Analysis of Current Research in the Field of Sustainable Employment Based on Latent Dirichlet Allocation

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Abstract: In the current context of sluggish global economic recovery, widening regional disparities, and little room for policy error, the global employment situation is unprecedentedly severe. Therefore, research on sustainable employment is critical. In this study, we utilized a Latent Dirichlet Allocation (LDA) topic modeling approach to identify four central topics within the realm of sustainable employment: “Career Sustainability and Employee Development”, “Socio-Economic Dynamics and Strategies for Sustainable Employment”, “Study on Age, Health, and Sustainable Workforce in the Labor Market”, and “Research on the Impact of Workplace Interventions and Psychological Health Support”. The findings revealed the multidimensional, complex nature of sustainable employment issues. This study expands the theoretical horizon of sustainable employment and proposes multidimensional strategic suggestions for practical applications, including regularly assessing and updating organizations’ leadership styles and employee development strategies, offering customized career development programs and skill training, and formulating inclusive employment policies and supportive workplace environments in order to enhance employee job satisfaction and overall well-being, thereby effectively improving the practical outcomes of sustainable employment and bringing about long-term stability and positive impacts on the labor market. These results provide essential theoretical and practical contributions for policymakers, organizational leaders, and anyone seeking sustainable employment.

Keywords: sustainable employment; LDA; career sustainability; work environment

1. Introduction

Since the United Nations published the Brundtland Report in 1987, the concept and definition of “sustainable development” have continuously evolved. Its foundational concepts include (1) collective maintenance and development by multiple stakeholders, and (2) meeting present developmental needs without compromising the ability of future generations to meet their own needs. Although the concept of sustainability was introduced early, the idea of occupational sustainability needs to be more prominent. Sustainable employment implies that employees and stakeholders must work together to protect and promote job stability and development [1].

Career development takes place in a dynamic and unpredictable environment [2]. Factors such as the global pandemic, wars, economic downturns, and other social instabilities have transformed local and global needs and the nature of the work environment. This transformation can lead to unmanageable costs in terms of workload and emotional and time pressures, which affect employees’ work motivation, among other aspects [3]. The widespread application of emerging technologies (such as artificial intelligence and virtual reality interaction) also presents more challenges and deeper requirements for sustainable employment. These disruptive changes have led to shifts in job competency demands and impose new requirements [4].
Unlike the earlier focus on employment security and employability [5,6], occupational sustainability has emerged as a novel concept gaining attention across numerous fields, including the economy [7]. With ongoing research into careers, occupational sustainability has evolved to encompass “sequences of career experiences reflected through a variety of patterns of continuity over time, thereby crossing several social spaces, characterized by individual agency, herewith providing meaning to the individual” [1]. Employment provides individuals with economic security and social connections that are vital for personal survival and societal development. Achieving sustainable employment can extend employees’ working lives beyond official retirement. This not only helps maintain an individual’s social activity and economic independence, but also promotes the efficient use of societal resources and contributes to sustained economic growth [8]. The unpredictability of the environment and the study of sustainable employment have been widely discussed, including how companies influence career continuity and how instability factors lead to employees’ inability to fully engage with their organization [9]. The availability of good opportunities for career development can also affect staff loyalty, such as how different leadership styles affect the level of sustainable employment among employees [10,11]. Discussions on occupational sustainability from employees’ perspectives have also emerged. Employees’ tendencies to leave their jobs are negatively correlated with their local social culture and religious beliefs [12]. As the labor market ages, businesses increasingly rely on older workers. Simultaneously, rising retirement costs have forced people to work longer than in the past. Therefore, addressing the sustainable participation of older employees in the labor market has become particularly crucial. This is significant for corporate human resource management and the economic stability of society [13]. Research has explored the impact on the sustainable employment of hotel employees from perspectives such as the psychological contract fulfillment (PCF) model and perceived organizational support [14]. Studies have also found that nurses are affected by their health and job satisfaction throughout their careers [3].

Research on occupational sustainability is not only of widespread interest in the academic field but is also significant in its application at the social, organizational, and higher education levels. Chin and Li (2022) noted that organizations that achieve occupational sustainability can attain higher competitiveness and social stability, highlighting the practical value of occupational sustainability research, involving not only individual career development and satisfaction, but also the long-term success of organizations and the overall welfare of society [7]. Occupational sustainability has become vital in academic research and organizational practice as the global economy and society change rapidly.

Latent Dirichlet Allocation (LDA) was first proposed by Blei and others, employing a model that calculates the “document-topic” distribution across different time windows, which is then used to calculate the current topic strength. It has become a widely used topic modeling approach [15]. Since the introduction of the LDA model, numerous scholars have extended and applied it to various research fields, including hot topic analysis. For instance, Tomoji et al. [16] used LDA topic modeling to explore research topics within the field of Anthropogenic Marine Debris (AMD), revealing the principal topic distributions and developmental trends in this area and providing an overview of stakeholders involved with marine debris issues. Quatruni et al. [17] explored clustering applications of condition-based maintenance over time using LDA techniques. By applying the LDA model, they identified multiple research topics related to condition-based maintenance and discussed their evolution over time and characteristics in different application contexts. This shows that the LDA model can accurately extract popular research topics within relevant fields, offering more distinct results than traditional clustering analysis. This helps researchers grasp research developments in their field more reasonably and explore future research directions.

Occupational sustainability has significant practical importance for individuals, organizations, and society, with an increasing focus from scholars in recent years [7]. As research on the structural issues of sustainable employment deepens, it has been observed
that although there have been discussions of occupational sustainability, most of these studies are scattered across various fields, necessitating an in-depth exploration of the current research topics in sustainable employment. While previous studies have used methods like the Dynamic Topic Model (DTM) to explore occupational sustainability among the Chinese Generation Z (Post-00s) [18], no studies have used similar methods like LDA topic modeling to organize and discuss the current state of the literature in the field of sustainable employment in depth. Moreover, how these theories can be applied in actual work environments to promote sustainable development for individuals, organizations, and society still needs to be addressed. Therefore, this study focuses on “sustainable employment”, utilizing the LDA topic modeling approach to discuss the current state of research on sustainable employment topics from perspectives such as “Career Sustainability and Employee Development”, “Socio-Economic Dynamics and Strategies for Sustainable Employment”, “Study of Age, Health, and Sustainable Workforce in the Labor Market”, and “The Impact of Workplace Interventions and Mental Health Support”. It aims to organize and enrich the theoretical basis of sustainable employment, summarize previous research findings, and discover new meaningful conclusions through the LDA topic model. This study seeks to provide a comprehensive current analysis for researchers in sustainable employment, deepen the understanding of related theories, summarize previous research achievements, and explore future research directions. Against the background of globalization and technological progress, this study aims to offer possible new research directions for occupational sustainability through literature topic analysis; provide strategies and guidance; and help policymakers, organizational leaders, and individuals achieve sustainable employment to address current and future employment market challenges. Theoretically and practically, this contributes to individuals and organizations achieving sustainable employment development in an ever-changing work environment.

2. Methods and Materials

2.1. Data Sources and Research Methods

This study aims to dissect the knowledge structure characteristics and thematic directions of the “sustainable employment” issue, a hot topic in current research. We selected articles from the Web of Science (WOS) Core Collection, specifically from the Social Sciences Citation Index (SSCI) and Science Citation Index (SCI), as standards for data retrieval. This selection emphasizes rigor and credibility [19,20]. Our search query, TS = (“Sustainable employment”) OR TS = (“career sustainability”), spanned the literature from 1 January 2010 to 1 January 2024. This timeframe was chosen because sustainable employment has seen significant developments in research methodologies, theoretical frameworks, and policy attention since 2010, making this period’s literature more reflective of new trends and challenges in current research and practice. Initially, we retrieved 264 documents within this designated timeframe. After bibliometric analysis and content review and excluding conference abstracts, editorial materials, and other irrelevant documents, we refined the dataset to 243 articles. Upon completing the literature selection and building the dataset, we undertook text preprocessing steps, including removing stop words and stemming. Following text preprocessing, we applied the Latent Dirichlet Allocation (LDA) topic model to identify topics within the texts. We used the perplexity metric to determine the optimal number of topics in the model. We also labeled the research topics based on the probability distribution of topic words. We visually analyzed the results to explore the research hotspots within the “sustainable employment” issue. The research framework designed for this study is illustrated in Figure 1.
Figure 1. Research approach for topic analysis based on the LDA model.

2.2. LDA Topic Model

Latent Dirichlet Allocation (LDA) is a probabilistic Bayesian model for analyzing discrete data, such as collections of text documents [15]. Over the past decade, LDA has been extensively studied and successfully applied to various document-related tasks, including classification, clustering, and summarization. Given that the original LDA model is unsupervised, creating supervised variants for classification purposes has become one of the most active areas in topic-modeling research [21]. In this study, we employed the Latent Dirichlet Allocation (LDA) topic model because of its superior performance among several topic-modeling algorithms in handling large volumes of documents and interpreting identified latent topics [22]. This method allows us to address issues in traditional bibliometric analyses, such as co-citation analysis and keyword network analysis, where many documents may not list keywords or where the listed keywords are selected from a predefined list, which limits the accuracy and representativeness of the keywords, thereby affecting the reflection of the accurate content of the study [23]. Topic-modeling techniques infer and model latent topics from text data, automatically discover topics within texts, and reveal their distribution across different documents. This approach does not rely on predefined keywords or co-citation relationships but directly extracts thematic information from text data. Thus, it can capture the semantic and contextual aspects of the texts more accurately [24].

Figure 2 illustrates the generative process of the Latent Dirichlet Allocation (LDA) model [14], which presupposes that each document is generated from a mixture of several topics, each being a distribution over multiple words. In this model, each document \( m \) is associated with a topic distribution \( \theta_m \), and each topic \( k \) corresponds to a word distribution \( \phi_k \). For each document \( m \), a topic distribution \( \theta_m \) is drawn from a Dirichlet distribution \( \text{Dir}(\alpha) \), where \( \alpha \) is a prior parameter. For each word \( n \) in document \( m \), a topic \( Z_{m,n} \) is first drawn from the document’s topic distribution \( \theta_m \). For each topic \( k \), a word distribution \( \phi_k \) is drawn from another Dirichlet distribution \( \text{Dir}(\beta) \). Similarly, \( \beta \) is another prior parameter controlling word dispersion within topics. Once a topic \( Z_{m,n} \) is chosen for word \( n \), the actual word \( W_{m,n} \) is drawn from the corresponding word distribution \( \phi_{Z_{m,n}} \); this process is iterated repeatedly to obtain document-topic distributions and topic-word distributions related to sustainable employment through this model.
Analyzing document-topic distributions to understand the direction and focus of sustainable employment: By comparing the topic distributions $\theta_m$ of different documents, we can identify which topics are frequently associated with sustainable employment. Analyzing document-topic distributions also helps us discover new research directions or areas that have not been fully explored. Researchers can identify new research opportunities or policy recommendations by identifying topics that appear less frequently in existing documents. Understanding the content of discussions on sustainable employment through topic-word distributions: By comparing the topic distributions $\theta_m$ of different documents, we can identify which topics are frequently associated with sustainable employment. Analyzing document-topic distributions also helps us discover new research directions or areas that have not been fully explored. Researchers can identify new research opportunities and policy recommendations by identifying which topics appear less frequently in existing documents.

By combining these two distribution analyses, we can identify the core topics and key discussion points of sustainable employment. This analysis not only provides a deeper understanding of existing discussions but also guides future research directions and policy formulation to promote the realization of sustainable employment.

2.3. Determining the Optimal Number of Topics

The LDA learning algorithm starts with setting parameters, including the Dirichlet priors $\alpha$, $\beta$, and the number of topics $k$. In this study, $\alpha$ and $\beta$ are set to 0.1 and 0.01, respectively, standard settings found in the literature [25].

The choice of $k$, that is, the number of topics, is particularly important because it can significantly influence the estimated topics. We used topic perplexity as the criterion for determining the optimal number of topics.

Topic Perplexity: When the cosine similarity among topics shows a decreasing trend with an increase in the number of topics, there might be an issue of over-clustering. Hence, we introduce perplexity, a standard measure of the predictive capability of LDA [26], to mitigate this issue. Perplexity is expressed by Equation (1).
Perplexity $= \exp\left\{ -\frac{\sum_{d=1}^{M} \log p(w_d)}{\sum_{d=1}^{M} N_d} \right\}$ (1)

We built the topic model using the LatentDirichletAllocation library from the Scikit-learn package based on a stop-word list and topic feature extraction to determine the optimal number of topics. The hyperparameters $\alpha$ and $\eta$ were set to default values, and the model iterated 20 times. Presetting the number of topics is necessary for the LDA topic model, and the perplexity calculation, which is a recognized method for determining the authoritative number of topics, is a crucial indicator for identifying the optimal number of topics. The best number of topics was obtained by calculating the perplexity using LDA. As shown in Figure 3, the model exhibits the lowest perplexity when the number of topics is set to 4. Combined with the pyLDAvis [27,28] visualization results in Figure 4 (see the left area of Figure 4), we found less overlap between topics when the number of topics $k$ equals 4, indicating better classification effects. Hence, this study ultimately set $k$ to 4. The right side of Figure 4 displays the top 30 words most related to Topic 1. Different topics and their top 30 relevant words can be shown by entering various numbers in the “Selected Topic” text box located in the top-left corner of Figure 4.

![Figure 3. Topic perplexity.](image-url)
3. Data Results and Analysis

3.1. Data Results

Table 1 lists the training results of the LDA topic model. By focusing on the highest-ranking words in each topic’s “topic-word” distribution, we use these high-probability terms to determine and precisely identify the content of the topics. In this process, topics that were redundant or ambiguous were disregarded to ensure that each identified topic was clear and distinct [15]. Through a detailed organization and analysis of the high-probability terms for each topic, we summarized the most representative identifiers as shown in Table 1. This table shows the four sustainable employment topics classified by the LDA topic model and their corresponding word distributions, helping us understand each topic’s specific content and characteristics. For instance, in Topic 1, high-probability feature words such as “social”, “research”, “development”, “job”, “economic”, and “employability” highlight the focus on strategies to promote employment within the social and economic realms, and how these strategies affect employment opportunities and quality for different groups. This topic explores the optimization of employment policies, education, and training systems, as well as how to enhance the adaptability and competitiveness of the labor market. Therefore, this topic is named “Socio-Economic Dynamics and Strategies for Sustainable Employment”. In Topic 0, high-probability feature words include “career”, “sustainability”, “employees”, and “relationship”, emphasizing the importance of researching career sustainability and how employees can achieve ongoing development throughout their careers. High-probability feature words like “satisfaction”, “role”, and “perceived” underscore the investigation into employee satisfaction, role perception’s impact on career sustainability, and how these factors manifest differently across various organizational and cultural contexts. Thus, based on these feature words and the research focus, the topic was named “Career Sustainability and Employee Development”. Topic 2 features high-probability words such as “work”, “age”, “physical”, “demands”, “older”, “market”, “participation”, and “risk”, focusing on the increase in age of the labor market, impact of health status on work capacity, and ways to promote sustainable employment for all age groups through policy and workplace interventions. Hence, this topic is named “Study of Age, Health, and Sustainable Workforce in the Labor Market”. In Topic 3, high-probability feature words include “health”, “work”, “support”, “mental”, “interventions”, and “occupational”, pointing toward the research focus on workplace health and support and how interventions can improve employees’ work capacity and quality of life.
Therefore, this topic goes beyond the “Research on the Impact of Workplace Interventions and Psychological Health Support”.

3.2. Critical Themes in Sustainable Employment Research

3.2.1. Career Sustainability and Employee Development

With globalization, technological advancements, and changes in socioeconomic conditions, career sustainability has become an important topic in current human resources and career development research. Exploring how individuals maintain the sustainability and development of their careers in a changing labor market is very important for sustainable employment. As shown in Figure 5, the results of model training highlight high-probability feature words such as “career”, “sustainability”, “employees”, and “relationship”, indicating scholars’ tendency to comprehensively consider the sustainable development of careers and explore the roles and development of employees within organizations. These studies not only focus on the construction and verification of theoretical models but also delve into the impact of employee satisfaction and role perception (“satisfaction”, “role”, “perceived”) on career sustainability, as well as how these factors exhibit different degrees of influence and patterns across various organizational and cultural contexts. The research findings (“research”, “results”) and data analysis (“data”) provide empirical evidence for understanding the sustainability of careers. Therefore, Topic 0 was named “Career Sustainability and Employee Development”.

Recent research by many scholars has focused on understanding and promoting the continuous development of individuals in their careers [11,29-32]. By synthesizing different studies, they reveal the main research trends and theoretical advancements in sustainable employment. Li et al. [11] highlight the role of paradoxical leadership in reducing employees’ resistance to digital technology, especially in the Chinese cross-border e-commerce industry, where such leadership styles are more conducive to achieving career sustainability. Their research indicated the importance of leadership styles in digital transformation for employee adaptability and career development. Ge et al. [29] revealed how individual career development practices and organizational support can collectively promote sustained career development by exploring the impact of self-goal setting on career sustainability, the role of career shaping, and organizational goal clarity in addressing the sustainability of specific groups. Luo et al. [30] provided insights into how female workers in the e-commerce industry can enhance their self-efficacy and career sustainability.
through supportive supervisor behavior that accommodates family needs. Additionally, they explored the impact of leisure activities on occupational sustainability based on the Conservation of Resources theory, providing a new perspective for investigating sustainable employment among employees. By focusing on the effects of leisure time on psychological resources such as resilience and self-efficacy among locals in England, their findings underscore the importance of a balanced approach to leisure activities. Their study highlights the fact that not all leisure activities contribute similarly to occupational sustainability. This also illustrates the complex dynamics between leisure activities and occupational sustainability, proving that the benefits of leisure activities in professional life depend largely on the relationship between the characteristics of leisure activities and the demands of the occupation [33].

Similarly, Zhang and Wang emphasized the role of supervisor support and workplace friendships in new employees' career adaptability and sustainability by studying the impact of implicit followership theory on perceived self-efficacy [31]. In terms of the application of theoretical models and tools, Schweizer et al. [32] proposed a dynamic view in their career sustainability model, considering the achievement of career sustainability as an ongoing process that includes reflection, construction, envisioning, and adaptive action. Their research suggests that career sustainability is not a static or once-achieved state but a process that requires continuous effort, self-awareness, a sense of purpose, resources, and adaptability. This perspective indicates support roles for HR departments, career counselors, and educators, emphasizing their value in assisting individuals to reflect on sustainable career goals and take action toward achieving them.

Research under this topic collectively emphasizes the multidimensionality of career sustainability, including leadership styles, individual self-management capabilities, organizational culture and support, and socialization processes, among various factors. This research topic also reveals how individuals and organizations can promote sustained career development through various strategies and practices in the context of globalization and rapid technological change. These studies offer rich theoretical and practical perspectives for understanding career sustainability and point out directions for future research, particularly for exploring how to effectively respond to uncertainties and changes in career paths.
3.2.2. Socio-Economic Dynamics and Strategies for Sustainable Employment

With the acceleration of globalization and continuous technological innovation, the job market is facing unprecedented transformations in today’s context of economic and social development. These changes not only redefine the nature and content of work but also profoundly impact the demand structure of the labor market. As shown in Figure 6, through the analysis of high-probability feature words such as “social”, “research”, “development”, “job”, “economic”, and “employability”, it is evident that the topic focuses on strategies to promote employment within the social and economic domains, and how these strategies affect different groups, especially youth, women, and marginalized communities, in terms of employment opportunities and quality. This involves not only the formulation and implementation of employment policies but also the optimization of education and training systems to enhance the adaptability and competitiveness of the labor market. Therefore, Topic 1 is named “Socio-Economic Dynamics and Strategies for Sustainable Employment”.

Scholars have discussed strategies for promoting employment, empowering youth, and addressing socio-economic factors in response to educational and market challenges [32–39]. These studies encompass a broad range of topics, including youth employment, social protection, educational cooperation, economic resilience, and the interplay between cultural and economic strategies, with the aim of exploring and implementing multidimensional strategies for sustainable employment. In agriculture and rural development, Geza et al. [34] investigated youth employment and empowerment in South Africa and found that the agricultural sector has the potential to provide employment opportunities and empowerment to youth. They also highlighted challenges such as skill mismatches and market access restrictions, offering strategies to enhance youth participation and empowerment in agriculture to foster rural sustainable development. Moore [35] analyzed the perspectives of Australian youth job seekers and employment officials in employment services, revealing inadequacies in the employment service Jobactive for marginalized youth job seekers. This study suggests that tailored employment assistance is necessary to achieve sustainable employment. McCord and Slater explored the role of social protection in promoting sustainable employment, emphasizing the critical features of social protection program design, such as targeting and the value of transfer payments, to enhance individual productivity and labor market participation [36]. In education and market challenges, Xiang, Wang, and Wang [37] discussed strategies for sustainable employment through the optimization of industrial structures and higher education allocation by analyzing the issue of the oversupply of university graduates in China. Ruth et al. [38] addressed the sustainable employment issues of creative arts students within the higher education system, exploring how educational policies and practices can align with the needs of creative industries to support the sustainable employment of creative arts graduates. In educational cooperation, Kamp [39] used actor-network theory to explore changes in leadership within the education sector, discussing the potential of school networks and local learning and employment networks to promote school improvement and social equity. In cultural and economic strategies, Flecha and Soler [40] explored the transformative potential of communicative methodology in promoting dialogic democracy and sustainable employment cooperative action, emphasizing the importance of community knowledge and voices in the research process through case studies. D’Costa [41] critically examined sustainable employment issues in the Indian handloom sector and proposed strategies to increase demand for handicraft products through cultural nationalism and commercial branding.

These studies have highlighted the complex challenges and multidimensional strategies for achieving sustainable employment in a globally diversified socioeconomic context. Research on this topic has focused on identifying problems and analyzing challenges. It proposes targeted solutions and strategies to promote employment opportunities and career development across various groups through social, educational, and economic means, thereby promoting sustainable socio-economic development.
3.2.3. Study of Age, Health, and Sustainable Workforce in the Labor Market

The current socio-economic landscape faces various challenges, including population aging, structural changes in the labor market, accelerated technological progress, and the increasingly significant impact of health issues on work capacity. As shown in Figure 7, the analysis of high-probability feature words such as “work”, “workers”, “working”, “age”, “pain”, “physical”, “demands”, “older”, “market”, “participation”, and “risk” make it apparent that the topic focuses on physical challenges in the work environment, employment exit risks for older workers, and policies and workplace interventions to promote sustainable employment across all age groups. Therefore, Topic 2 is called “Age, Health, and Sustainable Workforce Research in the Labor Market”.

With the aging of the global population, supporting the health and sustainable employment of the elderly has become crucial [40–43]. Regarding the impact of chronic diseases on older workers, Hengel et al. [42] emphasized the influence of chronic diseases on older workers’ exit from paid work, particularly for those with lower levels of education, where this risk is more pronounced. This study highlights the need for customized intervention measures to support older workers, especially those with lower educational
backgrounds. In terms of the impact of gender-segregated occupations, research by Gonäs et al. [43] found that in gender-segregated occupations, work has significant effects on future labor market participation, sick leave, and disability pensions, indicating that gender segregation plays a crucial role in determining future employment and health-related absence outcomes. In terms of workforce health management, Skovlund et al. [44] showed that among older workers with high physical demands, work-limiting musculoskeletal pain significantly increased the risk of losing paid work before reaching the national retirement age, emphasizing the importance of addressing work-limiting pain through policies and workplace preventive measures. In terms of workplace opportunity inequalities, Andersen et al. [45] analyzed workplace opportunity inequalities among Danish workers aged 50 and over in supporting the extension of working life, revealing significant inequalities in opportunities for physical labor-intensive jobs, women, and those with reduced work capacity to access options like reduced working hours, flexible work arrangements, and health promotion.

This topic underscores the complex impact of aging, health status, gender, and physical labor demands on an individual’s ability to continue working in the labor market. It reveals the challenges in the work environment and proposes policy suggestions for promoting sustainable employment, including enhancing functional independence and educational support, alleviating chronic pain, and implementing appropriate disability pension policies. These studies provide a scientific basis for governments and businesses to develop strategies for improving the sustainable employability of different age groups.

3.2.4. Research on the Impact of Workplace Interventions and Psychological Health Support

As attention to employee well-being and career sustainability has increased, enhancing mental health in the workplace and supporting employees in dealing with work-related challenges have also become focal points of sustainable employment research. As illustrated in Figure 8, through the analysis of high-probability feature words such as “health”, “work”, “support”, “mental”, “self”, “related”, “outcomes”, “employees”, “problems”, “studies”, “job”, “interventions”, “occupational”, and “interventions”, it is evident that the topic focuses on promoting health and well-being in the workplace, improving employees’ work capacity and quality of life through intervention measures. Therefore, we name Topic 3 “The Impact of Workplace Interventions and Mental Health Support Studies”.

Researchers within this topic have explored physical and psychological health interventions in the workplace, disclosure of mental health disorders, and the impact of chronic illness on employees. Regarding interventions to improve work capacity, a systematic review and meta-analysis conducted by Oakman et al. [46] examined the effect of workplace interventions on enhancing work capacity and found that these interventions had a significant positive impact on work capacity. In terms of mental health disclosure, research by Brouwers [47] revealed the underestimated impact of social stigma on unemployment among individuals with mental illness or mental health issues. This review highlights the urgent need to understand the long-term effects of stigma on employment and implement destigmatization interventions in the workplace. Van Beukering et al. [48] explored Dutch workers’ anticipated outcomes of disclosing mental illnesses in the workplace through a cross-sectional survey and found that, while most workers held an optimistic view of disclosure, they also anticipated potential discrimination, emphasizing the complexity and dual nature of mental health disclosure among workers to support sustainable employment. In supporting employees with chronic illnesses, Bosma [49], along with other researchers, explored the views of occupational physicians and organizational representatives on supporting employees with chronic diseases. This study identified barriers to and opportunities for enhancing support, emphasizing that all stakeholders must share the responsibility for preventing work-related issues and promoting sustainable employment.
This topic primarily discusses the effects of workplace interventions on improving work capacity, addressing work-limiting pain, handling the disclosure of mental health issues, and supporting employees with chronic illnesses. These studies reveal the potential benefits of workplace health interventions and underscore the need to develop supportive policies and practices to address these challenges and promote sustainable employment.

Figure 8. Research on the Impact of Workplace Interventions and Psychological Health Support.

4. Conclusions and Recommendations

4.1. Theoretical Significance

Through the LDA topic modeling approach, this study reveals the main research themes within sustainable employment. Current research on sustainable employment focuses on several thematic dimensions, including “Occupational Sustainability & Employee Development”, “Socio-Economic Dynamics & Strategies”, “Age, Health & Sustainable Workforce in the Labor Market”, and “Workplace Interventions & Psychological Health Support”. These themes reveal the multifaceted nature of sustainable employment issues. The data analysis results indicate that these research topics encompass various dimensions, such as individual development, socioeconomic strategies, health and age issues in the labor market, and the impact of the work environment on psychological health, highlighting the complexity and diversity of sustainable employment at both the individual and organizational levels. This approach allows us to identify key discussion points under different themes of sustainable employment, thereby providing a new perspective and theoretical basis for future research distinct from traditional literature analysis methods such as co-citation analysis and keyword networks [23].

4.2. Practical Significance

This study provides multidimensional strategic suggestions for promoting sustainable employment. We recommend that organizations regularly assess and update their leadership styles and employee development strategies to meet the challenges of the current labor market [11,30]. Organizations should enhance employee adaptability and job satisfaction in a rapidly evolving technological environment by offering customized career development programs and skill training [29]. Additionally, policymakers should encourage cross-industry cooperation to formulate inclusive employment policies that cover marginalized groups and low-income families, thereby improving the quality and prevalence of sustainable employment [35]. To address the age and health challenges in the labor market, governments and businesses should jointly develop support policies for the
elderly and those with chronic diseases [42,44]. For example, health promotion and pain management programs can reduce work disruptions caused by health issues. Moreover, strengthening psychological health support and intervention measures in the workplace, such as mental health workshops and stress management courses, could create a supportive work environment [48]. These measures not only help increase job satisfaction among employees but also significantly improve their overall well-being. Through these practical measures, the effectiveness of sustainable employment can be effectively enhanced, resulting in long-term stability and positive impacts on the labor market.

5. Limitations and Future Research

5.1. Research Limitations

Despite current research on sustainable employment that has revealed its multidimensionality and has achieved certain results, earlier studies mainly focused on theoretical models and empirical analyses, while more in-depth discussions on specific practical measures and actionable strategies are needed. There is a specific need for more explicit theoretical frameworks and practical guidelines to identify the key factors and develop implementation strategies. Moreover, research often remains limited to specific industries or fields, lacking comprehensive cross-sectoral and cross-industry analysis, and discussions on the long-term effects of policies and strategies are relatively scarce. Methodologically, the need for diverse data sources and long-term follow-up studies has yet to be fully met, limiting the broad applicability and depth of the research findings.

5.2. Future Research

Future research should emphasize the application of interdisciplinary methodologies, integrating theories and practices from sociology, psychology, economics, and human resource management to achieve a deep understanding of the complexity of sustainable employment and the formulation of effective strategies. Faced with the challenges of artificial intelligence, automation, and digital transformation, future studies should focus on the impact of technological changes on the labor market, especially on protecting and promoting employment opportunities for vulnerable groups amid technological advancements. Considering the deepening of globalization, the role of international cooperation and experience sharing has become crucial in promoting sustainable employment. Research should explore the strategies and practices of different countries and regions in facing the challenges of sustainable employment in depth, especially in terms of international labor mobility, coordination of employment policies, and new models of sustainable employment practices in global supply chains. Additionally, future research should consider the diversification of employment forms and changes in the work environment, such as the impact of emerging employment forms, such as remote and flexible employment, on sustainable employment, and how to build supportive and inclusive work environments in the changing labor market. Exploring multilevel intervention measures, including policies, organizational practices, and individual development strategies, is also an important direction for future research, providing a more comprehensive and integrated perspective to promote sustainable employment.

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