**Advances in Rural Tourism Research in Developing Countries: An Analysis Based on China**

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**Abstract**

Based on the core journal of CNKI database from 1992 to 2018, this study made a visual analysis of the research on China's rural tourism by means of the information visualization software Cite Space, in order to analyze the development trend and the possibility of sustainable development of rural tourism in developing countries through the research on China's rural tourism. This research shows that: First, the rural tourism research shows the characteristics of relatively concentrated and large concentration. Series of core research teams had been formed; Second, the rural tourism research are mainly concentrated in colleges and universities, follow by research institute, but the Chinese Academy of Sciences is a leading researcher on rural tourism. And the institutions are closely linked and the cooperative network is well developed. Third, High-frequency key words in recent years are rural tourism, leisure agriculture, agritourism, development countermeasures and sustainable development. Current research topics and hotspots include supply-side structural reform, targeted poverty alleviation, global tourism perspective, industrial convergence, the strategy of Rural Revitalization. Last, we need focus on theory innovation study, interdisciplinary development and multidimensional perspective about rural tourism research under the new domestic situation.

**Keywords**

China; rural tourism; sustainable tourism; developing countries; Cite Space; knowledge maps; CNKI database.

1. Introduction

Rural tourism is a new type of industrial form that is developed to broaden the versatility of agriculture, tap rural tourism resources, realize the integration of countryside and tourism, and the integration of ecological agriculture and eco-tourism[1]. As a new form of tourism, rural tourism has been developed for over 100 years in the developed countries in Europe and the United States. It has entered a relatively mature development stage in terms of development model, development experience and system arrangement, and has embarked on a path of innovative and large-scale development. Researches on foreign rural tourism began after the Second World War and were concentrated in the 1980s, accumulating a large number of research results. These researches mainly focused on the identification and definition of rural tourism concepts[2], the study on rural tourist behavior[3], the development and management of rural tourism[4], the study on rural tourism and rural sustainable development[5], the study on the strategies of rural tourism development[6], and the study on the development effects of rural tourism[7], etc. China’s rural tourism started from the 1990s. With the advancement of urbanization and industrialization, urban residents are faced with a tight pace of life and fierce social competition. What’s more, they have to face decreased environmental quality, air pollution, traffic jams and other urban issues. More and more urban residents are eager to get out of the city, get close to nature and return to the countryside. With people's longing for rural life, rural tourism, leisure agriculture and agritourism gradually develop. Rural tourism has been recognized as a key approach to China's rural revitalization and targeted poverty alleviation, and...
China’s public benefit distribution from bottom to top is realized through rural tourism[8,9]. Rural tourism and leisure agriculture have become the focus of the tourism academic circle and rural development due to the actual needs and active promotion of the government. However, rural tourism development encountered a number of problems, such as lagging practices, lack of planning guidelines, simple tourism product, uneven quality and disorganized management, which have drawn extensive attention from governments and scholars. Although there are already scholars who have reviewed and anticipated the researches on China’s rural tourism, leisure agriculture and agri-tourism from different perspectives[10,11,12] their researches were basically based on qualitative analysis on previous literature and they were relatively subjective in literature selection, hotspots analysis and direction anticipation. Based on this, literatures on rural tourism, leisure agriculture and agri-tourism from the China Knowledge Resource Integrated Database (CNKI database) are used as the research data in this paper, and by use of the Cite Space information visualization software, the author attempts to make quantitative analysis on the research trends, development, and hotspots of China's rural tourism and leisure agriculture, sort out the current research hotspots, frontiers and research evolution processes to serve as references for future researches.

2. Data Sources and Research Methods

To fully and accurately grasp and analyze the development trend of China’s rural tourism subject areas, and to increase the degree of explanation and credibility of the results, in this paper, the author uses CNKI database with the largest number of Chinese literature covering the most comprehensive subject areas, as the source of sample data. Besides, in order to ensure an accurate grasp of the development direction of rural tourism disciplines, the author selects the core journal data from CNKI are selected as the data source in this paper. The author searched the database using topics of “rural tourism”, “leisure agriculture” and “agritourism”. As the first paper that met the search requirements was published in 1992, the author searched the papers published between 1992 and 2018 and obtained a total of 3,814 documents. After reviewing and organizing the search results, and removing irrelevant contents such as meeting notices, announcement notices, newspaper reports and results presentation, the author obtained a total of 3,406 valid sample documents. The information in each document contained the authors, organizations, keywords, abstracts, publishing institutions, and publication date. The author conducted the data search on May 21, 2018.

The author converted the format of the collected CNKI data by use of Cite Space, drew various types of maps, and calculated the size of attributes such as the centrality of each node to display the hotspot distribution and trend of subject researches. In this research, by collecting and processing the documents, the author intends to explore the evolution of research topics in the field of rural tourism research through the analysis of keywords; by analyzing the author cooperation network, the author intends to understand the current domestic rural tourism research teams and the cooperative relationship among them; by analyzing the research institutions, the author intends to understand the distribution of research forces of rural tourism research.

3. Basic Features

3.1 Analysis on Publication Time

The number of papers published in a discipline can reflect the degree of research activity of this discipline. Large number of papers that were published at a high frequency can indicate a high degree of research activity[13]. In terms of the overall literature development trend, the number of papers about China’s rural tourism increases with fluctuation. Figure 1 shows that the domestic rural tourism research activity in the past 25 years from 1992 to 2017, especially after 2006, the researches increased significantly. This indicates that the research of rural tourism has gradually drawn the attention of scholars. The academic groups that first began to conduct research on rural tourism was the scholars in the field of agricultural economics. Their main focus was leisure agriculture and agricultural tourism. In general, in the period from 1992-2005, the research group was small and the number of papers published every year was not exceed 50, which implies a relatively low level of
research activity. In 2005, the “Rural Eco-tourism Development Forum” and "The Third Cross-strait Agritourism, Leisure Agriculture and Rural Tourism Development Symposium" were held in Kunming and Urumqi, respectively. The development status, models, existing problems and future research directions of China’s rural tourism were discussed at the two meetings, stimulating an upsurge of rural tourism research. From 2005 to 2011, related researches on rural tourism and leisure agriculture entered a period of fast growth, and the number of papers published increased dramatically. From 2012 to 2015, the publication of papers decreased. Although the number of papers published every year was still over 150, it decreased obviously in comparison with that in 2011. In the three consecutive years from 2015 to 2017, the CPC Central Committee’s Document No. 1 proposed the active expansion of the agricultural versatility and the vigorous development of leisure agriculture and rural tourism. At the same time, the Central Government specifically issued Guidance Opinions on Vigorous Development of Leisure Agriculture and Action Plan for Quality Upgrade of Rural Tourism Development (2017)” and other documents. In 2015, the CPC Central Committee put forward the policy of “targeted poverty alleviation” and proposed “poverty alleviation through tourism” as one of the important models for “targeted poverty alleviation”. The direction and encouragement of policies greatly boosted the development of discipline research. The number of papers published increased greatly from 179 in 2012 to 425 in 2017, increasing by 2.4 times.

Fig 1. Annual distribution of rural tourism research papers published from 1992 to 2017

3.2 Analysis on the Author Network

Through the analysis on the author network, the current cooperative relationship between the core research groups in the field can be reflected. The software Cite Space is used to analyze the distribution of the authors to obtain a co-citation author map. The publication of the authors’ papers is obtained from clustering analysis. The number and size of the nodes represent the number of the authors and the number of papers published by the authors. The thickness of the lines reflects the cooperation relationship and degree of cooperation among the paper authors. There are 721 nodes and 449 links in Figure 2, with a network density of 0.0017. In terms of the co-occurrence frequency of the authors, Zhang Jianguo, Chen Zhiyong, Guo Ling, Yang Zaitian, Yu Yiwu, Chen Tian and Chen Qiuhua (Table 1) have a co-occurrence frequency of more than 10 times. In terms of the cooperation network, rural tourism research is characterized by “small-team concentration and large-team dispersion”, that is, several core research teams for rural tourism, leisure agriculture and agritourism have been formed. Due to the similarities of the research fields, these teams have a close relationship. Figure 2 shows that the rural tourism research in China has witnessed the initial formation of the rural geography research team of the Institute of Geographical Resources and Environment of the Chinese Academy of Sciences with Guo Huancheng, Liu Jiaming, Xi Jianchao and Chen Tian as the core members, the team of Nanjing Normal University with Tao Zhoomin and Huang Zhenfang as the core members, the research team of Zhejiang Agriculture and Forestry University with Zhang Jianguo, Yu Yiwu, Cai Bifan and Meng Minghao as the core members, the
ecological tourism and leisure agriculture research team of Guangxi University with Wen Jun and Li Xingqun as the core members, and the research team of Guizhou Normal University with Chen Zhiyong and Yin Hongmei as the core members. In terms of the cooperation network, these core teams have established complex network partnerships based on the teacher and student relationships. There are close cooperation within and among the teams, and the interdisciplinary research links are obvious. For example, the interdisciplinary research cooperation networks among the disciplines of rural geography, eco-tourism and agricultural economics have been established.

![Fig2. Cooperation network of rural tourism research authors from 1992 to 2018](image)

As shown in Table 1, statistics of the author's co-occurrence frequency paper publication show that nine authors have published more than ten papers. Guo Huancheng has published 16 papers and he is one of the important scholars in the field of rural tourism and leisure agriculture. A total of 43 authors have published more than five papers per capita, accounting for 9.07% of the total papers. These authors form the core group for rural tourism research, promoting the rapid development of rural tourism. More than 80 papers were published by the Institute of Geographical Resources and Environment of the Chinese Academy of Sciences with Guo Huancheng, Liu Jiaming, Chen Tian and Xi Jianchao as the core members. It is this research team that has published the most papers among all the research teams. Further analysis shows that the papers of this team have all been published by top journals, such as geography journals, progress in geography, geography research and tourism journals, in the fields of geography and tourism, leading the theoretical development and research direction of the academic circle of rural tourism, and making itself the direction indicator of basic research in the academic circle of rural tourism.
Table 1. Top 20 rural tourism research authors and their institutions from 1992 to 2018

<table>
<thead>
<tr>
<th>Number of published</th>
<th>Author</th>
<th>Publication Institution</th>
<th>Number of published</th>
<th>Author</th>
<th>Publication Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Guo Huan-cheng</td>
<td>Institute of Geographical Resources and Environment of the Chinese Academy of Sciences</td>
<td>8</td>
<td>Tang Dai-jian</td>
<td>Zhejiang Gongshang University</td>
</tr>
<tr>
<td>16</td>
<td>Zhang Jian-guo</td>
<td>Zhejiang A&amp;F University</td>
<td>8</td>
<td>Guo Ling</td>
<td>Sichuan Agricultural University</td>
</tr>
<tr>
<td>13</td>
<td>Xi Jian-chao</td>
<td>Institute of Geographical Resources and Environment of the Chinese Academy of Sciences</td>
<td>7</td>
<td>Liu Tao</td>
<td>Shandong Technology and Business University</td>
</tr>
<tr>
<td>13</td>
<td>Yu Yi-wu</td>
<td>Zhejiang A&amp;F University</td>
<td>7</td>
<td>Lu Lin</td>
<td>Anhui Normal University</td>
</tr>
<tr>
<td>12</td>
<td>Tao Zhumin</td>
<td>Nanjing Normal University</td>
<td>7</td>
<td>Chen Qiu-hua</td>
<td>Fujian Agriculture and Forestry University</td>
</tr>
<tr>
<td>11</td>
<td>Chen Tian</td>
<td>Institute of Geographical Resources and Environment of the Chinese Academy of Sciences</td>
<td>7</td>
<td>Xu Fu-ying</td>
<td>Shandong Technology and Business University</td>
</tr>
<tr>
<td>11</td>
<td>Yang Xin-jun</td>
<td>Northwest University</td>
<td>7</td>
<td>Yin Hong-mei</td>
<td>GuiYang Normal University</td>
</tr>
<tr>
<td>11</td>
<td>Chen Zhi-yong</td>
<td>GuiYang Normal University</td>
<td>7</td>
<td>Wen Jun</td>
<td>Guangxi University</td>
</tr>
<tr>
<td>11</td>
<td>Huang Zhen-fang</td>
<td>Nanjing Normal University</td>
<td>7</td>
<td>Yang Zai-tian</td>
<td>Hunan Institute of Traffic Engineering</td>
</tr>
<tr>
<td>9</td>
<td>Li Xing-qun</td>
<td>Guangxi University</td>
<td>7</td>
<td>Liu Jia-ming</td>
<td>Resources and Environment of the Chinese Academy of Sciences</td>
</tr>
</tbody>
</table>

3.3 Analysis on Publication Institution Network

The statistical analysis on the publication institutions can help us understand the current distribution of scientific research forces of rural tourism. Data analysis shows that rural tourism research is mainly concentrated in colleges and universities, followed by research institutes. The most special institute is the Chinese Academy of Sciences. Representing the highest level of Chinese scientific research, the Chinese Academy of Sciences has published up to 80 papers, becoming the leading institution for domestic rural tourism, leisure agriculture and agritourism research. Table 2 shows that in addition to Chinese Academy of Sciences, the top 20 institutions are all colleges and universities, among which
Nanjing Normal University has published 41 papers, topping the list of these colleges and universities, and followed by famous domestic universities such as China Agricultural University, Sichuan University and Nanjing Agricultural University. The papers published by the top 20 institutions accounts for 20.79% of all papers published. This shows that the research institutions and research forces in rural tourism, leisure agriculture and other agricultural tourism areas are relatively concentrated, and the research capabilities are various greatly. The schools of geography and tourism of the research institutes of Chinese Academy of Sciences, Nanjing Normal University, Northwest University, Nanjing University, Anhui Normal University and other colleges and universities have researched the development trend of rural tourism in China[14], development model[15], development status and trend of leisure agriculture and agritourism in China[16,17], development mechanism, influencing factors and environmental effects of rural tourism in the context of new urbanization[18,19,20], and the spatial and temporal characteristics of rural tourism and leisure agriculture[21,22] from the perspective of rural geography. Agricultural universities such as China Agricultural University, Nanjing Agricultural University, Hebei Agricultural University and Fujian Agriculture and Forestry University mainly research the impact of the development of rural agricultural tourism including leisure agriculture and agritourism on agriculture, rural areas and farmers from the perspective of agricultural economic development, and research the development mode, development potential and development effect of agricultural tourism from the perspective of the industry.

Table 2. Top 20 rural tourism research institutions from 1992 to 2018

<table>
<thead>
<tr>
<th>No.</th>
<th>Number of published papers</th>
<th>Publication Institution</th>
<th>No.</th>
<th>Number of published papers</th>
<th>Publication Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80</td>
<td>Chinese Academy of Sciences</td>
<td>11</td>
<td>33</td>
<td>Fujian Agriculture and Forestry University</td>
</tr>
<tr>
<td>2</td>
<td>41</td>
<td>Nanjing Normal University</td>
<td>12</td>
<td>32</td>
<td>Central South University of Forestry and Technology</td>
</tr>
<tr>
<td>3</td>
<td>40</td>
<td>China Agricultural University</td>
<td>13</td>
<td>32</td>
<td>Sichuan Agricultural University</td>
</tr>
<tr>
<td>4</td>
<td>39</td>
<td>Sichuan University</td>
<td>14</td>
<td>30</td>
<td>Anhui Normal University</td>
</tr>
<tr>
<td>5</td>
<td>39</td>
<td>Nanjing Agricultural University</td>
<td>15</td>
<td>30</td>
<td>Zhejiang Gongshang University</td>
</tr>
<tr>
<td>6</td>
<td>36</td>
<td>Zhejiang University</td>
<td>16</td>
<td>29</td>
<td>Northwest University</td>
</tr>
<tr>
<td>7</td>
<td>35</td>
<td>Zhong-nan University of Economics and Law</td>
<td>17</td>
<td>29</td>
<td>Southwest University</td>
</tr>
<tr>
<td>8</td>
<td>34</td>
<td>Nanjing University</td>
<td>18</td>
<td>28</td>
<td>Chongqing Normal University</td>
</tr>
<tr>
<td>9</td>
<td>34</td>
<td>Peking University</td>
<td>19</td>
<td>28</td>
<td>Guizhou University</td>
</tr>
<tr>
<td>10</td>
<td>34</td>
<td>Agricultural University Of Hebei</td>
<td>20</td>
<td>25</td>
<td>Yunnan University</td>
</tr>
</tbody>
</table>

Further analysis shows that in the second category of the authors’ publication institutions, researches on rural tourism, leisure agriculture and agritourism are mainly concentrated in the schools of geography, tourism and agricultural economics of comprehensive universities. In terms of spatial distribution, research institutions are mainly concentrated in East China, 24 scientific research institutions of the top 50 publication institutions are in East China, followed by the institutions in West China and the least institutions in Central China. This indicates that the economy is developed in East China, where the rural tourism market is well-developed at a high level of development; the
institutions of higher learning and research institutes gather so the scientific research force is strong; although the economy in Central China is more developed than that in West China, the overall number of colleges and universities is relatively low. Researches on the rural tourism in Central China are mainly concentrated in Wuhan, which has a large number of colleges and universities, and very few researches are conducted in other regions; among the cities in the western region, where the economy is developed and universities are concentrated, such as Chengdu and Xi’an, there are numerous published research papers on rural tourism.

In general, there are close links between domestic agricultural tourism research institutions in areas, such as rural tourism, leisure agriculture and agritourism. The cooperation degree is high and the cooperation network is fully developed, forming a cross-disciplinary cooperation mechanism featuring the combination of “geography, tourism and agriculture”. While the tourism disciplines are the main line of rural tourism development, geography disciplines and agricultural economics enrich the research content and research paradigm of rural tourism.

Fig 3. Cooperation network of rural tourism research institutions from 1992 to 2018

4. Research Hotspots and the Evolution

4.1 Analysis on Keywords Co-occurrence Map

Keywords are the core and key arguments of the paper content. The analysis on keywords co-occurrence map of relevant literature in the field of rural tourism can manifest the research hotspots and research trends of the rural tourism field in a relatively direct way. We import the data into the software Cite space, use the software’s keyword path calculation method to calculate the co-occurrence frequency and centrality of the keywords and obtain the keyword co-occurrence time map. As shown in Figure 4, there are 695 keyword nodes in the keywords co-occurrence map of rural tourism research with 780 links and a network density of 0.0032. Larger nodes indicate higher frequency of occurrence and stronger centrality. The first 20 important keywords were extracted
according to the software analysis results, as shown in Table 3. Statistics and analysis show that keywords such as rural tourism, leisure agriculture, agritourism, agricultural tourism development strategy, sustainable development and new rural construction have the highest frequency of occurrence.

Table 3. Top 20 high-frequency keywords of rural tourism from 1992 to 2018

<table>
<thead>
<tr>
<th>Keywords</th>
<th>Frequency</th>
<th>Centrality</th>
<th>Keywords</th>
<th>Frequency</th>
<th>Centrality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural tourism</td>
<td>1251</td>
<td>0.58</td>
<td>Countryside</td>
<td>65</td>
<td>0.15</td>
</tr>
<tr>
<td>Leisure agriculture</td>
<td>301</td>
<td>0.34</td>
<td>Rural area</td>
<td>63</td>
<td>0.37</td>
</tr>
<tr>
<td>Agri-tourism</td>
<td>223</td>
<td>0.09</td>
<td>Development pattern</td>
<td>63</td>
<td>0.09</td>
</tr>
<tr>
<td>Development countermeasures</td>
<td>137</td>
<td>0.20</td>
<td>Tourism industry</td>
<td>58</td>
<td>0.12</td>
</tr>
<tr>
<td>Sustainable development</td>
<td>131</td>
<td>0.08</td>
<td>Development of agri-tourism</td>
<td>58</td>
<td>0.12</td>
</tr>
<tr>
<td>New rural construction</td>
<td>127</td>
<td>0.04</td>
<td>Ecotourism</td>
<td>53</td>
<td>0.1</td>
</tr>
<tr>
<td>Traveling agriculture</td>
<td>82</td>
<td>0.07</td>
<td>Development mode</td>
<td>51</td>
<td>0.07</td>
</tr>
<tr>
<td>Tourism</td>
<td>81</td>
<td>0.11</td>
<td>Tourism development</td>
<td>48</td>
<td>0.02</td>
</tr>
<tr>
<td>Tourism industry</td>
<td>78</td>
<td>0.02</td>
<td>Rural eco-tourism</td>
<td>46</td>
<td>0.02</td>
</tr>
<tr>
<td>Tourism development</td>
<td>74</td>
<td>0.15</td>
<td>Agro-tourism</td>
<td>44</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Based on the co-occurrence analysis on keywords and the analysis on the total number of published papers, rural tourism research can be divided into four phases, so as to further analyze the trend of research in each phase. In general, rural tourism, leisure agriculture and agri-tourism are the three keywords with the highest frequency of occurrence. They are the core topics of rural tourism research. In terms of each stage, the period from 1992 to 2005 was the initiation and exploration stage of rural tourism research. The annual number of published papers was relatively small, and the largest number was 54 in 2005. At this stage, leisure agriculture and agritourism were the research subjects. There were few researchers on rural tourism. The research on leisure agriculture and agritourism mainly referred to and learned from the development experience and model of Taiwan Province of China. The research mainly focused on the status, development and problem solutions. In 2003, a small number of scholars began to study the development of rural tourism in foreign countries, and they mainly focused on review articles\cite{23}. The period from 2006 to 2011 witnessed the rapid development of rural tourism research, multidisciplinary crossover researches began to increase. The research on leisure agriculture and agritourism gradually matured. The main focuses of this stage were case interpretation, model exploration and problem anatomy and so on. This stage was the peak period of rural tourism research, with fruitful results in the research on rural tourism at home and abroad in multiple disciplines, such as geography, tourism, agricultural economics and management. Researchers gradually explored the models, policy systems, operating mechanisms and influencing factors of rural tourism in China, and began to establish the theoretical system and analytical framework for rural tourism research in China. Based on the steady progress of new rural construction and beautiful countryside construction, rural tourism researchers began to pay attention to research on rural residential environment, social governance and social effects. The period from 2012 to 2015 was a period of decline of rural tourism research. The number of published papers was lower than the period before it and after it. Research on rural tourism and agricultural tourism in the context of industrial integration and new urbanization was a major feature of this stage. The period from 2016 to 2018 was the period of restoration and development of research on rural tourism, leisure agriculture
and agritourism. For the consecutive years from 2015 to 2018, the State Council and Ministry of
Agriculture and Rural Affairs issued special documents proposing to promote the structural reform
of the agricultural supply side, develop the versatility of agriculture and tap into the leisure, culture
and tourism value of agriculture. Besides, in 2015, China launched the “targeted poverty alleviation”
plan. Poverty alleviation through tourism became one of the important means for poverty alleviation.
In 2017, in its “Nineteenth Congress” report, the CPC Central Committee put forward the strategy of
rejuvenating the countryside, pushing rural economic research to a climax. Therefore, at this stage,
structural reforms on the supply side, targeted poverty alleviation, new business models, global
tourism and rural revitalization became the hotspots of research.

Figure 4. Keywords co-occurrence network of rural tourism research from 1992 to 2018

4.2 Analysis on Research Fronts

The research front is an emerging hot topic and represents the current ideological situation in a
discipline. The software Cite space is used for obtaining the keywords time clustering map (Figure
5). There are 152 keyword nodes and 253 links in the keywords research front map of rural tourism
research, with the network density of 0.022. It can be seen that the current research hotspots and fronts
mainly include supply-side structural reforms, industrial integration, targeted poverty alleviation, new
business models, global tourism and rural rejuvenation strategies. In combination with relevant
literatures, the research topics of each front are analyzed: “Structural reform on the supply side of
rural tourism” is the focus, direction and measure proposed in the context of overcapacity of the entire
industry in the country to address the existing problems of homogeneity and popularization of rural
tourism[24,25]; “Industrial integration” is a “tourism +” strategy proposed based on the agricultural
three-industry integration. Most of the researches are about the integration and development of rural
tourism and cultural industries, traditional agriculture, pension industry and health industry and how
to optimize and adjust the rural tourism structures to integrate rural tourism with other industries and
achieve coordinated development[26,27]. “Targeted Poverty Alleviation” is a research on rural
tourism and poverty alleviation through tourism in the context of national targeted poverty alleviation.
It mainly focuses on the researches on the actual difficulties of rural tourism, poverty alleviation
models, development strategies and other aspects[28]; “New Business Models” mainly refer to new forms and new models of rural tourism. The current research hotspots are mainly concentrated on the forms, development mechanisms and formation mechanisms of new models of rural tourism. It’s still in a phase of continuous exploration and research[29,30]; the study of “all-for-one tourism” is an important hotspot of the current rural tourism research. Most researchers explore the development path, development strategies, new paradigms and new approaches of rural tourism from the perspective of “all-in-one tourism” and conduct a large number of case studies[31]; the “Rural Revitalization Strategy” is the highest strategy for rural development proposed at the level of national central government. It has become an important method and perspective of rural tourism research in the new era and has become a policy guide for rural tourism research[32,33].

The front analysis shows that national policy is an important factor in leading rural tourism research. However, in general, the published journals of relevant researches didn’t have enough influence and the research was not deep enough. Most of them were articles based on applied research or policy interpretation and lacked basic researches on theoretical basis and theoretical analysis systems.

![Figure 5. Time map of rural tourism research fronts from 1992 to 2018](image)

### 5. Conclusion and Discussion

In this research, the author uses the documents on rural tourism between 1992 and 2018 collected from the CNKI database as the data source, and uses the information visualization software Cite Space as the research tool to analyze the development process and knowledge map of rural tourism in China. The research results show that: (1) In terms of the publication time, the number of papers on domestic rural tourism research has increased year by year since 1992. It experienced slow development in the initial stage of 1992-2005, and rapid development in the growth stage of 2006-2011, short-term decline in the low-ebb period from 2012 to 2014, and rapid increase in the recovery period from 2015 to 2018. (2) In terms of the authors, Guo Huancheng, Zhang Jianguo, Yu Yiwu, Tao Zhuomin, Chen Tian, Xi Jianchao, Chen Zhiyong and some others are the core authors in the field of rural tourism research. In terms of the author’s cooperation network, the rural tourism research
has “core-edge” characteristics. The several core teams are closely linked and their cooperation is relatively strong, and they have become the backbone of rural tourism research; whereas, other scholars that are relatively marginal have published fewer papers and are loosely connected. They have become a marginal group of rural tourism research. (3) In terms of the publication institutions, rural tourism researches are mainly concentrated in colleges and universities, followed by research institutes. The Chinese Academy of Sciences is the highest scientific research institute in China and has become the leader in rural tourism research. It has the largest number of papers published and has the greatest influence, followed by Nanjing Normal University, China Agricultural University, Sichuan University and Nanjing Agricultural University. The secondary institutions among the research institutions are mainly the School of Economics and Management of colleges of geography, tourism and agricultural economics. The cooperation network among various publication institutions is fully developed and the cooperation degree is high, forming a cross-disciplinary cooperation mechanism featuring the combination of “geography, tourism and agriculture”. (4) In terms of the keywords co-occurrence maps, rural tourism, leisure agriculture, agritourism, development strategy, new rural construction and sustainable development are those high-frequency keywords in the field of rural tourism research after 1992. Keywords analysis shows that the interdisciplinary researches on rural tourism are increasing, and the research perspectives tend to be diversified; geography, tourism science, and agricultural economics management are the mainstream subjects of rural tourism research. (5) In terms of the keywords research frontier map, keywords such as "supply-side structural reform," "industry integration," "targeted poverty alleviation" "new business models", “all-in-one tourism" and "rural revitalization strategy" have become the hotspots and frontiers of latest researches. With the steady advancement of the strategy of rural revitalization and targeted poverty alleviation in the new era, China's rural tourism research will enter a new historical period and embrace new development opportunities. The research on rural tourism will have new research propositions and room to innovate. Based on our comprehensive analysis on the past researches, it is concluded that we can focus on the following aspects in the future:

First, researches may be conducted on innovation of the theoretical system based on rural tourism with Chinese characteristics. Since the reform and opening up, China’s economic development has achieved tremendous achievements, rural tourism has started from scratch, and rural tourism research has also achieved some results. Some domestic scholars have started tentative researches on the theoretical system of rural tourism and have achieved certain results. However, in general, the existing research results are based on the summary and reference of the analysis and development experience of foreign rural tourism research[34]. China’s specific geographical environment, cultural traditions, significant regional cultural differences, economic development environment, and residents' consumption habits have created diversified rural tourism development models in China. It is necessary to classify and identify different types of rural tourism in different geographical environments and with different landscape cultural characteristics, so as to establish a systematic rural tourism research system of China. Basic research is the basis of applied research. Doing a good job in basic theory research of rural tourism can better guide the planning, design and management of rural tourism.

Second, attention should be paid to the analyses from interdisciplinary and multi-dimensional perspectives. Rural tourism is a sub-discipline under the major classification of tourism studies, but rural tourism research is divided into researches at the macro level, medium level, and micro level. The macro level is about the research on the layout and distribution characteristics at the spatial level. The medium level is about the research on the layout and distribution characteristics at the spatial level. The medium level is about the research on the planning and design of rural tourist attractions, strategies development and management, etc. The micro level is about the research on the impact of multiple subjects, such as tourism resource providers, consumers, service providers on the development of rural tourism, and the environmental effects of external rural tourism. This requires multidisciplinary researches to be conducted on the development of rural tourism to study the theoretical basis and research framework of rural tourism from multi-disciplinary perspectives, such
as geography, tourism, and economics and from different aspects, thus offering advice and suggestions for the development of rural tourism.

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