

Looking at the Spread of Precarious Employment Researches: A Literature Review

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Abstract:

The globalization of economies has ensured that precarious work is a fast-emerging feature of many contemporary labor markets. Precarious work is essential to study because it impinges on workers' rights, economic stability, and social welfare. While previous works researched the effects of precarious employment, they often needed to address these themes and their trends for an overall outlook of how precariousness seems to come together in discourse. This paper intends to fill the gap by systematically applying a new data visualization tool called VOS Viewer to review related literature. Specifically, the study tries to map the network of articles, key themes, prolific authors, and new trends, especially on precarious employment. The nature of the research was qualitative, and the available literature on the research trends in the world currently and their gaps were analyzed. Results indicate precarious employment with Covid-19, climate change, gender issues, poverty, and mental health. Moreover, in the Indonesian context, connections are drawn to commodification, COVID-19, and community resilience; this indicates significant gaps and points to ample avenues for further research. Precarious employment needs further in-depth exploration beyond the well-researched areas, especially in Indonesia, to grapple with the challenges posed by such an evolving employment landscape.

Keywords: *Literature Review, Precarious Employment, VOS Viewer*

Abstrak:

Globalisasi ekonomi telah memastikan bahwa pekerjaan tidak tetap (precarious work) menjadi fitur yang semakin muncul dalam banyak pasar tenaga kerja kontemporer. Pekerjaan tidak tetap penting untuk dipelajari karena berdampak pada hak-hak pekerja, stabilitas ekonomi, dan kesejahteraan sosial. Meskipun penelitian sebelumnya telah meneliti dampak dari pekerjaan tidak tetap, sering kali mereka tidak secara menyeluruh membahas tema-tema ini dan tren-trennya untuk mendapatkan pandangan umum tentang bagaimana ketidakpastian ini menyatu dalam diskursus. Makalah ini bertujuan untuk mengisi kesenjangan tersebut dengan menerapkan alat visualisasi data baru yang disebut VOS Viewer untuk meninjau literatur terkait. Secara khusus, penelitian ini mencoba memetakan jaringan artikel, tema-tema utama, penulis produktif, dan tren baru, terutama dalam hal pekerjaan tidak tetap. Penelitian ini bersifat kualitatif, dan literatur yang tersedia tentang tren penelitian di dunia saat ini serta kesenjangan-kesenjangan dianalisis. Hasilnya menunjukkan bahwa pekerjaan tidak tetap berkaitan dengan Covid-19, perubahan iklim, isu gender, kemiskinan, dan kesehatan mental. Selain itu, dalam konteks Indonesia, terdapat hubungan dengan komodifikasi, COVID-19, dan ketahanan komunitas; ini menunjukkan kesenjangan signifikan dan menunjukkan banyak peluang untuk penelitian lebih lanjut. Pekerjaan tidak tetap memerlukan eksplorasi lebih mendalam di luar area-area yang sudah banyak diteliti, terutama di Indonesia, untuk mengatasi tantangan yang ditimbulkan oleh lanskap pekerjaan yang terus berkembang ini.

Kata Kunci: *Tinjauan Literatur, Pekerjaan yang Tidak Pasti, VOS Viewer*



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INTRODUCTION

The modern labor market has dramatically changed due to the forces of globalization, technological changes, and changes in the forms of organizations. Arguably, the most striking of these has been the growth of precarious employment, characterized by unstable work relations, lack of job security, and limited employment protection typical of that job (Kalleberg, 2018). This phenomenon denotes nonstandard work arrangements, such as temping, part-time, gig economy, and freelance engagement, all contributing factors to one of the critical issues in the context of both developed and developing countries (Standing, 2016). It is also highly relevant in light of the wide-ranging implications this issue has had on workers' rights, economic stability, and social welfare in the wake of many events that have recently occurred around the world, including the COVID-19 pandemic (Nichols et al., 2022). Understanding the dynamics of precarious employment becomes critical for policymakers, employers, and workers in a continually evolving labor market (Benach et al., 2014). Therefore, this paper aims to outline the complexity of precarious employment by investigating its manifestations and impacts, together with the broad socio-economic contexts in which it exists.

Literature on precarious employment is immense and has been explored in various dimensions, highlighting economic, social, and psychological consequences. The research findings have shown that precarious work contributes to job insecurity, variable remuneration, and poor access to social benefits. Precarity reinforces inequalities in economic distribution and maintains harmful effects on general economic growth within a society (Gautié & Schmitt, 2010). Gautié & Schmitt trace the sources of disparities in economic distribution emanating from the increasing situation of job insecurity. The precariousness of employment has also brought in several social effects related to mental health, job satisfaction, and integration of workers within society (Benach et al., 2014). For instance, the Syndicat European Trade Union Confederation (2024) report indicated that precarious work is disproportionately common among young people; many could be said to be in temporary or part-time jobs when full-time jobs are unavailable. Scholars have identified that precarious employment exists more in some sectors than others, such as in creative sectors, where workers do not benefit from a stable job or low income (Lobato, 2016). Though these facts are helpful, it is still necessary to carry out a profound analysis regarding precarious employment within the context of emerging trends across the globe and the impacts such trends are having on various regions and groups of people.

While precarious employment has been well accounted for in existing literature, there are gaps in some aspects of the literature that provide further avenues that could be explored. One significant omission, for instance, is the limited focus on precarious employment concerning how it interrelates to other socio-economic factors such as gender, race, and class (Kalleberg, 2018). Another gap is the need for more

research on the long-term effects that precarious employment has on workers' career trajectories and life satisfaction (Standing, 2016). Other gaps include how precarious employment affects certain groups, such as young workers and people in developing countries, where labor market conditions differ significantly from those in developed countries. Sverke et al., (2019), observed that this paper would fill these gaps by providing a rather detailed review of precarious employment in various regions, with particular emphasis on the context of Indonesia. By mapping the network of research articles, identifying key themes, and analyzing trends à émerger, this present study attempts to contribute toward a more holistic understanding of precarious employment and its implications for workers around the globe.

The increasing prevalence of precarious employment and its profound impact on workers' lives and larger economic systems create a pressing need for this research. As traditional employment models give way to more flexible and contingent work arrangements, the risks inherent in precarious employment are becoming increasingly apparent (Benach et al., 2014). This reality makes the present research particularly relevant, especially in the wake of the COVID-19 pandemic, which exacerbated labor market vulnerabilities and underscored the precarious nature of many jobs (Nichols et al., 2022). This study therefore proposes a systematic review using a data visualization tool like VOS Viewer to map out the existing research on precarious employment, while also identifying gaps and areas for further research. The findings of this study are likely to significantly contribute to policy development, guide future research in the area, and provide a deeper understanding of how precarious employment shapes labor markets and affects workers globally.

The research will critically analyze the landscape of precarious employment studies by identifying the key themes, prolific authors, and emerging trends in the discourse. The research intends to visualize a network map using VOS Viewer to map data visualizations and trace interconnectedness among scholarly works on precarious employment. In a nutshell, the paper attempts to document the socio-economic impacts of precarious employment, especially in Indonesia, where a gap in the literature provides fertile avenues for study. This study consequently hopes to contribute to the growing discussion on precarious work with valuable insights that can help develop policies and further research.

METHOD

This research used VOS Viewer as a software tool used in bibliometric analysis to visualize and explore the structure of scientific literature. It helps the researchers gain insights into publication patterns, citation networks, and collaborations within a specific research field. Some steps used in conducting this research were as follows:

1. Data Collection

In this step, the researchers gathered relevant bibliographic data and obtained a comprehensive dataset of scholarly articles, including information such as titles, authors, abstracts, keywords, publication years, and citation counts (Wang & Wu, 2022). In this context, the researchers used the keyword “precarious employment” at <https://www.sciencedirect.com/>. The data used was from 1987 - 2024.

2. Import Data into VOS Viewer

In this step, the researchers opened the VOS Viewer application and imported bibliographic data by loading the cleaned dataset into VOS Viewer. The data used

were in RIS format.

3. Adjust Parameters

In this stage, the researchers set analysis parameters, including defined parameters such as the time frame for the analysis, the minimum number of citations for inclusion, and the unit of analysis authors, journals, and keywords (Zhang & Wang, 2023).

4. Generate Network Visualization

The researchers created a network map in the next stage, generating network visualization. VOS Viewer used network visualization techniques to represent relationships between elements, such as authors, keywords, or publications. Nodes represent these elements, and links between nodes indicate connections.

5. Analyze Metrics and Statistics

In this stage, the researchers utilized bibliometric indicators. VOS Viewer provided various bibliometric indicators, such as centrality and density, to assess the significance of nodes within the network. These metrics can help identify influential authors, key publications, or emerging trends (Bornmann & Leydesdorff, 2023).

By employing VOS Viewer in the literature review research process, researchers can uncover hidden patterns, visualize research landscapes, and make informed decisions about the structure and content of their literature review. The tool enhances the efficiency of identifying seminal works, prominent authors, and research trends within a particular field.

RESULTS AND DISCUSSION

VOS Viewer, which stands for Visualizing Scientific Landscapes, plays a crucial role in mapping research by providing a powerful tool for bibliometric analysis and visualization. With the keyword “precarious employment,” a total of 1,837 publications were found spanning from 1999 to 2024. The publications were categorized into various types, including 157 Review articles, 1,566 Research articles, 20 Conference abstracts, 2 Book reviews, 3 Case reports, 5 Correspondence, 2 Data articles, 16 Discussion pieces, 18 Editorials, 8 Mini reviews, 1 News article, 1 Practice guidelines, 26 Short communications, and 12 categorized as Other.

These articles were published across different publishers, with the distribution as follows: 72 articles in Social Science & Medicine, 60 in SSM - Population Health, 58 in Procedia - Social and Behavioral Sciences, 57 in Geoforum, 56 in World Development, 48 in Heliyon, 40 in the Journal of Rural Studies, 37 in SSM - Qualitative Research in Health, 34 in the Journal of Migration and Health, 33 in Safety and Health at Work, 28 in Cities, 25 in Political Geography, 25 in The Extractive Industries and Society, 22 in Social Sciences & Humanities Open, 20 in the International Journal of Disaster Risk Reduction, 19 in Energy Research & Social Science, 17 in Marine Policy, 16 in Advances in Life Course Research, 15 in Procedia Economics and Finance, 15 in Digital Geography and Society, 15 in the Australian and New Zealand Journal of Public Health, 14 in Land Use Policy, 14 in SSM - Mental Health, 13 in Children and Youth Services Review, and 13 in Wellbeing, Space and Society.

Furthermore, these publications span various subject areas, including 1,018 articles in Social Sciences, 504 in Medicine and Dentistry, 255 in Environmental Science, 235 in Economics, Econometrics and Finance, 221 in Psychology, 148 in Business, Management, and Accounting, 126 in Agricultural and Biological Sciences,

124 in Arts and Humanities, 76 in Nursing and Health Professions, and 66 in Energy.

Next, the results above were sorted with specifications for research articles, social science, in English, and open access. As a result, it was filtered down to 925 publications with the following breakdown: 31 publications in 2024, 236 in 2023, 201 in 2022, 135 in 2021, 79 in 2020, 50 in 2019, 34 in 2018, 27 in 2017, 29 in 2016, 24 in 2015, 36 in 2014, 11 in 2013, 8 in 2012, 4 in 2011, 3 in 2010, 1 in 2008, 1 in 2000, 2 in 1999, 2 in 1997, 1 in 1996, 3 in 1995, 3 in 1992, 1 in 1991, 1 in 1990, and 2 in 1987.

These publications are distributed across several publishers, including 63 articles in Social Science & Medicine, 58 in Procedia - Social and Behavioral Sciences, 55 in Geoforum, 52 in World Development, 52 in SSM - Population Health, 40 in Heliyon, 38 in the Journal of Rural Studies, 37 in SSM - Qualitative Research in Health, 32 in the Journal of Migration and Health, 28 in Cities, 25 in Political Geography, 21 in Safety and Health at Work, 21 in The Extractive Industries and Society, 20 in the International Journal of Disaster Risk Reduction, 20 in Social Sciences & Humanities Open, 17 in Marine Policy, 16 in Wellbeing, Space and Society, 15 in Procedia Economics and Finance, 15 in Digital Geography and Society, 15 in SSM - Mental Health, 14 in Land Use Policy, 13 in Children and Youth Services Review, 13 in Advances in Life Course Research, 10 in Global Environmental Change, and 10 in Research in Social Stratification and Mobility.

Subsequently, the database of the aforementioned 925 publications was input into the VOS Viewer application, and the following Figure 1 illustrates that the keyword “precarious employment” is closely associated with several other keywords, such as Covid-19, climate change, gender, poverty, and mental health. The larger keywords in the visualization indicate that there is a considerable amount of studies or research discussing their correlations with precarious employment.

Figure 1. Network Visualisation of Precarious Employment Term

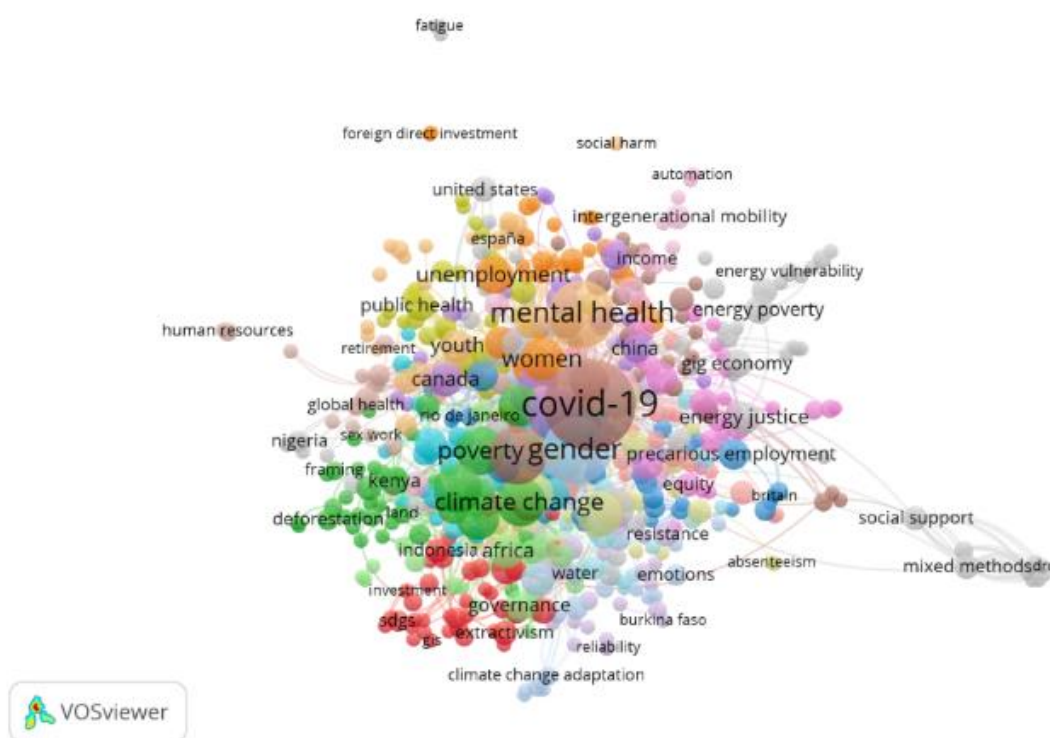


Figure 2. Overlay Visualisation of Precarious Employment Term

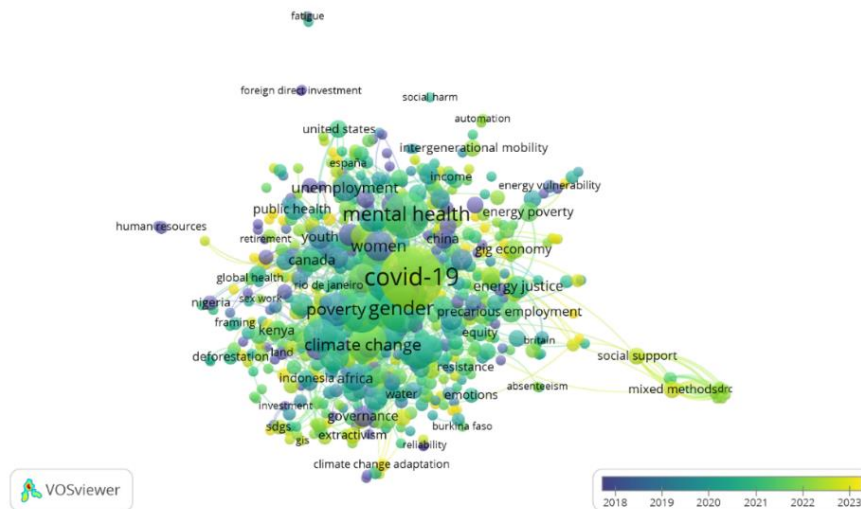
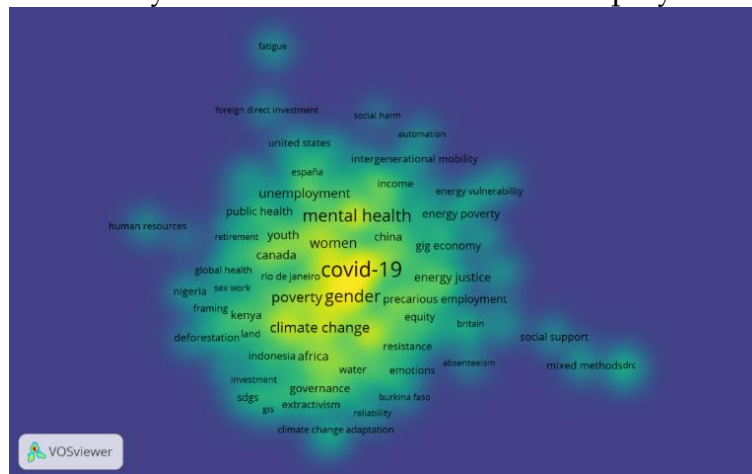


Figure 2 above illustrates the overlay visualization of the keyword “precarious employment.” Overlay visualization in VOS Viewer is a feature that allows researchers to enhance and customize their network visualizations by incorporating additional information or attributes into the existing network structure. This technique enables a more comprehensive analysis by visually representing diverse aspects of the data within the same network map. The map above displays specific years with trends or dominant research related to precarious employment.

Figure 3. Density Visualisation of Precarious Employment Term



One of the highly dominant and closely related keywords in precarious employment research is the keyword Covid-19. This is because there are several professions classified as vulnerable in precarious employment, such as healthcare workers or part-timers working during the COVID-19 pandemic. The correlation between precarious employment and COVID-19 is multifaceted and has implications for both workers and public health. Precarious employment often involves non-standard work arrangements, such as temporary contracts, gig work, or part-time positions. Workers in these arrangements may be more vulnerable to economic shocks, including those triggered by the COVID-19 pandemic. Job insecurity and income instability are common features of precarious employment, making individuals in such positions susceptible to financial hardships during economic downturns. Besides,

precarious employment is prevalent in sectors that were disproportionately affected by COVID-19-related restrictions and lockdowns, such as the service industry, hospitality, and gig economy. Workers in these sectors faced job losses, reduced working hours, and income insecurity, highlighting the precarious nature of their employment. Similar researches were also carried out by McNamara et al. (2021); Mai, et al., (2022), Gray, et al., (2022); Hummel, et al., (2021); Alon, (2022) and Han, (2021).

Precarious workers often lack access to employment benefits such as health insurance, paid sick leave, and unemployment benefits. This lack of social protection is particularly problematic during a health crisis like the COVID-19 pandemic, where access to healthcare and financial support becomes crucial. This kind of employment may involve working in jobs with a higher risk of exposure to the virus, such as frontline service jobs or positions that do not allow for remote work. This increased exposure can contribute to the higher health risks for precarious workers during the pandemic. Precarious employment may involve working conditions that make it challenging for individuals to adhere to safety measures recommended during the pandemic. For example, gig workers may have limited control over their work environments, making it difficult to implement social distancing or other preventive measures.

The correlation between precarious employment and COVID-19 is often intertwined with other social issues such as gender, race, and socioeconomic status. Certain demographic groups disproportionately engage in precarious work, and these groups may also face unequal impacts of the pandemic. The challenges faced by precarious workers during the COVID-19 pandemic have prompted discussions about the need for improved labor protections, social safety nets, and advocacy for workers' rights. Policymakers and advocates are addressing the vulnerabilities exposed by the pandemic and working towards creating more resilient and equitable labor markets.

Figure 4: Network Visualisation of Precarious Employment Term related to Covid-19 Term

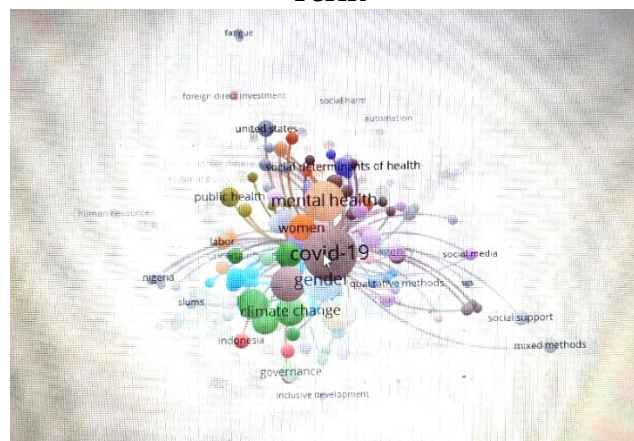


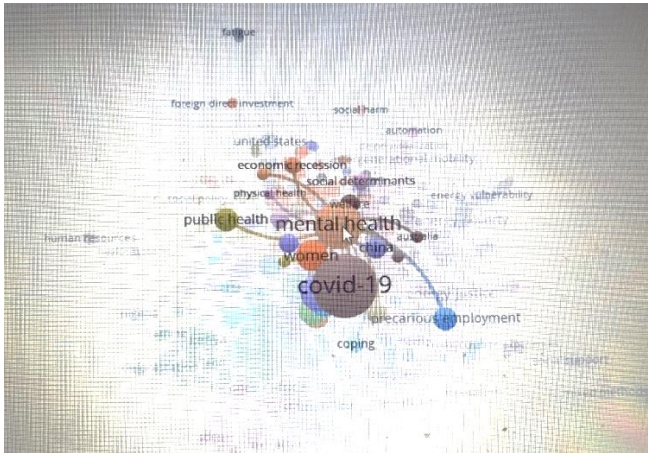
Figure 5 illustrates the correlation between precarious employment and gender. It is a complex and multifaceted phenomenon that reflects and reinforces gender inequalities in the labor market. Firstly, it is related to Occupational Segregation. Women often find themselves concentrated in precarious and low-wage sectors, such as part-time work, temporary positions, and jobs without employment benefits. This concentration is a result of occupational segregation, where certain industries or occupations are dominated by one gender, contributing to the prevalence

Figure 6 illustrates the correlation between precarious employment and mental health is significant, as the uncertain and often challenging conditions associated with precarious work can have adverse effects on individuals' psychological well-being. Precarious employment is characterized by job insecurity, including temporary contracts, part-time work, and gig economy positions. The constant fear of losing one's job or facing financial instability can contribute to stress and anxiety, impacting mental health. Precarious workers often have limited or no access to employment benefits such as health insurance paid sick leave, or mental health support. This lack of social and financial security can exacerbate mental health challenges, as individuals may hesitate to seek help due to concerns about affordability or job repercussions. Precarious employment is associated with irregular income and financial instability. Fluctuating income levels can lead to increased stress and anxiety about meeting basic needs, paying bills, and planning for the future, all of which can negatively impact mental health. Many precarious jobs, especially those in the gig economy, provide limited control over work conditions. Workers may face unpredictable schedules, lack of control over tasks, and minimal workplace support, leading to a sense of powerlessness that can contribute to mental health issues. This issue was also being researched by [Rönblad, et al. \(2019\)](#), in which their research found that 3328 distinct records, out of which 16 studies meeting the inclusion criteria were deemed of satisfactory quality. We found moderate quality evidence (GRADE score 3 out of 4) indicating a negative impact of job insecurity on mental health, with a summary odds ratio (OR) of 1.52 and a confidence interval (CI) of 95% ranging from 1.35 to 1.70. However, evidence for the effects of temporary employment or irregular work hours on mental health was of very low quality (GRADE 1 out of 4). Additionally, all five studies examining multidimensional exposures revealed adverse effects, with a weighted average OR of 2.01 and a CI of 95% ranging from 1.60 to 2.53. Similar researches were also carried out by [Benach, et al. \(2014\)](#) and [Lewchuk, et al. \(2008\)](#).

Precarious employment, including irregular working hours and lack of benefits, can contribute to a significant work-life imbalance. Struggling to balance work responsibilities with personal and family commitments can lead to burnout, stress, and feelings of inadequacy, impacting mental well-being. Some forms of precarious work, such as remote or gig jobs, can result in social isolation. Limited interaction with colleagues and the absence of a supportive work community may lead to feelings of loneliness and negatively affect mental health. Precarious workers often have limited control over their work tasks, schedules, and overall job conditions. This lack of autonomy can contribute to feelings of frustration and helplessness, which are detrimental to mental health. Precarious employment is sometimes associated with societal stigma, as individuals in such positions may be perceived as less successful or less committed to their careers. This stigma, coupled with the lack of visibility of mental health challenges in the workplace, can discourage individuals from seeking help. The cumulative effect of prolonged exposure to precarious work conditions can contribute to the development or exacerbation of mental health disorders over time. Persistent stressors and challenges may lead to conditions such as anxiety, depression, or burnout. Recognizing the correlation between precarious employment and mental health underscores the importance of implementing policies that address job insecurity, improve working conditions, and provide adequate social and mental

health support for workers in non-standard employment arrangements. This was also investigated by Vives, et al., (2014); Aloisi & De Stefano, (2021).

Figure 6: Network Visualisation of Precarious Employment Term related to mental health Term



Then, in the context of Indonesia, the researches on precarious employment are related to some keywords, including commodification, Covid-19, and community resilience. So, it can be concluded that in the Indonesian context, there are so many research gaps that can be used by further researchers to explore more about precarious employment in Indonesia.

Figure 7: Network Visualisation of Precarious Employment Term related to the authorship

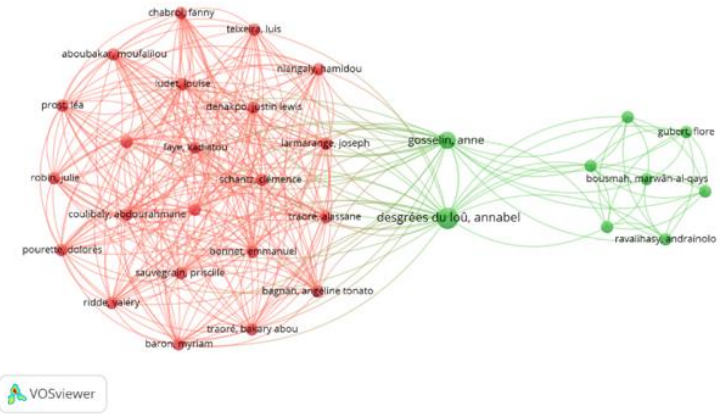


Figure 8: Overlay Visualisation of Precarious Employment Term related to the authorship

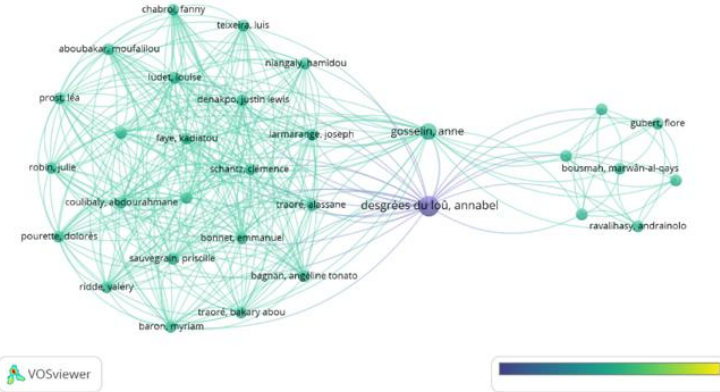
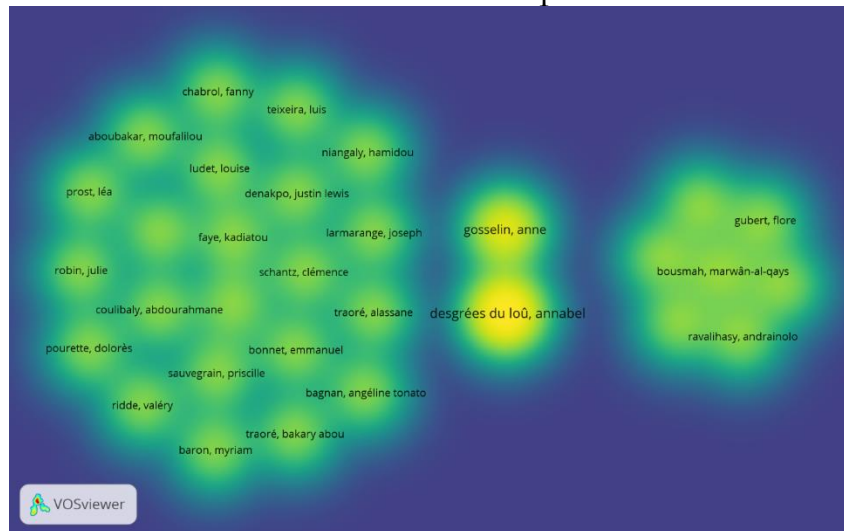


Figure 9: Density Visualisation of Precarious Employment Term related to the authorship



Based on the documents found, several authors dominate the studies on precarious employment. Therefore, the articles they have written can serve as references for subsequent researchers. The co-authorship map of precarious employment research can be visualized in the previous three visualization figures above in figure 7, figure 8, and figure 9.

VOS Viewer, which stands for Visualizing Scientific Landscapes, plays a crucial role in mapping research by providing a powerful tool for bibliometric analysis and visualization. VOS Viewer allows researchers to create network visualizations, where elements such as authors, keywords, or publications are represented as nodes. The connections or links between nodes illustrate relationships, collaborations, or citations, providing a clear and intuitive map of the research landscape. The software identifies clusters or groups of related elements within the network. These clusters often represent thematic areas or research subfields, enabling researchers to discern patterns, trends, and distinct knowledge domains within a specific research topic.

VOS Viewer offers bibliometric indicators, including citation counts, co-authorship patterns, and other metrics. These indicators help assess the significance and impact of individual elements in the network, aiding researchers in identifying influential authors, key publications, or emerging trends. Researchers can set specific time frames for analysis, allowing them to observe how the research landscape evolves. This temporal aspect provides insights into the progression of research topics, the emergence of new subfields, and the impact of influential works over different periods.

VOS Viewer allows users to customize visualizations by adjusting layout options, colors, and node sizes. Researchers can also apply filters to focus on specific elements, such as highly cited publications or authors, providing a tailored and more detailed view of the research network. After generating visualizations, researchers can export the results in various formats, including images or data files. This facilitates the integration of VOS Viewer outputs into research papers, presentations, or reports, enhancing the communication of findings.

VOS Viewer helps researchers analyze collaboration patterns by visualizing co-authorship networks. This feature is particularly valuable for understanding research networks, interdisciplinary collaborations, and the flow of knowledge within

a specific field. The software allows researchers to explore the significance of keywords within the network. Identifying key terms and their relationships provides insights into the vocabulary and thematic content of the research landscape. In summary, VOS Viewer serves as a versatile and user-friendly tool for researchers to visually map and analyze scientific landscapes, offering a holistic understanding of the relationships and dynamics within a particular field of study.

Then, related to the previous research, there were some authors using VOS Viewer, including [Purnomo, et al., \(2023\)](#) entitled Trend on E-Commerce Researches: A Portrait Using VOSviewer. In this research, the authors explained that the emergence of e-commerce has significantly impacted various sectors, including retail, logistics, and marketing. It has revolutionized traditional retail models, giving rise to online marketplaces and the expansion of direct-to-consumer (D2C) brands. Additionally, e-commerce has disrupted conventional supply chain management, emphasizing the importance of efficient order fulfillment and last-mile delivery solutions. This study aimed to explore the global landscape of e-commerce research, utilizing bibliographic analysis through VOSviewer. The Scopus database was the primary data source retrieved from <https://www.sciencedirect.com/page>. The VOSviewer visualization analysis revealed a dominance of global e-commerce research focused on themes such as digitalization, artificial intelligence, and the impact of COVID-19. The findings from this bibliographic study offer insights for researchers to identify potential research gaps in the field.

Another research was carried out by [Hidayati, \(2023\)](#) entitled Mapping Business English Researches Globally: A Bibliometric Analysis Using VOS Viewer. The primary objectives of this study encompass three key aspects: 1) providing an overview of global business English research, 2) delineating research and co-authorship patterns in English within the realm of business English, and 3) identifying research gaps while offering recommendations for further exploration in the field of Business English. This research adopts a literature review approach, utilizing the Scopus database accessed through <https://www.sciencedirect.com/page>, with a focus on articles published in Scopus.

The analysis of the data was carried out using the VOS viewer software. The findings revealed that opportunities for future research in Business English exist, particularly in the broader domain. Notably, discussions about Business English in an Indonesian setting were predominantly limited to Scopus, with a prevailing emphasis on China and Singapore. Furthermore, Business English demonstrated a strong connection with the sphere of professional communication, encompassing both oral and written language. The context of Business English research predominantly centered on higher education, leaving unexplored territories such as vocational high schools that prepare graduates for specific professions like hospitality and healthcare. Similar researches were also carried out by [Gu et al. \(2020\)](#), [Chen \(2020\)](#), [Sumarni \(2023\)](#), [Hidayati, et al. \(2023\)](#), and [Wili Tama & Sumarni \(2023\)](#).

Then, referring to the ScienceDirect database related to the precarious employment keyword, there are some most relevant research recommended to read according to the database as follows:

| No. | Title | Publisher | Author |
|-----|---|-------------------|------------------------------|
| 1 | Sleep mediates the relationship between | Sleep Medicine: X | Jaydarifard, |

| | | | |
|----|---|-------------------------------------|----------------------------------|
| | precarious employment and mental health | | et al. (2023) |
| 2 | The gendered associations between precarious employment and mental health in working-age Australians: A longitudinal analysis using 16 waves of the HILDA survey | Social Science & Medicine | Ervin, et al. (2023) |
| 3. | Characteristics and Socio-Demographic Distribution of Precarious Employment Among Korean Wage Workers: A Proposition of Multidimensional Approach Using a Summative Score | Safety and Health at Work | Baek, et al. (2023) |
| 4 | Job quality and precarious employment among lesbian, gay, and bisexual workers: A national study | SSM - Population Health | Kinitz, et al. (2023) |
| 5 | Precarious employment and workplace health outcomes in Britain | Social Science & Medicine | Haile (2023) |
| 6 | Precarious employment and associated health and social consequences; a systematic review | General Health | Jaydarifard (2023) |
| 7 | Changes in Precarious Employment and Health in the United States Amidst the COVID-19 Pandemic | Preventive Medicine Reports | Oddo, et al. (2023) |
| 8 | Precarious employment and health: A qualitative study in Venezuelan immigrant population in Colombia | Journal of Migration and Health | Agudelo-Suárez, et al. (2020) |
| 9 | Trajectories of precarious employment and the risk of myocardial infarction and stroke among middle-aged workers in Sweden: A register-based cohort study | The Lancet Regional Health - Europe | Matilla-Santander, et al. (2022) |
| 10 | The impact of precarious employment on mental health: The case of Italy | Social Science & Medicine | Moscone, et al. (2016) |

CONCLUSION

This study has obtained some critical results that reflect the current characteristic features of precarious employment research. We applied VOS Viewer to visualize the network of themes, authors, and trends within this domain. Accordingly, precarious employment is most likely mentioned with significant global challenges: COVID-19, climate change, gender inequality, poverty, and mental health. The following findings also detail how precarious employment is not solely a labor issue but is strongly linked with social, economic, and environmental concerns. Precarious employment in the Indonesian context also has strong connections to commodification, community resilience, and the socio-economic impacts of the pandemic. This indicates that, while specific themes have received extensive coverage, there are still profound gaps, including in areas such as community resilience and

employment commodification, which further research would be warranted to address.

Conceptually and methodologically, this book makes valuable contributions to labor research. Thus, the present study represents a systematic and complete mapping of global trends in precarious employment research by applying VOS Viewer as a data visualization tool for the first time. In this approach, the capabilities extend to explore the issues that are least discussed and any emerging trends that could not have been gauged through a conventional literature review. This understanding is further enriched in the framing and discussing precarious employment within academic discourse by the network visualization of keywords and authors. Therefore, this work will have implications for future research methodologies by emphasizing the use of data visualization tools in mapping complex and many-faceted topics, such as precarious employment.

Notwithstanding the limitations, several factors have constrained this study. One of the main limitations is that only open-access articles were considered, especially in social sciences, which might not give an overall view of all research in this domain. Thus, the study's findings may be narrower in scope and may have bypassed contributions in fields other than the ones selected or coming from sources other than subscription-based databases. This work could be a limitation since it focuses much on research articles. In the future, sources from economics, law, and environmental studies could be considered for a more inclusive source variety. This would afford a broader topic mapping and ensure a more holistic understanding of precarious employment at global and country-specific levels, such as in Indonesia. A broader diffusion of data could also result in more apparent gaps in research and, therefore, a more nuanced understanding of the challenges and opportunities accompanying precarious employment.

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