MAPPING TRENDS ON EMPLOYEE PERFORMANCE AND WORK ENVIRONMENT: A BIBLIOMETRIC ANALYSIS

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ABSTRACT
Employee performance and work environment are two key elements in the success of an organization. The relationship between employee performance and the work environment has become a major focus for many organizations to improve productivity, employee satisfaction, and overall organizational performance. This study aims to determine the development of research with the theme Employee Performance and Work Environment in the range of 2014 to 2023 through the help of the Vosviewers application in visualizing data. The method used in this study is qualitative research with a literature study approach. As for the data found, 98 documents were obtained and analyzed. These datasets are converted to CSV format, BibTeX, and RIS format and imported into bibliophilia for bibliometrics and analysis. The results showed that 2023 is the year with the highest number of publications on the topic of Employee Performance and Work Environment. Indonesia is the country that influences scientific publications the most. Samani, S.A. is the most prolific writer with 3 documents in the field of Employee Performance and Work Environment. Great potential for further research in areas such as Compensation, leadership, training, work-life balance, and work engagement, which still has the potential to be explored more deeply in the context of Employee Performance and Work Environment.

Keywords: Employee Performance; Work Environment; Management

INTRODUCTION
Employee performance is a key factor in the success of an organization (Hameed & Waheed, 2011). High-performing employees not only make a positive contribution to the achievement of company goals but also influence a positive work culture and climate. On the other hand, low performance can lead to decreased productivity, poor customer satisfaction, and additional costs in managing human resources.
In an increasingly competitive global context, organizations need to understand the factors that affect employee performance and how to create a supportive work environment to improve their performance (Raziq & Maulabakhsh, 2015). One factor that has been shown to have a major influence on employee performance is the work environment (Akbar & Se, 2017). The work environment covers a wide range of aspects, including organizational culture, organizational structure, policies and procedures, communication, management support, and the physical condition of the workplace (Cera & Kusaku, 2020). A good work environment can provide positive encouragement for employees, increase their motivation and engagement, and improve the quality of work produced (Astuti, 2021). The work environment is one of the key factors affecting the well-being and performance of employees in an organization (Chandrasekar, 2011). A good work environment can create supportive conditions for employees to reach their full potential, while an unhealthy or unconducive work environment can hinder employee performance and satisfaction. One important aspect of a good work environment is organizational culture (Putra et al., 2020).

Organizational culture reflects the values, norms, and beliefs espoused by the organization and influences employee behavior (Thokozani & Maseko, 2017). A positive culture, such as an inclusive, collaborative, and innovative culture, can provide a positive boost for employees, increase their motivation and engagement, and encourage creativity and innovation. In addition to organizational culture, organizational structure also plays an important role in creating a good work environment (Zheng et al., 2010). A flexible and open organizational structure can facilitate communication and collaboration between employees, while a rigid and hierarchical structure can hinder the flow of information and creativity. Organizational policies and procedures can also affect the work environment (Sunarsi, 2019). Fair and transparent policies can increase employee trust and satisfaction, while unclear or inconsistent policies can lead to uncertainty and conflict. Communication is also a key element of a good work environment. Effective communication between management and employees, as well as between colleagues, can improve understanding, collaboration, and coordination within the organization (Imarisha, 2022).

Employee performance and work environment are two key elements in the success of an organization (Hafeez et al., 2019). High employee performance can contribute positively to the achievement of company goals, while a good work environment can create supportive conditions for employees to reach their full potential. The relationship between employee performance and the work environment has become a major focus for many organizations in an effort to improve productivity, employee satisfaction, and overall organizational performance (Putri et al., 2019). High employee performance is not only the key to an organization’s success in achieving its business goals but also plays an important role in building the company’s reputation and maintaining a competitive advantage in a competitive market. High-performing employees tend to be more productive innovative, and contribute positively to their work teams (Ashiru et al., 2022). They also tend to have lower absenteeism rates and higher retention rates, which can reduce employee replacement costs and improve organizational stability.

On the other hand, a good working environment can create supportive conditions for employees to reach their full potential. A good work environment also creates a sense of involvement and ownership toward organizational goals (Amah & Ahiauzu, 2013), which can increase employee motivation and commitment to their work. The relationship between employee performance and the work environment is also mutually reinforcing. High performers tend to create a more positive work environment through the example they set for their coworkers. They can also play a role as agents of change in improving
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organizational culture and creating a more inclusive, collaborative, and innovative work environment (Pless & Maak, 2004). Understand the importance of the relationship between employee performance and the work environment in achieving long-term success. An organization needs to develop strategies to improve employee performance through improving the work environment, as well as strategies to improve the work environment through improving employee performance. Through a holistic and integrated approach to employee performance and the work environment, organizations can create an environment that supports growth, innovation, and long-term sustainability (Inigo & Albareda, 2016).

The authors traced similar studies related to employee performance and work environment through the Scopus database from 2014 to 2023, which shows a lack of relevant research. Research conducted by (Pawirosumarto et al., 2017) discusses the Influence of Work Environment, Leadership Style, and Organizational Culture on Job Satisfaction and Implications for Employee Performance at Parador Hotels and Resorts, Indonesia. This research shows that work environment, leadership style, and organizational culture have a positive and significant influence on job satisfaction, but only leadership style has a positive and significant effect on employee performance. Job satisfaction does not have a significant and positive influence on employee performance and is not a mediating variable. The research conducted by (Iis et al., 2022) discusses the effect of career development and work environment on employee performance, with work motivation as an intervening variable at the Agriculture and Livestock Office in Aceh. This research shows that career development and employee work environment have a significant effect on employee motivation and performance. In addition, career development and work environment also have a direct effect on performance. Work motivation partially mediates the influence of career development work environment on performance. The Agriculture and Livestock Office is expected to improve career development and create a conducive work environment to improve employee performance at the Aceh Agriculture and Livestock Service. Research conducted by (Massoudi & Hamdi, 2017) discusses the Effect of the Work Environment on Employee Productivity. This study shows that there is a relationship between the office environment and employee productivity. The office environment has a greater influence on productivity than the physical component alone. Employee Satisfaction with the Workplace Environment as a whole leads to productivity.

From some of the studies above, the author sees that studies related to employee performance and work environment need a more comprehensive study. Therefore, research focuses more on identifying research developments, contributions of authors or specific research groups, and comparisons between emerging research topics. This research not only provides a broad picture of the current state of affairs but will also highlight knowledge gaps that may need to be filled in future research. Thus, this study aims to determine the development of research on employee performance and work environment.

RESEARCH METHODS
This study uses qualitative research methods with a bibliometric approach to analyze employee performance and work environment research trends. The bibliometric approach was chosen for its ability to analyze research activities and trends of scientific collaboration in this field using academic publications (Luo et al., 2022; Nti et al., 2023). The research data is sourced from peer-reviewed publications of leading journals and conferences in the field of management, with emphasis on reputable international journals indexed by Scopus. The analysis of publications over the past ten years between 2014 and 2023 was conducted to look at current patterns globally. The source data in this study was taken from Scopus in this literature review derived from 98 articles downloaded from Scopus with the format ( TITLE-ABS-KEY (
"employee performance" AND TITLE-ABS-KEY ( "work environment" ) AND PUBYEAR > 2014 AND PUBYEAR < 2023 AND ( LIMIT-TO ( SUBJAREA , "BUSI" ) OR LIMIT-TO ( SUBJAREA , "SOCI" ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) ) AND ( LIMIT-TO ( SRCTYPE , "j" ) ). The articles from Scopus are then saved in the form of RIS files. This study used VOSviewer analysis to visualize and analyze trends in the form of bibliometric maps (van Eck & Waltman, 2010).

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Figure 1. PRISMA Method Procedure Detailing the Steps in Document Unit Identification and Selection

RESULTS AND DISCUSSION
General Information and Annual Publication Output

Analysis of 98 scientific publications from the Scopus database yielded a wide variety of diverse data. Publications related to employee performance and work environment from 2014 to 2023 have a variety of background information. The study analyzes and classifies data from the Document year, identifying the most significant and least significant patterns and trends. Not only that, but the analysis also identifies countries that contribute the most to scientific publications, journal sources that are most frequently used, authors that are most productive, and institutions that are actively involved in the study. This diverse data provides insight into the nature of research in this area, which can help us understand how research develops and how different aspects related to research interactions affect future research direction.
Figure 2. Global trends in publications on Employee Performance and Work Environment from 2014 to 2023 and Average article citations per year.

Figure 2 above shows the publication of research on the theme of employee performance and work environment from 2014 to 2023. It is clear that the number of documents generally changes based on the quantity of publications. In 2014, there were 4 Research documents published in 2014, indicating a relatively stable publication threshold at the beginning of the period. However, in 2015, there was an increase that resulted in 5 scientific articles, which expanded the focus of research at the time. The trend continued with a significant decline in 2016 and included only 2 disputed documents. The number of republished studies increased in 2017, with 4 documents published, indicating a potential increase in interest or awareness of the subject. Nevertheless, changes in the number of publications continued to occur in the coming years. Stability in 2018 was 4 documents, an increase in 2019 to 11 documents, a further increase in 2020 and 2021 to 12 documents, and an increase in 2022 to 15 documents. In 2023, again, a significant increase was recorded in 29 published documents. This change is inseparable from the complex dynamics of the research industry, including shifts in research focus or interest as well as other factors that interfere with research activities in the field of Employee Performance and Work Environment during the research period.

In the period 2014 to 2023, Scopus publications on the topic of Employee Performance and Work Environment have increased considerably, as shown in Figure 2. The Increase in publications is in line with the increasing awareness of the importance of an organization improving the Work Environment in order to improve the quality of employee performance. During this period, which lasted for several years, regulatory changes, technological advances, and rising worker expectations have made it possible to provide high-quality healthcare while emphasizing the need for structured management practices. The increasing interest in improving the work environment reflects the efforts of the organization's management to maintain integrity, increase employee confidence, and ensure that the services provided meet high ethical standards (Paarlberg & Lavigna, 2010).

It can also be seen from the picture above that the highest quality journal articles are articles published in 2021 with a total of 209 citations. Furthermore, in second place are articles published in 2017, with as
many as 203 citations, and in third place are articles published in 2014, with as many as 127 citations. This suggests that over the past few years, the most frequently cited documents generally date back to 2021 and show the significance and impact of the study during that time. The research focus in the current year can provide a more detailed explanation of the contribution of research during the period and help understand trends and developments that are significant and relevant to the field of Employee Performance and Work Environment.

**Most Country Distribution in the study of Employee Performance and Work Environment**

Figure 3 shows the country's contribution to scientific research publications on the topic of Employee Performance and Work Environment from 2014 to 2023. Data shows that Indonesia is the country that influences scientific publications the most, with 31 documents, placing it in first place. Malaysia participated in second place with a significant contribution, namely 12 documents. India took an active part in the 11 documents they contributed, highlighting the importance of their efforts in developing knowledge in this area. The United States also contributed a significant amount, which is about 7 documents, while Australia made a contribution that is no less important by providing 6 scientific research documents throughout the period studied. Followed by the United Kingdom with 5 documents, China and Germany with 4 documents, and Canada and Iran with 3 documents. Collaboration and global contribution to the development of knowledge in this field are characterized by the accelerated growth of knowledge sources originating from various countries.

It can be seen that countries around the world have actively participated in the publication of scientific papers with the theme Employee Performance and Work Environment from 2014 to 2023, which were indexed by Scopus. The study shows that several countries have made significant contributions to this topic. Indonesia is one of the countries that has made a real and significant contribution to the publication of research findings in the field of Employee Performance and Work Environment. This indicates a growing global interest in organizational management that is managed with the implementation of a good work environment.
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evironment to improve employee performance. Major countries such as Indonesia expect to continue to maintain their leadership in the development of knowledge and practice related to this topic. One of the studies originating from Indonesia is research conducted by (Fathiah et al., 2021) entitled The Impact of Competence and Work Environment on Employee Motivation and Performance in The Financial and Asset Management Division, which explains how the variables of employee competence, work environment, and work motivation have a significant effect on employee performance. Employee competency variables and work environment have a significant effect on employee work motivation. Work motivation has a significant effect on employee performance.

Figure 4. Most Contributing Authors in Employee Performance and Work Environment

Figure 4 shows that the author, Sanisa, S.A is the researcher with the highest number of published documents related to Employee Performance and Work Environment, with 3 documents from 2014 to 2023. Followed by Kang, H and Sinaga, O with 2 published documents and other authors with 1 published document. This highlights the significant and consistent contribution made by the researchers in advancing awareness and understanding of the subject matter during the study period. Their contributions demonstrate collaboration and hard work in research studies, which collectively contribute to the advancement of knowledge in the field of Employee Performance and Work Environment.

It can be seen that Samani, S.A. is one of the authors who contributed to the publication of research on Employee Performance and Work Environment. Samani, S.A.’s expertise and interest in this field have the potential to make a significant contribution to the research conducted by Samani, S.A., as an expert researcher, has been recognized to explain various aspects of Employee Performance and Work Environment. His significant contributions to research publications highlight the importance of advancing understanding and knowledge in this area. As an author, he also reflects the academic community’s recognition of its quality and relevance in producing meaningful research findings in this field. One of his studies published in 2018, entitled "The impact of environmental design on employee performance at PNPI Group," discusses how employee satisfaction with the work environment and their environment, well-being increased by 10%, and creative and productive feelings increased by 7%. In line with previous research on the environmental impact of conditions on employee outlook and performance, the results
underscore the importance of paying attention to employees’ opinions and concerns when designing their work environments (Samani et al., 2018).

**Network Mapping Based on Keywords for the Study of Employee Performance and Work Environment**

Figure 5 shows a network based on keywords from the Employee Performance and Work Environment research study from 2014 to 2023 indexed by Scopus. Analysis using VOSviewer produces 5 clusters marked with color. Each cluster has a different color, and this is done so that the key network is easier to identify. The colors indicate the group, while the labels on the image indicate keywords or terms that appear frequently. Clustering is used to visualize data or a picture of bibliometric groupings, while image mapping is used to get a comprehensive picture of the bibliometric network. Figure 5 presents several clusters marked with various colors. Keyword-based visualization networks use shared event analysis to identify research directions and popular themes and have been shown to help track the progress of research and science programs (Gao et al., 2017). This study featured 8 clusters with different colors. Colors indicate groups, while image labels indicate keywords or terms that appear frequently. Clustering is used to gain insight or a comprehensive picture of a bibliometric network (Liu et al., 2019). Thus, this study found that the publication of scientific research Employee Performance and Work Environment from 2014 to 2023 indexed by Scopus has a strong relationship with topics such as leadership, job satisfaction, job performance, performance workplace, training, motivation, competence, and transformational leadership. This shows a significant relationship between these topics in the context of research on Employee Performance and Work Environment. The following Clusters can be described in the table.

**Table 1. Study network cluster on Employee Performance and Work Environment**

<table>
<thead>
<tr>
<th>CLUSTER</th>
<th>ITEM</th>
</tr>
</thead>
</table>

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<table>
<thead>
<tr>
<th>Cluster</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1 (Red)</td>
<td>Communication, Covid-19, creativity, employees, information technology, performance, physical work environment, quality of work life, stress, well-being, work-life balance, workplace</td>
</tr>
<tr>
<td>Cluster 2 (Green)</td>
<td>Diversity, employee well-being, human resource management, intrinsic motivation, job performance, performance appraisal, social exchange theory, transformational leadership,</td>
</tr>
<tr>
<td>Cluster 3 (Biru)</td>
<td>Compensation, competence, leadership style, motivation, organizational structure, work environment</td>
</tr>
<tr>
<td>Cluster 4 (Kuning)</td>
<td>Employee satisfaction, job satisfaction, organizational commitment services</td>
</tr>
<tr>
<td>Cluster 5 (Purple)</td>
<td>Collaboration, employee engagement, employee performance, health care</td>
</tr>
<tr>
<td>Cluster 6 (Light Blue)</td>
<td>Employee productivity, organizational community, training</td>
</tr>
<tr>
<td>Cluster 7 (Orange)</td>
<td>Employee productivity, organizational change, work engagement</td>
</tr>
<tr>
<td>Cluster 8 (Brown)</td>
<td>Leadership, work motivation</td>
</tr>
</tbody>
</table>

**Portrait of the Development of Studies on Employee Performance and Work Environment for the 2014-2023 Period**
**Figure 6.** Portrait of the Development of Studies on Employee Performance and Work Environment for the 2014-2023

The results of VOSviewer Overlay Visualization software in this image show the trend of article writing themes in Scopus-indexed journals from year to year. Trending themes of article writing related to Employee Performance and Work Environment. From the longest year to the last year is marked with purple, blue, Tosca, dark green, light green, and yellow themes. There are several main focuses in this study, including Work Engagement, work-life balance, and organizational commitment. This interest reflects an increased awareness of Work environment issues related to employee performance. This shows that the field of Employee Performance and Work Environment is becoming increasingly relevant and important for Management researchers and practitioners in dealing with Work environment issues in the management of an organization. This indicates that the need for deeper research and understanding of Employee Performance and Work Environment continues to increase along with changes and complexity in organizational and managerial systems. This development highlights that employee performance is very important in an organization because good performance will contribute to the achievement of organizational goals. In this context, factors such as Work Engagement, Work-Life Balance, and Organizational Commitment have a significant role in determining employee performance levels. Studies on Employee Performance and Work Environment have shown that the relationship between these factors and employee performance is complex and interrelated.

**Direction for the study of Employee Performance and Work Environment (2014-2023)**

The image below is the result of VOSviewer analysis using the density visualization feature, which is one method to identify topics that often arise and have the potential to be further investigated in research on Employee Performance and Work Environment. In the following text, density is used to search for and identify relevant information for longer research on the topic of Employee Performance and Work Environment. In the concept of using density in VOSviewers, it can be observed that yellow indicates topics that are frequently discussed, while green is a topic that has not received much attention and, therefore, can be a starting point for further research.
Figure 7. Visualise overlay Employee Performance and Work Environment (2014-2023)

Figure 7 shows the level of saturation of topics given yellow in the study, which are Employee performance, work environment, job satisfaction, and performance. These topics have become a major focus of the Employee Performance and Work Environment study. Strong evidence in yellow suggests that these topics have received considerable attention in the academic literature and are widely studied. On the other hand, the green color represents Compensation, leadership, training, work-life balance, and work engagement. Shows that these topics have not received much attention in the Employee Performance and Work Environment study. The aforementioned green color provides evidence that the area in question is still open for more in-depth future research, offering an opportunity to learn more and deepen understanding of a particular area in the context of Employee Performance and Work Environment. By focusing on underexplored areas of the world, researchers have the opportunity to investigate complex dynamics and explore topics that may not yet be fully understood in the academic literature.

CONCLUSION
Employee Performance and Work Environment research in the last ten years has been very dynamic and evolving. With 98 scientific publications from 2014 to 2023 on Employee Performance and Work Environment, it is enough to prove a significant growth in interest and research on this topic. The positive trend in the number of publications reflects a favorable response to the importance of this topic. Indonesia leads as the largest contributor, with 31 documents discussing employee performance and work environment. At the same time, the author Samani, S.A., as the author who contributed the most, is consistent with 3 documents. Visualization mapping shows that topics such as leadership, job satisfaction, job performance, performance workplace, training, motivation, competence, and transformational leadership are the main focus in Employee Performance and Work Environment research, but there are still some topics such as Compensation, leadership, training, work-life balance, and work engagement that are open to further research. Ongoing research trends reflect the increasing efficiency of strengthening practices in the Employee Performance and Work Environment review, which overall hopes that this will contribute to advances in the management of structured organizational management systems for workers.

BIBLIOGRAPHY


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