

Bibliometric analysis of employee performance using VOSviewer

ARTICLE INFORMATION

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ABSTRACT

Despite extensive research on employee performance, systematic bibliometric mapping of this literature—particularly in relation to the disruption caused by the COVID-19 pandemic—remains limited, leaving thematic trends, influential publications, and emerging research directions insufficiently understood. This study addresses that gap through a bibliometric analysis of employee-performance research using VOSviewer. Data were retrieved from Google Scholar via Publish or Perish using the keyword “employee performance” restricted to titles, keywords, and abstracts published between 2019 and 2024; after removing duplicate, non-English, and topically irrelevant records, 999 articles were retained for analysis. VOSviewer was used to construct network, overlay, and density visualizations based on keyword co-occurrence. The results show that the COVID-19 pandemic was the dominant topic in the literature, with a focus on adaptation to remote work (Work From Home), organizational readiness, and employee loyalty. Network visualization identified five main clusters, while overlay visualization showed a temporal shift in research focus from the immediate impact of the pandemic toward more strategic, retention-oriented human resource concerns such as talent management and employee loyalty. Density visualization revealed a high intensity of the keywords “pandemic” and “WFH,” reflecting the urgency of research on global change during the period studied. Compared with prior bibliometric studies that examined employee performance or the pandemic in isolation, this study offers an integrated, up-to-date mapping of both, clarifying how the field evolved and where research attention is shifting. These findings offer academics a structured reference point for positioning future studies and offer practitioners and policymakers evidence-based guidance for sustaining employee performance in the post-pandemic work environment.

Keywords: Employee Performance¹; Bibliometrics²; VOSviewer³

INTRODUCTION

Employee performance is one of the key elements that determines an organization’s success in achieving its strategic goals. Performance not only reflects an individual’s ability to complete tasks, but also their contribution to organizational productivity, efficiency, and innovation. Research by Fidyah and Setiawati (2020) shows that transformational leadership and a supportive organizational culture can increase employee engagement and loyalty, which in turn contributes significantly to improved employee performance. In a broader context, employee performance plays an important role in creating a collaborative, innovative, and competitive work environment.

The COVID-19 pandemic brought fundamental changes to global work patterns, including the implementation of Work From Home (WFH) policies. Although this policy provided greater flexibility, it also introduced new challenges such as increased work stress and difficulties in team coordination. However, with appropriate technological support and training programs, WFH also offered opportunities to improve employee productivity (Purnama et al., 2024). Therefore, understanding research trends related to employee performance in the context of the pandemic is important for identifying relevant strategies to address these challenges and opportunities.

On the other hand, the bibliometric approach has become an effective method for mapping research trends and systematically evaluating the relationships between topics. Software such as VOSviewer enables the visualization of keyword networks and temporal distributions, providing insight into the structure and dynamics of academic literature (Van Eck & Waltman, 2010). Nandiyanto et al. (2020)

used bibliometric analysis to evaluate research trends in the field of education, demonstrating that this approach can be used to guide the development of evidence-based policy. In the context of employee-performance research, bibliometrics allows for an in-depth exploration of thematic relationships, such as the influence of leadership, loyalty, and work–life balance on productivity.

Although many studies have examined employee performance and bibliometric applications separately, few have combined the two to map how the field itself has developed. Existing reviews related to employee-performance research have tended to focus on a single dimension—such as organizational culture and engagement (Fidyah & Setiawati, 2020) or pandemic-related work arrangements (Purnama et al., 2024)—rather than providing a comprehensive, dataset-wide mapping of thematic clusters, temporal shifts, and influential publications across the 2019–2024 period. Moreover, existing bibliometric applications in adjacent fields, such as education (Nandiyanto et al., 2020) and low-carbon education (Hudha et al., 2020), have not been extended to the employee-performance literature in a systematic way. This leaves two specific gaps: first, a lack of clarity on how the pandemic reshaped the thematic structure of employee-performance research over time; and second, limited understanding of which emerging themes—beyond the immediate pandemic response—are likely to define the field’s post-pandemic trajectory. This study addresses these gaps through three specific objectives: (1) to identify the most influential publications and thematic clusters in employee-performance research published between 2019 and 2024; (2) to map the temporal evolution of research themes from the onset of the COVID-19 pandemic toward more recent, strategic human-resource-management concerns; and (3) to identify emerging keyword areas that indicate future research directions. These findings are expected to provide in-depth theoretical contributions and practical insights for policymakers, academics, and practitioners in developing more effective strategies for improving employee performance in the post-pandemic era. The remainder of this article is organized as follows: the next section reviews relevant literature, followed by the methodology, results, discussion, and conclusion.

LITERATURE REVIEW

Key Concepts and Prior Studies

Employee performance is a measure of an individual’s ability to complete tasks according to the standards set by the organization. Mangkunegara (2013) defines performance as the quality and quantity of work results achieved by an employee in carrying out their responsibilities. The main dimensions of performance include productivity, namely the ability to complete work according to targets; efficiency, namely the optimal use of resources; effectiveness, which reflects the contribution of work results to organizational goals; and innovation, namely the ability to generate new ideas or solutions that improve the quality of work (Robbins & Judge, 2018).

Employee performance is influenced by various internal and external factors. Work motivation is one of the main factors, which can be enhanced through rewards, incentives, and constructive feedback (Sofie, 2016). In addition, transformational leadership and an inclusive organizational culture have been shown to increase employee engagement and loyalty, which has a positive impact on performance (Fidyah & Setiawati, 2020). A supportive work environment, including work–life balance, is also an important factor. In the context of the COVID-19 pandemic, the implementation of Work From Home (WFH) brought challenges such as coordination difficulties and work stress, but also created opportunities to improve flexibility and productivity through technological support (Purnama et al., 2024).

Employee performance plays a vital role in determining organizational success. High-performing employees are able to increase organizational productivity and competitiveness, as well as create a

positive and collaborative work environment. To achieve this, organizations need to develop performance-improvement strategies through training, skills development, and structured feedback (Mangkunegara, 2013). By prioritizing employee performance, organizations can achieve sustainable competitive advantage, particularly when facing dynamic changes in the work environment such as the COVID-19 pandemic.

Theoretical or Conceptual Foundation

Bibliometrics is a quantitative analysis method used to evaluate publication patterns, research trends, and relationships between topics in academic literature. This approach uses bibliographic data, such as titles, keywords, abstracts, and reference lists, to provide insight into the structure and dynamics of a research field (Van Eck & Waltman, 2010). Bibliometrics is widely used across various disciplines to identify research trends, evaluate the productivity of authors or institutions, and identify thematic collaboration in the literature (Nandiyanto et al., 2020).

In bibliometric analysis, various tools and methods are used to collect and analyze data. Publish or Perish is software used to access data from academic databases such as Google Scholar, enabling the collection of information on citations, author productivity, and publication indices. VOSviewer is another popular tool used to visualize the relationships between keywords, temporal distributions, and thematic clusters. Common methods include co-citation analysis, bibliographic coupling, and co-occurrence of keywords, which help identify relationships between articles and research trends (Hudha et al., 2020). This approach enables intuitive and informative visual mapping, giving researchers the ability to explore bibliometric data in greater depth.

Despite its many advantages, the bibliometric approach also has limitations. One of its strengths is its ability to provide objective, data-based analysis, helping to identify research trends quickly and efficiently. In addition, tools such as VOSviewer enable visual representations that facilitate the interpretation of thematic relationships (Van Eck & Waltman, 2010). However, its limitations include a dependence on the quality and completeness of the data available in academic databases. Bibliometric analysis is also less effective in capturing qualitative context, such as the factors underlying identified thematic relationships (Nandiyanto et al., 2020). Therefore, for more comprehensive results, bibliometric analysis often needs to be combined with qualitative approaches.

Positioning of the Present Study

As a bibliometric mapping study, this research does not test causal hypotheses; instead, this section positions the present study relative to prior empirical and bibliometric work on employee performance. Prior determinant-focused studies provide the substantive themes that this bibliometric mapping is expected to surface. Fidyah and Setiawati (2020), for example, show that transformational leadership and a supportive organizational culture strengthen employee engagement and loyalty, which in turn improves performance, while Purnama et al. (2024) show that Work From Home (WFH) policies during the COVID-19 pandemic introduced new stressors but also created opportunities to enhance flexibility and productivity through technological support and training. If the bibliometric mapping conducted in this study is valid, these substantive themes—leadership, loyalty, WFH, and technological adaptation—should surface as prominent clusters or high-density keywords in the VOSviewer output, providing an empirical check on the mapping's face validity.

Methodologically, this study builds on established bibliometric practice. Van Eck and Waltman (2010) demonstrate the effectiveness of VOSviewer for visualizing keyword networks and the temporal distribution of research topics, while Nandiyanto et al. (2020) apply bibliometric analysis to map research trends in education and show how such mapping can inform evidence-based policy; Hudha et al. (2020) similarly apply co-occurrence and density analysis to trace thematic development

in low-carbon education research. These studies establish network, overlay, and density visualization as complementary tools for identifying influential publications, thematic clusters, and shifts in research focus—the same analytical logic adopted in this study. However, none of these prior bibliometric studies has been applied to the employee-performance literature across the COVID-19 period, and existing employee-performance reviews (e.g., Fidyah & Setiawati, 2020; Purnama et al., 2024) have relied on narrative rather than bibliometric methods, limiting their ability to capture the full scope of thematic and temporal change across a large publication set.

This positions the present study at the intersection of two literatures that have so far developed largely in parallel: substantive research on the determinants of employee performance, and methodological research on bibliometric mapping. By applying the latter to the former across a large, recent dataset (2019–2024), this study is positioned to reveal not only which employee-performance themes have received the most attention, but also how that attention shifted before, during, and after the acute phase of the COVID-19 pandemic—an empirical picture that neither the determinant-focused studies nor the bibliometric-methods studies cited above provide on their own. The analysis that follows is organized around four analytical dimensions: influential prior publications, thematic clusters, temporal shifts in research focus, and keyword density.

METHODOLOGY

Research Design

This study uses a quantitative approach based on bibliometric analysis to map research trends related to employee performance.

Data Source, Population, and Sampling

Data were obtained through article searches in the Google Scholar database using the Publish or Perish software. Google Scholar was chosen because it is one of the largest and most comprehensive academic databases, covering journal articles, conference papers, dissertations, and research reports (Nandiyanto et al., 2020). The data-collection process was carried out on 18 June 2024 using the search string “employee performance” (exact phrase), applied to the title, keyword, and abstract fields, and restricted to publications from 2019 to 2024 to capture research trends before, during, and after the acute phase of the COVID-19 pandemic. The initial search returned a larger pool of records, from which duplicate entries, non-English-language publications, records without a retrievable abstract, and publications clearly unrelated to employee performance in an organizational or workplace context (e.g., studies using “performance” in a purely technical, athletic, or computational sense) were excluded. Articles meeting the inclusion criteria—English-language, peer-reviewed or indexed scholarly outputs published in 2019–2024, with “employee performance” appearing in the title, keyword, or abstract—were retained and exported in RIS (Research Information Systems) format to facilitate further analysis. After screening, 999 articles constituted the final analytical sample. The unit of analysis was the individual article, with keyword co-occurrence drawn from titles and abstracts serving as the basis for the bibliometric mapping.

Measures, Instruments, or Analytical Protocol

The data obtained were then analyzed using the latest version of the VOSviewer software. A co-occurrence analysis of keywords drawn from titles and abstracts was performed using full counting, with a minimum threshold of five occurrences per keyword; keywords falling below this threshold were excluded from the visualization to retain only sufficiently recurrent themes. Applying this threshold, VOSviewer retained 44 keywords meeting the minimum-occurrence criterion, which were subsequently grouped into five clusters, as reported in the Results section. VOSviewer was used to

create visual maps covering the relationships between keywords, temporal trends, and topic density. The visual analysis involved three types of representation: network visualization, overlay visualization, and density visualization, following the procedure outlined by Van Eck and Waltman (2010). These visualizations enabled the identification of major topic clusters, such as the COVID-19 pandemic, Work From Home (WFH), and employee loyalty.

Data Analysis

Prior to finalizing the visualizations, a data-cleaning procedure was applied. Keywords that were synonymous, near-duplicate, or inconsistently written (e.g., singular/plural forms, alternative spellings, and acronyms such as “WFH” versus “work from home”) were merged using a manually constructed thesaurus file in VOSviewer, and keywords that were overly generic (e.g., “study,” “research,” “analysis”) or unrelated to the substantive theme of employee performance were removed to improve the accuracy of the results. This analysis was conducted iteratively—cleaning, re-running the co-occurrence map, and re-checking the output—to ensure the validity and reliability of the results. Validation was carried out by comparing the visualization findings with related literature on employee-performance research to ensure consistency with the context of the topic being addressed. This procedure was designed to minimize bias in data collection and analysis, adopting a methodology validated by previous research (Hudha et al., 2020; Nandiyanto et al., 2020). This approach is expected to produce robust and relevant results for comprehensively understanding research trends in employee performance.

RESULTS

Influential Articles Based on Citations in Employee Performance Research

Results of the bibliometric analysis show that the most highly cited articles play an important role in building insight related to employee performance. The article titled “Job Satisfaction and Organizational Commitment Effect in the Transformational Leadership Towards Employee Performance” by Eliyana et al. (2019) is the most cited article, with 1,223 citations. This article highlights the role of transformational leadership in improving job satisfaction and organizational commitment, which ultimately contributes directly to improved employee performance. This finding is in line with previous literature, such as Sofie (2016), which states that effective leadership can increase employee motivation and productivity through structured and constructive feedback.

In addition, the article by Iis et al. (2022), which has the highest average number of citations per year (385.50), highlights the influence of career development and the work environment on employee performance, with work motivation as an intervening variable. This article emphasizes the importance of organizational support in providing career-development opportunities and creating a conducive work environment to encourage employee productivity. This finding supports the research of Fidyah and Setiawati (2020), which shows that organizational culture and employee engagement can strengthen employee loyalty and improve the quality of performance.

Table 1. Articles with the highest number of citations

No.	Citations	Per Year	Author(s)	Title	Year	Ranking
1	1223	244.60	A Eliyana, S Ma'arif	Job satisfaction and organizational commitment effect in the transformational leadership towards employee performance	2019	150

No.	Citations	Per Year	Author(s)	Title	Year	Ranking
2	1158	231.60	I Buil, E Martínez, J Matute	Transformational leadership and employee performance: The role of identification, engagement and proactive personality	2019	158
3	1051	262.75	M Paais, JR Pattiruhu	Effect of motivation, leadership, and organizational culture on satisfaction and employee performance	2020	70
4	832	166.40	AD Diamantidis, P Chatzoglou	Factors affecting employee performance: an empirical approach	2019	3
5	771	385.50	EY Iis, W Wahyuddin, A Thoyib, et al.	The effect of career development and work environment on employee performance with work motivation as intervening variable at the office of agriculture and ...	2022	134
6	455	91.00	K Adnan Bataineh	Impact of work-life balance, happiness at work, on employee performance	2019	468
7	418	139.33	S Riyanto, E Endri, N Herlisha	Effect of work motivation and job satisfaction on employee performance: Mediating role of employee engagement	2021	19
8	408	102.00	S Haryono, BA Sulistyio	Effects of work motivation and leadership toward work satisfaction and employee performance: Evidence from Indonesia	2020	135
9	348	69.60	MI Hendri	The mediation effect of job satisfaction and organizational commitment on the organizational learning effect of the employee performance	2019	757
10	312	62.40	B Cooper, J Wang, T Bartram, et al.	Well-being-oriented human resource management practices and employee performance in the Chinese banking sector: The role of social climate and resilience	2019	781

Notes: Citation counts and per-year averages were retrieved via Publish or Perish (Google Scholar) at the time of data collection (18 June 2024).

Overall, the highest-cited articles in Table 1 reflect the academic community's attention to key variables in employee-performance research, such as leadership, career development, and loyalty. These articles provide important insights for practitioners and academics in understanding the dynamics of employee performance, particularly in the context of a dynamically changing work environment. This is increasingly relevant in the COVID-19 pandemic situation, in which work flexibility and work-life balance have become key issues affecting employee productivity.

Topic-Area Visualization Using VOSviewer

The bibliometric-analysis visualization shows a network consisting of 44 items meeting the minimum five-occurrence threshold described in the Methodology section, grouped according to their degree of relatedness. Each group, or cluster, is identified by a different color — purple, red, blue, green, and yellow — each representing an interrelated research topic or theme. Analysis using VOSviewer software successfully identified five main clusters reflecting the relationships between topics in the literature analyzed. VOSviewer offers three different types of visualization for bibliometric data analysis: network visualization, overlay visualization, and density visualization. The network visualization (Figure 1) illustrates the relationships between keywords based on their frequency of occurrence in article titles and abstracts.

The overlay visualization (Figure 2) adds a temporal dimension by showing the temporal distribution of research topics using color gradation. The density visualization (Figure 3) illustrates research areas with a high concentration of keywords, providing insight into the most frequently discussed topics. In all three visualizations, keywords are labeled with colored circles, in which the size of the circle and label is directly proportional to the frequency of occurrence of the keyword. The more frequently a keyword appears, the larger the circle and label, reflecting the significance of that topic within the research analyzed.

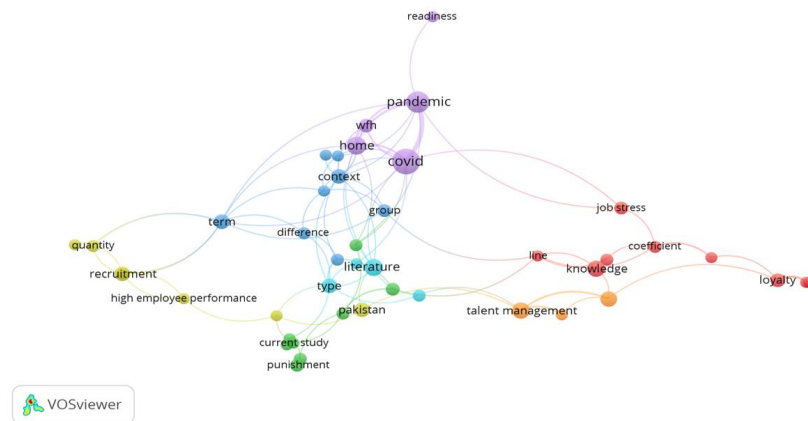


Figure 1. Topic-area visualization using VOSviewer: network visualization.

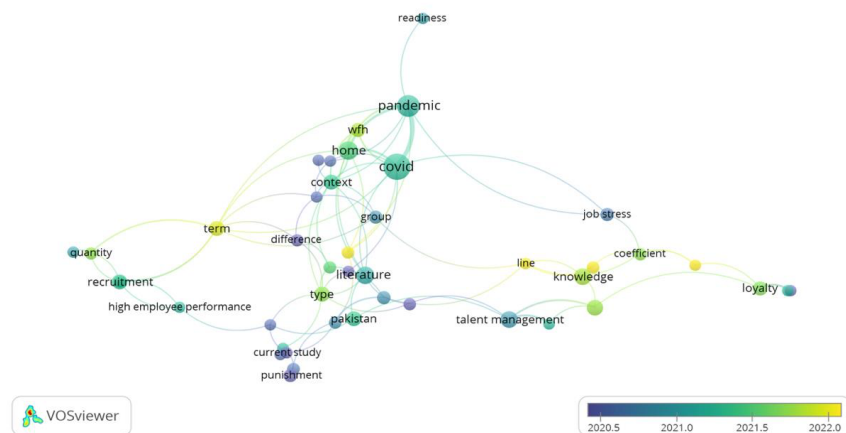


Figure 2. Topic-area visualization using VOSviewer: distribution (overlay) visualization.

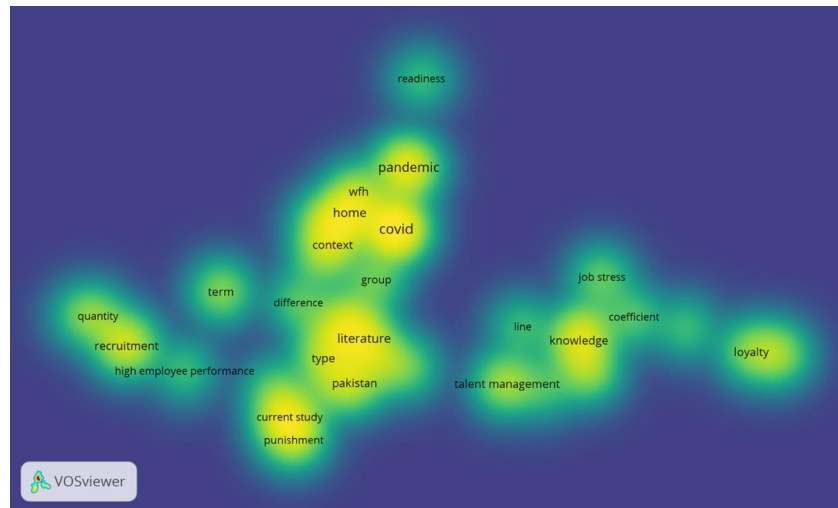


Figure 3. Topic-area visualization using VOSviewer: density visualization.

Notes: Figures generated using VOSviewer software based on the 999-article dataset described in the Methodology section.

Analysis using VOSviewer produced three main types of visualization — network, overlay, and density — providing insight into research trends and focus areas related to employee performance. The network visualization (Figure 1) shows five main clusters based on keyword co-occurrence. The purple cluster, anchored by “pandemic” and “covid” — the two largest and most central nodes in the entire map — is the most influential in the network by both frequency and total link strength; it connects directly to “readiness,” “wfh,” and “home,” and radiates outward to every other cluster, functioning as the structural hub of the field during the period studied. Research within this cluster reflects organizational and individual adaptation to sudden changes in the work environment, including challenges related to productivity and work–life balance (Sofie, 2016; Fidyah & Setiawati, 2020). A second, reddish cluster groups “job stress,” “coefficient,” “knowledge,” “line,” and “loyalty,” and connects to the pandemic cluster mainly through “covid,” suggesting that stress- and loyalty-related outcomes were studied largely as downstream consequences of pandemic-era disruption rather than as an independent research stream. A third, orange cluster centered on “talent management” sits between the pandemic cluster and the knowledge/loyalty cluster, indicating that talent-management research served as a conceptual bridge between crisis-response themes and longer-term HR-outcome themes. The remaining two clusters — a teal cluster around “literature,” “type,” “pakistan,” and “group,” and a yellow cluster around “quantity,” “recruitment,” and “high employee performance” — are positioned at the periphery of the map and are comparatively loosely connected to the pandemic hub, suggesting a body of employee-performance research that continued along more conventional determinant- and context-focused lines largely independent of pandemic-specific framing. It is worth noting that several high-frequency items in these two peripheral clusters — “term,” “type,” “group,” “line,” “coefficient,” and “current study” — are generic or methodological terms rather than substantive constructs; their prominence reflects a limitation of automated keyword extraction from titles and abstracts rather than a genuine research theme, and is addressed further in the Limitations section below.

The overlay visualization (Figure 2) adds a temporal dimension, with node color moving from dark blue/purple (around 2020.5) through teal-green (around 2021) to yellow (around 2022). Keywords such as “job stress,” “readiness,” “pakistan,” and “punishment” appear in the earliest, bluest shades, indicating that context- and stress-related framings were already present close to the onset of the pandemic. “Pandemic,” “covid,” “wfh,” “home,” and “talent management” occupy the mid-range teal-green shades, consistent with these becoming the dominant themes as the pandemic and its immediate workplace consequences unfolded. The most recent, yellow shades are occupied by “knowledge,” “coefficient,” “loyalty,” “literature,” “quantity,” and “recruitment,” suggesting that

research attention moved, in relative terms, from acute pandemic response toward employee-loyalty and knowledge-oriented HR themes as the period progressed. This shift should be interpreted with some caution, however, because several of the later-appearing, higher-frequency terms (e.g., “literature,” “quantity,” “knowledge”) are broad or generic rather than substantively specific, so part of the apparent late-period shift may reflect a broadening of keyword usage in more recent publications rather than a sharply defined new research theme. Even so, the directional pattern — from crisis-driven, pandemic-specific keywords toward more strategic, retention- and knowledge-oriented keywords — is consistent with the broader literature’s account of organizations moving from crisis response toward longer-term human-resource strategy (Van Eck & Waltman, 2010; Nandiyanto et al., 2020), and points to employee loyalty and talent-related knowledge management as the clearest emerging research areas within this dataset.

The density visualization (Figure 3) confirms this pattern: the brightest, highest-density region covers “pandemic,” “covid,” “wfh,” “home,” and the adjacent “literature”/“type”/“pakistan” area, indicating that these keywords were not only frequent but also densely interconnected with neighboring terms. “Knowledge” and “talent management” form a secondary, moderately dense region, while “loyalty,” “job stress,” and “coefficient” appear in lower-density, more isolated areas, indicating that — despite their conceptual importance in the employee-performance literature — these themes have not yet been as extensively cross-referenced with other keywords as the pandemic-related cluster. This reinforces the interpretation that pandemic-related adaptation to work arrangements, rather than the more distal outcomes of loyalty or stress, remains the central organizing theme of employee-performance research published between 2019 and 2024, and that loyalty- and knowledge-oriented themes represent the field’s most promising direction for further consolidation (Hudha et al., 2020).

DISCUSSION

Rather than restating the individual clusters described in the Results section, this discussion focuses on what the overall pattern means for how the employee-performance field has developed and where it is headed. Two broad observations stand out. First, the field’s attention over 2019–2024 was organized primarily around the pandemic as an external shock, with determinant-focused research on leadership, motivation, and organizational culture continuing largely on a separate, more peripheral track. Second, the temporal and density patterns together suggest that employee loyalty and knowledge/talent-related themes are the field’s clearest emerging direction, positioned to move from the periphery toward the center of the network as pandemic-specific keywords lose salience.

Theoretical Implications

Compared with prior bibliometric work that has examined employee performance and pandemic-related work arrangements as separate literatures, this study’s contribution is to show, empirically, how the two intersected: the network and overlay results indicate that pandemic-related keywords functioned as a structural hub connecting otherwise loosely linked research streams (context/determinant research, stress/loyalty outcomes, and talent-management research), and that this hub role weakened over the study period as loyalty- and knowledge-oriented themes gained relative prominence. This complements methodological bibliometric studies such as Van Eck and Waltman (2010), Nandiyanto et al. (2020), and Hudha et al. (2020), which demonstrate bibliometric mapping in other fields but do not address employee performance specifically, and it extends narrative reviews of employee performance (e.g., Fidyah & Setiawati, 2020; Purnama et al., 2024) by situating their substantive findings within a dataset-wide, quantified map of the field’s structure and evolution. In doing so, the study offers an account of employee-performance research as a field that reorganized around an external shock (the pandemic) before beginning to re-differentiate into

more specialized post-pandemic themes — an account that a purely narrative or single-topic review could not have produced.

Practical Implications

The concentration of research attention around pandemic-driven work arrangements suggests that organizations should treat the flexible or hybrid work policies developed during the pandemic as a foundation to build on rather than a temporary measure to unwind, since the literature shows sustained rather than declining engagement with these themes through the later years of the period studied. The emergence of “loyalty” and “knowledge”/“talent management” as the most recent, rising themes in the overlay visualization points policymakers and HR practitioners toward retention-focused strategies — such as structured career-development pathways and knowledge-sharing programs — as the area where evidence-based guidance is most likely to be current and actionable going forward. Conversely, because “job stress” appears in an early, lower-density part of the map rather than the most recent, high-density region, organizations should not assume that stress-related interventions developed early in the pandemic remain sufficient; the relative decline in bibliometric attention to this theme may reflect a gap in more recent applied research rather than a resolved problem, and is a signal for renewed practitioner and policy attention rather than continued reliance on earlier findings.

Limitations and Future Research

This study has several limitations. First, data were drawn exclusively from Google Scholar via Publish or Perish; although this source offers broad coverage, it also indexes non-peer-reviewed material, which may affect the composition of the keyword network. Second, despite the cleaning procedure described in the Methodology section, several high-frequency items in the final network (e.g., “term,” “type,” “group,” “line,” “coefficient”) are generic or methodological rather than substantive, indicating that automated keyword extraction from titles and abstracts has practical limits that manual thesaurus-based cleaning could only partly address; future bibliometric studies in this area could apply full-text or structured-keyword extraction to reduce this noise. Third, because the analysis is based on keyword co-occurrence rather than content analysis, it can identify which themes are prominent and how they relate to one another, but not why; future research is encouraged to pair bibliometric mapping with a systematic or qualitative review of the highest-density clusters identified here, particularly the loyalty and talent-management themes. Finally, future research is encouraged to extend the sampling window beyond 2024 to test whether the shift away from pandemic-specific keywords observed here continues as the post-pandemic period matures, and to further explore the long-term impact of Work From Home policies, digital-skills development, and change management on employee productivity and well-being.

CONCLUSION

This study uses a bibliometric approach based on VOSviewer analysis to identify research trends related to employee performance. From the 999 articles analyzed, the results show that the COVID-19 pandemic was the dominant topic in research over the past few years. Topics such as Work From Home (WFH), organizational readiness, employee loyalty, talent management, and work stress were central issues discussed within the main clusters. The network visualization revealed close relationships between keywords in the context of organizational adaptation to new work patterns during the pandemic, while the overlay visualization identified a shift in research focus from pandemic-related issues toward more sustainable human-resource-management strategies. The density visualization confirmed that pandemic-related topics had high intensity, reflecting the urgency felt by the research community in responding to global change.

This study also provides a foundation for academics and practitioners to explore new issues in employee-performance management, particularly in the context of work-environment uncertainty, and offers an updated, empirically grounded starting point for future work on employee loyalty and knowledge-based retention strategies as the field moves into its post-pandemic phase.

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