A Global Scientometric Visualization Analysis of Rural Tourism from 2000 to 2021

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Abstract: Rural tourism, as an emerging industry formed by the integration of various industries, has gradually become an essential method of rural economic development. However, few studies have comprehensively addressed how it develops. This paper aims to reveal the major trends and hotspots in the field of rural tourism in the past two decades. A scientometric visualization analysis was applied to the publications on this theme collected from the Web of Science database between 2000 and 2021. The results are shown as follows: (1) There was an overall increasing trend in rural tourism research globally from 2000 to 2021, with an average increase of 74 papers per year. However, the average citations for these papers are declining in recent years, dropping from 20.1 in 2016 to 13.2 in 2020. China, Spain, and the United States ranked in the top three in terms of the number of papers. (2) The most cited journals were The Journal of Agriculture and Environment, Tourism Planning and Development, and Tourism Management, with an average of 45.62, 39.15, and 29.22 citations, respectively. (3) The research hotspots showed obvious differences and characteristics in the two stages of 2000–2007 and 2007–2021. The sustainable development of rural tourism has become a hot topic, and will play an important role in achieving integrated urban and rural development and rural revitalization.

Keywords: rural tourism; scientometric visualization; agritourism; sustainable development

1. Introduction

Rural areas are falling into decline as most countries are expanding their cities to promote economic development and improve living standards [1]. The proportion of the world’s population living in cities rose from 33% in 1960 to 54% in 2016, particularly in Asia and Africa [2]. Increasingly, rural areas face poverty, unemployment, and a dearth of labors [3]. How these issues can be harnessed and how the rural revival can be achieved has become a crucial concern for scholars across the world [1]. In this context, rural tourism has emerged and developed, and is a development model used to meet the increasingly diversified leisure needs of residents and tourists by using agricultural and rural resources as attractions and providing services such as recreation, agricultural science, and health resorts [4–7]. Rural tourism has a high potential to stimulate local economic growth, job creation, and social change, and has become a vital part of the rural economy currently.

Rural tourism first appeared in Europe in the 19th century and entered a period of full development in the 21st century [8]. Its popularity as a form of tourism with unique characteristics is still on the rise [6]. Scholars across the world have conducted a series of studies on the development of rural tourism. Numerous studies have explored the relationship and interaction between tourism and agriculture [9,10]. For example, Tchouamou and Nikitas [11] studied the linkages between tourism and agriculture, examining how the demand for tourism affects agriculture from a structural perspective. Some researchers focused on the supply and demand of rural tourism as well as the
relevant influencing factors [12]. Others examined the performance or satisfaction of tourists of a large-scale rural tourism enterprise and discussed the future improvement on their operations [13]. Most scholars focused on the benefits derived from the development of rural tourism in terms of providing more employment opportunities for local farmers, increasing the economic, environmental, and social benefits, preserving natural and cultural resources of the countryside, beautifying the surrounding environment, and fostering an integrated urban and rural development and achievement of rural revitalization [6,14–16]. In total, these studies covered several fields and the research mainly focused on conceptual extension, influencing factors, characteristic development, and economic benefits of rural tourism.

Although there are hundreds of research topics and related papers on rural tourism, there is still a lack of systematic analyses that provide a comprehensive and systematic review and analysis of the research status in this field. In the context of sustainable development, there is a growing interest in rural tourism. Therefore, a macroscopic bibliometrics analysis will help to systematically identify the trends and hotspots in this research field and synthesize new insights from various existing studies to help researchers establish a new perspective on rural tourism.

Recently, bibliometric analysis has become an effective way for data mining and massive literature analysis based on the development of metrology science and information visualization technology [17–19]. Based on scientometric visualization, graphical relationships can represent the structure of knowledge and its evolutionary history in a given field of study visually and clearly. This study aims to comprehensively sort out the publications in the field of rural tourism and clearly reveal its research hotspots and changing trends through scientific knowledge mapping software, including VOS viewer, Citesease, and R. This study intends to answer the following questions related to the rural tourism research: (1) What are the current status and basic characteristics of research in the field of rural tourism between 2000 and 2021? (2) What are the leading authors, core papers, and high-impact journals? (3) What are the research hotspots and changing trends in rural tourism research topics? This is also the focus of this research. Based on answering these questions, this study attempts to evaluate the hotspots and research fronts of rural tourism, and provide references for future research.

2. Materials and Method
2.1. Data Collection

To increase the representativeness and accessibility of the bibliographic data, the data used in this study were collected from the Web of Science Core Collection, with a time limit of January 2000 to December 2021. The Web of Science database has a strict selection mechanism that includes plenty of important academic journals in various disciplines [20].

Defined by the United Nations World Tourism Organization (UNWTO, Madrid, Spain), rural tourism is a type of tourism activity that is related to a wide range of products that are generally linked to natural activities, agriculture, and rural lifestyle or culture [21]. Agritourism is viewed as activity based on agricultural work, farming, cultivation, and production operations with the aim of leisure, educational, and experiential experience [14,22,23], and is considered as a special subset that falls under the rubric of rural tourism [24]. Meanwhile, the fundamental defining characteristics of agritourism have not yet been unified, and labels such as agrotourism, farm tourism, entertainment agriculture, and farm tourism are often used interchangeably with agritourism and each other [25].

Based on the above reasons, the search criteria were set as follows: Title = “rural tourism” OR “entertainment agriculture” OR “leisure agriculture” OR “agritourism” OR “agri-tourism” OR “agro-tourism” OR “farm tourism” OR “agrotourism” OR “agritainment” OR “tourism agriculture”; time = 2000–2021. Then, using the refining function of Web of Science, the document type was refined as “article” OR “review” OR “letter”. 
To ensure the accuracy of the bibliographic data, we reviewed their titles and abstracts manually, and some irrelevant publications were discarded. Finally, a total of 1,627 records were collected. The contents of the records, including title, author, abstract, keywords, journal, citations, and other publication information, were imported into VOS viewer, CiteSpace 6.1.2 and R 4.1.2 software for data processing and scientometric visualization analysis.

2.2. Software

As one of the common citation visualization and analysis software, VOS viewer software is a free knowledge mapping tool developed by Eck and Waltman [26]. VOS viewer can construct various networks of collected papers to map scientific knowledge and show the structure, evolution, cooperation, and other relationships in the knowledge domain.

CiteSpace is a visualization tool for knowledge mapping developed by Chen [27]. This software uses the Java platform to analyze the structure of diverse networks originating from scientific publications and supports networks of mixed node types as well as mixed link types. CiteSpace and VOS viewer have their own focus in visual analysis: VOS viewer is clearer in presenting the relationship between cross-disciplines in cross-cutting areas, and CiteSpace has a strong ability to show the research laws and development direction in the analysis of disciplines.

R software is a global language for statistical and predictive analysis and data visualization, and is a language environment that can be freely and effectively used for statistical computing and plotting because of its simplicity, flexibility, and open-source nature. Bibliometrix is a unique tool that is developed in the statistical computing and graphic R language according to a logical bibliometric workflow. The bibliometrix package provides a variety of routines for importing bibliographic data from the Web of Science, performing bibliometric analysis, and constructing data for co-citation, coupling, scientific collaboration analysis, and co-word analysis matrix. These types of software simplify the specific steps of bibliometric statistical analysis by automating the processing of bibliographic titles, using menu operations to regulate the analysis process, and graphically presenting the intra-unit associations.

2.3. Method

In this paper, VOS viewer, CiteSpace, and R (bibliometrix package) were applied to draw a macroscopic map of research knowledge in rural tourism, including a basic bibliometric analysis, scientific collaboration network analysis, and key research topic detection analysis (Figure 1).

Figure 1. Research framework diagram for bibliometric analysis of rural tourism.
2.3.1. Basic Bibliometric Analysis

A basic bibliometric analysis provides an overview of the rural tourism research. The annual published articles and countries or regions of publication studied in this paper were automatically detected and analyzed by Web of Science search. Major cited articles and published journals were also formed using Web of Science searches.

2.3.2. Collaboration Network Analysis

Scientific collaboration analysis helps to reveal the path of development of a discipline and has been used to visualize and analyze specific fields. Generally, when different authors, institutions, or countries appear in the same paper, it can be considered as scientific collaboration. In order to identify the main published countries in the field of rural tourism, the analysis of collaboration between countries was carried out using VOS viewer software.

2.3.3. Key Topics Identification

Article research content and research topics are often revealed through keywords. In order to capture the research trends in rural tourism from 2000 to 2021, keywords extracted from the title and abstract fields were used in VOS viewer software. In addition, to identify the relevant research topics in rural tourism, the literature data exported from Web of Science was imported into R software and cluster analysis was performed using the Bibliometrix package. In addition, Citespace can be used to visualize and analyze the time of keyword appearance. The timeline visualization helps to visualize the changing trend of research while making reasonable predictions on the future development direction.

3. Results and Discussion

3.1. Spatiotemporal Distribution of Publications

3.1.1. Yearly Publication Output

The number of annual papers within a subject area can, to some extent, reflect the current state of the field and its level of development over a period of time. According to the 1,627 collected papers, an increasing number of papers related to rural tourism were published between 2000 and 2021 (Figure 2), with an average of 74 papers per year. The number of published papers increased from 9 in 2000 to 308 in 2021 (a growth of 33 times in the past two decades). Fewer than 50 papers were published before 2010, indicating that scholars paid less attention to research on rural tourism. After 2018, the number of publications started to increase dramatically, with 896 publications from 2018 to 2021 (an average of 224 papers per year). This suggests that the interest of scholars in rural tourism has increased significantly over time.

![Figure 2. The number of papers published on rural tourism from 2000 to 2021.](image)
Apart from the change in the number of publications, the number of citations of related papers deserves more attention. Considering that the number of citations is influenced by the publication time of a paper, we focused on the average number of citations per year to eliminate its effect. As can be seen from the folded line in Figure 2, a significant decreasing trend in the annual number of citations of papers started after 2016 in spite of a slight growth in 2021. This trend calls for concern about whether the overall quality of research papers can continue to be maintained in the future as the number of research papers increases dramatically.

Sorting by the total number of publications by country, China ranked first with 505 publications, followed by Spain and the United States. Figure 3 shows the trend curves of the annual publication records of the top three countries, respectively. The overall increasing trend in the number of publications for studies on rural tourism in China, Spain, and the United States between 2000 and 2021 was consistent with the trend in Figure 2. Among them, the number of publications on rural tourism in China is significantly higher than those in the other two countries in the last decade. This is because the Chinese government paid high attention to the development of rural tourism in the context of rural revitalization. Document No. 1 promulgated by the Central Committee of the Communist Party of China and the State Council since 2015 has repeatedly proposed vigorously developing rural tourism and promoting the deep integration of agriculture and tourism industries. Rural tourism is becoming a new pillar industry in the rural economy that can benefit farmers and improve agricultural production. As of 2019, there were 1.96 million rural tourism operators and more than 950,000 villages in China, receiving nearly 8.6 billion tourists annually and generating an annual income of over CNY 800 billion [28]. Therefore, the booming development of rural tourism in China has attracted the attention and investigation of an increasing number of scholars.

![Figure 3. Trends in annual publications of China, Spain, and the United States from 2000 to 2021.](image)

3.1.2. Contributions and Relationships of Countries

The papers published in Web of Science from 2000 to 2021 were analyzed by using VOS viewer visualization software. It was found that scholars from 91 countries and regions have conducted research on rural tourism in the past two decades. We filtered out 51 countries and regions with five published papers as the minimum value and then visualized them. As shown in Figure 4, the larger the radius of the circle, the greater the number of published papers. The thicker the line between countries (regions), the stronger the connection between them. It is clearly observed that China, Spain, Portugal, the United States, and England were the countries with a high number of studies on rural tourism. Among them,
the strongest cooperation was between China and the United States. It is noticeable that the countries (regions) with closer cooperation also have a greater number of publications.

Figure 4. Inter-country cooperation network.

Figure 5 shows the spatial distribution of published papers on rural tourism, revealing the location of the countries and regions where rural tourism research has been conducted in the last two decades. It shows that the Asian region published the largest number of published papers and was far ahead, with China ranking first in the world in terms of the number of publications. Papers on rural tourism were published in most of North America, South America, Oceania, and Europe, with a significantly higher number of publications in the United States and Spain than in the other countries of these four continents. In contrast, almost no researcher in the countries of Africa published papers on rural tourism. Overall, the spatial distribution of published articles reflects that the development of rural tourism is mainly concentrated in Europe and Asia. It may indicate that the development of rural tourism is closely related to the level of economic development [29]. People in countries and regions with a high level of economic development have a correspondingly high level of spiritual needs [30]. They are more willing to go to the countryside to enjoy the natural scenery, experience rural life, and relax after work [31].

Figure 5. The number of relevant articles published in different countries and regions.
3.2. Systematic Analysis of Leading Authors, Articles, and Journals

3.2.1. Leading Authors

Prolific authors are the key force in a research field. In this study, papers were collected from 3,458 authors related to the research field of rural tourism during 2000–2021. Among them, we analyzed the top ten main authors of published papers to understand their research scope so as to make a certain analysis of the research progress in this field.

Figure 6 presents an insight into the leading authors of rural tourism from 2000 to 2021. The depth of the color in the figure shows the total citations per year of the author, and the size of the circle indicates the number of published papers. It indicates that most of the authors began to conduct research related to rural tourism after 2010 and entered the prolific stage after 2017. Some scholars mainly concentrated on the evaluation and protection of unique rural tourism resources [32,33]. Others focused on the integrated development of rural tourism with other industries and related strategies. For example, Liu and Zheng [34] focused on the strategic study of rural tourism and considered that strategies should be selected to develop the countryside by establishing a framework of rural landscape development, tourism activities, and the construction of tourist satisfaction. Li et al. [35] analyzed the development of rural tourism in coastal areas of China from the perspective of industrial integration and explored the future development of rural tourism in coastal cities in the context of the actual situation. In brief, it is a great concern for scholars to better promote the integrated development of agriculture and tourism, increase the income of farmers, and make a roadmap for rural development.

Figure 6. Top 10 high-output authors in the field of rural tourism. The numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 stand for Yongxun Zhang, Vallejos Angela, Huiying Li, Huiqing Liu, Qingwen Min, Pulido Bosch, Chengcheng Wang, Hui Wang, Yinhui Wang, Lun Yang, respectively. N. articles: number of articles; TC per year: total citations per year.

3.2.2. Leading Articles

Highly cited papers in a research field indicate important contributions to the research in that field, and that researchers agree with their ideas and cite them. The top 10 highly cited papers in the field of rural tourism research were obtained from 1,627 valid papers acquired from the Web of Science (Table 1).
Table 1. Top 10 papers with the highest citation frequency in rural tourism research.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Title</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Does rural tourism benefit from agriculture? [36]</td>
<td>155</td>
</tr>
<tr>
<td>2</td>
<td>Linkages between tourism and agriculture in Mexico [37]</td>
<td>150</td>
</tr>
<tr>
<td>3</td>
<td>Agro-tourism enterprises as a form of multi-functional urban agriculture for peri-urban development in China [13]</td>
<td>74</td>
</tr>
<tr>
<td>4</td>
<td>Impact of agriculture on rural tourism: A hedonic pricing approach [38] 64</td>
<td>64</td>
</tr>
<tr>
<td>5</td>
<td>Agriculture first: Assessing European policies and scientific typologies to define authentic agritourism and differentiate it from countryside tourism [39]</td>
<td>33</td>
</tr>
<tr>
<td>6</td>
<td>Rural tourists and their attitudes and motivations towards the practice of environmental activities such as agrotourism [40]</td>
<td>32</td>
</tr>
<tr>
<td>7</td>
<td>Agriculture diversification and the sustainability of agricultural systems: Possibilities for the development of agrotourism [41]</td>
<td>27</td>
</tr>
<tr>
<td>8</td>
<td>Interplay of food security, agriculture and tourism within GCC countries [9]</td>
<td>25</td>
</tr>
<tr>
<td>9</td>
<td>Culinary tourism experiences in agri-tourism destinations and sustainable consumption-understanding Italian tourists’ motivations [42]</td>
<td>25</td>
</tr>
<tr>
<td>10</td>
<td>Fostering local sustainable development in Tanzania by enhancing linkages between tourism and small-scale agriculture [10]</td>
<td>14</td>
</tr>
</tbody>
</table>

As shown in Table 1, scholars mostly studied the relationship between agriculture and tourism, with relatively few papers on the linkages between agriculture and other industries before 2010 [36–38,43]. The main contribution of scholars Fleischer and Tchetchik to the study of rural tourism lies in the conceptual aspect. Based on a survey of 197 residential operators in the rural areas of Israel, they delineated the more complicated relationship within the rural tourism enterprise itself instead of simply treating the relationship between tourism and agriculture as the impact of the tourism sector on the agricultural sector [36]. For example, the paper named “Does rural tourism benefit from agriculture?” is influential and of high research value since it has been cited up to 155 times. Then, after 2010, researchers started concentrating on how to improve the cooperation between agriculture and tourism so as to lead to multiple perspectives resulting in win-win situations [39], such as promoting integrated rural–urban and sustainable development [13,41] and exploring the attitudes and motivations of tourists [40,42]. Moreover, Streifeneder [10] believed that a more specific and clearer categorization between rural tourism and agriculture could help to smooth uncertainties and inconsistencies and promote their authentic sustainable development.

3.2.3. Journals Analysis

In this study, the ten journals with the highest number of published papers in rural tourism were selected to analyze the leading journals and their influence (Table 2). It is obvious that the journals with the most published papers on rural tourism from 2000 to 2021 included Sustainability (a total of 113 papers), Tourism Management (61 papers), and Journal of Sustainable Tourism (51 papers). The most cited journals were The Journal of Agriculture and Environment, Tourism Planning and Development, and Tourism Management, with an average of 45.62, 39.15, and 29.22 citations, respectively. These are all high-impact journals on agriculture or tourism.
Table 2. Top 10 journals with the highest number of articles published on rural tourism from 2000 to 2021.

<table>
<thead>
<tr>
<th>Journals</th>
<th>TP</th>
<th>ACT</th>
<th>APY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability</td>
<td>113</td>
<td>9.86</td>
<td>2016.00</td>
</tr>
<tr>
<td>Tourism Management</td>
<td>61</td>
<td>29.22</td>
<td>2017.00</td>
</tr>
<tr>
<td>Journal of Sustainable Tourism</td>
<td>51</td>
<td>11.06</td>
<td>2010.00</td>
</tr>
<tr>
<td>Journal of Rural Studies</td>
<td>48</td>
<td>20.20</td>
<td>2011.54</td>
</tr>
<tr>
<td>African Journal of Agricultural Research</td>
<td>38</td>
<td>22.36</td>
<td>2011.55</td>
</tr>
<tr>
<td>Annals of Tourism Research</td>
<td>27</td>
<td>24.36</td>
<td>2016.38</td>
</tr>
<tr>
<td>Tourism planning and development</td>
<td>22</td>
<td>39.15</td>
<td>2014.50</td>
</tr>
<tr>
<td>The Journal of Agriculture and Environment</td>
<td>20</td>
<td>45.62</td>
<td>2011.80</td>
</tr>
<tr>
<td>Environment Science</td>
<td>18</td>
<td>13.50</td>
<td>2012.80</td>
</tr>
<tr>
<td>Land Use Policy</td>
<td>16</td>
<td>27.33</td>
<td>2015.67</td>
</tr>
</tbody>
</table>

TP: total papers; APY: average publish year; ACT: average cited times.

The average of publication years of all the papers in a journal, referred to as APY, can reflect the attention of different journals to papers on a certain subject and the preference of authors when choosing which journal to publish their papers [44]. Notably, many papers have been published in Sustainability since 2016. It could be that the journal is an open access journal, which has advantages in terms of timely publication.

3.3. Research Topics and Trends

3.3.1. High-Frequency Keywords

Keywords often represent the core ideas of an article, summarizing the research content and the research subject. For a specific research field, an in-depth analysis can be conducted from a perspective of keywords, which is helpful in expanding the research scope and following the research focus. Table 3 summarizes the frequency of keywords from the collected articles on rural tourism in the last two decades. Keywords such as rural tourism (730), sustainable tourism (92), rural development (86), sustainability (54), and ecotourism (16) appeared with a high frequency. This indicates that the sustainable development of rural tourism is one of the hotspots of current research.

Table 3. High-frequency keywords in the field of rural tourism.

<table>
<thead>
<tr>
<th>Keywords</th>
<th>Frequency</th>
<th>Keywords</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural tourism</td>
<td>730</td>
<td>Agriculture</td>
<td>26</td>
</tr>
<tr>
<td>Tourism</td>
<td>137</td>
<td>Leisure agriculture</td>
<td>23</td>
</tr>
<tr>
<td>Sustainable development</td>
<td>92</td>
<td>Entrepreneurship</td>
<td>23</td>
</tr>
<tr>
<td>Rural development</td>
<td>86</td>
<td>Rural</td>
<td>23</td>
</tr>
<tr>
<td>Sustainability</td>
<td>54</td>
<td>Agritourism</td>
<td>22</td>
</tr>
<tr>
<td>Rural areas</td>
<td>49</td>
<td>Spain</td>
<td>21</td>
</tr>
<tr>
<td>China</td>
<td>48</td>
<td>Community-based tourism</td>
<td>17</td>
</tr>
<tr>
<td>Sustainable tourism</td>
<td>47</td>
<td>Ecotourism</td>
<td>16</td>
</tr>
<tr>
<td>Development</td>
<td>39</td>
<td>Satisfaction</td>
<td>16</td>
</tr>
<tr>
<td>Tourism development</td>
<td>27</td>
<td>Agro-tourism</td>
<td>15</td>
</tr>
</tbody>
</table>

Sustainability was initially considered as an important element in tourism research given the limited nature of natural resources [45]. Sustainable rural tourism was considered as a solution to problems such as environmental damage and the deterioration of traditional culture in tourism development [23]. It is hoped that sustainable development can be used to preserve traditional culture, protect ecosystems, create new opportunities for employment, and increase income [46]. Currently, many scholars agreed that sustainable rural tourism includes not only enhancing the sustainability of the
environment and its resources, as well as socio-economic sustainability, but also sustainable management based on a deep understanding of needs [47]. Future research on rural tourism should focus more on its sustainability, both in rural tourism itself and in the rural areas where it is located.

3.3.2. Keyword Clustering Analysis

Keyword clustering analysis can identify relevant research topics in the field of rural tourism. Figure 7 shows the co-occurrence clustering of keywords for rural tourism research. The same color represents a cluster (i.e., a topic) of rural tourism research and that research was divided into five major clusters.

![Figure 7. Keyword clustering analysis.](image)

The first major cluster focuses on the impact of rural tourism development on the rural economy and farmers’ livelihoods. The emergence and development of rural tourism
contribute to the employment of farmers, industrial upgrading, income generation, and quality of life [48,49]. The development of rural tourism not only reduces the risk of unstable agricultural income, but also increases the communication between farmers and the outside world to promote their living standards [50]. In total, rural tourism is a new driving force for rural economic growth nowadays and one of the effective ways to revitalize the countryside and modernize agriculture.

The second major cluster mainly studies the perceptions and preferences of tourists towards rural tourism. According to the attention restoration theory, people’s perceptions and sociocultural differences affect their preferences for different patterns of rural tourism [35,51]. Meanwhile, economic profit generation in rural tourism is affected by tourism consumption [52,53]. Understanding the influencing factors of the preferences of tourists, including place attachment, destination image, and others, is conducive for policy making and the long-term development of rural tourism [54].

The third major cluster is mainly concerned with the tourist behavior in rural tourism. Motivation has been identified as the underlying behavioral root of tourist behavior. Some research analyzes the motivations of tourist by identifying their culturally based assumptions, values, and beliefs [40]. Other studies have examined the relationships between local characteristic and tourist motivations when visiting a certain emerging destination [55].

The fourth major cluster is mainly concerned with the linkage between rural tourism development and regional environmental protection. In order to develop rural tourism, the over-exploitation of land has caused the degradation of the local environment [56]. With the change in people’s concepts, protecting and improving the ecological environment, maintaining natural landscape ecology, and enhancing farmers’ awareness of environmental protection are gradually becoming the hotspots of rural tourism research [57]. In the process of rural tourism development, the protection of the ecological environment in rural areas can promote their tourism value [58]. Furthermore, the development of rural tourism contributes to the improvement of public transport networks and promotes cultural interaction [59].

The fifth major cluster is mainly about the evolution of rural tourism development and challenges in future. Rural tourism has been studied since the 19th century, and is gradually emerging as one of the fastest growing tourism industries with the increasing demand of tourists [60]. Scholars from various countries have conducted a large amount of research on the connotation and development models of rural tourism [14,39,61,62]. Moreover, many scholars have evaluated the performance of diversified rural tourism and proposed suggestions on its sustainable development and management [10,13,42]. In the context of rural revitalization, the challenge and future research direction should be how to fully tap into the value of rural tourism, transform it into an effective path to meet the leisure needs of urban dwellers, and realize the integrated and sustainable urban and rural development.

3.3.3. Timeline Visualization

The timeline visualization provides a temporal overview of the hotspots and derivatives in the research field at different times. By analyzing the occurrences of subject words or keywords, it can explore the research trends and hotspots in the past 21 years, and can thus make predictions for future developments. In this paper, we used CiteSpace software to generate a timeline visualization mapping of rural tourism research through keyword co-occurrence analysis (Figure 8).
Figure 8. Keyword time mapping.
Relevant research can be divided into two parts, with 2007 as the node (Figure 8). Prior to 2007, studies on rural tourism mostly focused on rural tourism itself [63], or food security [64] and family farms [65]. With the rapid development of rural economies, the research field of rural tourism has further expanded and rapidly diversified. Subsequent studies have started to analyze the post-productivism of rural development [66], sustainable management [67], and impacts on climate change and ecosystem services [68]. The papers related to “post-productivism clusters” have exploded the most and were first published around 2008, when research in the field was beginning. The rural development of post-productivism has attracted public and scholarly attention with the promotion of rural revitalization in China. It included rediscovering the value of agricultural culture, reconstructing the rural functions in terms of living, ecology, and production, and exploring the significance of rurality for urban industrial civilization [69,70]. These explorations coincide with the development of rural tourism. Other larger nodes corresponding to the cultural landscape, impact, and management of rural tourism were cited around 2003 and continued until 2010.

4. Conclusions

In this study, we systematically reviewed 1627 publications in the field of rural tourism from 2000 to 2021 through a bibliometric analysis. We summarized the publication trends and hotspots in this field by using VOS viewer, CiteSpace, and R software. The main findings are as follows.

First, the number of articles published relating to rural tourism showed an overall upward trend between 2000 and 2021. A total number of 1627 articles were published in the past two decades, with an average of 74 articles per year. However, after 2016, the annual number of citations of the paper started to decrease, dropping from 20.1 in 2016 to 13.2 in 2020. China stands out for its research results in the field of rural tourism, followed by Spain and the United States. Meanwhile, we found that countries and regions with high economic levels began to study rural tourism earlier than those with low economic levels.

Second, the most cited journals were The Journal of Agriculture and Environment, Tourism Planning and Development, and Tourism Management, with an average of 45.62, 39.15, and 29.22 citations, respectively. Plenty of papers have been published in open access journals, including Sustainability, since 2016. Ten core papers undertaking knowledge transfer in the field were identified.

Third, the research hotspots showed obvious differences and characteristics at different stages. Research hotspots from 2000 to 2007 focused on rural tourism, food security, and family farms, whereas subsequent studies concentrated on post-productivism in rural development, sustainable management, and impacts on climate change and ecosystem services. A hotspot worthy of attention in the future is the exploration of the sustainable development of rural tourism, making it an essential focus point for increasing human well-being and achieving integrated urban and rural development and rural revitalization.

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