

A Bibliometric Analysis of Unemployment Takaful, Job Loss Protection, and Unemployment Insurance: Insights from the Scopus Database

Mohamad Yazis Ali Basah *

Faculty of Economics and Muamalat, USIM

Email: yazis@usim.edu.my

Hisham Sabri

Faculty of Economics and Muamalat (FEM), USIM

Khairil Faizal Khairi

Faculty of Economics and Muamalat (FEM), USIM

Mazlynda Md Yusuf

Faculty of Science and Technology (FST), USIM

Siti Nor Amira Mohamad

Academy of Contemporary Islamic Studies, UiTM Shah Alam

Nurul Atika Azzan

Faculty of Economics and Muamalat (FEM), USIM

** Corresponding Author*

Abstract

Purpose: This study aims to provide a comprehensive bibliometric analysis of the literature on unemployment Takaful, job loss protection, and unemployment insurance from 2012 to 2023, illuminating trends, key contributions, and focal areas within the realm of insurance.

Design/Methodology/Approach: Using the Scopus database, a systematic search was conducted using the keywords "unemployment takaful", "job loss protection", "unemployment insurance", and "insurance". Publications were then analyzed to determine their distribution by year, contributing authors and institutions, citation frequency, keyword co-occurrence, and more.

Findings: The period 2012 to 2023 witnessed a significant increase in research concerning unemployment protection mechanisms. "Unemployment Insurance" emerges as a central topic, underscoring the focus on mechanisms to support individuals during joblessness, with major contributions from Friedman, 2014. Geographic distribution indicated a pronounced focus in United States (USA).

Research Limitations/Implications: The analysis is constrained by the scope of the Scopus database and the selected keywords, potentially omitting relevant studies indexed elsewhere or under different terms. The findings underscore the need for interdisciplinary approaches in studying unemployment protection mechanisms and suggest potential avenues for future research.

Practical Implications: The findings of this study showed there is a gap of the research in takaful discussing on the issues of employment safety. Most of the research conducted in

developed nations and insurance company. This is suggested that, takaful should explored the are of unemployment takaful by providing an alternative for Muslim customers.

Originality/Value: This bibliometric analysis presents a holistic overview of the literature landscape on unemployment protection mechanisms during a pivotal period. It serves as a foundational reference for researchers, policymakers, and industry stakeholders keen on understanding the evolution, trends, and gaps in this field.

Keywords: Unemployment Takaful, Islamic Insurance, Unemployment protection, Unemployment insurance, Takaful and Insurance

Introduction

This article attempts to provide a comprehensive bibliometric analysis of publications on the subject from the Scopus database for the period of 2012 to 2023. The objectives of this bibliometric analysis are threefold: firstly, to assess the evolving research trends and publication patterns related to "Unemployment Takaful," job loss protection, and unemployment insurance; secondly, to identify influential authors, journals, and institutions shaping the discourse; and finally, to uncover key thematic areas and research gaps, thereby providing a roadmap for future inquiries. Through these objectives, this analysis aims to contribute to informed policymaking, stimulate further research, and enhance our collective understanding of these vital mechanisms in addressing the challenges of unemployment in diverse contexts.

Literature Review

Background of Unemployment Insurance and Takaful

The area on unemployment insurance and related mechanisms has been significantly shaped by influential research contributions from various scholars. One pivotal study by Friedman (2014) delves into the emergence of the gig economy, shedding light on the challenges faced by workers in non-traditional employment relationships. This work underscores the changing landscape of work arrangements and how they intersect with unemployment protection mechanisms. Additionally, Forsythe et al. (2020) explore labour demand and unemployment insurance claims during the COVID-19 pandemic, highlighting the pertinence of understanding the relationship between economic shocks, labour dynamics, and unemployment protection strategies.

Importance and Relevance of the Topic in Contemporary Society

The exploration of unemployment insurance and Takaful gains paramount importance in today's rapidly evolving socioeconomic landscape. Flammer and Luo's (2017) study on corporate social responsibility as an employee governance tool underscores the role of socially responsible practices in enhancing worker well-being and governance. Such practices align with the objectives of unemployment protection, where promoting employee welfare is a shared goal. Furthermore, the works of Agrawal and Matsa (2013), Staubli and Zweimüller (2013), and Schmieder et al. (2012) and (2016) illuminate the intricate connections between labour market dynamics, corporate financing decisions, and the effects of extended unemployment insurance on wages.

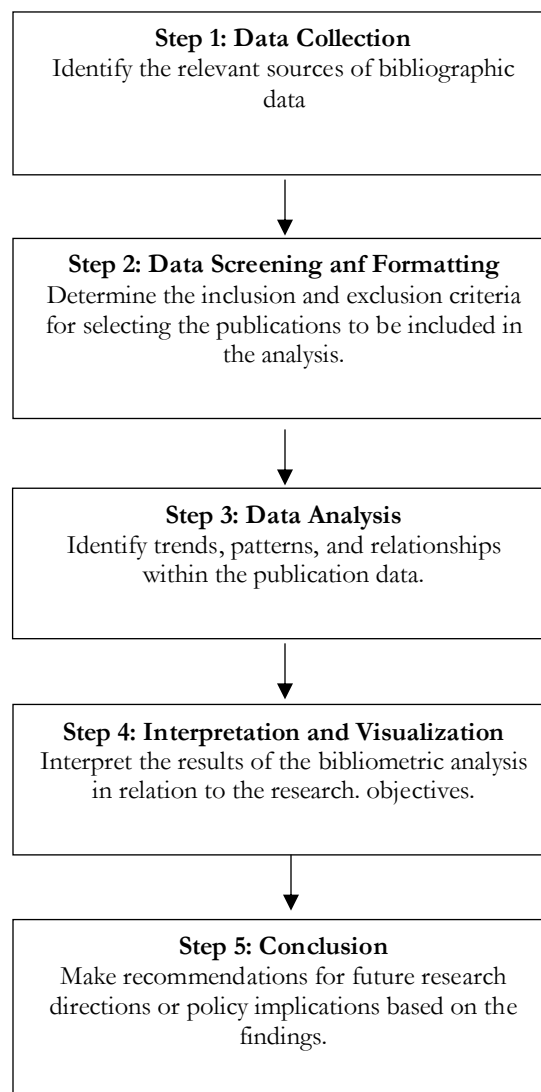
Amidst the challenges posed by events like the Great Recession and the ongoing impact of COVID-19, Bitler and Hoynes (2016) highlight the crucial role of safety nets, emphasizing the relevance of unemployment protection measures during economic crises. Furthermore,

O'Campo et al. (2015) explore the comprehensive impact of unemployment insurance on poverty and health outcomes, signalling the intricate relationships between social welfare programs and broader societal well-being. Overall, the collective contributions of these influential studies underscore the continued importance of unemployment protection mechanisms in promoting economic stability, worker welfare, and societal resilience. In the area of takaful this topic is very interesting as it has shown good development in-term of product offered and good acceptance among consumers. Therefore, this study has conducted to measure on how this area has been discussed and explored by pervious researchers.

Method

This research was conducted using an objective and dependable approach to three levels of analysis: sources, authors, and documents. To begin, the research concentrated on determining the relevance of issues associated with each level, with relevance defined as the most productive or referenced item, depending on the unit of analysis. Second, knowledge structures were determined using a variety of bibliometric methodologies. Specifically, conceptual structures were examined in terms of major topics and trends, intellectual structures in terms of how individual works affect the scientific community, and social structures in terms of author-country cooperation. This article follows a five-step process adapted from Silvente et al. (2019) and Arslan et al. (2022), known as a bibliometric workflow. The summary of research process are depicted in Figure 1.

Figure 1: Summary of Research process adopted.



Source: Adapted from Silvente et al., (2019) and Arslan et al., (2022)

Data Source

This analysis chose to use just one database: Scopus. Scopus is a larger database than WOS, and this additional coverage is beneficial for mapping smaller research topics that are implicitly covered by the former (Zupic et al, 2015). To choose which papers to include in our study, we needed to identify the procedures involved in data synthesis. The screening process used in July 2023 examined any references to "Unemployment Takaful" OR "job loss protection" OR "unemployment insurance" AND "insurance" in the subjects of "Business Management, Accounting and Economics, Econometrics, and Finance and Social Sciences." To accomplish the given aims, the bibliometrix R-Tool was used to obtain the metadata from one database (Scopus) during the period 2012–2023.

Data Extraction

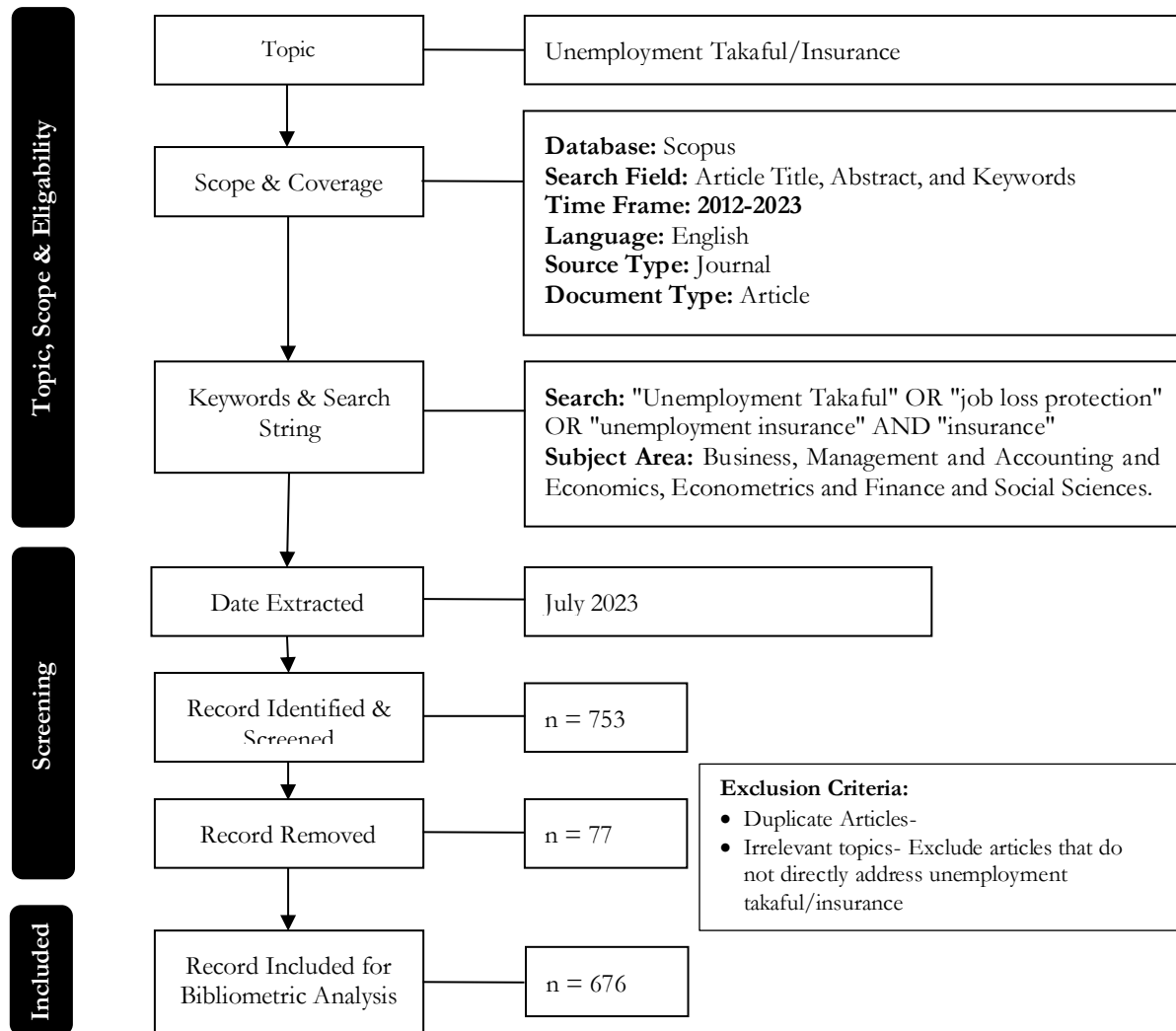
As a result of our search, we discovered 676 documents. It's worth mentioning that the term "Unemployment Takaful" OR "job loss protection" OR "unemployment insurance" AND "insurance" is intentionally wide in scope in order to include a broad range of academic fields while remaining focused on high-quality publications. During the initial search, 753 publications were found that appeared to be related to the topic being studied. Out of the initial pool of publications, 77 were removed as these papers did not meet the specified criteria such as the contents being unrelated to the topics and duplications. This process resulted in a final set of 676 publications.

Table 1: The Summary of Bibliometric Analysis Based on SCOPUS

Source	SCOPUS	No. of items or no. of articles
Time period	2013:2023	
Keyword	"Unemployment Takaful" OR "job loss protection" OR "unemployment insurance" AND "insurance"	
	Sources	310
Document Type	Total contributions	676
	Articles	676
Language	English	
Source type	Journal	

Source: Extracted from SCOPUS

Figure 2: Flow Diagram of the Search Strategy



Source: Zakaria et al. (2021)

Bibliometric Tools and Technique

The study was conducted using the bibliometrix R-Tool (Aria and Cuccurullo, 2017), a recently released R package that enables a more comprehensive bibliometric analysis via the use of specialised tools for bibliometric and scientometric quantitative research. In this context, R is one of the most powerful and versatile statistical software environments available, offering a path to involvement via open source. Thus, R is a collection of integrated software programmes for data processing, computation, and visualisation. Indeed, in the case of bibliometrix, it is feasible to connect it with other pertinent software packages; for example, the 'biblioshiny' package in RStudio is utilised to enhance the paper's content analysis.

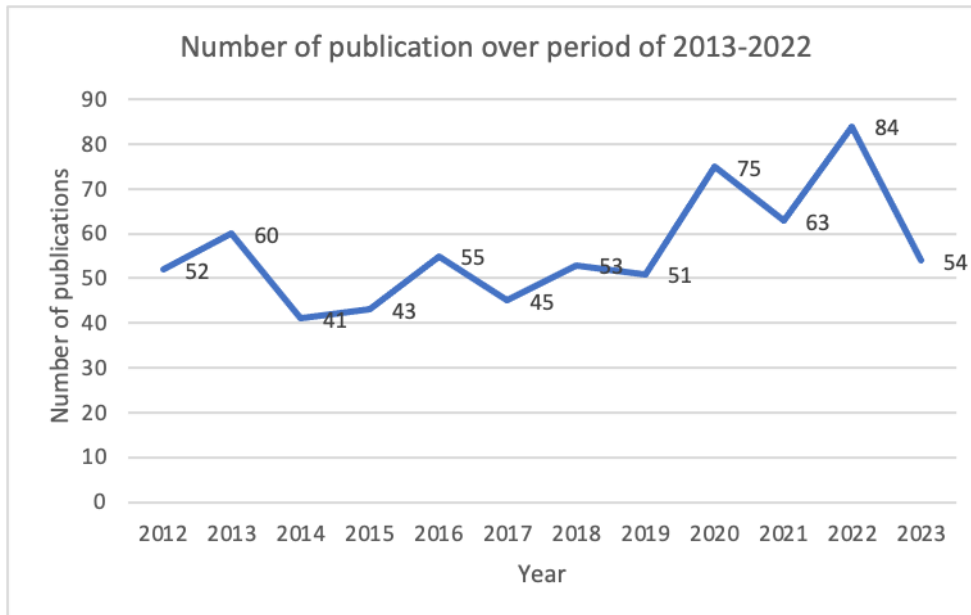
Findings

Publication Trends

The analysis of publication trends from 2012 to 2023 indicates a consistent and significant rise in research activity focused on unemployment takaful, job loss protection, and unemployment insurance, particularly evident from 2020 onwards. Starting with an average of around 50

articles annually, the years 2020 and 2021 witnessed a notable increase, with 75 and 63 articles respectively, followed by a peak of 84 articles in 2022. This trend highlights a growing recognition of the importance of exploring unemployment protection mechanisms within the insurance context, potentially driven by global economic challenges and evolving societal dynamics.

Figure 3: Annual Publication Trends



Source: Extracted from SCOPUS

Most Influential Authors

Table 2 presents a compilation of influential authors and their respective research papers that have made a substantial impact on the understanding of unemployment protection mechanisms and their interplay with the insurance sector. These works shed light on various aspects of unemployment-related issues, ranging from the gig economy's implications for workers (Friedman, 2014) to the utilization of corporate social responsibility as a tool for employee governance (Flammer & Luo, 2017). Notably, Forsythe et al. (2020) contribute crucial insights into the labour market dynamics during the COVID-19 pandemic, examining vacancy postings and unemployment insurance claims.

Agrawal and Matsa's study (2013) investigate the intricate relationship between labour unemployment risk and corporate financing decisions, while Staubli and Zweimüller (2013) analyse the effects of raising the early retirement age on employment of older workers. The significance of unemployment insurance over the business cycle is explored by Schmieider et al. (2012, 2016), examining extended unemployment insurance effects and nonemployment durations' impact on wages. Gao, Yang, and Li (2012) delve into labour contracts and social insurance participation among migrant workers in China, while Bitler and Hoynes (2016) assess the resilience of safety nets during the Great Recession. Martin (2015) contributes to the discourse by studying the effectiveness of activation and active labour market policies in OECD countries. O'Campo et al. (2015) provide a comprehensive realist review, examining the complex relationship between unemployment insurance, poverty, and health.

Tatsiramos and Van Ours (2014) evaluate the labor market effects of unemployment insurance design, and Beckfield and Bambra (2016) offer insights into the relationship between social policy and mortality disadvantage in the US. Deryugina (2017) investigates the fiscal implications of hurricanes, comparing disaster aid and social insurance responses, while Nekoei and Weber (2017) contribute to the understanding of the effects of extending unemployment benefits on job quality.

Collectively, these influential works form a foundation for comprehending the multifaceted aspects of unemployment protection within the context of insurance. The variety of topics covered highlights the interdisciplinary nature of this field and its implications for policy, practice, and societal well-being.

Table 2: Most Cited Papers

Authors	Title	Total Citations	TC per Year	Normalized TC
Friedman, G. (2014).	Workers without employers: shadow corporations and the rise of the gig economy	314	31.40	17.37
Flammer, C., & Luo, J. (2017).	Corporate social responsibility as an employee governance tool: Evidence from a quasi-experiment	219	31.29	11.46
Forsythe, E., Kahn, L. B., Lange, F., & Wiczer, D. (2020).	Labor demand in the time of COVID-19: Evidence from vacancy postings and UI claims	184	46.00	14.81
Agrawal, A. K., & Matsa, D. A. (2013).	Labor unemployment risk and corporate financing decisions	179	16.27	12.01
Staubli, S., & Zweimüller, J. (2013).	Does raising the early retirement age increase employment of older workers?	120	10.91	8.05
Schmieder, J. F., Von Wachter, T., & Bender, S. (2012).	The effects of extended unemployment insurance over the business cycle: Evidence from regression discontinuity estimates over 20 years	116	9.67	6.08
Schmieder, J. F., von Wachter, T., & Bender, S. (2016).	The effect of unemployment benefits and nonemployment durations on wages	98	12.25	7.06
Gao, Q., Yang, S., & Li, S. (2012).	Labor contracts and social insurance participation among migrant workers in China	97	8.08	5.08

Bitler, M., & Hoynes, H. (2016).	The more things change, the more they stay the same? The safety net and poverty in the Great Recession	88	11.00	6.34
Martin, J. P. (2015).	Activation and active labour market policies in OECD countries: stylised facts and evidence on their effectiveness	86	9.56	3.86
O'Campo, P., Molnar, A., Ng, E., Renahy, E., Mitchell, C., Shankardass, K., ... & Muntaner, C. (2015)	Social welfare matters: a realist review of when, how, and why unemployment insurance impacts poverty and health	85	9.44	3.81
Tatsiramos, K., & Van Ours, J. C. (2014).	Labor market effects of unemployment insurance design	81	8.10	4.48
Beckfield, J., & Bambra, C. (2016).	Shorter lives in stingier states: social policy shortcomings help explain the US mortality disadvantage	79	9.88	5.69
Deryugina, T. (2017).	The fiscal cost of hurricanes: Disaster aid versus social insurance	78	11.14	4.08
Nekoei, A., & Weber, A. (2017).	Does extending unemployment benefits improve job quality?	78	11.14	4.08

Source: Extracted from SCOPUS

The collection of influential research papers offers a comprehensive exploration of the intricate interplay between unemployment protection mechanisms, insurance, and broader societal issues. These works span various topics, including the gig economy's influence on worker conditions, the use of corporate social responsibility as a governance tool, and the implications of COVID-19 on labour demand. They analyse the impact of labour market dynamics on corporate financing decisions, examine the effects of raising retirement age, and delve into the complexities of extended unemployment insurance and its influence on wages. The papers also investigate social insurance participation among migrant workers, the efficacy of safety nets during economic crises, and the relationship between activation policies and labour outcomes. Moreover, they provide valuable insights into the broader impacts of unemployment insurance on poverty, health, and mortality disparities, while scrutinizing disaster aid versus social insurance in response to natural disasters.

Altogether, these works contribute to a nuanced understanding of unemployment protection and its wide-ranging consequences. Table 3 summarizes the influential works and their contributions within the realm of unemployment protection, insurance, and related issues.

Table 3: Summary of the influential works and their contributions

Authors	Title	Contribution
Friedman, G. (2014).	Workers without employers: shadow corporations and the rise of the gig economy	Friedman's work provides valuable insights into the evolving nature of work arrangements, particularly in the context of the gig economy. This study sheds light on the challenges faced by workers in non-traditional employment relationships and how these challenges intersect with unemployment protection mechanisms.
Flammer, C., & Luo, J. (2017).	Corporate social responsibility as an employee governance tool: Evidence from a quasi-experiment	Flammer and Luo's research delves into the role of corporate social responsibility in influencing employee engagement and governance. This study adds depth to the understanding of how companies can contribute to worker well-being through socially responsible practices, aligning with the objectives of unemployment protection.
Forsythe, E., Kahn, L. B., Lange, F., & Wiczer, D. (2020).	Labor demand in the time of COVID-19: Evidence from vacancy postings and UI claims	Against the backdrop of the COVID-19 pandemic, this study by Forsythe et al. examines the intersection of labor demand, vacancy postings, and unemployment insurance claims. The findings contribute to understanding the challenges posed by the pandemic on employment and unemployment protection measures.
Agrawal, A. K., & Matsa, D. A. (2013).	Labor unemployment risk and corporate financing decisions	Agrawal and Matsa's work explores the intricate relationship between labor market dynamics and corporate financing decisions, shedding light on how firms manage risks related to employee unemployment and its implications for their financial choices.
Staubli, S., & Zweimüller, J. (2013).	Does raising the early retirement age increase employment of older workers?	This study investigates the effects of policies aimed at extending working years on older employees' employment prospects. The findings contribute to understanding the potential impacts of unemployment protection measures on different age groups.
Schmieder, J. F., Von Wachter, T., & Bender, S. (2012).	The effects of extended unemployment insurance over the business cycle: Evidence from regression	Schmieder provides nuanced insights into the effects of extended unemployment insurance on labor market dynamics and wages. Their work contributes to

	discontinuity estimates over 20 years	understanding the complexities of unemployment protection programs.
Schmieder, J. F., von Wachter, T., & Bender, S. (2016).	The effect of unemployment benefits and nonemployment durations on wages	
Gao, Q., Yang, S., & Li, S. (2012).	Labor contracts and social insurance participation among migrant workers in China	
Bitler, M., & Hoynes, H. (2016).	The more things change, the more they stay the same? The safety net and poverty in the Great Recession	Bitler and Hoynes' work during the Great Recession investigates the effectiveness of safety nets in reducing poverty. Their findings contribute to the ongoing discourse on the role of unemployment protection measures during economic crises.
Martin, J. P. (2015).	Activation and active labour market policies in OECD countries: stylised facts and evidence on their effectiveness	Martin's research provides a comprehensive assessment of activation and active labor market policies across OECD countries, contributing to understanding the impact of these policies on unemployment protection and labor market outcomes.
O'Campo, P., Molnar, A., Ng, E., Renahy, E., Mitchell, C., Shankardass, K., ... & Muntaner, C. (2015)	Social welfare matters: a realist review of when, how, and why unemployment insurance impacts poverty and health	This realist review explores the multifaceted impacts of unemployment insurance on poverty and health outcomes. The study offers a comprehensive understanding of the broader implications of unemployment protection programs.
Tatsiramos, K., & Van Ours, J. C. (2014).	Labor market effects of unemployment insurance design	Tatsiramos and Van Ours' study analyzes the labor market effects of different unemployment insurance designs. Their findings contribute to understanding how policy choices in unemployment protection can influence labor market dynamics.
Beckfield, J., & Bamba, C. (2016).	Shorter lives in stingier states: social policy shortcomings help explain the US mortality disadvantage	This research investigates the relationship between social policy and mortality disparities in the United States. The study underscores the interconnectedness of social policies, including unemployment protection, with broader societal outcomes.

Deryugina, T. (2017).	The fiscal cost of hurricanes: Disaster aid versus social insurance	Deryugina's work examines the financial implications of natural disasters and how disaster aid compares with social insurance mechanisms in addressing economic challenges. The study contributes to discussions about effective disaster response and recovery measures.
Nekoei, A., & Weber, A. (2017).	Does extending unemployment benefits improve job quality?	Nekoei and Weber's study investigates the relationship between extending unemployment benefits and its impact on job quality. Their research adds a new dimension to the evaluation of unemployment protection policies.

Source: Authors' Own

Leading Journals

The corpus of 676 publications on Unemployment Takaful, job loss protection, and unemployment insurance was published in 310 journals, with Table 2 suggesting that the top 20 contributing journals. The ranking is based on the frequency of articles published within these journals, accompanied by cumulative frequency information. Notably, the leading journal in this field is "Labour Economics," with a frequency of 32 articles, followed by "Journal of Public Economics" with 28 articles. These two journals demonstrate a prominent presence in publishing research on the subject. Other journals, such as "American Economic Journal: Economic Policy," "Monthly Labor Review," and "European Economic Review," also make significant contributions. The distribution of journals across "Zone 1" suggests a concentration of reputable journals that actively contribute to shaping the discourse on unemployment protection and its intersection with insurance, offering researchers and practitioners valuable insights and a platform for disseminating their findings.

Table 4: Journal Rankings.

Sources	Rank	Freq	cumFreq	Zone
Labour Economics	1	32	32	Zone 1
Journal of Public Economics	2	28	60	Zone 1
American Economic Journal: Economic Policy	3	12	72	Zone 1
Monthly Labor Review	4	12	84	Zone 1
European Economic Review	5	10	94	Zone 1
Iza Journal of Labor Policy	6	10	104	Zone 1
Journal of The European Economic Association	7	10	114	Zone 1
International Journal of Social Welfare	8	9	123	Zone 1
American Economic Review	9	8	131	Zone 1
Economics Letters	10	8	139	Zone 1
Journal of Monetary Economics	11	8	147	Zone 1
Economic Inquiry	12	7	154	Zone 1
Review of Economic Dynamics	13	7	161	Zone 1
Social Policy and Administration	14	7	168	Zone 1
International Journal of Manpower	15	6	174	Zone 1

Journal of Labor Economics	16	6	180	Zone 1
Journal of Policy Analysis and Management	17	6	186	Zone 1
Economic Journal	18	5	191	Zone 1
Economics of Education Review	19	5	196	Zone 1
Economist (Netherlands)	20	5	201	Zone 1

Source: Extracted from SCOPUS

Table 5 evaluates leading journals in the field of unemployment protection and insurance using source impact metrics. "Journal of Public Economics," "American Economic Journal: Economic Policy," and "Labour Economics" stand out for their influence and citations.

Table 5. Top Journal According to Source Impact

Element	h_index	g_index	m_index	TC	NP	PY_start
Journal of Public Economics	11	24	0.916	656	24	2012
American Economic Journal: Economic Policy	9	12	1	321	12	2015
Labour Economics	8	12	0.666	194	28	2012
American Economic Review	7	8	0.777	445	8	2015
International Journal of Social Welfare	6	7	0.5	100	7	2012
Iza Journal Of Labor Policy	5	9	0.416	168	9	2012
Journal of Monetary Economics	5	8	0.416	128	8	2012
Journal of Policy Analysis And Management	5	5	0.416	87	5	2012
Journal of The European Economic Association	5	9	0.416	183	9	2012
Review of Economic Dynamics	5	6	0.416	42	6	2012
Social Policy And Administration	5	6	0.416	103	6	2012
Brookings Papers On Economic Activity	4	4	1	101	4	2020
Economist (Netherlands)	4	4	0.333	34	4	2012
Journal of European Public Policy	4	5	0.363	70	5	2013
Journal of Human Resources	4	5	0.444	86	5	2015
Journal of Labor Economics	4	5	0.5	137	5	2016
Quarterly Journal Of Economics	4	5	0.333	201	5	2012
Applied Economics	3	4	0.25	22	4	2012
Cesifo Economic Studies	3	3	0.272	21	3	2013
Economic Journal	3	3	0.272	14	4	2013

Source: Extracted from SCOPUS

Keyword analysis

The analysis of keyword frequency reveals the core themes and contemporary dynamics of research in the field of unemployment protection and related subjects. Notably, "Unemployment Insurance" emerges as a central topic, underscoring the focus on mechanisms to support individuals during joblessness. The prevalence of "Unemployment" reflects the primary subject matter, while "Covid-19" and "Job Search" signify research addressing the pandemic's impact on employment. The presence of "Moral Hazard" and "Unemployment Benefits" suggests investigations into the consequences of support systems. Broader contextual elements are captured through "Employment," "Social Insurance," and "Welfare State." Additionally, the appearance of terms like "Unemployment Duration," "Social Policy," "Employment Protection," and "Great Recession" underscores the comprehensive nature of the analysis. Lastly, "Social Security," "Social Assistance," "Poverty," and "Trade Unions" reveal the integrated nature of social safety nets. "Unemployment Risk" and "Welfare" further enhance the understanding of unemployment's multifaceted dimensions.

Table 6: Most Frequent Keywords

Words	Occurrences
Unemployment Insurance	223
Unemployment	70
Covid-19	35
Job Search	24
Moral Hazard	19
Unemployment Benefits	19
Employment	17
Social Insurance	17
Welfare State	16
Unemployment Duration	13
Social Policy	12
Employment Protection	11
Great Recession	11
Social Security	11
Social Assistance	10

Source: Extracted from SCOPUS

Figure 4: Word cloud.



Source: Extracted from SCOPUS

Table 7 illustrates the evolving trends of topics within the field of unemployment protection and related subjects over time. Notably, "Unemployment Insurance" remains consistently significant, peaking in 2021, while "Unemployment" maintains steady relevance, with heightened interest around 2018. The impact of the Covid-19 pandemic is evident, with increased mentions in 2021 and 2022. Themes like "Job Search," "Moral Hazard," "Unemployment Benefits," and "Social Insurance" garner consistent attention. "Employment" and "Welfare State" have gained prominence since 2016. Some topics, such as "Unemployment Duration" and "Social Policy," experienced heightened interest around 2017-2020.

On the other hand, "Employment Protection," "Social Security," and "Great Recession" exhibit fluctuating levels of attention. Recent years have brought into focus "Trade Unions" and "Older Workers," while "Optimal Policy" and "Search And Matching" saw notable increases in 2022. Specific terms like "Ghent System," "Experience Rating," and "European Unemployment Insurance" display distinct spikes. The concepts of "Safety Net" and "Inequality" have gained traction, particularly in recent times. These temporal shifts reflect research responses to contemporary events, policy changes, and evolving societal concerns within the field.

Table 7: Trend topics

Topics	freq	year_q1	year_med	year_q3
Unemployment Insurance	223	2015	2019	2021
Unemployment	70	2015	2018	2020
Covid-19	34	2021	2021	2022
Job Search	24	2015	2018	2020
Moral Hazard	19	2014	2016	2020
Unemployment Benefits	19	2014	2019	2022
Employment	17	2016	2020	2021
Social Insurance	17	2014	2020	2021
Welfare State	16	2016	2020	2022
Unemployment Duration	13	2013	2017	2018

Social Policy	12	2016	2020	2021
Employment Protection	11	2014	2017	2020
Social Security	11	2014	2018	2019
Great Recession	11	2015	2019	2022
Social Assistance	10	2014	2016	2021
Welfare	9	2013	2016	2019
Poverty	9	2015	2017	2021
Unemployment Risk	9	2013	2018	2019
Trade Unions	9	2018	2019	2022
Older Workers	8	2014	2016	2020
Search	8	2015	2016	2019
J65	8	2015	2018	2020
Optimal Policy	8	2018	2022	2023
Search And Matching	8	2020	2022	2022
Social Protection	7	2014	2015	2021
Sweden	7	2015	2017	2022
Ghent System	7	2018	2019	2022
Experience Rating	7	2020	2020	2020
European Unemployment Insurance	7	2018	2021	2022
Heterogeneous Agents	6	2012	2014	2016
Safety Net	6	2021	2022	2023
Health	5	2015	2015	2021
Youth Unemployment	5	2016	2017	2019
Inequality	5	2018	2021	2022

Source: Extracted from SCOPUS

Figure 5: Trend topics over time

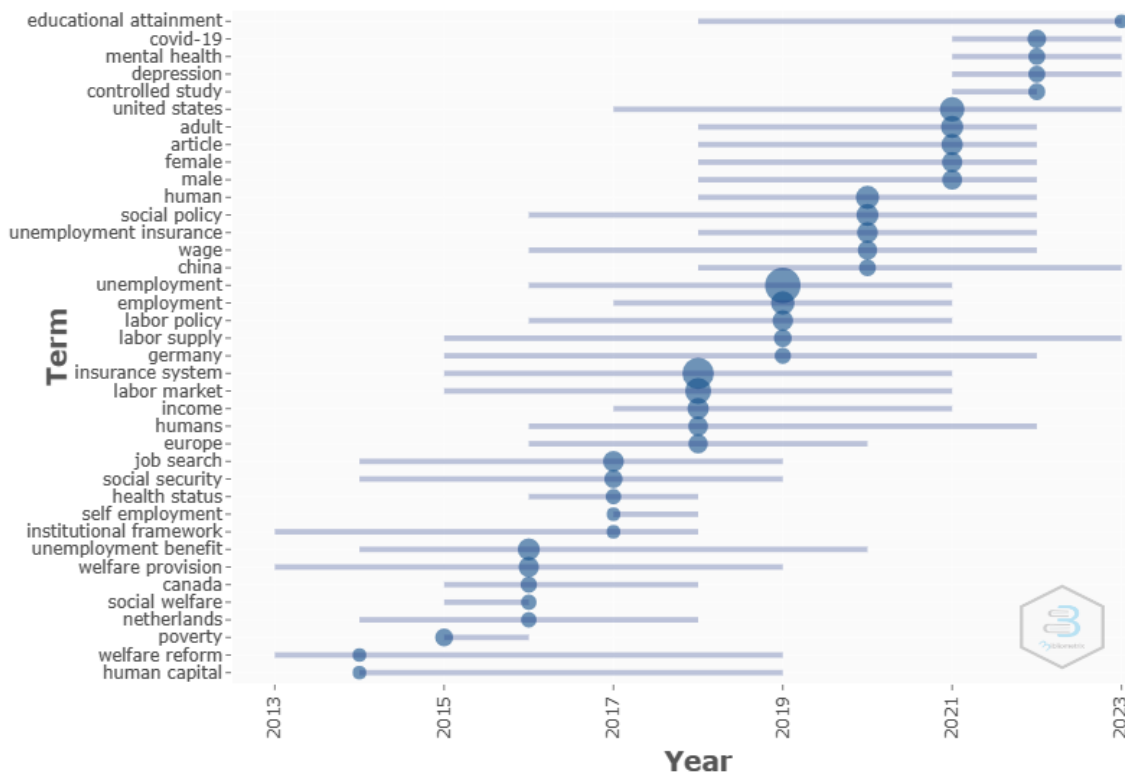
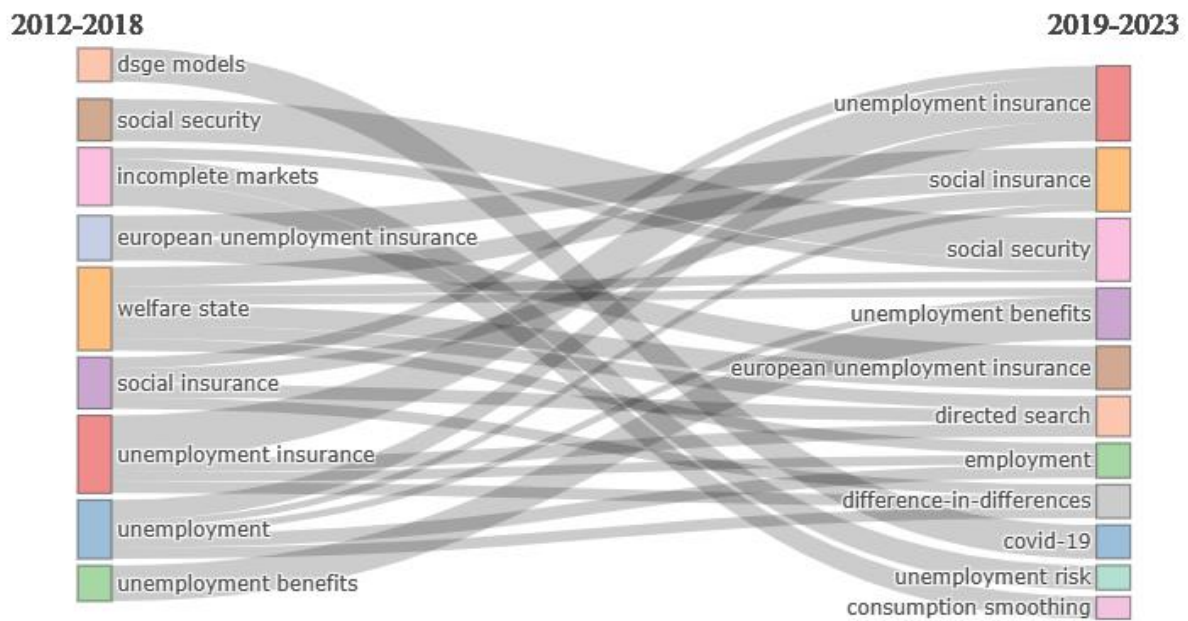


Figure 6 illustrates the evolution of thematic focuses within the field of unemployment protection and related subjects across different time periods. Each entry consists of a transition from an initial topic in a specific timeframe to a subsequent topic in a later timeframe. These transitions highlight the continuity and shifts in research interests over time. For instance, "dsge models" during the years 2012-2018 transitioned to "covid-19" during 2019-2023, reflecting the shift in attention from economic modeling to the pandemic's impact. Similarly, "european unemployment insurance" remained a focal point from 2012-2018 to 2019-2023, as did "social insurance," indicating sustained relevance. Topics like "incomplete markets," "social security," and "unemployment insurance" transitioned to related topics such as "consumption smoothing," "employment," and "unemployment risk," suggesting evolving research angles. The transitions offer insights into the changing landscape of research priorities and emerging trends within the field.

Figure 6: Thematic evolution



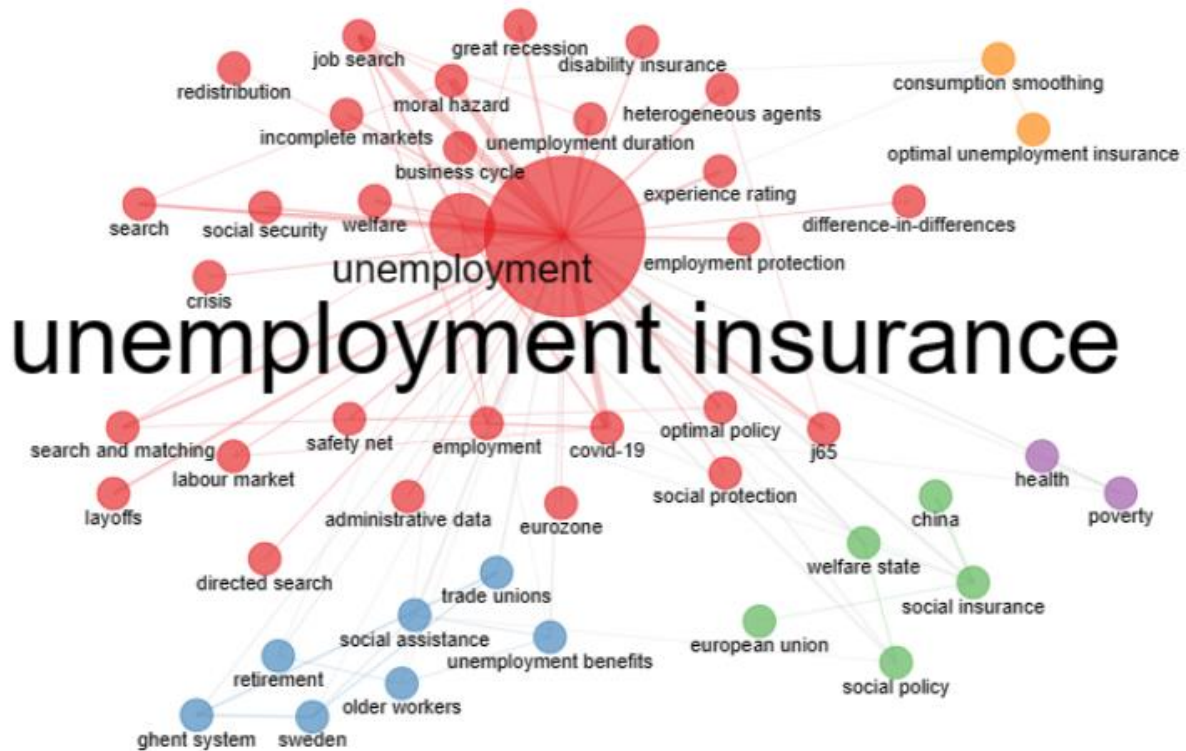
The cooccurrence analysis results reveal clusters of interconnected topics within the field of unemployment protection and related subjects. Notably, the red cluster encompassing central themes such as "unemployment insurance," "unemployment," "covid-19," "job search," "moral hazard," "employment," and "unemployment duration," indicating their close association. These topics align with influential papers that explored the effects of unemployment insurance and job search dynamics on employment outcomes (Forsythe et al., 2020; Agrawal & Matsa, 2013; Staubli & Zweimüller, 2013). The emergence of "social security," "welfare," "optimal policy," "search," and "experience rating" within the same cluster reflects discussions on comprehensive safety nets and policy optimization, often addressed in papers like Nekoei & Weber's (2017) study on unemployment benefit extensions. Furthermore, "incomplete markets" and "redistribution" are related to influential papers like those by Friedman (2014) and Bitler & Hoynes (2016), who analyzed labor market dynamics and the impact of the safety net during economic downturns.

The blue cluster comprises topics of "unemployment benefits," "social assistance," "trade unions," "older workers," and "retirement," which align with research into the effectiveness of support systems for diverse groups (Schmieder et al., 2016; Tatsiramos & Van Ours, 2014; Gao et al., 2012). Additionally, the green cluster including "social insurance," "welfare state," "social policy," "china," and "european union" reflects research on broader societal contexts and international comparisons, resonating with studies by Beckfield & Bamba (2016) on social policy shortcomings and the US mortality disadvantage.

Lastly, the purple and orange cluster comprise topics of "poverty," "health," and "optimal unemployment insurance" within their own clusters suggests investigations into poverty alleviation, health outcomes, and policy optimization, possibly linked to Martin's (2015) examination of activation and active labor market policies' effectiveness and O'Campo et al.'s (2015) review of unemployment insurance's impact on poverty and health.

Overall, the cooccurrence analysis results effectively categorize interconnected themes, allowing them to be related to influential papers in the field and highlighting the multidimensional nature of research on unemployment protection and related subjects.

Figure 7: Co-occurrence Network



Geographical Distribution

Table 8 shows the most relevant countries with their corresponding numbers of articles, frequency (Freq), Scholarly Contribution Proportion (SCP), Most Cited Proportion (MCP), and MCP Ratio. Considering the "Most Relevant Countries," the United States (USA) has a substantial presence with 174 articles, accounting for around 37.26% of the total articles. Moreover, a notable portion of these articles are highly cited, as reflected in the SCP and MCP values. This indicates that research from the USA not only has quantity but also quality. Germany, Canada, and the United Kingdom follow suit with their own research contributions and respective impact indicators.

Aarhus University emerges as a standout with 14 articles associated with its name. This suggests that Aarhus University has actively engaged in producing research in this field. Other affiliations, such as Ghent University and the University of California, also demonstrate their strong involvement through their respective numbers of articles.

Figure 8: Three-field analysis

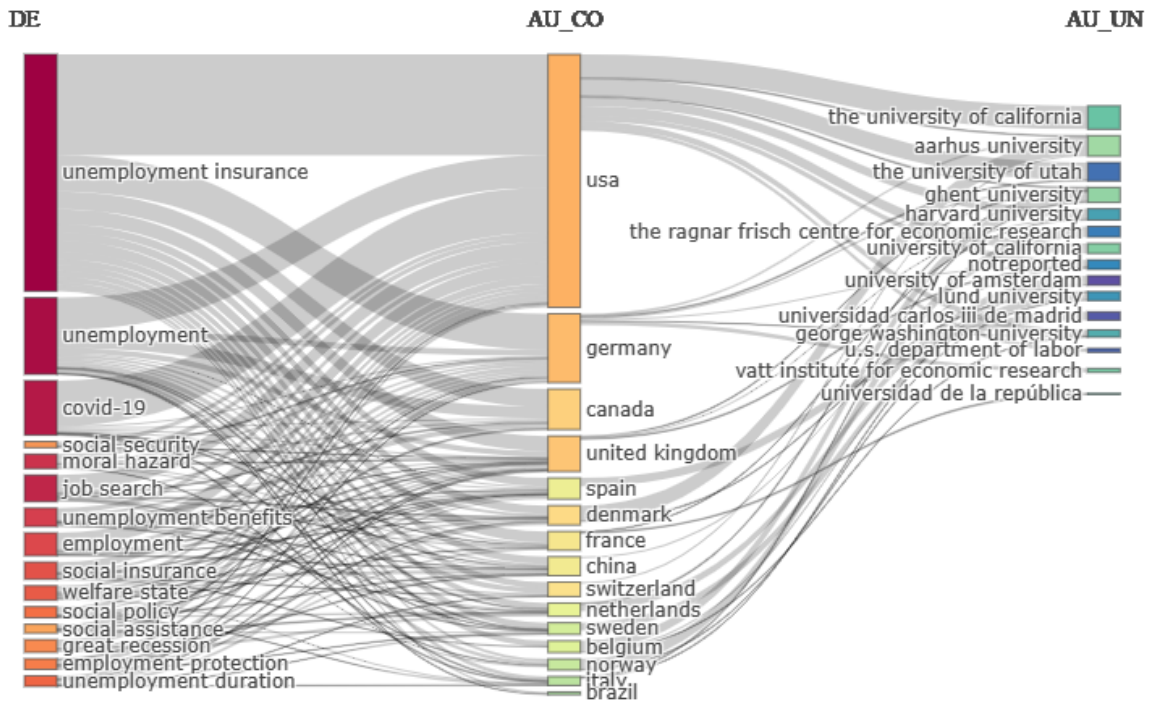


Table 8: Most Relevant Countries

Country	Articles	Freq	SCP	MCP	MCP_Ratio
Usa	174	0.37259	144	30	0.172
Germany	39	0.08351	29	10	0.256
Canada	27	0.05782	19	8	0.296
United Kingdom	24	0.05139	15	9	0.375
Denmark	21	0.04497	16	5	0.238
Spain	19	0.04069	16	3	0.158
France	15	0.03212	11	4	0.267
Netherlands	14	0.02998	9	5	0.357
Belgium	12	0.0257	6	6	0.5
China	12	0.0257	5	7	0.583
Italy	12	0.0257	6	6	0.5
Sweden	12	0.0257	8	4	0.333
Switzerland	11	0.02355	8	3	0.273
Finland	8	0.01713	3	5	0.625
Brazil	5	0.01071	5	0	0
Korea	5	0.01071	4	1	0.2
Norway	5	0.01071	4	1	0.2
Turkey	5	0.01071	3	2	0.4
Chile	4	0.00857	1	3	0.75

Source: Extracted from SCOPUS

Table 9: Most Relevant Affiliations

Affiliations	Articles
Aarhus University	14
Ghent University	10
University of California	9
Vatt Institute For Economic Research	9
The University of California	8
Universidad De La República	8
George Washington University	7
Harvard University	7
Lund University	7
Notreported	7
The Ragnar Frisch Centre for Economic Research	7
The University of Utah	7
U.S. Department of Labor	7
Universidad Carlos Iii De Madrid	7
University of Amsterdam	7
University of Essex	6
University of Michigan	6
University of Toronto	6
Uppsala University	6
Vanderbilt University	6

Source: Extracted from SCOPUS

Discussion

Major Theme Identified

The analysis of keywords and top-cited articles reveals several pivotal themes in the domain of unemployment protection and related topics. One prominent focus is on "Unemployment Insurance and Benefits," examining the efficacy, design, and outcomes of unemployment insurance programs. The dynamics of "Job Search and Labor Market Behavior" are explored, shedding light on factors influencing job transitions and the interplay between job search efforts and unemployment duration. Discussions on "Social Safety Nets and Welfare" underscore the importance of social assistance programs in mitigating the impact of unemployment and reducing poverty.

Further themes include investigations into "Moral Hazard and Behavioural Economics," examining how unemployment benefits might shape individual behaviours and decisions. The influence of "Macroeconomic Shocks and Business Cycles" is significant, with research delving into the effects of economic downturns on unemployment, as well as the role of protective mechanisms during crises. Comparative analyses of unemployment policies across nations and discussions on the "Policy Design and Optimization" explore the intricacies of policy parameters and their implications. These themes collectively illuminate the multidimensional nature of unemployment protection, encompassing economic dynamics, social policies, behavioural aspects, and the complexities of labour market fluctuations. The

theme justified that unemployment protection is one of the important issues in the area of insurance and it is a good opportunity to explore the implementation of job protection under the takaful business.

Evolution of the Research Field

Over the period under study, research on "Unemployment Insurance and Takaful" and related subjects has experienced distinct phases of evolution. Initially, from 2012 to 2014, there was a foundational exploration of the concept, involving the establishment of its fundamental principles and compatibility with Islamic financial norms. The subsequent years, from 2015 to 2017, witnessed a shift towards clarifying the concept and exploring its practical implementation within the context of Islamic finance. This phase likely encompassed discussions on Sharia compliance, regulatory frameworks, and potential operational models.

As the research area progressed into 2018 to 2020, a deeper analysis of the economic and social dimensions of "Unemployment Insurance and Takaful" emerged. Scholars delved into its potential impact on alleviating financial burdens caused by job loss and its broader implications for poverty reduction and social inclusion. During this period, the economic and social dynamics of "Unemployment Takaful" came to the forefront, with studies aiming to understand its role in strengthening financial resilience and contributing to more robust social safety nets.

The advent of the COVID-19 pandemic in 2021 shifted the research landscape. The pandemic's economic disruptions prompted a renewed examination of "Unemployment Takaful" as a mechanism to address unforeseen job losses on a global scale. Scholars likely explored the concept's adaptability to crisis scenarios and its potential to provide immediate relief during periods of heightened uncertainty. This evolution in research reflects the growing recognition of "Unemployment Takaful" as a vital component of Islamic finance and social welfare, with research moving from foundational aspects to pragmatic implementation and crisis responsiveness.

Potential Research Gaps

Opportunities for future research in the domain of "Unemployment Takaful" and related subjects are evident across various dimensions. First, based on the analysis there is no previous journal/theme that particularly discusses on unemployment takaful. This provide strong justification of the study on how unemployment protection can be offered by takaful operators. For that, there is a need to develop concrete operational models that align with Islamic financial principles while ensuring sustainability and inclusivity. This involves exploring efficient mechanisms and comparing existing models to inform the design of effective programs. Second, the impact assessment of "Unemployment Takaful" warrants in-depth investigation. Researchers should delve into the economic, social, and psychological effects of such programs on individuals, labour markets, and overall economic resilience. Moreover, understanding the behavioural responses of participants and how "Unemployment Takaful" influences job-seeking decisions and financial planning is crucial.

Conclusion

This bibliometric analysis sheds light on the evolution of research surrounding unemployment takaful, job loss protection, and unemployment insurance, as well as related topics, from 2012

to 2023. Key findings include a gradual increase in the volume of publications over the years, indicating growing interest and recognition of the importance of these protective mechanisms in addressing unemployment-related challenges. The analysis also revealed influential authors, journals, and institutions contributing to this field, showcasing the collaborative nature of research and the significance of knowledge dissemination.

Themes that emerged from the analysis included the examination of unemployment takaful within Islamic finance principles, the operational models and mechanisms for job loss protection, and the broader economic and social implications of unemployment insurance. The research landscape adapted to contemporary events, with increased attention to the COVID-19 pandemic's impact on unemployment and the potential roles of these mechanisms in crisis response and recovery.

These findings hold implications for both researchers and policymakers. Researchers can build upon the identified themes and research gaps to further refine the operational models of unemployment takaful and related protections. Exploring their economic and social impacts in greater depth, including their implications for labor market dynamics, financial stability, and poverty alleviation, would provide valuable insights. Policymakers can utilize this analysis to inform the design and implementation of effective job loss protection programs, incorporating best practices and lessons learned from existing models.

In conclusion, this bibliometric analysis offers a comprehensive overview of the evolving research landscape surrounding unemployment takaful, job loss protection, and unemployment insurance. It highlights the expanding interest in these mechanisms, underscores the interdisciplinary nature of the research, and provides actionable insights for researchers and policymakers to enhance the effectiveness of these protections in addressing the challenges of unemployment in diverse contexts.

Acknowledgements

This paper is a part of a research project entitled: The Study on Future and Prospect of Implementing Unemployment Takaful in Malaysia – project reference code (PPPI/Khas_FEM/USIM/10523). This project is funded by the Universiti Sains Islam Malaysia (USIM).

References

- Agrawal, A. K., & Matsa, D. A. (2013). Labor unemployment risk and corporate financing decisions. *Journal of Financial Economics*, 108(2), 449-470.
- Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of informetrics*, 11(4), 959-975.
- Arslan, H. M., Chengang, Y., Bilal, Siddique, M., & Yahya, Y. (2022). Influence of senior executives characteristics on corporate environmental disclosures: a bibliometric analysis. *Journal of Risk and Financial Management*, 15(3), 136.
- Beckfield, J., & Bamba, C. (2016). Shorter lives in stingier states: social policy shortcomings help explain the US mortality disadvantage. *Social science & medicine*, 171, 30-38.
- Bitler, M., & Hoynes, H. (2016). The more things change, the more they stay the same? The safety net and poverty in the Great Recession. *Journal of Labor Economics*, 34(S1), S403-S444.
- Deryugina, T. (2017). The fiscal cost of hurricanes: Disaster aid versus social insurance. *American Economic Journal: Economic Policy*, 9(3), 168-198.

- Flammer, C., & Luo, J. (2017). Corporate social responsibility as an employee governance tool: Evidence from a quasi-experiment. *Strategic Management Journal*, 38(2), 163-183.
- Forsythe, E., Kahn, L. B., Lange, F., & Wiczer, D. (2020). Labor demand in the time of COVID-19: Evidence from vacancy postings and UI claims. *Journal of public economics*, 189, 104238.
- Friedman, G. (2014). Workers without employers: shadow corporations and the rise of the gig economy. *Review of keynesian economics*, 2(2), 171-188.
- Gao, Q., Yang, S., & Li, S. (2012). Labor contracts and social insurance participation among migrant workers in China. *China Economic Review*, 23(4), 1195-1205.
- Martin, J. P. (2015). Activation and active labour market policies in OECD countries: stylised facts and evidence on their effectiveness. *IZA Journal of labor policy*, 4(1), 1-29.
- Nekoei, A., & Weber, A. (2017). Does extending unemployment benefits improve job quality?. *American Economic Review*, 107(2), 527-561.
- O'Campo, P., Molnar, A., Ng, E., Renahy, E., Mitchell, C., Shankardass, K., ... & Muntaner, C. (2015). Social welfare matters: a realist review of when, how, and why unemployment insurance impacts poverty and health. *Social science & medicine*, 132, 88-94.
- Schmieder, J. F., Von Wachter, T., & Bender, S. (2012). The effects of extended unemployment insurance over the business cycle: Evidence from regression discontinuity estimates over 20 years. *The Quarterly Journal of Economics*, 127(2), 701-752.
- Schmieder, J. F., von Wachter, T., & Bender, S. (2016). The effect of unemployment benefits and nonemployment durations on wages. *American Economic Review*, 106(3), 739-777.
- Silvente, G. A., Ciupak, C., & da Cunha, J. A. C. (2019). Study on business model components: A bibliometric research from 2009 to 2014. *International Journal of Innovation: IJI Journal*, 7(3), 359-372.
- Staubli, S., & Zweimüller, J. (2013). Does raising the early retirement age increase employment of older workers?. *Journal of public economics*, 108, 17-32.
- Tatsiramos, K., & Van Ours, J. C. (2014). Labor market effects of unemployment insurance design. *Journal of economic surveys*, 28(2), 284-311.
- Zakaria, R., Ahmi, A., Ahmad, A. H., Othman, Z., Azman, K. F., Ab Aziz, C. B., ... & Shafin, N. (2021). Visualising and mapping a decade of literature on honey research: a bibliometric analysis from 2011 to 2020. *Journal of Apicultural Research*, 60(3), 359-368.
- Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational research methods*, 18(3), 429-472.