustainability (Switzerland) secures the top position with 25 articles, followed by the American Journal of Health Promotion with 13 articles. As we move down the list of journals, the

cumulative frequency increases, but the rate of increase decreases, creating zones or segments with a diminishing number of articles. The high concentration of articles in Zone 1, represented by Sustainability (Switzerland), American Journal of Health Promotion, and others, aligns with the expected pattern of Bradford's Law. This law provides valuable insights into the core sources that significantly contribute to the literature within a specific domain, facilitating efficient literature searches and resource allocation.

Figure 9: Bradford's Law



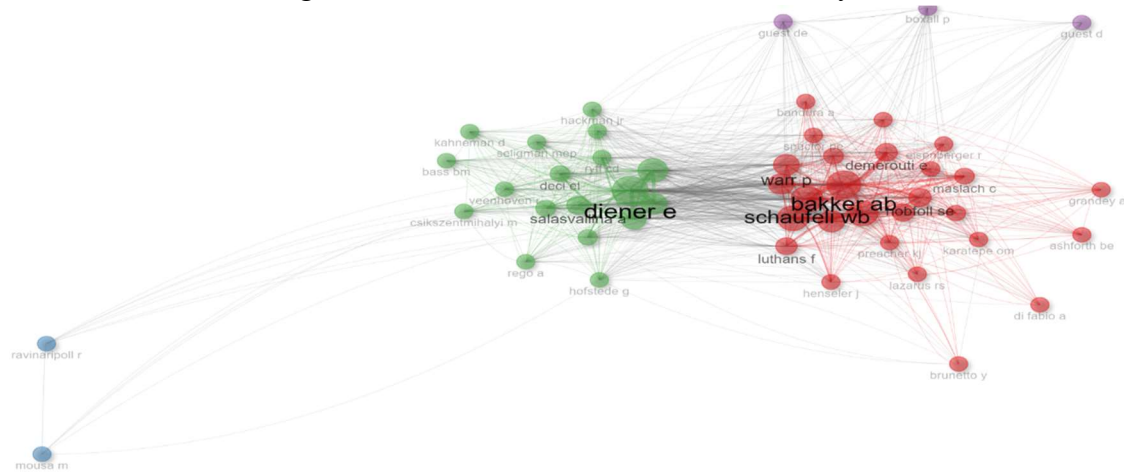
(Source: R-Studio 2023)

## Network Analysis

## Co- citation network

The mapping of scientific knowledge involves three primary methods: co-citations network, co-occurrence network, and bibliographic couplings (Hassan et al., 2021). These methods utilize specific publications and the number of citations an author receives to gauge the impact of a research paper or publication within the literature. The co-citation network assesses the references within all designated articles to discern the structural foundation of any given literature (Small, 1973). Figure 10 illustrates the co-citation of 50 authors and the interconnections among the referenced individuals. The analysis is based on data from the Scopus database spanning from 2000 to 2023, revealing four network clusters responsible for publishing numerous highly referenced studies.

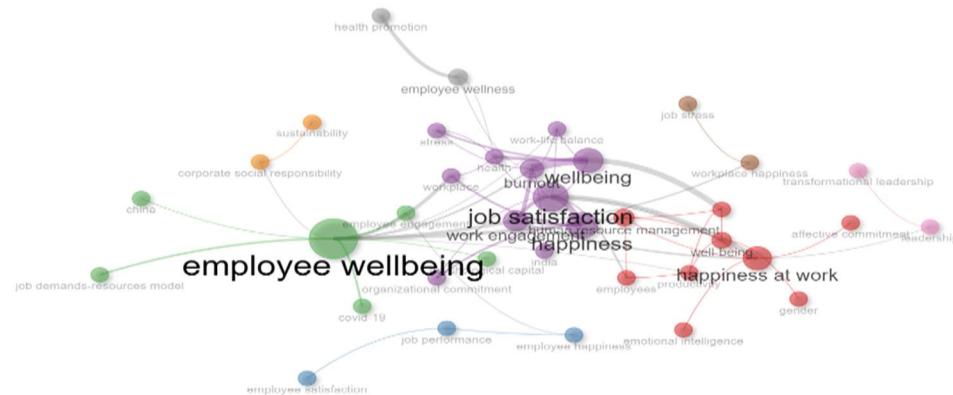
Figure 10: Authors Co-citation Cluster Analysis



(Source: R-Studio 2023)

**Co-occurrence network-**

Figure 11: Co-occurrence network



(Source: R-Studio 2023)

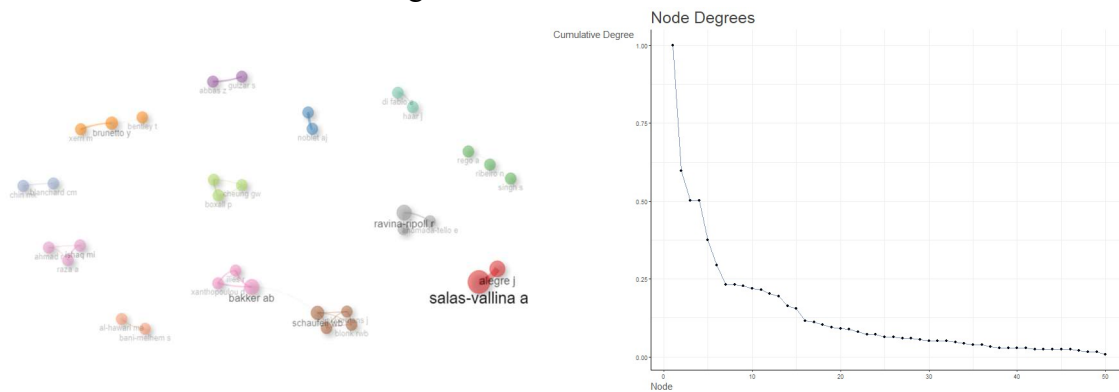
In our analysis, we investigated the co-occurrence of authors' keywords to identify research gaps and future research directions in the workplace happiness sector. This visualization displays words as colored spheres based on their interrelationships. Clusters of the same color signify connected words, with the size of the spheres indicating the strength of the association. Keywords serve as the foundational elements of academic research. By exploring the co-occurrence network, researchers can

swiftly pinpoint research focal points and potential future research trajectories for an academic subject (Gao et al., 2021). The dataset is segmented into five groups represented by the colors red, blue, green, purple, and yellow. These colors denote distinct clusters, with the proximity between them indicating their relationship. The words describe the vertices, with the size of the node correlating to its frequency. As depicted in Figure 11, employee well-being, job satisfaction, and happiness at work exhibit the strongest correlations with other terms.

Keyword co-occurrence analysis in a scientific field constructs a network of themes and their interconnections. Themes and keywords with a high betweenness value play a crucial role in shaping the progression of workplace happiness. Further research topics are linked by these terms (Ye et al., 2020).

### Collaboration Network-

Figure 12: Collaboration network



(Source:

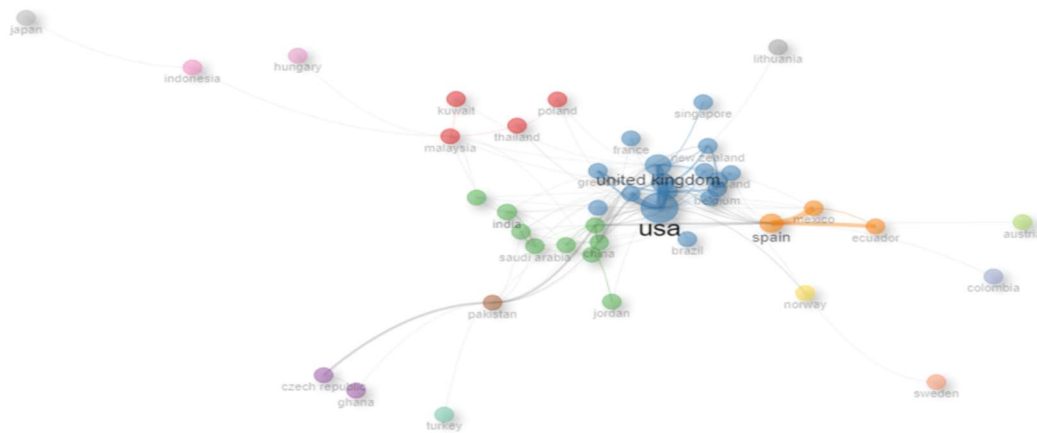
R-Studio 2023)

The author's collaboration network, as depicted in the provided table, unveils a rich tapestry of connections and interactions within the scholarly community. The network is organized into distinct clusters, each representing a collaborative group of authors. Notable authors such as Salas-Vallina A and Alegre J belong to Cluster 1, showcasing their close collaboration and high betweenness and closeness centrality. Clusters 2, 3, and 4 also demonstrate cohesive collaborations among authors like Noblet AJ and Rodwell JJ in Cluster 2, Singh S, Rego A, and Ribeiro N in Cluster 3, and Abbas Z and Gulzar S in Cluster 4. Authors Brunetto Y, Bentley T, and Xerri M form Cluster 5, emphasizing a collaborative network with significant betweenness and closeness centrality. The larger Cluster 6 includes prominent authors like Schaufeli WB and Akkermans J, illustrating a diverse collaboration network. Similarly, Clusters 7, 8, and 9 showcase collaborative ties among authors such as Bakker AB and Ilies R. Clusters 10, 11, and 12 display collaborative relationships. In contrast, Clusters 13 and 14 highlight the connections between authors like Boxall P and Cheung GW. This network analysis visually represents the collaborative dynamics among authors, shedding light on the structure and connectivity within the scholarly community.

### Country Collaboration Network:

Figure 13: Country Collaboration Network





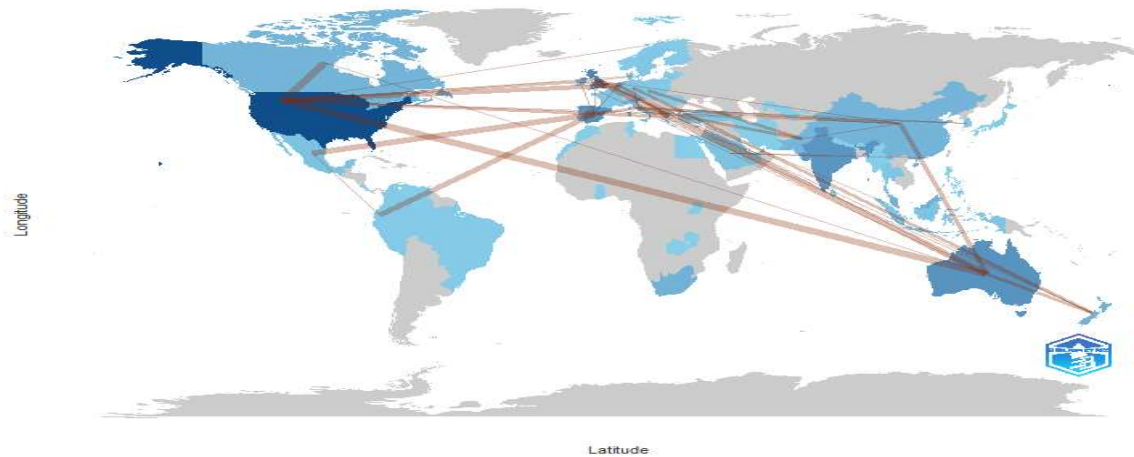
(Source: R-Studio 2023)

As illustrated in the provided diagram, the country's collaboration network delineates the intricate relationships and connections among nations in academic collaboration. Malaysia, Thailand, Poland, and Kuwait constitute Cluster 1, exhibiting a collaborative network with varying betweenness, closeness centrality, and PageRank. Cluster 2 encompasses diverse countries, including the USA, Australia, the United Kingdom, and others, reflecting a robust international collaboration network. Notably, the USA stands out with high betweenness, closeness centrality, and PageRank, underscoring its central role in global research collaboration. Cluster 3 includes countries such as India, South Africa, China, Italy, and the United Arab Emirates, highlighting their active participation in collaborative research efforts. Pakistan, Spain, Mexico, and Ecuador form Clusters 4, 5, and 6, each representing distinctive collaborative networks. The remaining clusters further showcase collaborative ties among countries, contributing to the global dissemination of knowledge and fostering international research partnerships. This country-wise collaboration network analysis provides valuable insights into the interconnectedness of nations in the academic domain, emphasizing the importance of international collaboration in advancing research and knowledge exchange.



**Collaboration World Map:**

Figure 14: Collaboration World Map



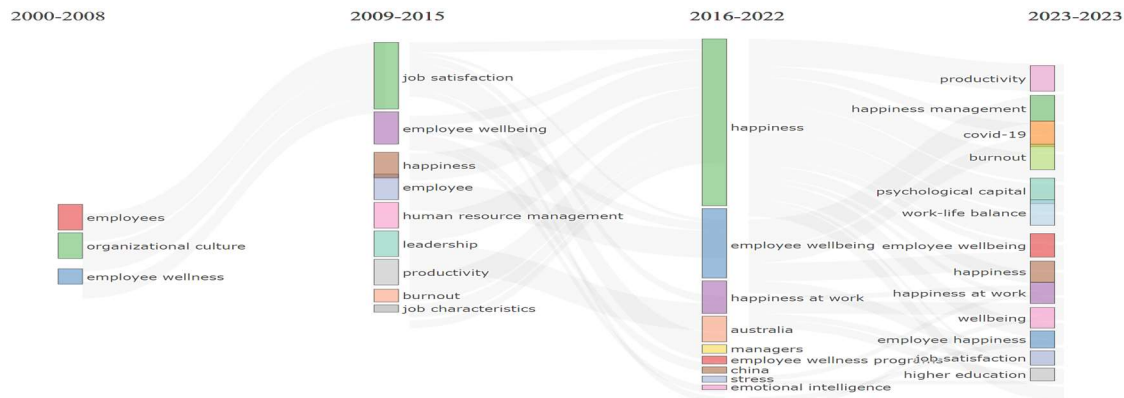
(Source: R-Studio 2023)

The collaboration world map in the provided table showcases the frequency of research collaboration between different countries. Noteworthy collaborations include Australia's extensive connections with the United Kingdom (5) and China (3). The USA engages in prolific collaboration with Canada (5 collaborations), the United Kingdom (3 collaborations), and the Netherlands (4 collaborations). Spain demonstrates a diverse network, collaborating with Mexico (5 collaborations), Italy (3 collaborations), and Ecuador (4 collaborations). Additionally, there are notable collaborations between Pakistan and Italy (3 collaborations), China and Italy (3 collaborations), and the USA and Australia (6 collaborations). The collaboration map reflects a rich tapestry of global research connections, fostering knowledge exchange and collaborative endeavours across borders.

**d) Content Analysis****Thematic Evolution Map**

The thematic evolution diagram depicted in Figure 15 showcases the changing themes employed in articles concerning workplace happiness, despite workplace happiness being the central theme of the research. The data reveals various sub-themes that are recurrently utilized. The section on the left illustrates several themes that were prevalent from 2000 to 2008, with the most commonly used themes including employees, organizational culture, and employee wellness. In the middle section, themes frequently employed from 2009 to 2015 are presented. Some of these themes are extensions of previously used themes and are interconnected in the discourse, such as employee well-being, happiness, job satisfaction, and happiness at work.

Figure 15: Thematic Evolution



(Source: R-Studio 2023)

### Word Cloud

In addition, a Word Cloud showcasing the terms frequently found in the data collection of the articles reviewed under the workplace happiness theme will be displayed. Word clouds show a visual of words in different colours and sizes based on how frequently they appear. Words are arranged rather randomly, but the most important words are positioned in the middle and are larger so that they stand out more. According to the statistics, the most frequently used term in articles is "employee wellbeing," followed by "job satisfaction" in second place and "happiness at work" in third.

In this word cloud, the frequency of words reflects the key themes within workplace dynamics and employee satisfaction. "Employee wellbeing" takes center stage with 69 occurrences, underscoring its significance in organizational contexts. "Job satisfaction" and "happiness" closely follow, highlighting the interconnectedness of professional fulfillment and personal contentment. The phrase "happiness at work" and the standalone term "wellbeing" further emphasize the emphasis on creating positive and fulfilling work environments. "Work engagement" signals a focus on active and invested participation, while "burnout" suggests a growing awareness of the challenges employees may face. The inclusion of "employee wellness" and "employee happiness" reinforces the organizational commitment to holistic employee development.

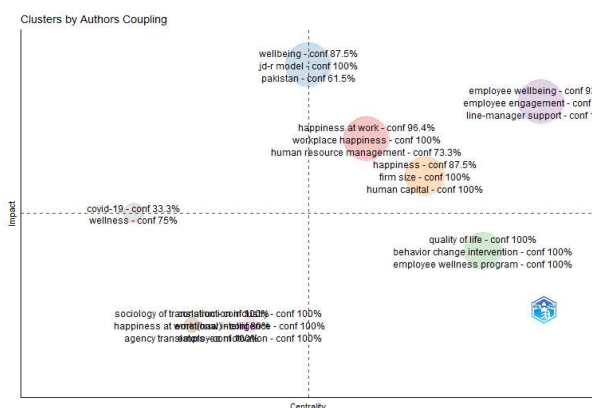




management. Cluster 2 included sources like "Corporate Communications" and "Journal of Service Management," reflecting topics associated with corporate communication and service management. Cluster 3 incorporated sources like "Public Personnel Management," focusing on public personnel-related themes. Clusters 4 and 5 highlighted sources associated with specific themes in industrial ergonomics and health promotion, respectively. The coupling network and identified clusters offer valuable insights into the thematic landscape of the literature on Employee Well-being, providing a nuanced understanding of the interconnectedness among sources.

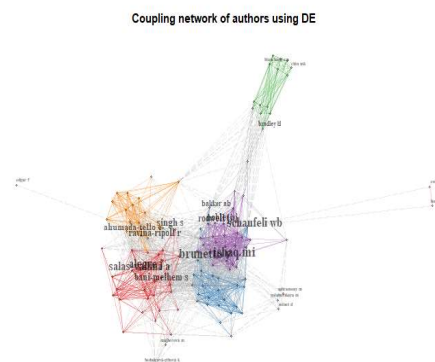
### Coupling network of authors:

Figure 19(a): Cluster by Authors Coupling



(Source: R-Studio 2023)

Figure 19(b): Coupling network of authors



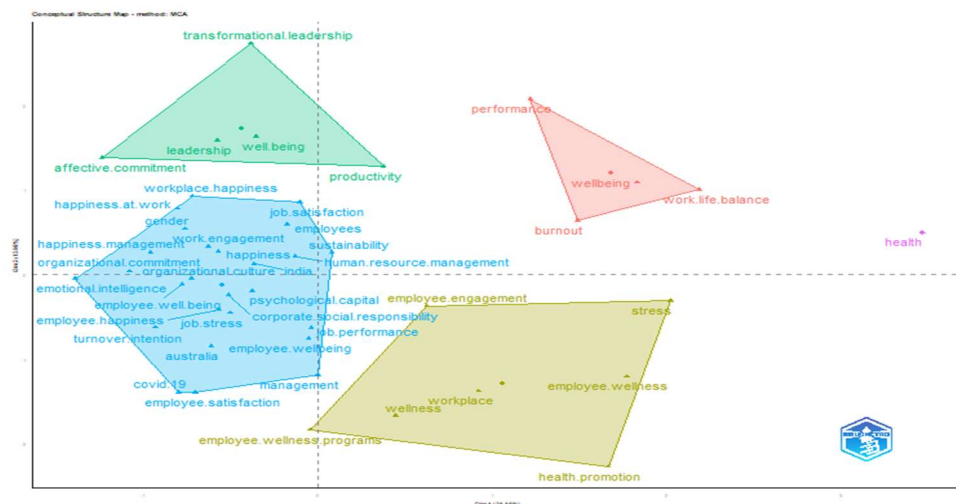
(Source: R-

Studio 2023)

Coupling network analysis, employing the Walktrap clustering algorithm, was conducted on a bibliometric dataset focusing on the field of Employee Well-being (DE) and based on authorship information. The network was constructed using normalized local citation scores, revealing distinct clusters of authors and their collaborative associations. Cluster 1 included authors such as LÓPEZ-CABRALES Á, SRIVASTAVA S, and COOPER CL, forming a cohesive group with a high citation score, indicating strong collaborative ties among them. Cluster 2 featured prominent researchers like AKKERMANS J, DEMEROUTI E, and BAKKER AB, reflecting a group with substantial impact and centrality within the network. Cluster 3 showcased authors associated with themes related to quality of life, behavior change intervention, and employee wellness programs. Clusters 4 and 5 highlighted themes around employee well-being, engagement, and happiness, with significant impact and centrality. The coupling network and identified clusters offer valuable insights into the collaborative patterns among authors in the Employee Well-being research domain.

**Factorial analysis-** Identification of the gap in the research field.

Figure 20: Conceptual structure map



(Source: R-Studio 2023)

In this bibliometric study, Factorial Analysis, specifically “Multiple Correspondence Analysis” (MCA), was employed to unravel the intricate relationships and patterns embedded within a dataset focused on the field of Employee Well-being (DE). (Aria, M., & Cuccurullo, C. (2017), Greenacre, M., & Blasius, J. (2006), Van Eck, N. J., & Waltman, L. (2010). The chosen method, MCA, allowed for the exploration of associations among key terms and the identification of thematic clusters based on specified parameters such as minDegree, clust, and k.max. The resulting factorial map depicted a nuanced representation of the interconnectedness of terms in a multi-dimensional space. For instance, terms such as employee well-being, job satisfaction, and happiness were clustered together (Cluster 1), indicating their close thematic proximity. Another noteworthy cluster (Cluster 2) included terms like well-being, performance, and burnout, suggesting a thematic grouping around organizational and individual outcomes. Clusters 3, 4, and 5 reflected distinct thematic clusters, emphasizing well-being programs, leadership, and health-related aspects. This factorial analysis provides a valuable visual representation, offering insights into the structure and relationships within the literature on workplace well-being.

## CONCLUSION

In conclusion, this research journey has systematically addressed a series of pertinent questions aimed at unraveling the intricate landscape of workplace happiness. Beginning with an exploration of the current state and publication trends in the field, the study employed performance analysis techniques to track the ebb and flow of scholarly output, shedding light on the dynamic nature of research in this domain.

Moving forward, the investigation delved into the identification of influential articles, authors, and sources on workplace happiness through a meticulous citation analysis. This not only unveiled key contributions to the field but also provided insights into the intellectual network shaping discussions around workplace well-being.

The research then shifted its focus to the relationships between journals, keywords, and nations, employing network analysis techniques. The resulting co-citation networks, co-occurrence networks, and collaboration networks offered a rich tapestry of connections, illustrating the global and thematic

interplay within the discourse on workplace happiness.

Examining the thematic evolution of publications over time provided a temporal dimension to the study, uncovering how the narrative around workplace happiness has transformed. This evolution was captured through thematic evolution maps, word clouds, and word growth analysis, painting a vivid picture of the changing contours of this research landscape.

Furthermore, the research explored the current trends in happiness management, employing bibliographic coupling and multidimensional scaling to discern the underlying patterns and emergent themes in the literature.

The bibliographic data, comprising sources and authors, underwent meticulous examination using bibliographic coupling and cluster analysis. This comprehensive approach allowed for the creation of coupling networks, offering a deeper understanding of the interconnectedness within the scholarly fabric of workplace happiness research.

Lastly, the study sought to identify research gaps in the field through factorial analysis, specifically utilizing multiple correspondence analysis (MCA). By scrutinizing the existing body of literature, the research aimed to highlight areas where further exploration and investigation are warranted.

In conclusion, this research has not only addressed each question individually but has also woven together a cohesive narrative that contributes to the broader understanding of workplace happiness. The findings provide valuable insights for scholars, practitioners, and organizations, while also paving the way for future explorations and advancements in this crucial domain.

### **FUTURE RESEARCH DIRECTIONS**

It is essential to recognize the limitations of this study, including potential biases in the selected databases and methodological constraints associated with the analytical tools utilized. While the research contributes to the current knowledge base and identifies future research opportunities, acknowledging these limitations ensures a comprehensive understanding of the study's scope and implications. These limitations provide opportunities for future researchers to refine and expand upon this study.

In moving forward, future research in workplace happiness can build upon the foundations laid by this study. Researchers may consider exploring specific themes identified in the thematic evolution maps or delving deeper into the relationships uncovered in the network analyses. Moreover, addressing the limitations of this study through more extensive data collection or alternative methodologies can enhance the robustness of future investigations.

In essence, this research contributes a holistic understanding of workplace happiness, demonstrating the significance of a diverse methodological approach. By unraveling the complexities of this multifaceted topic, this study serves as a valuable resource for scholars, practitioners, and organizations aiming to cultivate positive work environments.

The factorial analysis conducted through Multiple Correspondence Analysis (MCA) has unveiled valuable insights into the thematic structure of the literature on workplace well-being. Building on this, future research directions could explore the dynamic evolution of these thematic clusters over time. Longitudinal analysis could provide a deeper understanding of how the relationships among terms within clusters and across clusters have shifted or intensified. In addition, exploring the impact of external factors, such as societal shifts, technological developments, or major global events like



pandemics, could provide further insight into the dynamics of workplace happiness research. Furthermore, the impact of cultural and regional variations on the clustering patterns could be explored to understand how different contexts shape the discourse on well-being in the workplace. Finally, extending the analysis to incorporate qualitative methods, such as content analysis of seminal papers within each cluster, could provide richer insights into the conceptual developments and theoretical advancements within specific thematic areas.

In moving forward, future research in workplace happiness can build upon the foundations laid by this study. Researchers may consider exploring specific themes identified in the thematic evolution maps or delving deeper into the relationships uncovered in the network analyses.

Moreover, addressing the limitations of this study through more extensive data collection or alternative methodologies can enhance the robustness of future investigations.

In essence, this research contributes a holistic understanding of workplace happiness, demonstrating the significance of a diverse methodological approach. By unraveling the complexities of this multifaceted topic, this study serves as a valuable resource for scholars, practitioners, and organizations seeking to foster positive work environments.

## REFERENCES

- Achor, S. (2010). *The happiness advantage: The seven principles of positive psychology that fuel success and performance at work*. Random House.
- Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975.
- Chen, C., Ibekwe-SanJuan, F., & Hou, J. (2010). The structure and dynamics of cocitation clusters: A multiple-perspective cocitation analysis. *Journal of the American Society for Information Science and Technology*, 61(7), 1386–1409.
- Cobo, M.J.; López-Herrera, A.G.; Herrera-Viedma, E.; Herrera, F. An approach for detecting, quantifying, and visualizing the evolution of a research field: A practical application to the fuzzy sets theory field. *J. Informetr.* 2011, 5, 146–166.
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, 97(2), 143–156.
- Friedman, A. The Power of Lotka's Law Through the Eyes of R. *Rom. Stat. Rev.* 2015, 2, 69–77
- Garfield, E. (1979). *Citation indexing: Its theory and application in science, technology, and humanities*. Wiley.
- Grant, A. M., Christianson, M. K., & Price, R. H. (2007). Happiness, health, or relationships? Managerial practices and employee well-being tradeoffs. *Academy of Management Perspectives*, 21(3), 51–63.
- Greenacre, M., & Blasius, J. (2006). *Multiple Correspondence Analysis and Related Methods*. CRC Press.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268–279.



- Hirsch, J. E. (2005). An index to quantify an individual's scientific research output. *Proceedings of the National Academy of Sciences*, 102(46), 16569–16572.
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86(1), 80–92.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131(6), 803–855.
- Machado, A.M.; Madrid, M.J.; Fanjul, N.J.; Mantero, C.L. Empirical Examination of Lotka's Law for Information Science and Library Science. *Pak. J. Inf. Manag.* 2017, 19, 37–51.
- Pons, P., & Latapy, M. (2005). Computing communities in large networks using random walks. In *International Symposium on Computer and Information Sciences* (pp. 284-293). Springer.
- Small, H. (1973). Co-citation in the scientific literature: A new measure of the relationship between two documents. *Journal of the American Society for Information Science*, 24(4), 265–269.
- Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538.
- Van Eck, N.J.; Waltman, L. Manual de VOSviewer. Univeriteit Leiden, July. 2021. Available online: [http://www.vosviewer.com/documentation/Manual\\_VOSviewer\\_1.6.1.pdf](http://www.vosviewer.com/documentation/Manual_VOSviewer_1.6.1.pdf)
- Van Raan, A. F. J. (2005). For excellence in science: Bibliometric indicators. *Scientometrics*, 62(1), 133–143.
- Wright, T. A., & Cropanzano, R. (2000). Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology*, 5(1), 84–94.