


Work Engagement in Indonesian Small and Medium Enterprises: A Bibliometric Analysis of Emerging Research Trends

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<p>Revised: 2024-07-11</p> <p>Published: 2024-07-15</p> <p>Keywords: Bibliometrics, Indonesia, SMEs, VOSviewer, Work Engagement</p> <p>Copyright holder: © Author/s (2024)</p> <p>This article is under: </p> <p>How to cite: Putra, A. S. B. (2024). Work Engagement in Indonesian Small and Medium Enterprises: A Bibliometric Analysis of Emerging Research Trends. <i>Bulletin of Counseling and Psychotherapy</i>, 6(2). https://doi.org/10.51214/002024061011000</p> <p>Published by: Kuras Institute</p> <p>E-ISSN: 2656-1050</p>	<p>ABSTRACT: This study aims to analyze the development of research on work engagement in Small and Medium Enterprises (SMEs) from 2020 to 2024 using a bibliometric approach. The method used is bibliometric analysis with the help of VOSviewer software for data visualization. Data was collected from the Dimensions database using the keywords "work engagement", "SMEs", and "Indonesia". The results show a significant increase in the number of publications and citations related to work engagement in SMEs during this period. Four main research clusters were identified: collaboration and communication, employee creativity and self-efficacy, innovative work behavior, and affective commitment and job satisfaction. Research trends have shifted from the basic concept of work engagement to its practical application in the context of digital transformation, innovation, and SME business sustainability. The COVID-19 pandemic has become a catalyst for research exploring the role of work engagement in SME resilience and adaptation. The need for further research integrating work engagement with contemporary issues such as digitalization and SME business resilience was revealed. The novelty of this research lies in the comprehensive analysis of work engagement research trends in Indonesian SMEs using a bibliometric approach, which has not been widely done before. This study provides a holistic mapping of the development of work engagement studies in SMEs and identifies future research directions.</p>
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INTRODUCTION

Work engagement is one of the important factors that influence employee productivity and job satisfaction (Ambarwati et al., 2023; Anjaningrum et al., 2024). In the context of Small and Medium Enterprises (SMEs), this engagement becomes crucial considering the significant role of SMEs in the national economy and employment opportunities (Yosep et al., 2024). Previous research has shown that work engagement can affect organizational performance, reduce turnover rates, and increase employee loyalty (Putra et al., 2019, 2024b). However, despite the recognized importance of work engagement, there is still a lack of comprehensive understanding of the evolution and research trends in this field, especially in the context of SMEs. With the development of research in this area, it is important to understand how research dynamics have changed and what has been achieved to date. Bibliometric analysis provides a systematic method for reviewing research literature, identifying patterns, trends, and relationships between studies that have been conducted (Judijanto et al., 2023).

Based on the background described, this study aims to answer several key questions related to the development of research on work engagement in the context of Small and Medium Enterprises

(SMEs). This research will analyze research trends on work engagement in SMEs from 2020 to 2024, identify key relationships between studies that have been conducted, and determine the most influential research documents in the work engagement literature and how their citations are interrelated. In addition, this study also aims to identify existing research gaps and explore potential research developments in the future to improve understanding and practice of work engagement in SMEs. Thus, this research is expected to provide a comprehensive picture of the development and direction of work engagement research in the context of SMEs.

This research is important for several reasons. First, by understanding current research trends and dynamics, stakeholders in the SME sector can adopt best practices that have proven effective in increasing work engagement. Second, a comprehensive bibliometric analysis will help identify gaps in existing literature, which can form the basis for future research. Third, by evaluating the impact of recent research, insights can be gained about the effectiveness of interventions that have been implemented and potential strategy adjustments in the future. This will help SMEs in optimizing their human resources, which are important assets in their operations.

This research offers several advantages and novelties compared to previous research in the context of bibliometric analysis related to work engagement, especially in the SME sector. Its main advantage is the use of a comprehensive bibliometric analysis method integrated with advanced data visualization technology such as VOSviewer. This allows not only the identification and analysis of general literature trends, but also visual mapping of complex relationships between various studies, authors, and topics related to work engagement in SMEs. This study also adopts a more focused approach to the influence of work engagement on productivity and job satisfaction in SMEs, an area that has been less deeply explored before. The novelty of this research lies in its specific focus on SMEs, the use of recent data from 2020 to 2024, integration of data visualization technology, and multidimensional analysis that combines various bibliometric analysis methods. Thus, this research not only expands the understanding of work engagement in the context of SMEs, but also offers a methodology that can be adapted for similar studies in other sectors or in different geographical contexts.

METHODS

The eligibility criteria for this review include predetermined inclusion and exclusion criteria. Inclusion criteria encompass research articles published between 2020-2024, in English or Indonesian, available in full text with open access, discussing work engagement in the context of SMEs in Indonesia, and indexed in the Dimensions database. Meanwhile, exclusion criteria include articles published before 2020, in languages other than English and Indonesian, not fully accessible (abstract only), not specifically discussing work engagement in Indonesian SMEs, not indexed in the Dimensions database, and duplicate articles. For synthesis, studies will be grouped based on several aspects: main themes/concepts (such as factors influencing work engagement in SMEs, impact of work engagement on SME performance, strategies to improve work engagement in SMEs, and work engagement in the context of SME digital transformation), research methodology (quantitative, qualitative, or mixed studies), and SME sectors studied (manufacturing, services, or trade). Additionally, a synthesis matrix will be used to organize the main findings from each article. This grouping will enable comprehensive synthesis by comparing and contrasting findings from various studies, identifying trends and patterns, and developing evidence-based arguments.

In this research, we use a primary source to collect and analyze data related to work engagement in Indonesian SMEs. The source used is the Dimensions Database, a multidisciplinary database covering scientific publications, datasets, patents, and research funding information. This database covers over 140 million research documents from various disciplines and is updated daily for new publications. From searching Dimensions using relevant keyword combinations related to work engagement, SMEs, and Indonesia, we obtained 2500 documents relevant to the research topic.

The last search date in this database was June 30, 2024. The software we use is VOSviewer version 1.6.20, a software for creating and visualizing bibliometric networks. VOSviewer has main functions for co-authorship analysis, co-citation, bibliographic coupling, and keyword co-occurrence, as well as features for creating distance-based maps, clustering, and overlay visualization. This software was last used on June 30, 2024, to analyze and visualize data exported from Dimensions. Using Dimensions as a single data source allows for consistency in data collection, while VOSviewer provides a powerful tool for analyzing and visualizing research trends, collaborations between researchers, and topic developments in the field of work engagement in Indonesian SMEs. The 2500 documents obtained provide a strong basis for comprehensive analysis of research developments in this field.

The search strategy to analyze research on work engagement in Indonesian SMEs using the Dimensions database and VOSviewer software (version 1.6.20) is designed comprehensively. The main keywords used are "work engagement" or "employee engagement", combined with "SMEs", "small and medium enterprises", "UKM", or "usaha kecil menengah", and "Indonesia". The search query in Dimensions combines these keywords with a time filter of 2020-2024, publication types including articles, conference proceedings, book chapters, and preprints, in English and Indonesian, with open access. Additional filters are applied to the fields of business research, management, psychology, and social sciences, excluding publications irrelevant to the Indonesian SME context. Extracted data includes title, authors, affiliations, publication year, abstract, keywords, references, and citation count, which are then exported in CSV format for analysis in VOSviewer. Analysis using VOSviewer includes keyword co-occurrence, co-authorship, bibliographic coupling, and co-citation, with visualizations in the form of keyword network maps, author and institution collaboration maps, and research trend maps based on time. Inclusion criteria encompass studies that explicitly discuss work engagement in the context of SMEs in Indonesia, both empirical and conceptual research, while exclusion criteria include studies not focused on Indonesian SMEs and non-academic publications. The screening process involves reviewing titles and abstracts for relevance, as well as full-text examination for studies that pass initial screening. Data management uses reference management software to organize and eliminate duplicates. Additional analysis includes identifying research trends based on keyword frequency per year and analysis of international collaboration networks. This strategy is designed to produce a comprehensive review of work engagement research in Indonesian SMEs, focusing on recent developments and emerging trends in this field, ensuring broad coverage through the use of keyword combinations in English and Indonesian, and focusing analysis on the most relevant studies through applied filters and limitations.

To determine studies meeting the inclusion criteria, we use a phased screening process. First, two reviewers independently review the titles and abstracts of all records obtained from the Dimensions database. Records deemed relevant based on inclusion criteria are selected for full-text review. At this stage, reviewers discuss and resolve differences of opinion through consensus. Next, reviewers independently examine the full text of records that pass initial screening. Records meeting the final inclusion criteria are included in the bibliometric analysis. We do not use automation tools in this screening process, but rather conduct it manually.

We use a bibliometric approach to analyze data collected from the Dimensions database. The analysis includes: Co-Citation Analysis to identify collaboration patterns between authors and institutions through co-citation network analysis; Keyword Co-Occurrence Analysis to analyze keyword clusters to identify main themes in research on work engagement in SMEs; Publication Trend Analysis to map publication trends based on the number of documents and citations per year to understand research dynamics in this field; Publication Source Analysis to identify key journals publishing research related to work engagement in SMEs; and International Collaboration Analysis to map international collaboration patterns between countries in work engagement research. These analyses allow us to identify patterns, trends, and relationships in work engagement research in Indonesian SMEs.

In this bibliometric study, we do not conduct a formal certainty assessment. However, we strive to ensure the quality and reliability of the analyzed data by using a credible data source (Dimensions database) and applying strict inclusion criteria. Additionally, we use various established bibliometric analysis methods, including co-citation analysis, keyword co-occurrence analysis, and publication trend analysis, to obtain a comprehensive picture of the development of work engagement research in Indonesian SMEs.

RESULTS AND DISCUSSION

Results

The displayed VOSviewer visualization (Figure 1) shows a co-authorship network between various universities involved in research on "work engagement". In this visualization, each node represents a university, and different colors indicate different clusters based on the frequency and intensity of collaboration between the universities. The size of the node indicates the number of documents or publications produced by that university, where the larger the node, the more documents produced. The connecting lines between nodes indicate collaboration or co-authorship between two universities, with the thickness of the lines indicating the frequency of collaboration.

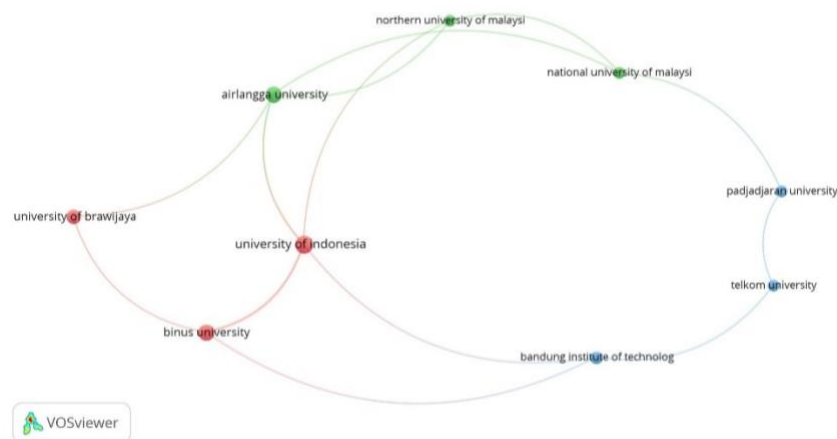


Figure 1. Co-authorship Network Between Various Universities

In this visualization, three main clusters can be identified. The green cluster includes universities such as Airlangga University, Northern University of Malaysia, and National University of Malaysia. This cluster indicates that these universities have strong collaborative relationships in research on work engagement. The red cluster includes the University of Indonesia, University of Brawijaya, and Binus University, which also shows significant collaborative relationships among them. The blue cluster includes Padjadjaran University, Telkom University, and Bandung Institute of Technology, demonstrating strong collaborative relationships among these universities. Additionally, there are inter-cluster connections showing cross-group collaborations. For example, the University of Indonesia (red cluster) has collaborative relationships with universities in the green cluster such as Airlangga University and universities in the blue cluster like Padjadjaran University. Airlangga University (green cluster) also has collaborative relationships with Northern University of Malaysia and National University of Malaysia, indicating that research on work engagement involves significant international collaboration.

Overall, this visualization shows that research on work engagement involves extensive collaboration between various universities in Indonesia and Malaysia. The formed clusters indicate groups of universities that frequently collaborate, which can be an indication of research centers or strong collaborative networks in this topic. In the context of research, this analysis can help identify universities that are centers of research on work engagement and how they collaborate with each

other. This is important for understanding research dynamics and identifying potential future collaborations to strengthen research in this field.

Based on Table 1, the following is an interpretation of the number of documents and citations from various universities involved in research on "work engagement". The University of Indonesia has 59 documents with a total of 328 citations, showing a significant contribution to research on work engagement, both in terms of the number of publications and its influence in the academic community. Airlangga University produced 48 documents with 337 citations. Although the number of documents is less than the University of Indonesia, the number of citations is higher, indicating that research from this university has a strong impact.

Table 1. Number of Documents and Citations from Various Universities

No.	Organizations	Documents	Citations
1.	University of Indonesia	59	328
2.	Airlangga university	48	337
3.	Binus university	51	212
4.	Bandung institute of technology	32	83
5.	National university of malaysia	26	238
6.	Northern university of malaysia	25	156
7.	Padjadjaran university	27	102
8.	Telkom university	26	163
9.	University of brawijaya	41	154
10.	Gadjah mada university	25	180

Binus University has 51 documents with 212 citations, showing a significant contribution in terms of number of publications, although the number of citations is lower compared to the two previous universities. Bandung Institute of Technology produced 32 documents with 83 citations, indicating that this university's contribution to work engagement research is still limited. National University of Malaysia has 26 documents with 238 citations. Although the number of documents is not very high, the number of citations shows that research from this university is quite influential. Northern University of Malaysia produced 25 documents with 156 citations, showing a moderate contribution to work engagement research. Padjadjaran University has 27 documents with 102 citations, showing a significant contribution to work engagement research. Telkom University produced 26 documents with 163 citations, showing a moderate contribution in terms of number of publications and citations. University of Brawijaya has 41 documents with 154 citations, showing a significant contribution, although the number of citations is relatively lower. Gadjah Mada University produced 25 documents with 180 citations. Although the number of documents is not very high, the number of citations shows that research from this university is quite influential.

Overall, Table 1 shows that the University of Indonesia and Airlangga University are the two universities with the largest contribution to research on work engagement, both in terms of number of documents and citations. Other universities such as Binus University, National University of Malaysia, and Gadjah Mada University also show significant contributions, albeit with lower numbers of documents and citations. This data is important for understanding the dynamics and influence of research on work engagement at various universities, as well as for identifying potential collaborations and research developments in the future.

Next, regarding keyword clusters in research on work engagement. Based on Table 2, there are four main clusters formed in research on "work engagement". The first cluster focuses on aspects of collaboration and communication in the context of work engagement. The main keywords in this cluster are "collaboration" and "effective communication", which indicate that research in this cluster emphasizes the importance of collaboration between employees and effective communication as key

factors in increasing work engagement (Arsawan et al., 2022; Ratnasari et al., 2023). In addition, keywords such as "proactiveness", "sustainable competitive advantage", "transformation", and "value creation" indicate that this research also examines how work engagement can drive sustainable competitive advantage and organizational transformation through value creation (Maria et al., 2022; Setyaningrum et al., 2023; Zulfikar et al., 2021).

The second cluster focuses on employee creativity and self-efficacy. The main keywords in this cluster are "employee creativity" and "self efficacy", which indicate that research in this cluster explores how employee creativity and self-belief influence their work engagement (Putra et al., 2023; Ren & Shen, 2024). Other keywords such as "small medium enterprise" and "social exchange theory" indicate that this research also considers the context of SMEs and social exchange theory in understanding the dynamics of work engagement (Sunyoto et al., 2021).

The third cluster focuses on innovative work behavior and work engagement itself. The main keywords in this cluster are "innovative work behavior" and "work engagement", which indicate that research in this cluster examines how employees' innovative behavior contributes to their work engagement (Marampa et al., 2023). Keywords such as "job performance" and "passion" indicate that this research also explores the relationship between work engagement, job performance, and employee work passion (Uy et al., 2021).

The fourth cluster focuses on affective commitment and job satisfaction. The main keywords in this cluster are "affective commitment" and "job satisfaction", which indicate that research in this cluster explores how employees' emotional commitment to the organization and their job satisfaction influence work engagement (Grego-Planer, 2022; Kosasih et al., 2024). Other keywords such as "organizational citizenship behavior" and "work motivation" indicate that this research also considers organizational citizenship behavior and work motivation as important factors in work engagement (Kurniawanti et al., 2023; Yuwono et al., 2023).

Table 2. Keyword Clusters in Research on Work Engagement

Cluster 1	Cluster 2	Cluster 3	Cluster 4
Collaboration	Employee Creativity	Innovative work behavior	Affective commitment
Effective communication	Self efficacy	Job performance	Job satisfaction
Proactiveness	Small medium enterprise	Passion	Organizational citizenship behavior
Sustainable competitive advantage	Social exchange theory	Work engagement	Work motivation
Transformation			
Value creation			

Overall, Table 2 shows that research on "work engagement" is divided into four main clusters, each with a different focus. The first cluster emphasizes the importance of collaboration and communication, the second cluster focuses on employee creativity and self-efficacy, the third cluster examines innovative work behavior and work engagement, and the fourth cluster explores affective commitment and job satisfaction. This analysis is important for understanding the various aspects that influence work engagement and how research in this field is evolving. By understanding the focus of each cluster, researchers can identify areas that require further exploration and potential collaboration across research fields.

Figure 2 illustrates the relationships between various keywords in work engagement research, with colors indicating the publication period from 2022 to 2024. The main keywords appearing in this visualization include "collaboration", "transformation", "value creation", "job satisfaction", "self-

efficacy", "work engagement", and "job performance". The keywords "collaboration" and "transformation" are located on the right side of the image and are colored with brighter hues, indicating that these topics have become the focus of more recent research, especially in 2023 and 2024. This shows that collaboration and organizational transformation have become increasingly important in the context of work engagement in recent years. The keyword "value creation" also appears in the same area, signifying that value creation through collaboration and transformation has become an increasingly relevant topic.

On the other hand, keywords such as "job satisfaction", "self-efficacy", and "work engagement" are located in the center of the image with darker colors, indicating that these topics have been the focus of research for a longer period, around 2022. This shows that job satisfaction, self-efficacy, and work engagement have been established topics and continue to be important areas in work engagement research. The keywords "job performance" and "affective commitment" also appear in this visualization, demonstrating the close relationship between work engagement and job performance as well as employees' affective commitment. The keywords "social exchange theory" and "small medium enterprise" indicate that social exchange theory and the SME context have also become important parts of this research.

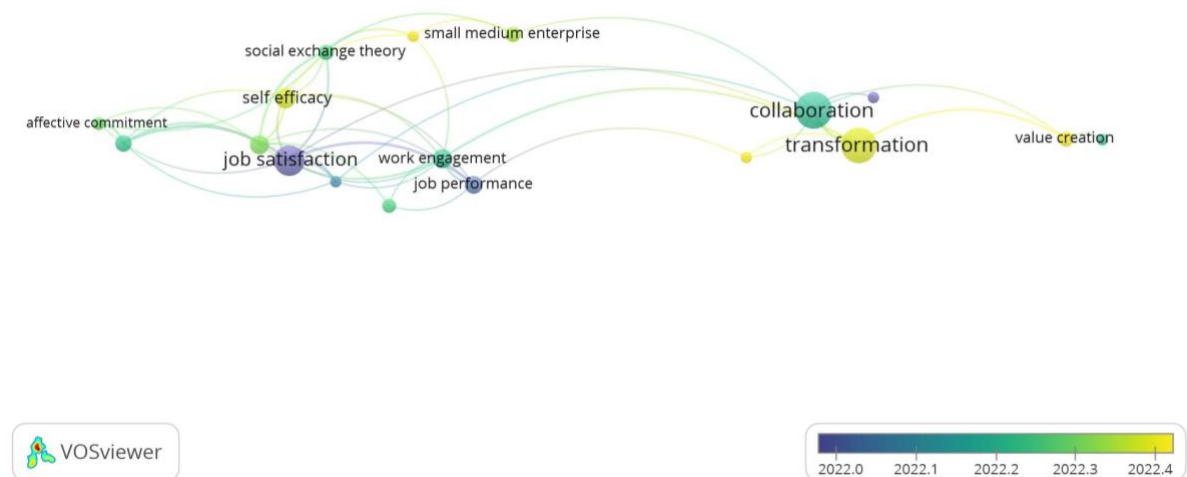


Figure 2. Overlay Visualization of Various Keywords

Overall, this visual overlay image shows that research on work engagement covers a variety of interrelated topics, with some topics such as collaboration and organizational transformation becoming increasingly relevant in recent years. This visualization helps identify the latest research trends and areas that continue to be the focus of work engagement studies.

Next, regarding journal names, number of documents, and citations. Based on Table 3, there are several journals that serve as the main sources of research publications on "work engagement". The journal "Sustainability" tops the list with 162 documents and 2292 citations, indicating that this journal is a primary platform for research related to work engagement, with significant influence in the academic community. "Cogent Business & Management" has 83 documents with 437 citations, showing a considerable contribution in the number of publications although its citation count is lower compared to "Sustainability".

The "Journal of Open Innovation: Technology, Market, and Complexity" recorded 44 documents with 1309 citations, showing that although the number of documents is fewer, the research published in this journal has a significant impact. "Heliyon" with 47 documents and 402 citations and "Environmental Science and Pollution Research" with 46 documents and 350 citations also show significant contributions to research on work engagement. Additionally, the "Journal of Business Research" has 24 documents with 1258 citations, indicating that this journal is also an

important source for research with great influence. The "International Journal of Environmental Research and Public Health" recorded 27 documents with 384 citations, while "Uncertain Supply Chain Management" has 29 documents with 127 citations. The journal "Plos One" with 18 documents and 172 citations and "Technological Forecasting and Social Change" with 17 documents and 533 citations also show significant contributions. Other journals such as "Problems and Perspectives in Management" with 25 documents and 48 citations, "International Journal of Data and Network Science" with 18 documents and 86 citations, and "International Journal of Research in Business and Social Science" with 22 documents and 25 citations show smaller but still relevant contributions to research on work engagement. "International Journal of Professional Business Review" recorded 31 documents with 100 citations, and "Management Science Letters" has 16 documents with 75 citations.

Table 3. Journal Names, Number of Documents and Citations.

Journal Names	Documents	Citations
Sustainability	162	2292
Cogent business & management	83	437
Journal of open innovation: technology, market, and complexity	44	1309
Heliyon	47	402
Environmental science and pollution research	46	350
Journal of business research	24	1258
International journal of environmental research and public health	27	384
Uncertain supply chain management	29	127
Plos one	18	172
Technological forecasting and social change	17	533
Problems and perspectives in management	25	48
International journal of data and network science	18	86
International journal of research in business and social science	22	25
International journal of professional business review	31	100
Management science letters	16	75

Figure 3 presents an overlay visualization of publication sources. The visualization shows several main clusters of interconnected publication sources, with "sustainability" as a central node that has strong connections to various other journals. This indicates that the topic of sustainability plays an important role in work engagement research, particularly in the context of SMEs. The varying colors of the nodes from blue to yellow indicate the temporal evolution of publications, with blue representing older publications (around 2021) and yellow representing the most recent publications (up to 2023). There is a noticeable shift in research focus over time, with journals such as "international journal of data" and "journal of open innovation" having a more yellow color, indicating an increase in recent publications in these fields.

Several prominent journals such as "journal of business research", "plos one", and "international journal of environmental research and public health" have relatively large node sizes, indicating a high frequency of publications or citations related to work engagement in these journals. This shows that work engagement research has a broad scope, covering aspects of business, public health, and the environment. The connection between "sustainability" and "journal of open innovation" and "technological forecasting" demonstrates research trends that combine aspects of sustainability, innovation, and technological prediction in the context of work engagement. This is relevant to the research focus on SMEs, which often need to adapt to technological changes and sustainability demands. The presence of journals such as "international journal of environmental research and public health" indicates that work engagement research also considers aspects of

employee health and well-being, which is very important in the context of SMEs in Indonesia. These findings provide a comprehensive picture of the work engagement research landscape, showing that this topic has evolved into a multidisciplinary area of study with a focus on sustainability, innovation, and employee well-being (Putra et al., 2024a, 2024b). In the context of the proposed research on work engagement in Indonesian SMEs, this visualization highlights the importance of considering these aspects to make a significant and relevant contribution to the existing literature.

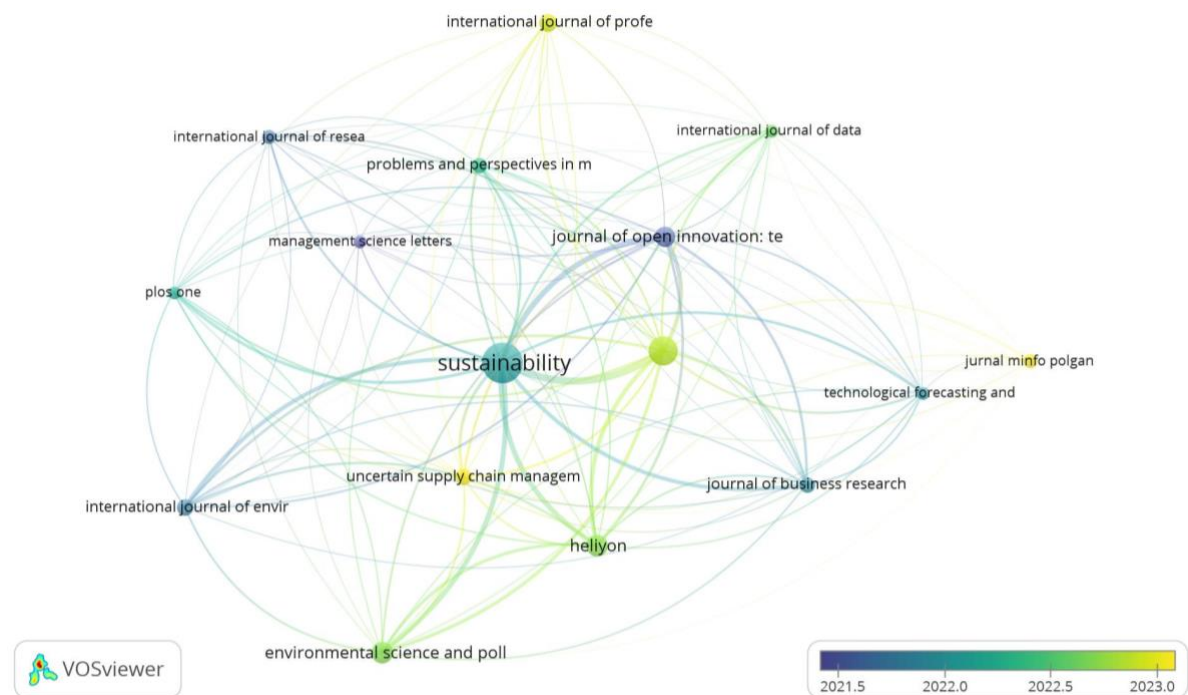


Figure 3. Overlay Visualization of Publication Sources

Overall, this table shows that journals such as "Sustainability", "Cogent Business & Management", and "Journal of Open Innovation: Technology, Market, and Complexity" are some of the main sources of research publications on work engagement, with significant contributions both in terms of the number of documents and citations. This data is important for understanding where research on work engagement most frequently published and which journals is have the greatest influence in this field.

Table 4. Research Collaboration Between Countries.

Cluster 1	Cluster 2	Cluster 3	Cluster 4
France	Bangladesh	Australia	Taiwan
India	China	Indonesia	Vietnam
Italy	Malaysia	Thailand	
Spain	Pakistan		
United Kingdom	Saudi Arabia		
United States			

Next, regarding research collaboration between countries in the context of studies on work engagement. Table 4 shows four main clusters that illustrate patterns of international collaboration in research on work engagement. Cluster 1 consists of Western and South Asian countries, namely France, India, Italy, Spain, the United Kingdom, and the United States. This cluster demonstrates strong collaboration between Western European countries, the United States, and India. This may reflect long-established academic and research relationships between these countries, as well as the

possibility of intensive knowledge exchange in the context of work engagement. Cluster 2 is dominated by South Asian and Middle Eastern countries, including Bangladesh, China, Malaysia, Pakistan, and Saudi Arabia. Collaboration in this cluster may be based on geographical proximity, similarities in work culture, or similar research focuses on the context of work engagement in developing countries.

Cluster 3 consists of Asia-Pacific countries, namely Australia, Indonesia, and Thailand. Collaboration in this cluster may reflect strong regional cooperation in work engagement research, with Australia possibly playing a role as a key research partner for Southeast Asian countries. Cluster 4 consists of only two East Asian countries, Taiwan and Vietnam. Although this cluster is smaller, it may indicate intense collaboration between these two countries in work engagement research, possibly due to similarities in work culture contexts or specific research focuses. Overall, this clustering pattern shows that research on work engagement involves extensive international collaboration, with patterns tending to follow geographical proximity, cultural similarities, or established academic relationships. This also indicates that the topic of work engagement attracts interest from researchers across various parts of the world, reflecting its global relevance in management studies and organizational psychology. It is important to note that some countries typically active in management research, such as Germany, the Netherlands, or Japan, do not appear in this table. This may indicate that they have different collaboration patterns or may be more focused on domestic research for this topic.

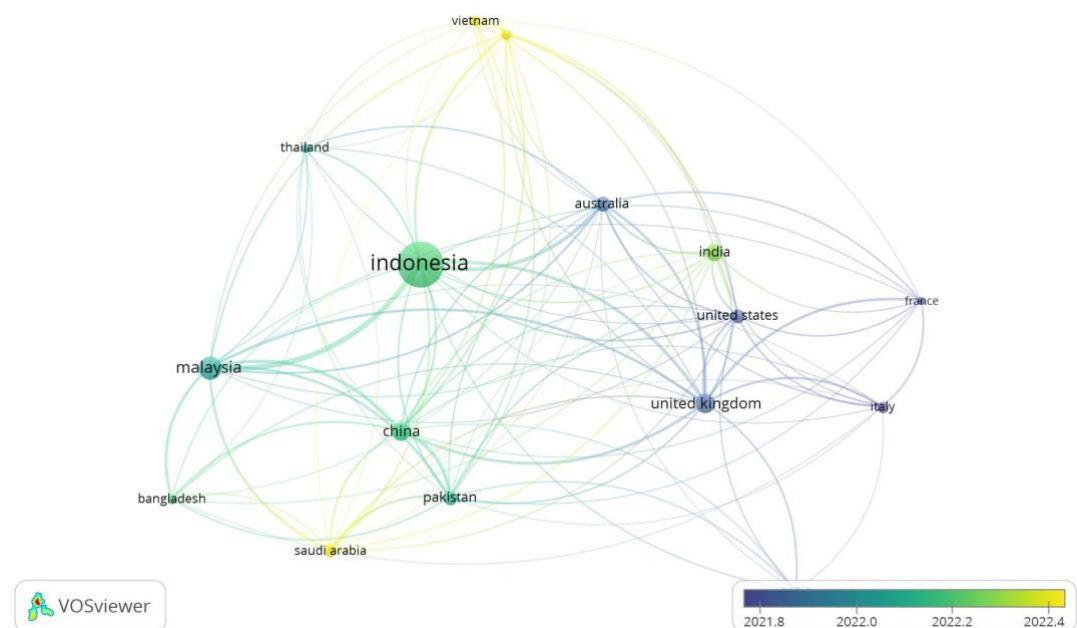


Figure 4. Overlay Visualization of International Collaboration Network.

Figure 4 displays the international collaboration network in Work Engagement research. Indonesia appears as the largest node in the center of the network, indicating its central role in this research collaboration. This suggests that Indonesia has a significant contribution and has become a collaboration hub in Work Engagement studies during the period shown (2021.8 - 2022.4). Other countries connected to Indonesia through connecting lines include Malaysia, Australia, Thailand, Vietnam, China, and several Western countries such as the United States and the United Kingdom. This illustrates active collaboration between Indonesian researchers and their international colleagues on the topic of Work Engagement. The colors of nodes and connecting lines provide additional information about the intensity and timing of collaborations. The color gradation from blue to yellow indicates the progression of time, with yellow indicating more recent collaborations (closer to 2022.4).

to 2022.4). Based on this, collaborations with Vietnam and Thailand appear to be more recent compared to other countries.

The thickness of the connecting lines between countries indicates the intensity of collaboration. A thicker line between Indonesia and Malaysia, for example, indicates more intense collaboration compared to other countries. In the context of this research, this visualization provides an important picture of international collaboration patterns in this field. Indonesia as the network center demonstrates its important role in Work Engagement research, which aligns with the research focus to analyze developments in this field. The extensive collaboration with various countries shows that the topic of Work Engagement attracts global attention and has cross-cultural relevance.

The visible collaboration patterns can also provide insights into Work Engagement research trends, such as increased collaboration with Southeast Asian countries (indicated by the more yellow color for Vietnam and Thailand). This could be an interesting point to discuss in bibliometric analysis, especially in observing shifts or developments in Work Engagement research focus over time. This visualization also shows potential for comparative research between countries in the context of Work Engagement, which could be one aspect discussed in future studies. For example, comparing Work Engagement research approaches and findings between Indonesia and its main collaborator countries such as Malaysia, Australia, or the United States.

Table 5. Authors and Most Citations.

No.	Author(s) (year)	Citations
1.	(Priyono et al., 2020)	330
2.	(Belitski et al., 2021)	247
3.	(Djalante et al., 2020)	229
4.	(Filimonau et al., 2020)	203
5.	(Singh et al., 2021)	200
6.	(Wut et al., 2021)	173
7.	(Montiel et al., 2021)	143
8.	(Song & Zhou, 2020)	184
9.	(Wang et al., 2020)	134
10.	(Thukral, 2021)	125

Next, regarding the authors and most citations. Table 5 shows significant contributions from various researchers in studies related to work engagement, with a special focus on the impact of the COVID-19 pandemic on various aspects of business and organizations. (Priyono et al., 2020) top the list with 330 citations, discussing digital transformation in SME business models during the pandemic. (Belitski et al., 2021) are in second place with 247 citations, analyzing the economic effects of the COVID-19 pandemic on entrepreneurship and small businesses. (Djalante et al., 2020) occupy the third position with 229 citations, discussing the implications of COVID-19 for the Sendai Framework for disaster risk reduction. (Filimonau et al., 2020) are in fourth place with 203 citations, examining the impact of the COVID-19 pandemic on the organizational commitment of senior hotel managers. (Singh et al., 2021) and (Wut et al., 2021) have 200 and 173 citations respectively, showing significant contributions in research related to human resource practices, innovative work behavior, and crisis management in the tourism industry. Other studies, such as (Montiel et al., 2021), (Song & Zhou, 2020), (Wang et al., 2020), and (Thukral, 2021), also show important contributions with fairly high citations, ranging from 125 to 184 citations.

Overall, Table 5 reflects a shift in focus within work engagement studies to respond to global challenges faced by organizations and employees, with topics such as digital transformation, business resilience, crisis management, and organizational adaptation to environmental changes becoming the main focus in the most cited research.

Discussion

The results of the bibliometric analysis regarding the development of work engagement research in the context of SMEs in Indonesia reveal several important findings. First, there has been a significant increase in the number of publications and citations related to this topic from 2020 to 2024, indicating growing interest and relevance of this topic among academics and practitioners. The visualization of co-authorship networks shows strong collaboration between universities in Indonesia, such as the University of Indonesia, Airlangga University, and Binus University, as well as several universities in Malaysia. This reflects active knowledge exchange and research cooperation at the Southeast Asian regional level in the context of work engagement in SMEs. Keyword analysis shows that work engagement research has evolved into a multidisciplinary study area, focusing on aspects such as collaboration, digital transformation, employee creativity, and innovative work behavior. These findings underscore the complexity and dynamics of work engagement in the SME context, which requires a holistic approach in research and management practice. Publication patterns show that journals such as "Sustainability" and "Journal of Open Innovation" have become the main platforms for disseminating work engagement research. This indicates that this topic is often associated with sustainability and innovation issues in the business context. Citation analysis shows that the most influential research tends to focus on the impact of the COVID-19 pandemic on SMEs and digital transformation. This reflects the relevance and urgency of the work engagement topic in addressing contemporary business challenges.

The increasing focus on digital transformation and innovation in work engagement research suggests that SMEs should prioritize adopting digital technologies and fostering innovative work behaviors to enhance employee engagement and overall performance. There is a growing emphasis on employee well-being, including psychological empowerment and work-life balance. SMEs should implement comprehensive strategies that address both professional and personal aspects of their employees' lives to improve engagement levels. The prominence of keywords related to collaboration and effective communication indicates that SMEs should foster a collaborative work environment and improve internal communication channels to enhance work engagement.

Given the impact of the COVID-19 pandemic on SMEs, developing organizational resilience and adaptability should be a priority. This includes creating flexible work arrangements and building a culture that can withstand external shocks. The strong presence of sustainability-related research suggests that SMEs should integrate sustainable practices into their operations to improve employee engagement and gain a competitive advantage. With the emergence of keywords related to transformational and servant leadership, SMEs should invest in leadership development programs that foster these leadership styles to enhance work engagement.

The international collaboration patterns revealed in the analysis suggest that SMEs operating in or expanding to different cultural contexts should be mindful of cross-cultural differences in work engagement practices. The focus on employee creativity and self-efficacy implies that SMEs should provide continuous learning and development opportunities to boost employee confidence and engagement.

By considering these implications, SMEs can develop more effective strategies to enhance work engagement, ultimately leading to improved organizational performance and competitiveness in the evolving business landscape.

Limitations and Further Research

The study's focus on publications from 2020 to 2024 provides valuable insights into recent trends, but it may not capture longer-term historical developments in work engagement research. Future studies could extend the timeframe to analyze how research focus and methodologies have evolved over a more extended period. Additionally, while the Dimensions database offers

comprehensive coverage, incorporating data from other academic databases could provide a more holistic view of the research landscape.

The analysis primarily focuses on quantitative aspects such as publication counts and citation metrics. Further research could benefit from a more in-depth qualitative analysis of the content of highly cited papers to better understand the theoretical and practical contributions of influential studies. Moreover, the study's emphasis on academic publications may overlook valuable insights from practitioner-oriented literature or industry reports, which could offer practical perspectives on work engagement in SMEs.

While the research identifies key themes and collaboration patterns, it does not delve deeply into the specific challenges faced by Indonesian SMEs in implementing work engagement strategies. Future studies could adopt a mixed-methods approach, combining bibliometric analysis with case studies or surveys of Indonesian SME managers and employees to provide a more nuanced understanding of the practical applications and challenges of work engagement in this context.

Lastly, the research highlights the need for more studies integrating work engagement with contemporary issues such as digitalization, sustainability, and business resilience. Future research could explore these intersections more explicitly, perhaps through interdisciplinary collaborations that bring together experts in work psychology, digital transformation, and sustainable business practices to address the unique needs of Indonesian SMEs in an evolving business landscape.

CONCLUSION

This bibliometric analysis provides a comprehensive picture of the research landscape of work engagement in the context of SMEs in Indonesia from 2020 to 2024. The main findings show that: 1) There has been a significant increase in research interest in work engagement in SMEs, as reflected in the increase in the number of publications and citations, 2) Strong research collaborations have been established between institutions in Indonesia and neighboring countries, especially Malaysia, 3) The research focus has shifted from basic concepts of work engagement to its practical applications in the context of digital transformation, innovation, and business sustainability, 4) The COVID-19 pandemic has become a catalyst for research exploring the role of work engagement in SME resilience and adaptation, and 5) There is a need for further research that integrates aspects of work engagement with contemporary issues such as digitalization, sustainability, and business resilience in the context of Indonesian SMEs. These conclusions highlight the importance of work engagement as a key factor in improving the performance and competitiveness of SMEs in Indonesia, and underscore the need for more focused and applicable research in the future.

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