

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

Joko Hadi Purnomo

Institut Agama Islam Al Fatimah Bojonegoro

joko.hpurnomo@gmail.com

Niswatin Nurul Hidayati

Institut Teknologi dan Bisnis Tuban

niswatinnb@gmail.com

Abstract

The globalization of economies has given rise to dynamic shifts like employment, with precarious work becoming a predominant feature across various industries. This research article investigates the landscape of precarious employment studies, employing the innovative VOS Viewer for a comprehensive literature review. The study aims to map the intricate network of research articles, identifying key themes, prolific authors, and emerging trends in the discourse surrounding precarious employment. By harnessing the power of data visualization, this research sheds light on the interconnectedness of scholarly works, offering valuable insights into the evolution and diffusion of knowledge in the field. Review of literature utilizing software tools like VOS Viewer can aid researchers in delineating current global research trends and pinpointing existing gaps in studies. Moreover, concerning precarious employment research, the keyword “precarious employment” is intricately connected to terms like Covid-19, climate change, gender, poverty, and mental health. The prominence of these keywords in visualizations suggests a significant volume of research exploring their correlations with precarious employment. Consequently, there is room for in-depth exploration in areas beyond these subjects. Shifting the focus to the Indonesian scenario, precarious employment research is linked to keywords such as commodification, COVID-19, and community resilience. This implies the existence of multiple research gaps in the Indonesian context, offering opportunities for further investigation by researchers interested in delving into precarious employment in Indonesia.

Keywords: Literature Review, Precarious Employment, VOS Viewer

Introduction

In the dynamic landscape of contemporary labor markets, the rise of precarious employment has become a defining feature, reshaping the traditional employment paradigm.¹ Precarious employment refers to work arrangements marked by uncertainty, instability, and a lack of employment protections. This phenomena encompass various forms of non-standard employment, including temporary contracts, part-time work, gig economy positions, and freelance engagements.

Citing the Syndicat European Trade Union Confederation (2024), it is mentioned that young individuals are significantly more prone to engaging in precarious employment compared to their older counterparts. The prevalence of fixed-term contracts has notably surged among the youth, encompassing 43.3% of individuals aged 15 to 24 in 2015, a stark contrast to the 14.1% figure for all workers. This trend is particularly pronounced in specific countries, with rates reaching

¹ Yasemin Ari Kovanci et al. "EMPLOYABILITY IN THE CONTEXT OF LABOUR MARKET INSECURITY." IJASOS- International E-journal of Advances in Social Sciences, 1 (2015): 247-254. <https://doi.org/10.18769/IJASOS.58215>.



Looking at the Spread of Precarious Employment Researches

75% in Slovenia, 73% in Poland, 70% in Spain, 67% in Portugal, and 53% in the Netherlands. Alarmingly, a considerable portion of these young workers, such as 78% in Spain and 82% in Cyprus, find themselves unable to secure permanent employment. For many young individuals in these nations, the prevalence of fixed-term contracts has become a common, yet undesirable, aspect of their employment experience. Part-time employment also constitutes a substantial portion of the labor market for individuals aged 15-24 across the EU, accounting for 32% in 2015. Notably, this figure is markedly higher in certain countries, such as 80% in the Netherlands, 49% in Sweden, 38% in Spain, and 29% in Italy. While part-time work may be suitable for those still in education, a significant proportion desires full-time employment. In Italy, 84% of young part-time workers aspire to secure a full-time job, and in Spain, 54% are only working part-time due to the unavailability of full-time positions. Official statistics often fail to capture various other forms of precarious work. In the UK, for instance, 8% of workers in the 15-24 age group are on 'zero-hours' contracts, leaving them without any guarantee of paid work and placing them in a vulnerable bargaining position. Additionally, certain countries witness the growth of practices like bogus self-employment or the use of commercial contracts instead of employment contracts, relieving employers of legal obligations such as insurance, holiday entitlements, and employment protection. In Poland, an estimated 13% of workers find themselves in this situation, with a high likelihood that a substantial portion of them are young individuals.²

Table 1. Part-time employees as a percentage of all workers aged 15-24, and percentage of part-time workers who could not get a full-time job, 2008 and 2015

	All part-time 2008	All part-time 2015	All part-time/ could not get a full-time job
European Union (28 countries)	26.2	32.1	28.0
Belgium	20.7	27.4	23.5
Bulgaria	3.3	5.7	:
Czech Republic	5.5	10.8	12.5
Denmark	57.4	67.0	8.2
Germany	20.8	23.6	10.1
Estonia	13.2	22.7	:
Ireland	26.2	44.5	30.4
Greece	13.2	23.1	63.9
Spain	22.9	37.9	54.3
France	22.7	24.8	55.8
Croatia	6.7	12.8	24.4
Italy	20.7	29.5	83.7
Cyprus	12.1	26.0	69.4
Latvia	10.1	12.2	:
Lithuania	10.2	11.4	:
Luxembourg	7.0	28.6	13.2
Hungary	5.7	6.8	45.4

² <https://www.etuc.org/>. accessed on January 5, 2024

Malta	14.1	22.8	18.6
Netherlands	70.9	80.0	9.6
Austria	18.2	22.7	15.5
Poland	14.2	14.1	25.6
Portugal	10.8	22.6	49.3
Romania	14.7	19.2	74.1
Slovenia	31.5	41.3	7.4
Slovakia	3.5	11.8	28.6
Finland	36.8	41.7	24.9
Sweden	45.7	49.0	41.8
United Kingdom	34.7	37.6	23.9

Source: <https://www.etuc.org>

The surge in precarious employment is intricately linked to broader socio-economic shifts, including globalization, technological advancements, and changes in organizational structures. As businesses seek flexibility and cost-effectiveness, traditional notions of employment security and steady career trajectories have given way to a more fluid and contingent workforce. This transformation has profound implications for workers, influencing their job security, income stability, and overall well-being.

Understanding the multifaceted nature of precarious employment requires a comprehensive exploration that goes beyond surface-level observations. This article seeks to provide an in-depth examination of the complexities surrounding precarious employment, addressing key dimensions such as economic impacts. The economic ramifications of precarious employment extend beyond individual workers to encompass broader societal issues. Job insecurity, wage disparities, and limited access to social benefits can contribute to economic inequalities and hinder overall economic growth. Besides, there are also social consequences. Precarious employment has social implications, affecting the mental health, job satisfaction, and social integration of workers. Examining the social consequences sheds light on the human side of precarious work, emphasizing the importance of well-being in contemporary workplaces. Then, policy challenges, policymakers face the challenge of adapting regulatory frameworks to protect workers in an evolving job market. Balancing the need for flexibility with ensuring fair labor standards poses a delicate policy challenge that requires nuanced solutions. Global Perspectives, precarious employment is a global phenomenon, but its manifestations and impacts vary across different regions and industries. Exploring global perspectives helps uncover common trends and unique challenges faced by workers in diverse contexts.

There were many researches related to the precarious employment, such as Nichols, et al. (2022). The study investigates the involvement of community health workers, particularly Accredited Social Health Activists (ASHAs), in addressing the challenges posed by the COVID-19 pandemic in India. Employing a phenomenological approach, the research concentrates on the personal experiences of participants, predominantly women residing in rural regions of Himachal Pradesh. Telephone interviews form the core of the research methodology, facilitating the establishment of rapport and the acquisition of candid narratives from the participants. The findings indicate that ASHAs responded to the government's call for action with a sense of pride, yet their commitment also stemmed from a fear of disappointing their communities. Dissent surfaced

concerning the unevenness in the demands placed on them. Furthermore, the article explores the repercussions of employing war-related rhetoric in influencing the morale of ASHAs and underscores the vulnerability of India's public health system, heavily reliant on ASHA workers with lower incomes. A distinctive contribution of the article lies in delineating how government rhetoric molds ASHAs' perceptions of their roles and their relationship with the state. Additionally, it examines the impact of employing war metaphors in public addresses and communications related to COVID-19. In summary, the article provides valuable insights into the experiences of community health workers amidst the COVID-19 pandemic in India and emphasizes the necessity of comprehending how government rhetoric influences the morale and actions of these essential workers. Similar researches were conducted in Barcelona³, in India, and Santiago de Chile⁴. Another study on precarious workers also includes workers in the creative industry, particularly in the film and theater industry in Ghana⁵. This research describes how these workers struggled amidst Covid-19 by engaging in digitization, diversification, and social engagement. Additionally, there is research on user co-creator labor as well as gamers

This article aims to contribute to the ongoing discourse on precarious employment by providing a comprehensive background that encapsulates its origins, manifestations, and implications. By investigating the intricacies of this complex phenomenon, we seek to inform researchers, policymakers, and practitioners about the multifaceted nature of precarious employment and stimulate further inquiry into potential solutions and mitigations. Besides, by having the map of researches on precarious employment, this research provided the gaps which can be filled by the next researchers who are interested in this theme.

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 patterns of publication, 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. In this context, the researchers used the "precarious employment" keyword in the <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 the form of RIS format.

3. Adjust Parameters

³ T. Vieira. "The lose-lose dilemmas of Barcelona's platform delivery workers in the age of COVID-19". *Social Sciences & Humanities Open*, Vol. 2, No. 1, 2020. <https://doi.org/10.1016/j.ssaho.2020.100059>

⁴ G. Vecchio, et al. "Delivery workers and the interplay of digital and mobility (in)justice". *Digital Geography and Society*, Vol. 3, 2022. <https://doi.org/10.1016/j.diggeo.2022.100036>

⁵ T. Langevang, et al. "The show must go on!": Hustling through the compounded precarity of Covid-19 in the creative industries". *Geoforum*, Vol. 136, 2022, 142–152. <https://doi.org/10.1016/j.geoforum.2022.09.015>

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.

4. Generate Network Visualization

In the next stage, generating network visualization, the researchers created a network map. VOS Viewer used network visualization techniques to represent relationships between different 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.

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,

Looking at the Spread of Precarious Employment Researches

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

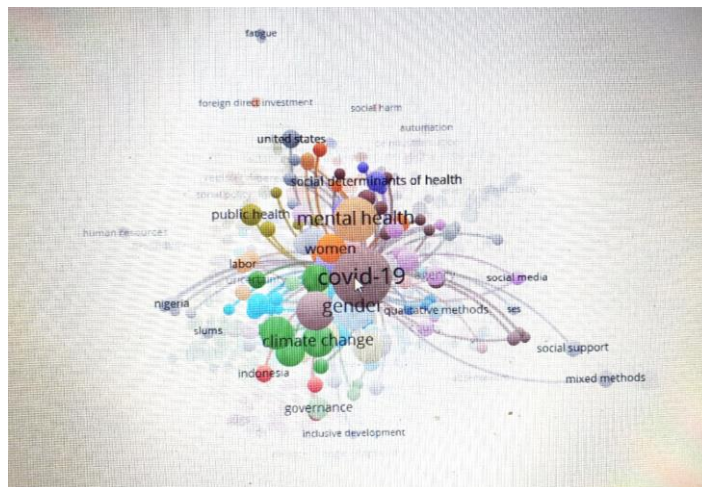


Figure 5 illustrates the correlation between precarious employment and gender. It is a complex and multifaceted phenomenon that reflects and reinforces gender inequalities in the labor market. Firstly, it is related to Occupational Segregation. Women often find themselves concentrated in precarious and 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 of precarious employment among women. Secondly, it is related to Wage Disparities. Precarious employment is frequently associated with lower wages and fewer employment benefits. Women, on average, face wage disparities compared to men, and their overrepresentation in precarious jobs exacerbates this wage gap. The lack of job security and benefits can further contribute to financial instability for women. Thirdly, it is related to Vulnerability to Economic Shocks. Women in precarious employment may be more vulnerable to economic downturns and shocks. For example,

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 Torkel Rönnerblad, et al.¹⁴, 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.¹⁵ and Lewchuk, et al.¹⁶.

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

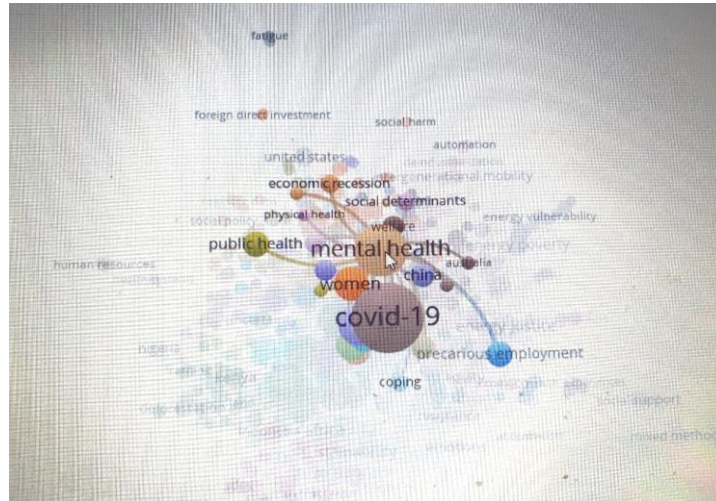
¹⁴ Torkel Rönnerblad, et al. "Precarious employment and mental health: a systematic review and meta-analysis of longitudinal studies". *Scandinavian Journal of Work, Environment & Health*, Vol. 45, No. 5, 2019, 429-443.

¹⁵ J. Benach, et al. "What should we know about precarious employment and health in 2025? framing the agenda for the next decade of re-research". *International Journal of Epidemiology*, Volume 45, No. 1, 2016, 232-238. <https://doi.org/10.1093/ije/dyv342>

¹⁶ Wayne Lewchuk, et al., "Working without commitments: precarious employment and health". Volume 22, No. 3, 2008. <https://doi.org/10.1177/0950017008093477>

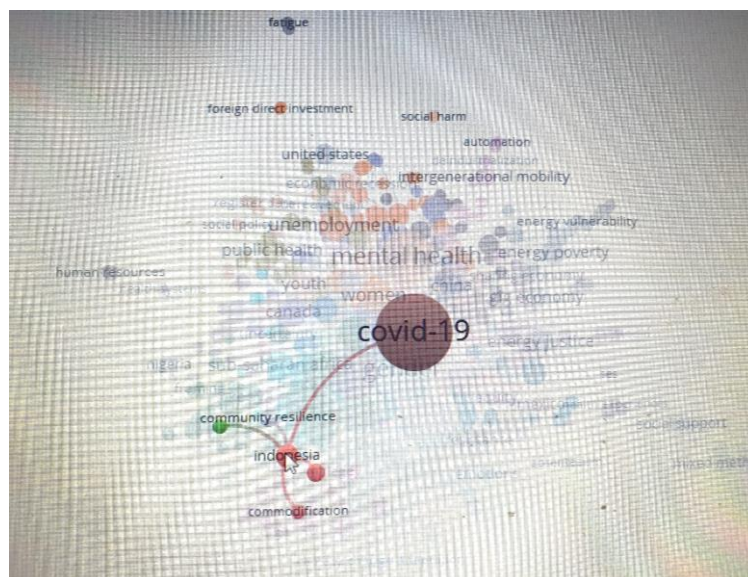
arrangements. This was also investigated by Vives, et al.¹⁷; Antonio ALOISI, Valerio DE STEFANO¹⁸

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 mental health Term



¹⁷ J. Benach, et al. “What should we know about precarious employment and health in 2025? framing the agenda for the next decade of re-search”. International Journal of Epidemiology. Volume 45, No. 1, 2016, 232–238, <https://doi.org/10.1093/ije/dyv342>

¹⁸ Antonio ALOISI and Valerio DE STEFANO. “Essential jobs, remote work and digital surveillance: Addressing the COVID-19 pandemic panopticon”. International Labor Review. 2021. <https://doi.org/10.1111/ilr.12219>

Looking at the Spread of Precarious Employment Researches

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

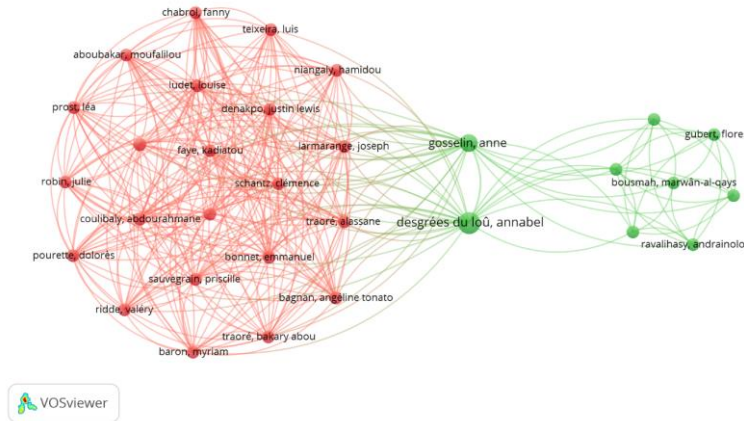


Figure 8. Overlay Visualization of Precarious Employment Term related to the authorship

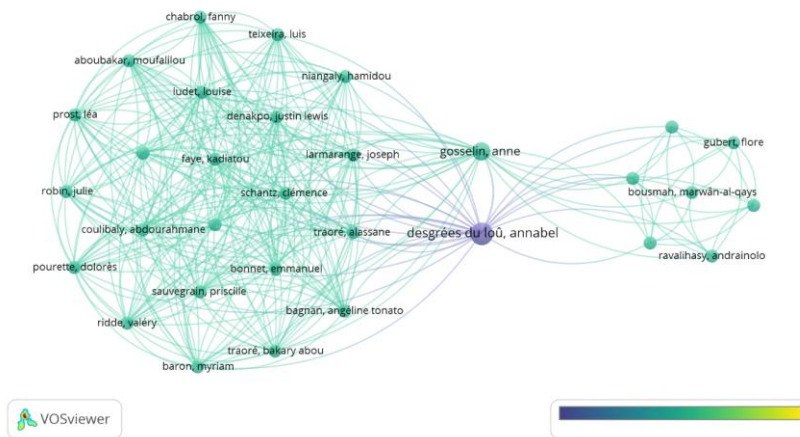
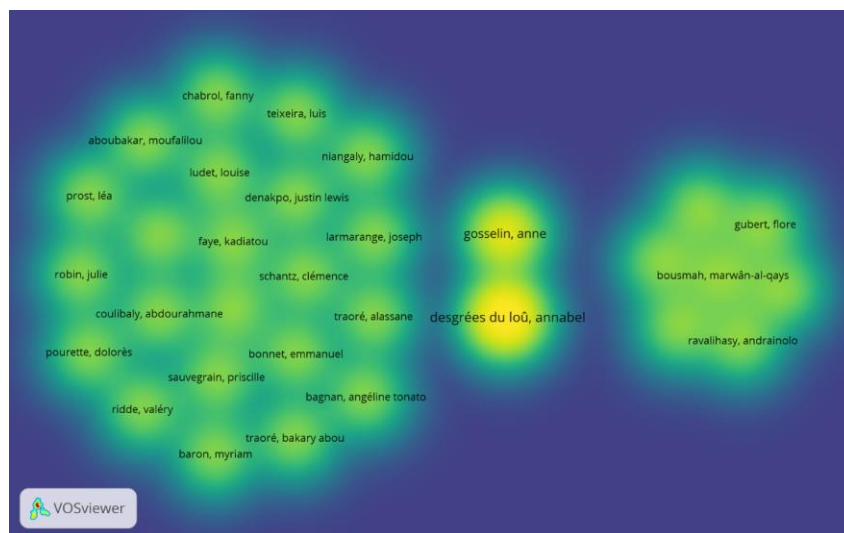


Figure 9. Density Visualization of Precarious Employment Term related to the authorship



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.¹⁹ 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

¹⁹ Joko Hadi Purnomo, et al. "Trend on E-Commerce Researches: A Portrait Using VOSviewer". *Strategic: Journal of Management Sciences*. Vol 3, No. 2. 2023, 43-57.

<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 Hidayati²⁰ 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.²¹, Chen²², Sumarni²³, Hidayati, et al.²⁴, and Wili Tama & Sumarni.²⁵

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 precarious employment and mental health	Sleep Medicine: X	Jaydarifard, et al. ²⁶
2	The gendered associations between precarious employment and mental health in working-age	Social Science & Medicine	Ervin, et al. ²⁷

²⁰ Niswatin Nurul Hidayati. "Mapping Business English Researches Globally: A Bibliometric Analysis Using VOS Viewer". Surakarta English and Literature Journal. Vol 6, No. 2, 2023, 250-269.

²¹ X. Gu, et al. "A Systematic Literature Review of Language Learning Research Based on Teaching Agents". 2022.

²² C. Chen. "Visualizing the knowledge domain of multimodal discourse analysis (2009-2019): A bibliometric review". Forum for Linguistic Studies, Volume 2, No. 1, 2020, 57-70. <https://doi.org/10.18063/fls.v2i1.1205>

²³ Indah Pratiwi Sri Sumarni. "Blended Learning in English Language Learning in Post Pandemic Era: Literature Review". Volume 6, No. 1, 2023, 2579-7549. <https://jurnal.unimus.ac.id/index.php/ELLIC/index>

²⁴ Niswatin Nurul Hidayati, et al. "VISUAL-IZING RESEARCHES ON ENGLISH LEARNING: A BIBLIOMETRIC ANALYSIS". Lingua Scientia. Volume 30, No.2, 2023.

²⁵ Wili Tama, Y., & Sumarni, S. (2023). TRENDS OF VIRTUAL REALITY IN ENGLISH LANGUAGE LEARNING.

²⁶ Saeed Jaydarifard, et al. "Sleep mediates the relationship between precarious employment and mental health". Sleep Medicine: X. 2023. <https://doi.org/10.1016/j.sleepx.2023.100092>

²⁷ Jennifer Ervin, et al. "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. 2023. <https://doi.org/10.1016/j.socscimed.2023.116382>

	Australians: A longitudinal analysis using 16 waves of the HILDA survey		
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. ²⁸
4	Job quality and precarious employment among lesbian, gay, and bisexual workers: A national study	SSM - Population Health	Kinitz, et al. ²⁹
5	Precarious employment and workplace health outcomes in Britain	Social Science & Medicine	Haile ³⁰
6	Precarious employment and associated health and social consequences; a systematic review	General Health	Jaydarifard ³¹
7	Changes in Precarious Employment and Health in the United States Amidst the COVID-19 Pandemic	Preventive Medicine Reports	Oddo, et al. ³²
8	Precarious employment and health: A qualitative study in Venezuelan immigrant population in Colombia	Journal of Migration and Health	Agudelo-Suárez, et al. ³³
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. ³⁴
10	The impact of precarious employment on mental health: The case of Italy	Social Science & Medicine	Moscone, et al. ³⁵

Conclusion

Based on the presentation above, it can be concluded that a literature review using software tools such as VOS Viewer can assist researchers in mapping current global trends in studies. Additionally, it helps identify study gaps. Furthermore, in the context of precarious employment studies, the keyword "precarious employment" is closely linked to other keywords like Covid-19, climate change, gender, poverty, and mental health. The prominence of these keywords in the

²⁸ Seong-Uk Baek, et al. "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*. 2023. <https://doi.org/10.1016/j.shaw.2023.07.002>

²⁹ David J. Kinitz, et al. "Job quality and precarious employment among lesbian, gay, and bisexual workers: A national study". *SSM - Population Health*. 2023. <https://doi.org/10.1016/j.ssmph.2023.101535>

³⁰ Getinet Astatike Haile. "Precarious employment and workplace health outcomes in Britain". *Social Science & Medicine*. 2023. <https://doi.org/10.1016/j.socscimed.2023.115694>

³¹ Saeed Jaydarifard, et al. "Sleep mediates the relationship between precarious employment and mental health". *Sleep Medicine: X*. 2023. <https://doi.org/10.1016/j.sleepx.2023.100092>

³² Vanessa M. Oddo, et al. "Changes in Precarious Employment and Health in the United States Amidst the COVID-19 Pandemic". *Preventive Medicine Reports*. 2023. <https://doi.org/10.1016/j.pmedr.2023.102113>

³³ Andrés A. Agudelo-Suárez, et al. "Precarious employment and health: A qualitative study in Venezuelan immigrant population in Colombia". *Journal of Migration and Health*. 2020. <https://doi.org/10.1016/j.jmh.2020.100009>

³⁴ Nuria Matilla-Santander, et al. "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*. 2022. <https://doi.org/10.1016/j.lanepe.2022.100314>

³⁵ F. E. Tosetti Moscone and G. Vittadini. "The impact of precarious employment on mental health: The case of Italy". *Social Science & Medicine*. 2016. <http://dx.doi.org/10.1016/j.socscimed.2016.03.008>

visualization suggests a substantial amount of research discussing their correlations with precarious employment. Therefore, studies beyond these areas can still be explored in greater depth. Moving on to the Indonesian context, research on precarious employment is associated with keywords such as commodification, Covid-19, and community resilience. Consequently, it can be inferred that there are numerous research gaps in the Indonesian context, providing opportunities for further exploration by researchers interested in studying precarious employment in Indonesia. The limitation of this research was that the articles used as the database were limited on the open access research articles in the social sciences. So, the next researchers could expand the articles used from the various fields to get broader mapping.

References

- Agudelo-Suárez, Andrés A., Mary Yanet Vargas-Valenciá, Jonny Vahos-Arias, Gladys Ariza-Sosa, Wilder J. Rojas-Gutiérrez, Elena Ronda-Pérez. "Precarious employment and health: A qualitative study in Venezuelan immigrant population in Colombia". *Journal of Migration and Health*. 2020. <https://doi.org/10.1016/j.jmh.2020.100009>
- Alexandrea J. Ravenelle, Ken Cai Kowalski, and Erica Janko. "The Side Hustle Safety Net: Precarious Workers and Gig Work during COVID-19". Volume 64, No. 5, 2021. <https://doi.org/10.1177/07311214211005489>
- Alon, Sigal. "The Measurement of Precarious Work and Market Conditions: Insights from the COVID-19 Disruption on Sample Selection". Volume 50, No 1, 2022. <https://doi.org/10.1177/07308884221127636>
- ALOISI, Antonio, and Valerio DE STEFANO. "Essential jobs, remote work and digital surveillance: Addressing the COVID-19 pandemic panopticon". *International Labor Review*. 2021. <https://doi.org/10.1111/ilr.12219>
- Baek, Seong-Uk., Min-Seok Kim, Myeong-Hun Lim, Taeyeon Kim, Jin-Ha Yoon, Jong-Uk Won. "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*. 2023. <https://doi.org/10.1016/j.shaw.2023.07.002>
- Banks, J., & Humphreys, S. "The labour of user co-creators: Emergent social network markets?" *Convergence*, Volume 14, No.4, 2008, 401–418. <https://doi.org/10.1177/1354856508094660>
- Benach, J., A Vives, G Tarafa, C Delclos, C Muntaner. "What should we know about precarious employment and health in 2025? Framing the agenda for the next decade of research". *International Journal of Epidemiology*, Volume 45, No. 1, 2016, 2016, Pages 232–238, <https://doi.org/10.1093/ije/dyv342>
- Chen, C. "Visualizing the knowledge domain of multimodal discourse analysis (2009-2019): A bibliometric review". *Forum for Linguistic Studies*, Volume 2, No. 1, 2020, 57–70. <https://doi.org/10.18063/fls.v2i1.1205>
- Cranford, Cynthia J., Leah F. VOSko and Nancy Zukewich. "The Gender of Precarious Employment in Canada Les femmes et la précarité d'emploi au Canada El género del empleo precario en Canadá". 2004. <https://doi.org/10.7202/007495>
- Guest, David E., Pat Oakley, Michael Clinton, Alexandra Budjanovcanin. "Free or precarious? A comparison of the attitudes of workers in flexible and traditional employment contracts". *Human Resource Management Review*. Volume 16, No. 2, 2006. <https://doi.org/10.1016/j.hrmr.2006.03.005>
- Ervin, Jennifer., Yamna Taouk, Belinda Hewitt, Tania King. "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*. 2023. <https://doi.org/10.1016/j.socscimed.2023.116382>
- Gray, Benjamin J. Richard G Kyle, Kate R Isherwood, Ciarán Humphreys, Melda Lois Griffiths, Alisha R Davies. “Precarious employment and associations with health during COVID-19: a nationally representative survey in Wales, UK”. 2022. <https://doi.org/10.1101/2022.06.07.22275493>
- Gu, X., Huang, Y., Wang, F., & Zheng, X. “A Systematic Literature Review of Language Learning Research Based on Teaching Agents”. 2022.
- Haile, Getinet Astatike. “Precarious employment and workplace health outcomes in Britain”. *Social Science & Medicine*. 2023. <https://doi.org/10.1016/j.socscimed.2023.115694>
- Han, Wen-Jui., Job precarity and economic prospects during the COVID-19 public health crisis Jake Hart. (2021). <https://doi.org/10.1111/ssqu.13031>
- Hidayati, Niswatin Nurul. “Mapping Business English Researches Globally: A Bibliometric Analysis Using VOS Viewer”. *Surakarta English and Literature Journal*. Volume 6, No. 2. 2023, 250-269
- Hidayati, Niswatin Nurul., Diki Ahmad Mudhakhir, Dewi Hidayatun Nihayah. “VISUALIZING RESEARCHES ON ENGLISH LEARNING: A BIBLIOMETRIC ANALYSIS”. *Lingua Scientia*. Volume 30, No. 2, 2023.
- Hummel, Calla., Felicia Marie Knaul, Michael Touchton, V Ximena Velasco Guachalla, Jami Nelson-Nuñez, Carew Boulding. “Poverty, precarious work, and the COVID-19 pandemic: lessons from Bolivia”. *The Lancet Global Health*. 2021. [https://doi.org/10.1016/S2214-109X\(21\)00001-2](https://doi.org/10.1016/S2214-109X(21)00001-2)
- Indah Pratiwi Sri Sumarni, P. “Blended Learning in English Language Learning in Post Pandemic Era: Literature Review”. Volume 6 No.1, 2023. 2579–7549. <https://jurnal.unimus.ac.id/index.php/ELLIC/index>
- Jaydarifard, Saeed., Simon S. Smith, Dwayne Mann, Kalina R. Rossa, Elahe Nikooharf Salehi, Arvind Gnani Srinivasan Shamsi Shekari Soleimanloo. “Precarious employment and associated health and social consequences; a systematic review”. *General Health*. 2023. <https://doi.org/10.1016/j.anzjph.2023.100074>
- Jaydarifard, Saeed., Simon S. Smith, Kalina R. Rossa, Dwayne Mann, Elahe Nikooharf Salehi, Shamsi Shekari Soleimanloo. “Sleep mediates the relationship between precarious employment and mental health”. *Sleep Medicine: X*. 2023. <https://doi.org/10.1016/j.sleepx.2023.100092>
- Julià, Mireia. Fabrizio Méndez-Rivero, Álex Gómez-Gómez, Óscar J. Pozo and Mireia Bolívar. “Association between Precarious Employment and Chronic Stress: Effect of Gender, Stress Measurement and Precariousness Dimensions—A Cross-Sectional Study”. *Int. J. Environ. Res. Public Health*. Volume 19, No.15, 2022. <https://doi.org/10.3390/ijerph19159099>
- Kinitz, David J. Faraz Vahid Shahidi, Lori E. Ross. “Job quality and precarious employment among lesbian, gay, and bisexual workers: A national study”. *SSM - Population Health*. 2023. <https://doi.org/10.1016/j.ssmph.2023.101535>
- Langevang, T., Steedman, R., Alacovska, A., Resario, R., Kilu, R. H., & Sanda, M. A. ““The show must go on!”: Hustling through the compounded precarity of Covid-19 in the creative industries”. *Geoforum*. Volume 136, 2022, 142–152. <https://doi.org/10.1016/j.geoforum.2022.09.015>
- Lewchuk, Wayne., Marlea Clarke, and Alice de Wolff. “Working without commitments: precarious employment and health”. Volume 22, No. 3, 2008. <https://doi.org/10.1177/0950017008093477>
- Matilla-Santander, Nuria. Carles Muntaner, Bertina Kreshpaj, Virginia Gunn, Johanna Jonsson, Lauri Kokkinen, Jenny Selander, Sherry L Baron, Cecilia Orellana, Per-Olof Ostergren, Tomas Hemmingsson, David H. Wegman and Theo Bodina. “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*. 2022. <https://doi.org/10.1016/j.lanep.2022.100314>
- McNamara, Courtney L, Martin McKee, David Stuckler. “Precarious employment and health in the context of COVID-19: a rapid scoping umbrella review”. *European Journal of Public Health*. Volume 31, No.4, 2021, Pages iv40–iv49, <https://doi.org/10.1093/eurpub/ckab159>
- Moscone., F. E. Tosetti, G. Vittadini. “The impact of precarious employment on mental health: The case of Italy”. *Social Science & Medicine*. 2016. <http://dx.doi.org/10.1016/j.socscimed.2016.03.008>
- Oddo, Vanessa M., Jessica C. Jones-Smith, Melissa A. Knox. “Changes in Precarious Employment and Health in the United States Amidst the COVID-19 Pandemic”. *Preventive Medicine Reports*. 2023. <https://doi.org/10.1016/j.pmedr.2023.102113>
- Parwez, S. “COVID-19 pandemic and work precarity at digital food platforms: A delivery worker’s perspective”. *Social Sciences & Humanities Open*. Volume 5, No. 1, 2022. 100259. <https://doi.org/10.1016/j.ssaho.2022.100259>
- Purnomo, Joko Hadi., Niswatin Nurul Hidayati, Rizka Dibi Arryanti Saputri, Siti Riska Novianti. Trend on E-Commerce Researches: A Portrait Using VOSviewer. *Strategic: Journal of Management Sciences*. Volume 3, No. 2. 2023, 43-57
- Quan D. Mai Lijun Song, and Rachel Donnelly. “Precarious Employment and Well-Being: Insights from the COVID-19 Pandemic”. Volume 50, No 1, 2022. <https://doi.org/10.1177/073088842211430>
- Rönblad, Torkel., Erik Grönholm, Johanna Jonsson, Isa Koranyi, Cecilia Orellana, Bertina Kreshpaj, Lingjing Chen, Leo Stockfelt, Theo Bodin. “Precarious employment and mental health: a systematic review and meta-analysis of longitudinal studies”. *Scandinavian Journal of Work, Environment & Health*, Vol. 45, No. 5, 2019, 429-443.
- Señoret, Andrés., Maria Inés Ramirez, Johannes Rehner. “Employment and sustainability: The relation between precarious work and spatial inequality in the neoliberal city”. *World Development*. Volume 153, 2022. <https://doi.org/10.1016/j.worlddev.2022.105840>
- Ståhl, C., MacEachen, E. “Universal Basic Income as a Policy Response to COVID-19 and Precarious Employment: Potential Impacts on Rehabilitation and Return-to-Work”. *J Occup Rehabil* 31, 3–6, 2021. <https://doi.org/10.1007/s10926-020-09923-w>
- Valero, Erika., Unai Martin, Amaia Bacigalupe & Mireia Utzet. “The impact of precarious jobs on mental health: a gender-sensitive literature review”. *International Archives of Occupational and Environmental Health*. Volume 94, 2021, 577–589.
- Vecchio, G., Tiznado-Aitken, I., Albornoz, C., & Tironi, M. “Delivery workers and the interplay of digital and mobility (in)justice”. *Digital Geography and Society*, Volume 3, 2022. <https://doi.org/10.1016/j.diggeo.2022.100036>
- Vieira, T. “The lose-lose dilemmas of Barcelona’s platform delivery workers in the age of COVID-19”. *Social Sciences & Humanities Open*, Volume 2, No.1, 2020. 100059. <https://doi.org/10.1016/j.ssaho.2020.100059>
- Waldsdorff, F., & Waldsdorff, F. “Repositorium für die Medienwissenschaft Video Game Modding and Money. From Precarious Playbor to Reimbursed Labor of Love 2022 VIDEO GAME MODDING AND MONEY From Precarious Playbor to Reimbursed Labor of Love? Volume 2, 2022. 163–188. <https://doi.org/10.25969/mediarep/19008>
- Wili Tama, Y., & Sumarni, S. “TRENDS OF VIRTUAL REALITY IN ENGLISH LANGUAGE LEARNING”. 2023.