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Exploring the Intersection of Workplace Spirituality, Innovative Work Behavior, and Engagement in Public Administration: A Bibliometric Study

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Abstract

This study presents a comprehensive and systematic synthesis of the rapidly evolving literature on workplace spirituality (WPS) and its influence on innovative work behavior (IWB) and employee engagement (EE) within public administration. As interest in these themes continues to grow, there remains a notable lack of thorough, cohesive analysis in the field. To fill this gap, we conducted a bibliometric analysis of 195 peer-reviewed articles published between 2015 and 2024, sourced from the Scopus database. Utilizing citation, co-citation, and cluster analysis, we identified the most impactful publications, leading scholars, and key journals, mapping the intellectual structure of the research domain. An in-depth review of 89 articles from the main clusters provided valuable insights into the emerging themes and trends. Our findings revealed four major research clusters, shedding light on the dominant theoretical frameworks, contextual applications, and methodological approaches driving the discourse. Furthermore, this study highlights critical research gaps and offers directions for future investigation, making a start for new contributions. By clarifying the role of workplace spirituality in enhancing innovation and employee engagement in the public sector, this research delivers essential insights for scholars and policymakers aiming to optimize organizational performance and cultivate a more engaged, innovative workforce in public organisations.

Keywords – Workplace Spirituality; Innovative Work Behavior; Engagement; Public Organizations; Bibliometric Analysis.

Paper type – Bibliometric Analysis**Sommario**

L'intersezione tra spiritualità sul posto di lavoro, comportamenti lavorativi innovativi e impegno nella pubblica amministrazione: uno studio bibliometrico. – Questo studio presenta una sintesi completa e sistematica della letteratura, in rapida evoluzione, relativa alla spiritualità sul posto di lavoro, alla sua influenza sul comportamento lavorativo innovativo e sul coinvolgimento dei dipendenti all'interno della pubblica amministrazione. Mentre l'interesse per questi temi continua a crescere, permane la carenza di analisi approfondite e coerenti nel settore. Per colmare questa lacuna, è stata condotta un'analisi bibliometrica di 195 articoli sottoposti a *peer review* pubblicati tra il 2015 e il 2024, provenienti dal database Scopus. Utilizzando citazioni, co-citazioni e analisi di cluster, abbiamo identificato le pubblicazioni di maggiore impatto, i principali studiosi e le riviste chiave, mappando la struttura intellettuale del dominio di ricerca. Una revisione approfondita di 89 articoli dei principali cluster ha fornito preziosi spunti sui temi e sulle tendenze emergenti. I risultati hanno rivelato quattro principali cluster di ricerca, facendo luce sui quadri teorici dominanti, sulle applicazioni contestuali e sugli approcci metodologici che guidano il discorso. Inoltre, questo studio evidenzia le lacune critiche della ricerca e offre indicazioni per indagini future, dando il via a nuovi contributi. Chiarendo il ruolo della spiritualità sul posto di lavoro nel migliorare l'innovazione e il coinvolgimento dei dipendenti nel settore pubblico, questa ricerca fornisce spunti essenziali per studiosi e politici che mirano a ottimizzare le prestazioni organizzative e coltivare una forza lavoro più impegnata e innovativa nelle organizzazioni pubbliche.

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1 Introduction

In the evolving world of administration, the concept of workplace spirituality (WPS) has emerged as a crucial factor that can greatly impact how employees behave and the overall outcomes of organizations (Baber, Baber, & Di Virgilio, 2023). As public sector entities aim to encourage innovation and boost employee involvement, grasping the connection between WPS, innovative work behaviour (IWB) and employee engagement (EE) becomes increasingly vital. Despite the growing interest in this subject, there remains a lack of synthesis in existing literature, leaving gaps in our understanding of these concepts and their interactions within public administration.

This study sets out to explore how to bridge this knowledge gap by conducting a bibliometric analysis of the literature on WPS and its influence on IWB and EE within public administrations. From 2015 to 2024, our research dives into 195 peer-reviewed journal articles from the Scopus database. By utilizing citation, cluster and co-citation analyses, we meticulously pinpoint the works that outline the intellectual landscape of this field and highlight areas that require further investigation.

Using analysis forms the foundation of our research, allowing us to identify articles, journals, authors, and countries involved in research output as well as significant keywords. This thorough evaluation offers an overview of the evolving subject matter and sets the stage for future research initiatives. Our discoveries highlight four areas of interest, each representing an aspect of workplace spirituality and its implications for individual well-being and employee engagement. By identifying research areas and utilizing a theoretical framework, specific settings, characteristics and methodologies, our study creates opportunities for future researchers to explore new aspects of workplace spirituality in public administration. The insights gained from this analysis aim to improve the understanding of regulators and scholars by providing insights into workplace spirituality, individual well-being, and employee engagement. Additionally, it identifies areas for enhancement that can guide policymakers and practitioners in cultivating an innovative and involved workforce within the public sector.

As we navigate the intersection of spirituality and public administration, this research aims to illuminate the impact that workplace spirituality can have on fostering an environment of innovation and engagement among public servants. We aspire that the outcomes of this study will not only enrich discussions but also translate into practical strategies that enhance the efficiency and welfare of public organizations globally.

Research Objectives for the study are as follows:

- Which trends in WPS, IWB, and EE in public organizations, including keywords, journals, authors, and nations, have a significant impact?
- What is the conceptual structure of the WPS, IWB, and EE in the public sector?

- What are the research's gaps and future directions?

The research aims to study public organizations' most influential WPS, IWB, and EE trends, including keywords, journals, authors, articles, and affiliated countries. It will also determine the intellectual structure of WPS, IWB, and EE in public administrations and identify gaps for future research.

2 Literature Review

2.1 The emergence of Workplace Spirituality

Workplace spirituality has gained traction over the past few decades as organisations seek to understand the deeper human drives that fuel workplace motivation and satisfaction. The seminal works of Giacalone and Jurkiewicz (2010) and Grant (2005) laid the foundation for WPS, conceptualising it as a framework where employees seek a sense of purpose and meaning in their work that aligns with their inner lives. The literature suggests that WPS encompasses a sense of interconnectedness among employees, alignment with organisational values, and a feeling of completeness and joy in one's work (Baber, Baber, & Di Virgilio, 2023; Petchsawang & McLean, 2017; Garcia-Zamor, 2003).

2.2 Workplace Spirituality and Innovative Work Behaviour

One of the key outcomes of workplace spirituality is its influence on innovative work behavior. IWB is characterised by employees introducing and applying new ideas, products, processes, and procedures within a work role, group, or organization. Research by Ranasinghe and Samarasinghe (2019) and Khan, Mubarik, Ahmed, Islam, and Rehman (2024) have explored the relationship between WPS and IWB, suggesting that employees are more likely to engage in creative and innovative endeavours when they find their work spiritually fulfilling. The intrinsic motivation provided by WPS is believed to be a catalyst for innovation, as employees are driven by a sense of purpose beyond mere financial gain.

2.3 Workplace Spirituality and Employee Engagement

Another crucial aspect of workplace spirituality is its impact on employee engagement. EE is a construct that reflects the level of an employee's emotional and cognitive commitment to their

organization. The work of Fachrunnisa and Adhiatma (2014) and subsequent studies by Milliman, Gatling, and Kim (2018) have established a link between WPS and higher levels of EE. They propose that when employees perceive their work as meaningful and aligned with their personal values, they are more likely to invest themselves fully in their job roles. Saks (2011) further argues that WPS could foster a sense of belonging and engagement, leading to improved job performance and reduced turnover.

2.4 Bibliometric Analysis in Public Administration Research

The application of bibliometric analysis in public administration research is relatively novel (Di Virgilio, Borgia, La Torre, & de Lisio, 2022). This methodological approach, as utilised in the current study, allows for the quantitative analysis of written publications to map out the intellectual landscape of a research domain. The works of Zupic and Čater (2015) and Sezgili (2022) have provided comprehensive guidelines on how bibliometric methods can be used to analyse large sets of academic literature, which is instrumental in understanding the evolution of WPS, IWB, and EE in public administration.

2.5 Synthesis of the Literature and Identification of Gaps

Despite the growing body of literature, there remains a scarcity of studies synthesising the findings on WPS, IWB, and EE, particularly within the context of public administration. The current study addresses this gap by systematically reviewing and analysing 195 peer-reviewed journal papers. The bibliometric analysis reveals four key clusters that represent the core themes within the literature: (1) theoretical underpinnings of WPS, (2) empirical relationships between WPS and IWB, (3) WPS and its influence on EE, and (4) methodological approaches in studying WPS in public administration.

The literature review highlights the importance of WPS in fostering IWB and EE within public administration. The findings from the bibliometric analysis underscore the need for further empirical research to validate and extend the theoretical frameworks. The identified gaps and emerging clusters from the analysis provide a roadmap for future research, suggesting that a deeper exploration into the nuances of WPS could yield valuable insights into enhancing innovation and engagement in the public sector. This study serves as a stepping stone for scholars and practitioners alike, offering a clearer understanding of the impact of WPS on public administration outcomes.

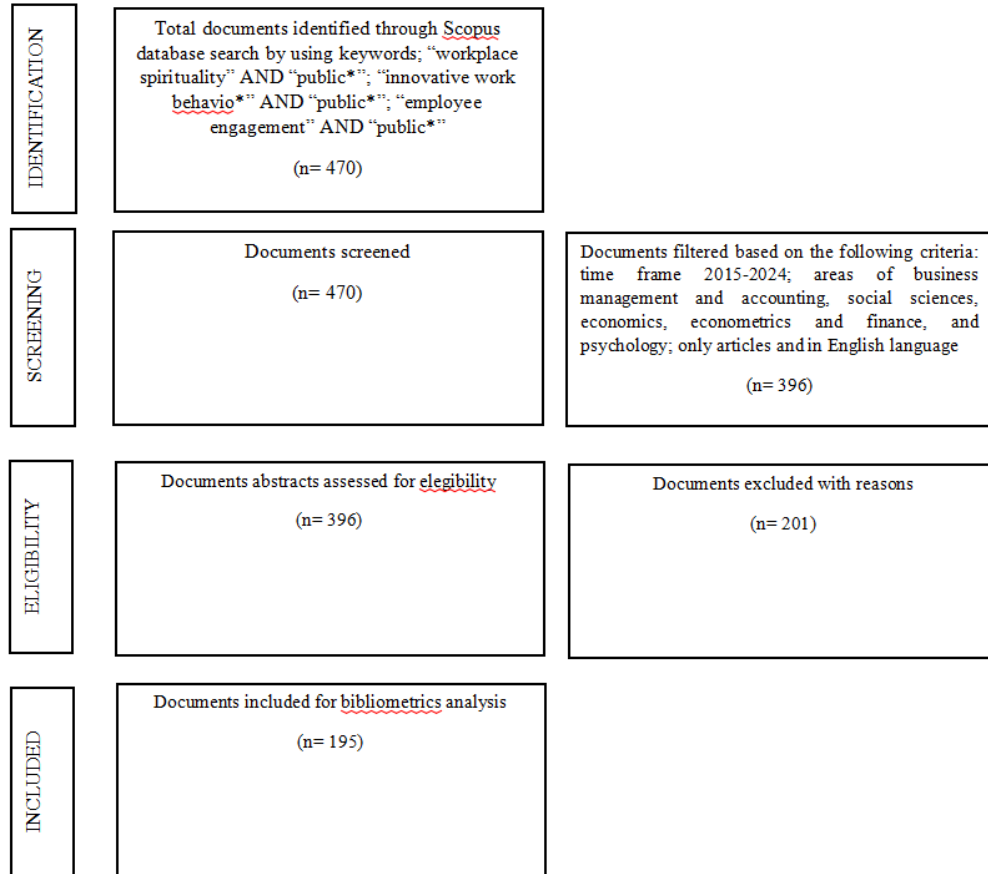
3 Methodology

The research methodology applied to the present study incorporates bibliometric analysis. Bibliometrics, a statistical methodology, examines critical document data such as authors, keywords, nations, and references to reveal insights into the topic's evolution (Nicolaisen, 2010; Van Raan, 2005). The Bibliometrics methodology combines various approaches, including citation analysis, bibliographic coupling analysis, co-word analysis, and co-citation evaluation (Leung, Sun, & Bai, 2017; Nicolaisen, 2010). In the current research, we conducted a citation analysis to identify prominent keywords, journals, authors, and nations in the fields of workplace spirituality, innovative work behavior, and employee engagement in the public sector. We followed up with co-citation analysis to determine the conceptual structure of WPS, IWB, and EE studies within public organizations. Co-citation analysis, as proposed by Small (1973), elucidates the conceptual structure of arguments by examining the frequency with which two documents are jointly cited (Marshakova, 1973; Small, 1973). Small (1973) highlights that the number of comparable citing elements between two referenced research studies influences co-citation, with author, document, and journal co-citations serving as fundamental units of analysis. To facilitate the construction and examination of bibliometric maps, we employed Vosviewer, a software application that integrates the VOS mapping approach with a user-friendly interface (Van Eck & Waltman, 2009). This software application enables the seamless visualization of the co-citation network, providing a comprehensive and intuitive representation of the intellectual structure and relationships within the research field.

3.1 Data Collection

Creating bibliometric data involves identifying and evaluating databases and enhancing bibliographic records. Selecting software and deciding on data visualization are necessary steps. We utilized the Scopus database in our research, which aided in identifying minor research fields that were previously underrepresented (Zupic & Cater, 2015). Before selecting papers for the study, the authors needed to determine the methodologies for information synthesis.

The term PRISMA stands for “Preferred Reporting Items for Systematic Reviews and Meta-Analysis”; it is a meticulously designed methodology. It involves the careful selection and critical evaluation of relevant literature, as well as the precise extraction and analysis of data through systematic techniques (Moher, Liberati, Tetzlaff, & Altman, 2010; Paul & Dhiman, 2021).

Figure 1 – Stages for Data Collection Using PRISMA Instructions

Source: Authors' elaboration

Identification: The identification phase was conducted with utmost thoroughness, encompassing a comprehensive study of a desktop search. First, a computer/desktop search of the world’s broadest database of published research and publications, “Scopus”, was performed. We meticulously planned the search phase to last from 2015 to 2024. The second step was to find keywords and topics in public organizations, such as WPS, IWB, and EE, that could help achieve the study’s proposed objectives. The initial papers found by the research are 470.

Screening: During the screening process, we opted to incorporate articles following these criteria: range of time 2015-2024; areas of research limited to business management and accounting, economics, social sciences, econometrics and finance, and psychology; consider only articles in the English

language. Following applying the pre-determined criteria, we eliminated 74 documents in this phase and identified 396 eligible papers or studies.

Eligibility: We read the full-text versions of the 396 articles/papers selected in the previous step during this phase. Although full-text versions of several studies were unavailable, the authors said they would review the abstracts and decide whether to incorporate the study for further analysis. The analysis excluded 201 papers and articles considered irrelevant, leading to the utilization of a total database of 195 studies.

Included: This analysis employed a total database of 195 studies. The investigations analyzed citations to identify prominent authors, sources, organizations, and nations on the subject. We considered conducting citation analysis to identify prominent authors, sources, organizations, and nations.

4 Bibliometric Analysis

4.1 Publication Trends

From 2015 to 2024, there was an increase in WPS, IWB, and EE research in public organizations, with varying phases of publication, as shown in Figure 2. Between 2015 and 2018, publications were infrequent and represented a nearly static trend. The number of publications has increased significantly since 2018, although there has been a minimal reduction in 2021, and an acceleration has followed in 2022. The current trend indicates that the public sector's WPS, IWB, and EE are receiving crucial interest from academics in this management area.

4.2 Highly Prominent Articles

This research determines the citations of the papers that are the highest-ranking in the WPS, IWB, and EE domains. The paper *Competing through employee engagement: a proposed framework* (Al Mehrzi & Singh, 2016) received the most citations in the Journal International Journal of Productivity and Performance Management, with over 156. The second most mentioned document in the collection was the article *Transformational Leadership, Creative Self-Efficacy, Trust in Supervisor, Uncertainty Avoidance, and Innovative Work Behavior of Nurses* (Afsar & Masood, 2017) with a count of 114

citations followed by *Public service sector: The compassionate workplace - The effect of compassion and stress on employee engagement, burnout, and performance* (Eldor, 2018) with 78 citations count in *Journal of Public Administration Research and Theory*.

Figure 2 – Number of Publications per Year



Source: Authors' elaboration

4.3 Highly Prominent Authors

This analysis discovered 498 authors. We identified highly prominent authors based on the criterion of having published at least two texts. Table 2 ranks significant authors based on the number of citations for their published work on WPS, IWB, and EE in the public sector, with or without numerous co-authors. Alfes and Bailey obtained the most citations (2 documents and 190), followed by Asfar (3 documents and 161 citations). In contrast, Hameduddini has published the most documents in this sector, with a total of four, but their work has received less attention than others.

4.4 Highly Prominent Journal

We identified sources with at least three documents and three citation sources to create a comprehensive citation map. It was discovered that only 20 out of 121 sources matched the criterion. Table 3 lists the most cited journals. The *Public Relations Review* published by Elsevier Ltd received the highest citation of 237, totaling seven documents. The second leading journal was *International Human Resources Management*, published by Routledge, which received 182 citations for three documents. The *European Journal of Innovation Management*, published by Emerald Group Holdings Ltd, is ranked with 140 citations and five documents.

Table 1 – Highly Prominent Articles

Most Cited Papers	Type of Study	Journal	Citations Count
<i>Competing through employee engagement: a proposed framework</i> (Al Mehrzi & Singh, 2016)	Qualitative	<i>International Journal of Productivity and Performance Management</i>	156
<i>Transformational Leadership, Creative Self-Efficacy, Trust in Supervisor, Uncertainty Avoidance, and Innovative Work Behavior of Nurses</i> (Afsar & Masood, 2018)	Quantitative	<i>Journal of Applied Behavioral Science</i>	114
<i>Public service sector: The compassionate workplace – The effect of compassion and stress on employee engagement, burnout, and performance</i> (Eldor, 2018)	Qualitative	<i>Journal of Public Administration Research and Theory</i>	78
<i>Servant leadership and followership creativity: The influence of workplace spirituality and political skill</i> (Williams et al., 2017)	Qualitative	<i>Leadership and Organization Development Journal</i>	74
<i>Employee workplace spirituality and pro-environmental behavior in the hotel industry</i> (Rezapouraghdam et al., 2018)	Qualitative	<i>Journal of Sustainable Tourism</i>	73
<i>The nature of employee engagement: rethinking the employee–organization relationship</i> (Eldor & Vigoda-Gadot, 2017)	Qualitative	<i>International Journal of Human Resource Management</i>	72
<i>Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services</i> (Bos-Nehles et al., 2017)	Qualitative	<i>International Journal of Human Resource Management</i>	69
<i>Understanding Employee Engagement in the Public Sector: The Role of Immediate Supervisor, Perceived Organizational Support, and Learning Opportunities</i> (Jin & McDonald, 2017)	Quantitative	<i>American Review of Public Administration</i>	69
<i>Sense of community, sense of community responsibility, organizational commitment and identification, and public service motivation: a simultaneous test of affective states on employee well-being and engagement in a public service work context</i> (Boyd & Nowell, 2020)	Quantitative	<i>Public Management Review</i>	56
<i>Sense of Community, Sense of Community Responsibility, and Public Service Motivation as Predictors of Employee Well-Being and Engagement in Public Service Organizations</i> (Boyd et al., 2018)	Quantitative	<i>American Review of Public Administration</i>	56

Source: Authors' elaboration

Table 2 – Highly Prominent Authors

Authors	Affiliation	Total Documents	Total Citations	Country	Total Link Strength
Alfes, Kerstin (2017)	ESCP Business School Berlin	2	190	Germany	5
Bailey, Catherine (2017)	King's College London	2	190	United Kingdom	5
Afsar, Bilal (2018)	Asian Institute of Technology	3	160	Thailand	3
Eldor, Liat (2018)	The Wharton School, University of Pennsylvania, Coller Business School	2	150	United States	2
Vigoda-Gadot, Eran (2017)	University of Haifa	2	94	Israel	2
Hameduddin, Taha (2020)	Lee Kuan Yew School of Public Policy, National University of Singapore	4	58	Singapore	7
Yasir, Muhammad (2019)	Hazara University	2	44	Pakistan	2
Jabeen, Fauzia (2021)	Abu Dhabi University	2	29	Abu Dhabi	1
Al Wali, Joether (2020)	American University of Iraq	2	26	Iraq	1

Source: Authors' elaboration

4.5 Highly Prominent Nations

Figure 3 illustrates a visual representation of citations based on nations with a minimum limit of 5 documents and ten citations in which fewer than 14 countries satisfied the requirement, showing that only 14 of the 65 countries met the condition. Table 4 lists the ten leading and referenced countries in the world. The United States was ranked first in papers (36) and citations (790), with 13 overall link strength. Pakistan was second with 21 documents, 371 citations, and 11 total links, followed by the United Arab Emirates, Malaysia, and others.

Table 3 – Outlook of Highly Prominent Journal

Journal	Publisher	Documents	Citations
<i>Public Relations Review</i>	Elsevier Ltd	7	237
<i>International Human Resources Management</i>	Routledge	3	182
<i>European Journal of Innovation Management</i>	Emerald Group Holdings Ltd	5	140
<i>American Review of Public Administration</i>	SAGE Publications Inc.	4	140
<i>Leadership and Organizational Development Journal</i>	Emerald Group Holdings Ltd	4	101
<i>Public Management Review</i>	Taylor and Francis Ltd	4	77
<i>International Journal of Public Administration</i>	Taylor and Francis Ltd	6	74
<i>Public Personnel Management</i>	SAGE Publications Inc.	5	60

Source: Authors' elaboration

Table 4 – Highly Prominent Nations

Nation	Documents	Citations	Total Link Strength
United States	36	790	13
Pakistan	21	371	11
United Arab Emirates	7	281	8
Malaysia	17	142	10
Ghana	11	110	7
South Korea	7	109	9
China	8	106	6
Australia	6	72	6
India	11	71	1
South Africa	8	69	3

Source: Authors' elaboration

4.6 Highly Prominent Author's Keywords

The study created a keyword co-occurrence map using keywords provided by the authors. It reveals keywords that appear within four occurrences of each other and their corresponding thresholds, and only 27 of the 564 total keywords fit the criteria. Table 5 includes the most prominent authors based on

the frequency with which their published work on WPS, IWB, and EE appears in public organizations, with either a single or multiple co-authors. The term “employee engagement” appears the most frequently. The research found that EE occurred 56 times in the publications, with a connection strength 33. Workplace spirituality was identified as the second most common keyword, with 27 occurrences, followed by innovative work behavior and innovative work behavior, which had 22 occurrences. Similarly, additional terms such as “public sector”, “work engagement”, “transformational leadership”, “public service motivation”, “affective commitment”, and “leadership” were discovered in the top ten keywords for this study.

Figure 3 – Result of Country Citation

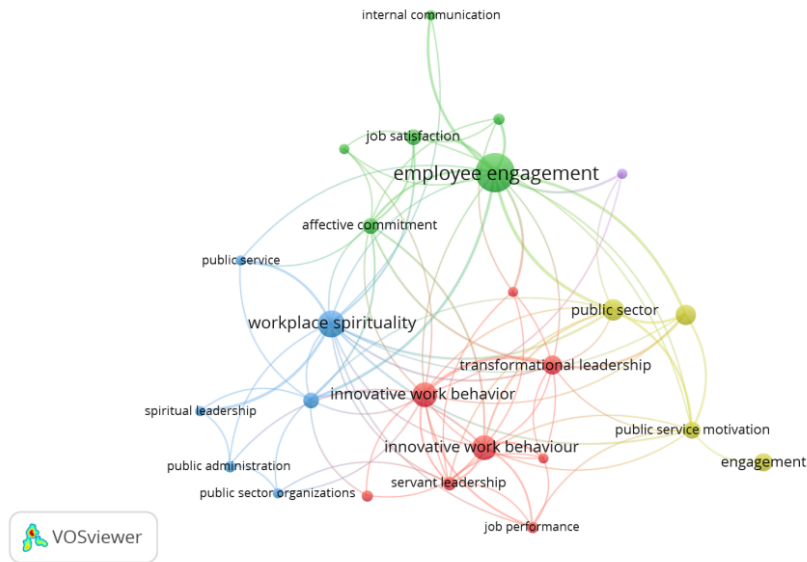


Source: Authors' elaboration

Table 5 – Outlook of Highly Author's Keywords

N.	Keywords	Occurrence	Total Link Strength
1	Employee Engagement	56	33
2	Workplace Spirituality	27	18
3	Innovative Work Behavior	22	16
4	Innovative Work Behaviour	22	14
5	Public Sector	17	20
6	Work Engagement	16	14
7	Transformational Leadership	14	17
8	Public Service Motivation	11	14
9	Affective Commitment	9	14
10	Leadership	10	17

Source: Authors' elaboration

Figure 4 – Result of Author's Keywords

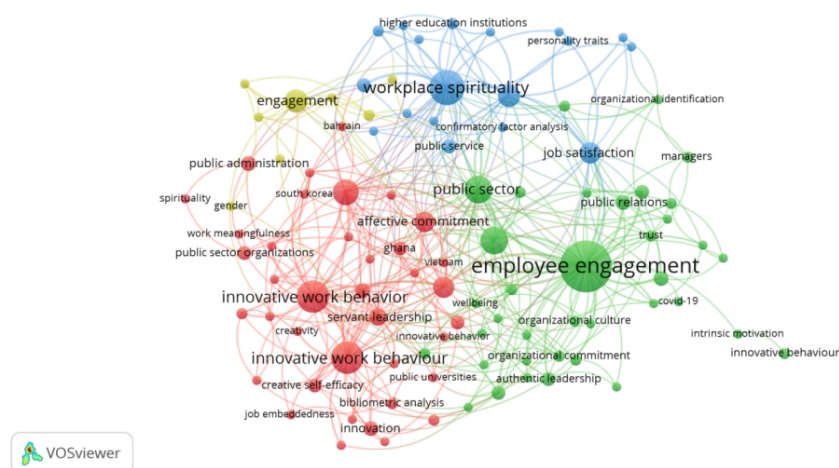
Source: Authors' elaboration

5 Cluster Analysis

The authors utilized VOSviewer software to conduct a term cluster analysis to identify significant research flows. Figure 5 illustrates the visualization of terms based on at least two occurrences. Researchers identified four significant clusters based on repeated terms: red, green, yellow, and blue. The first identified cluster is red and is renamed “innovative work behavior”. It contained keywords such as innovative work behavior, transformational leadership, affective commitment, public sector organizations, and many more. The cluster highlights innovative work behavior in the public sector and all the variables connected. The prominent studies were *Innovative Work Behavior in Knowledge-intensive Public Sector Organizations: The Case of Supervisors in the Netherlands Fire Services* (Bos-Nehles, Bondarouk, & Nijenhuis, 2017), *Innovative Work Behavior in the Public Sector: The Roles of task characteristics, social support, and proactivity* (Suseno, Standing, Gengatharen, & Nguyen, 2020), *Transformational Leadership, Creative Self-Efficacy, Trust in Supervisor, Uncertainty Avoidance, and Innovative Work Behaviour of Nurses* (Afsar & Masood, 2018). The green cluster “employee engagement” is the second major cluster in this research. The association between the public

sector and employee engagement is clear in the literature. Many studies have found that public sector and employee engagement are linked, such as *Competing through employee engagement: a proposed framework* (Al Mehrzi & Singh, 2016), *Demands or Resources? The Relationship Between HR Practices, Employee Engagement, and Emotional Exhaustion Within a Hybrid Model of Employment Relations* (Conway, Fu, Monks, Alfes, & Bailey, 2016) and *Do HR Practices Influence Job Satisfaction? Examining the Mediating Role of Employee Engagement in Indian Public Sector Undertakings* (Pradhan, Dash, & Jena, 2019). Other crucial keywords such as employee engagement, job satisfaction, turnover intention, engagement, internal communication, and many more were also a part of this cluster. The third cluster is a blue color called “workplace spirituality”. The most representative keywords are workplace spirituality, job satisfaction, spiritual leadership, employee well-being, sense of community, public service motivation, and many more. The cluster illustrates the variables used to analyze the relationship among them. The most influential studies were *Employee Workplace Spirituality and Pro-environmental Behavior in the Hotel Industry* (Rezapouraghdam, Alipour, & Darvishmotevali, 2018); *Sense of Community, Sense of Community Responsibility, Organizational Commitment and Identification, and public service motivation: a simultaneous test of affective states on employee well-being and engagement in a public service work context* (Boyd & Nowell, 2020) and *Towards Examining the Link Between Workplace Spirituality and Workforce Agility: Exploring Higher Educational Institutions* (Saeed, Khan, Zada, Ullah, Vega-Muñoz, & Contreras-Barraza, 2022). The last cluster is the smallest and includes only eight items, including keywords such as engagement, communication, performance, and satisfaction.

Figure 5 – Cluster Analysis

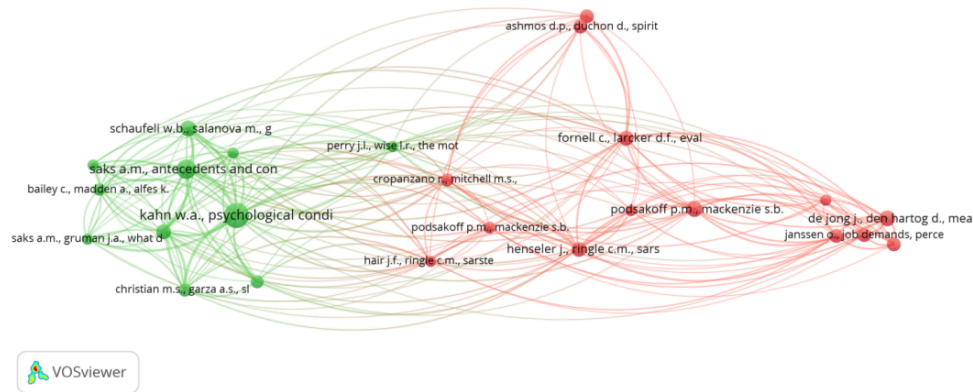


Source: Authors' elaboration

6 Co-Citation Analysis

6.1 Document Co-Citation Analysis

Document co-citation analysis identifies the intellectual structure of related works in a specific area. This investigation will identify which documents reflect the intellectual structure of WPS, IWB, and EE in public organizations. In the present study, we identified 13,034 citations, of which 25 met the minimum 10 citations per work threshold. We specified the number of citations per document in each node and its size. The relationship was a co-citation. The nodes with identical colors were in the same cluster. Figure 6 powerfully illustrates that the process used by the VOS viewer resulted in two major clusters (red and green). The red cluster is the major and counts 14 items with 185 citations. The red cluster emphasizes evaluations of employee innovative behavior, the factors that influence it (such as views of fairness), and the methodological difficulties encountered in a study in this area. Also, the documents underline the importance of taking employees' emotional and spiritual well-being into account as a significant factor in increasing workplace performance and satisfaction. The crucial studies that formed part of the red cluster were *Measuring innovative work behavior, creativity, and innovation management* (De Jong & Den Hartog, 2010), *Job demands, perception of efforts reward fairness and innovative work behavior* (Janssen, 2000) and *Common methods bias in behavioral research: a critical review of the literature and recommended remedies* (Podsakoff, 2003). Other influential documents that create this cluster are: *Spirituality at Work: A Conceptualization and Measure* (Ashmos & Duchon, 2000), followed by *Evaluating structural equation models with unobservable variables and measurement error* (Fornell & Larcker, 1981) and *Workplace spirituality and employee work attitudes: An exploratory empirical assessment* (Milliman, Czaplewski, & Ferguson, 2003). The green cluster reflected the influential publications on employee engagement in the public sector, with 185 citations and 11 items. In general, the materials included in this cluster address employee engagement, namely the significance of creating an engaging and stimulating work environment to maximize human potential and create long-term success. For example, Khan (1990), titled *Psychological Conditions of Personal Engagement and Disengagement*, describes three psychological conditions that lead to personal engagement at work and how these affect employees physically, cognitively, and emotionally in their work roles. Another study, *Antecedents and consequences of employee engagement* (Saks, 2006), explores the causes and repercussions of employee engagement. Similarly, more studies such as *The measurement of engagement and burnout: a two sample confirmatory factor analytic approach* (Schaufeli, Salanova, González-Romá, & Bakker, 2002) and *The meaning of employee engagement* (Macey & Sneider, 2008) formed the central part of the second cluster.

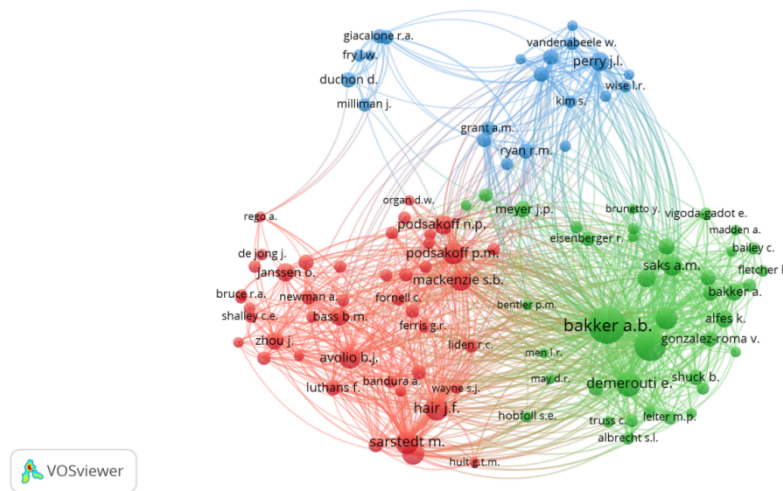
Figure 6 – Co-Citation Network of Documents

Source: Authors' elaboration

6.2 Author's Co-Citation Analysis

The second study analyzed the author's co-citation network on WPS, IWB, and EE in public organizations. We considered only authors with at least 25 citations, totaling 106 authors. In the present study, we applied co-citation analysis to the 106 contributions. The resulting network, including the formation of specific clusters, can be observed in Figure 7. Co-citation analysis was performed to identify a total of three clusters. The first significant cluster, the red cluster, reveals 45 authors who have worked and contributed towards understanding and developing innovative work behavior (e.g., Janssen, 2000; De Jong & Den Hartog, 2010; Yuan & Woodman, 2010). For instance, Janssen investigates crucial organizational elements such as job demands and perceived fairness, which can substantially impact employee innovation. Each node of the same color represents how individuals' labor in a given cluster connects. The green cluster shows various authors who have contributed to the said domain to explore employee engagement. For instance, authors such as Saks (2006), Bakker and Demerouti (2008), and Bailey, Madden, Alfes, and Fletcher (2017) in their studies emphasize the role of leadership, organizational support, work satisfaction, and communication in boosting employee engagement and well-being, which has significant consequences for companies and their outcomes. The blue cluster includes all the works on workplace spirituality, particularly authors such as Duchon, Fry, Giacalone, and others. They have contributed to expanding knowledge on the subject.

Figure 7 – Co-Citation Network of Authors



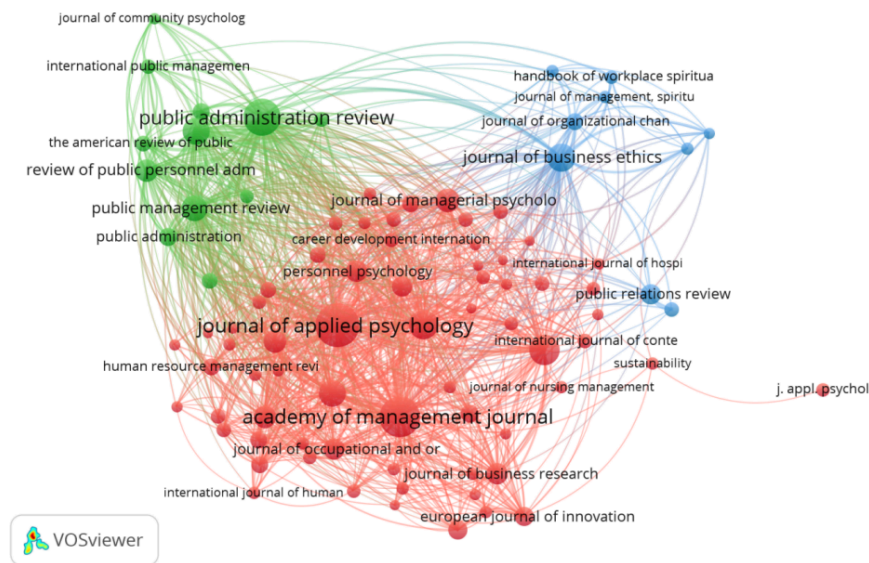
Source: Authors' elaboration

6.3 Journal Co-Citation Analysis

In the study, the authors analyzed the journal co-citation network for workplace spirituality, innovative work behavior, and employee engagement in public administrations, identifying a total of 4,934 sources with a minimum of 25 sources. Of the 4,934 sources, 87 match the criteria. Each node indicated a source, and its size corresponded to the amount of citations. A connection between two elements implies a co-citation relationship. In the VOSviewer visualization, we sorted the nodes according to their similarity. The sources in a similar cluster (color) were positioned closer together than those in a dissimilar cluster (color). The VOSviewer software grouped journal co-citations into three clusters (Figure 8). The red cluster contained 66 sources primarily focused on organizational behavior, human resources management, leadership, management, and organizational psychology (namely *Journal of Applied Psychology*, *Academy of Management Journal*, *Journal of Management*, *Journal of Organizational Behavior*, and many more). The *Journal of Applied Psychology* ranked first, with 403 citations and a total link strength of 117,418, followed by the *Academy of Management Journal*, with 351 citations and 12,677 total link strength. The second cluster was green and comprised 12 items, including the journals mainly related to public management (*Public Administration Review*, *Public Management Review*, *Public Personnel Administration*, *Journal of Public Administration Research and Theory*, and many more). Of these, the *Public Administration Review* received the most citations, with a count of 288 and a total link strength of 12,502, followed by the *Public Management Review* that received a citation of 151 and a total link strength of 7,013. The last cluster is blue and consists of 9

sources based on business ethics, workplace spirituality, religion, and organizational performance (*Journal of Business Ethics*, *Handbook of Workplace Spirituality and Organizational Performance*, *Journal of Management, Spirituality and Religion*). The most prominent journal in this cluster is the *Journal of Business Ethics*, with 174 citations and 6,108 total link strength.

Figure 8 – Co-Citation Network of Journals



Source: Authors' elaboration

7 Discussion and Conclusions

This exhaustive analysis offers valuable insights into the research landscape on workplace spirituality, innovative work behavior, and employee engagement in the public sector context. The citation analysis reveals the most impactful publications in this domain, with the paper by Al Mehrzi and Singh (2016) on “Competing through employee engagement” receiving the highest number of citations. This underscores the significance of employee engagement as a strategic lever for organizational performance, particularly in the public sector. The prominence of the work by Afsar and Masood (2018) on the role of transformational leadership and other factors in driving innovative work behavior further highlights the importance of leadership and individual-level factors in fostering innovation among public sector employees. The analysis of prolific authors identifies Alfes, Bailey, and Afsar as the most cited researchers in this area, indicating their influential contributions to the theoretical and empirical understanding of these constructs in public organizations. Interestingly,

Hameduddini has published the most documents but received fewer citations, suggesting the need to evaluate the quality and impact of research outputs critically. The journal-level analysis demonstrates the dominance of outlets such as the *Public Relations Review*, *International Human Resource Management*, and the *European Journal of Innovation Management* in disseminating high-impact research on WPS, IWB, and EE in the public sector. This information can guide researchers in identifying appropriate publication channels for their work. The country-level analysis reveals the United States, Pakistan, and the United Arab Emirates as the leading contributors to the research in this domain, underscoring the need for more global representation and cross-cultural comparisons to enhance the generalizability of findings. The keyword co-occurrence analysis provides a useful map of the conceptual linkages between the key constructs, with “employee engagement”, “workplace spirituality”, and “innovative work behavior” emerging as the most prominent themes. This suggests that these areas are closely intertwined and warrant further exploration to understand their synergistic effects on public sector performance and employee well-being. The co-citation analysis has shed light on the intellectual structure underlying research on workplace spirituality, innovative work behavior, and employee engagement in public organizations. Three distinct clusters emerged from this analysis. The prominent red cluster emphasizes evaluating employee innovative behavior and the factors that shape it. Key studies in this cluster explore the role of fairness perceptions and methodological considerations in studying innovative work practices. Importantly, this cluster underscores the need to account for employees’ emotional and spiritual well-being as a significant driver of workplace performance and satisfaction. In contrast, the green cluster reflects the influential publications on employee engagement in public sector contexts. These works highlight the importance of cultivating an engaging and stimulating work environment to unlock human potential and drive long-term organizational success. Seminal studies in this cluster examine the antecedents and consequences of employee engagement, providing a solid foundation for understanding this critical aspect of public sector management. The blue cluster, on the other hand, centers around the literature on workplace spirituality. This cluster features key contributors, such as Duchon, Fry, and Giacalone, who have significantly advanced the theoretical and empirical understanding of Spirituality in the workplace and its organizational implications. The co-citation analysis has revealed the intellectual landscape shaping research on workplace spirituality, innovative work behavior, and employee engagement within public organizations. The red cluster highlights the importance of measuring and comprehending innovative work behavior, including the influential role of fairness perceptions and employee well-being in driving organizational performance. The green cluster emphasizes the criticality of employee engagement in public sector settings, underscoring the need for leadership, organizational support, and work satisfaction to enhance employee well-being and productivity. Finally, the blue cluster showcases the

growing body of literature on workplace spirituality, reflecting the contributions of prominent scholars in expanding our understanding of this emerging concept and its organizational implications. This study provides a complete overview of the current state of research on WPS, IWB, and EE in the public sector, highlighting the most influential publications, authors, journals, and countries contributing to this field. The findings can inform future research directions, guide scholars in identifying impactful research streams, and assist practitioners in designing evidence-based interventions to foster employee engagement, innovative behaviors, and a spiritually enriched work environment in public organizations. This extensive examination offers significant insights into the theoretical foundations and key works shaping research on these domains within the public sector context.

8 Research Gaps and Future Directions

According to the search results, there needs to be more literature about workplace spirituality, innovative work behavior, and employee engagement in public organizations. Firstly, researchers should conduct more studies investigating the relationship between workplace spirituality, innovative work behavior, and employee engagement within public organizations. The search results reveal a growing pattern in study in this field, but more research is needed to understand the relationship between these variables completely. Secondly, there is a need for more research on the factors that influence WPS, IWB, and EE in public organizations. The search results highlight the importance of leadership, transformational leadership, public service motivation, job satisfaction, and trust in supervisors in promoting WPS, IWB, and EE. However, there is a need for more research to understand the role of these factors in promoting WPS, IWB, and EE in public organizations. Thirdly, there is a lack of research on the impact of WPS, IWB, and EE on organizational performance in public organizations. The search results show that further study is needed to understand better the influence of WPS, IWB, and EE on organizational performance in public organizations. Lastly, there is a need for more research on the role of technology in promoting WPS, IWB, and EE in public organizations. The search results indicate a need for more research to understand the role of technology in promoting WPS, IWB, and EE in public organizations.

In summary, the literature on WPS, IWB, and EE in public organizations has several gaps. Future research should focus on understanding the relationship between these variables, the factors that influence them, the impact of WPS, IWB, and EE on organizational performance, and the role of technology in promoting them.

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