Frontier Dynamic Research on China's "Three Rural" Financial Development under the Background of Inclusive Finance: Based on Bibliometric Analysis

Ying Qian¹,a, Hai Han Wang *¹,b
¹School of Management, Shanghai University, Shanghai, China

Abstract. In recent years, the central government has continued to focus on the issues of "three rural", and the financial development of "three rural" under the background of inclusive finance has increasingly become a topic of common concern for scholars. This study supplements the relevant research literature after the "19th National Congress of the Communist Party of China" report, especially since the "Village Revitalization Strategic Plan", and provides a certain reference for the theoretical research and practice of "three rural" financial development. Based on CNKI data, applying Cite space bibliometrics software, the research results were visualized and analyzed by bibliometric method, cluster analysis method and knowledge mapping technology. From the perspective of literature review on the "three rural" financial development, this paper integrated research to excavate research status, identify research interests and reveal development trends. Results show that banking institutions and academic institutions are high-yielding institutions, and teamwork has not yet formed; inclusive finance, rural finance, targeted poverty alleviation, small loans, rural revitalization, etc. are the focus of research attention; digital inclusive finance and rural financial development are relatively new research contents.

1 Introduction

On February 19, 2019, the No. 1 document of the Central Committee was released, focusing on the issue of "three rural" for 16 consecutive years, and pointed out that it is necessary to connect all aspects of the development of inclusive financial services for "three rural", adhere to the priority of agricultural and rural development, and do a good job in the work of "three rural". As a key service target of the inclusive financial system in China, the main body of "three rural" is the fundamental follow for promoting inclusive finance. The development of "three rural" finances is inseparable from the support of inclusive finance, especially rural finance. In the decisive period of building a well-off society in an all-round way, the development of "three rural" finances plays an important role in the process of solving the "three rural" issues.

At present, scholars have analyzed the "three rural" financial aspects from the analysis of the capacity of GSP (generalised system of preferences) rural financial institutions [1], the construction of rural financial systems [2], the innovation of microfinance models [3], and the development of digital inclusive finance [4]. Zhao Y [5] reviewed the relationship between inclusive finance and targeted poverty alleviation since the concept of targeted poverty alleviation proposed in 2013, and conducted a review of the relationship between the two and the difficulties faced by inclusive finance in the implementation of targeted poverty alleviation projects and the policy recommendations issued by the state; Zhang Y and Wang W [6] found that the current research on domestic and foreign rural financial poverty alleviation mainly focuses on four aspects: functional effect, organization system, product service and development path; Chen X [7] conducted a comparative review of the current research on inclusive finance and targeted poverty alleviation by scholars at home and abroad, and found that the current hindrance of inclusive finance on targeted poverty alleviation in China is mainly reflected in the imbalance of poor areas, imperfect definition of poor population standards and lack of management of poverty fund distribution.

At present, most of the literatures on the financial development theme of "three rural" in China are based on the study of "Targeted Poverty Alleviation" strategy under the background of inclusive finance. However, there is a lack of literature review after the report of the 19th National Congress of the Communist Party of China, especially the proposal of the strategic plan for "Rural Revitalization". The research lacks holistic and systematic nature and needs further research. Therefore, from the perspective of literature measurement, on the basis of existing research results, combined with the knowledge graph method, this paper conducts a visual analysis of the relevant research results of China's "three rural" financial development in the context of inclusive finance. It summarizes the research status, research hotspots and
research evolution path of "three rural" financial development. It can provide reference for the theoretical research of inclusive finance and the theoretical research and practice of "three rural" financial development.

2 DATA SOURCES AND RESEARCH METHODS

2.1 Data Sources

CNKI contains more than 7,000 publications in natural sciences and social sciences academic journals, and more than 50,000 articles are updated daily on its website. Therefore, in order to ensure the comprehensiveness of the data, this article downloads relevant literature based on the journal database in CNKI. The advanced search function was selected to conduct the keyword search. The search conditions are "theme: inclusive finance" and "theme: agriculture or rural or farmers". The annual search span is 2006-2019. A total of 2765 journal articles were retrieved. Manually check and filter the 2765 documents retrieved, preliminarily organize the documents, delete news, relevant conference summaries and papers with weak relevance to the theme, and finally 1,555 valid documents were obtained.

2.2 Research Method

Bibliometrics, as a research method in the field of information science, uses mathematical and statistical methods to quantify and analyze various aspects of scientific research, and uses it to describe and evaluate the status of scientific research and predict the development trend of scientific research [8-10]. In recent years, many scholars have used bibliometrics for scientific research. For example, Liang T and Liu Y have shown that the trend of "big data" has emerged and become the core element of business intelligence research through bibliometrics analysis [9]. Lei L and Di L conducted a quantitative analysis of the literature of applied linguistics journals from 2005 to 2016 to identify their key research topics and explore the changes in research trends in this field [11]. Through the quantitative analysis of domestic financial poverty alleviation literature in recent years, Kang S and Feng Y conducted found that since China's poverty alleviation development entered the stage of poverty alleviation, the academic research on financial poverty alleviation has developed rapidly, and put forward the prospect of future financial poverty alleviation research [12]. Therefore, this paper uses the method of bibliometrics to make a hot spot analysis and a summary of research trends on the financial development status of "three rural" in the context of inclusive finance.

3 RESEARCH STATUS ANALYSIS

3.1 Growth Rule Analysis

Among all the documents, the first document searched on the financial development of "three rural" in the context of inclusive finance is the "The Concept of Inclusive Financial System and Rural Financial Reform " published by Du X [13] in "China Rural Credit Cooperation" in 2006. The article draws on the international frontier concept of inclusive financial system, from the basic requirements and objectives of rural financial reform, microfinance and the framework of inclusive financial system, put forward the prospect of China's rural financial reform and rural financial system construction Sexual and global thinking. Since then, academic research on the theme of inclusive finance assisting the development of "three rural" began to heat up. The academic community has actively explored the development of "three rural" in the context of inclusive finance, and the number of publications showed a trend of steady increase.

The chronological output distribution of the literature can largely reflect the historical development, research level and development trend of this research field [12]. As shown in Figure 1, the turning point of the "three rural" financial development in the context of inclusive finance is 2013 and 2017. We can divide our research since 2006 into three stages: ① Initial development stage(2006-2012). At this stage, inclusive finance has just been proposed. It can be seen from Figure 1 that the amount of literature output is very small, with an average of less than 50 articles per year. ② Rapid development stage(2013-2016). As the report of the "Eighteenth National Congress" of 2012 puts forward, solving agricultural and rural peasants' problems is the top priority of the work of the whole party. It is of great and far-reaching significance to do a good job in the new stage of "three rural issues" and promote coordinated economic and social development. We can see the country's emphasis on agricultural economy has risen to the top of its development strategy. The "Decisions on Several Major Issues of Comprehensively Deepening Reform" adopted at the Third Plenary Session of the Eighteenth Central Committee of the Party in 2013 proposed a strategic plan of "developing inclusive finance, encouraging financial innovation, and enriching financial market levels and products". In the same year, the important idea of "precision poverty alleviation" was put forward. The 2015 "Government Work Report" once again emphasized inclusive finance, the core element is to expand financial coverage. Since then, the research on the financial development of "three rural" under the background of inclusive finance has shown a rapid development trend, which is highly consistent with the national policy background. ③ Stable growth stage (2017-2019). According to the relevant theories of literature growth, the growth rate of literature will decline after it enters the mature stage, which appears in 2017. However, with the proposal of the "Village Revitalization Strategy" in the report of the Party's "19th National Congress" in 2017, the publication of the State Council's No. 1 Document in 2018 encouraged the vigorous implementation of the rural revitalization strategy. In the academic session, the research on the financial development of "three rural" in the context of inclusive finance began to heat up gradually, and a steady growth situation appeared, indicating that scholars continue to pay
attention to related research in the field of financial development of agriculture, rural areas and farmers.

![Fig1. The number of papers published on Inclusive Finance to promote the financial development of "three rural"](image)

### 3.2 Issuer Analysis

Publishing institutions are the main research places for scholars to conduct research, and they can create and disseminate disciplinary knowledge. By analyzing the issuing institutions, it is helpful to quickly and accurately understand the distribution of research groups in the field of financial development of "three rural" in China, and evaluate the influence and research strength of these issuing institutions [10,14]. High-yielding document-issuing institutions are generally the main producers of scientific research achievements in a certain research field, and have strong academic influence. According to the formula of Price's law, the minimum amount is \(0.749 \times \sqrt{N_{\text{max}}} \approx 5.1349\), which shows that the institutions that issue ≥6 articles are high-yielding institutions. According to the results of Cite space software, there are 18 publishers with more than 6 publications, as shown in Table 1.

<table>
<thead>
<tr>
<th>Institution Name</th>
<th>Volume of Articles (parts)</th>
<th>Institution Name</th>
<th>Volume of Articles (parts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>People's Bank of China</td>
<td>47</td>
<td>Institute of Rural Development, Chinese Academy of Social Sciences</td>
<td>7</td>
</tr>
<tr>
<td>Hunan Agricultural University</td>
<td>39</td>
<td>School of Economics and Management, Northwest A&amp;F University</td>
<td>7</td>
</tr>
<tr>
<td>Anhui University of Finance and Economics</td>
<td>29</td>
<td>School of Economics and Trade, Xinjiang Agricultural University</td>
<td>6</td>
</tr>
<tr>
<td>School of Economics, Central University for Nationalities</td>
<td>15</td>
<td>Hubei University Business School</td>
<td>6</td>
</tr>
<tr>
<td>Hebei Finance University</td>
<td>12</td>
<td>Northeast Agricultural University</td>
<td>6</td>
</tr>
<tr>
<td>Xinjiang University of Finance and Economics</td>
<td>9</td>
<td>Hunan Institute of Business Local Finance Institute</td>
<td>6</td>
</tr>
<tr>
<td>School of Agriculture and Rural Development, Renmin University of</td>
<td>8</td>
<td>Guangdong Rural Credit Cooperative Union</td>
<td>6</td>
</tr>
</tbody>
</table>

Judging from the volume of documents issued by high-yield institutions, the high-yield document-issuing institutions of the "three rural" financial development mainly consist of two parts: banking institutions and college institutions. For banking institutions, the People's Bank of China occupies the first place in terms of the number of documents issued. There are two possible reasons for this phenomenon: ① Since the issue of "three rural" was raised, in the early stage, the state provided farmers with loans, securities and other services through traditional Banks and other financial institutions to provide them with adequate financial support. As the central bank of our country, the People's Bank of China has actively played the role of financial leverage. With the support of inclusive financial policies, it has contributed to the development of "three rural", and has cultivated a group of financial assistance enterprises Researcher. ② There are many financial academic journals and magazines in charge of the People's Bank of China, which provides a good platform for its scholars [12]. For institutions, the most productive institutions are agriculture, finance and economics universities and the schools of economics. Since the financial theme of "three rural" itself is the focus and hotspot of agricultural colleges and universities of finance and economics, a lot of papers have been published.

### 3.3 Core Author Analysis

According to the formula of Price author's law for core authors, the most prolific authors in this study published 11 articles, and the value of calculating the core author's essay volume \(M = 0.749 \times N_{\text{max}} \approx 2.484\) (where \(M\) is the minimum amount of core authors to be calculated, \(N_{\text{max}}\) is the core author who publishes the most articles) [15-16]. Authors who have published three or more articles immediately can be regarded as highly productive authors. As shown in Table 2, there are 28 authors with more than 3 articles.

The core author's research highlights the themes of inclusive finance and "three rural" finance, while conducting concentrated research on targeted poverty alleviation and rural revitalization. Cai Y of Hunan Agricultural University has long paid attention to the development of agricultural economy and has conducted in-depth research on the development of rural inclusive finance. Li M of Hunan Agricultural University pays more attention to rural financial coverage, rural financial growth path and thinking about the construction of rural financial system. Luo H of Hunan Agricultural University, started from the perspective of peasant household financing and focused her research on the construction of the indicator system of microfinance and GSP rural financial
institutions. Zhou M of Hunan Agricultural University has made great achievements in China's rural financial reform and financial poverty alleviation from the perspective of inclusive finance. In addition, we can see that the authors of the top several publications are from Hunan Agricultural University.

Table 2. Statistics of the number of core authors who published samples from 2006 to 2019

<table>
<thead>
<tr>
<th>Author</th>
<th>Volume of Articles (parts)</th>
<th>Author</th>
<th>Volume of Articles (parts)</th>
<th>Author</th>
<th>Volume of Articles (parts)</th>
<th>Author</th>
<th>Volume of Articles (parts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cai P</td>
<td>11</td>
<td>Zhang Y</td>
<td>7</td>
<td>Yang W</td>
<td>4</td>
<td>Chen X</td>
<td>4</td>
</tr>
<tr>
<td>Li H</td>
<td>10</td>
<td>Zhou M</td>
<td>9</td>
<td>Lu M</td>
<td>5</td>
<td>Shen X</td>
<td>4</td>
</tr>
<tr>
<td>Luo H</td>
<td>9</td>
<td>Li M</td>
<td>5</td>
<td>Wang M</td>
<td>4</td>
<td>Li M</td>
<td>4</td>
</tr>
<tr>
<td>Zhou M</td>
<td>8</td>
<td>Gao Y</td>
<td>4</td>
<td>Zhang Y</td>
<td>4</td>
<td>Lin M</td>
<td>4</td>
</tr>
<tr>
<td>Xin L</td>
<td>4</td>
<td>Zhang Y</td>
<td>4</td>
<td>Li Q</td>
<td>3</td>
<td>Li M</td>
<td>3</td>
</tr>
<tr>
<td>He X</td>
<td>4</td>
<td>Lu M</td>
<td>2</td>
<td>Wang Y</td>
<td>2</td>
<td>Li H</td>
<td>2</td>
</tr>
</tbody>
</table>

4 RESEARCH STATUS ANALYSIS

4.1 High Frequency Keyword Analysis

Keywords refer to words or terms selected from the paper that can refine and summarize the content, method, and purpose of the paper [10,17]. The analysis of keywords helps to analyze the hot issues in a certain research field and help scholars grasp the research direction of the research field. Generally, high-frequency keywords considered to be hot research topics in this field. The top 10 keywords are sorted according to the frequency of keyword occurrence, as shown in Table 3. Based on the frequency of comprehensive keywords, the research on the development of "three rural" in the context of inclusive finance mainly focuses on inclusive finance, rural finance, targeted poverty alleviation, small loans, rural revitalization, etc., indicating that researchers have a relatively unified understanding of the research theme, research object and research content of the financial development of "three rural".

Table 3. Statistics of the top 10 keywords in the sample literature from 2006 to 2019

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>High Frequency Words</th>
<th>Frequency</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inclusive finance</td>
<td>958</td>
<td>2007</td>
</tr>
<tr>
<td>2</td>
<td>Rural Finance</td>
<td>214</td>
<td>2007</td>
</tr>
<tr>
<td>3</td>
<td>Internet banking</td>
<td>150</td>
<td>2014</td>
</tr>
<tr>
<td>4</td>
<td>Rural inclusive finance</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Targeted poverty alleviation</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Financial services</td>
<td>70</td>
<td>2012</td>
</tr>
<tr>
<td>7</td>
<td>Financial poverty alleviation</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Microfinance</td>
<td>57</td>
<td>2007</td>
</tr>
<tr>
<td>9</td>
<td>Rural revitalization</td>
<td>42</td>
<td>2018</td>
</tr>
<tr>
<td>10</td>
<td>Rural financial services</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

4.2 Keywords Cluster Analysis

In this paper, Cite space software is used to carry out keyword clustering analysis on the research of "three rural" financial development in the context of inclusive finance to generate a visual clustering knowledge map as shown in Figure 2. The map has a total of 89 nodes, 291 connections, and a network density of 0.0743. Cite space provides two indicators, module value (Q value) and average contour value (S value), to indicate the clarity of the network structure and clustering, to evaluate the effect of the generated knowledge graph. When Q>0.3, it indicates that the divided network community structure is significant; when S>0.7, it indicates that the result of clustering is efficient and has practical research significance [18]. In this paper, the Q value of clustering is 0.4093>0.3, and the S value is 0.7292>0.7, indicating that the knowledge map is of good quality and has research significance.

Fig. 2. Keyword clustering network of sample literature from 2006 to 2019

It can be seen from Figure 2 that keyword clustering is divided into 7 categories, representing the 7 core research topics of China's "three rural" financial development research: #0 Targeted poverty alleviation, #1 Financial poverty alleviation, #2 Digital finance, #3 Countermeasure , #4 Digital inclusive finance, #5 Rural revitalization strategy, #6 Rural small and medium financial institutions. By sorting out the relevant literature, we will classify the current research on China's "three rural" financial development into the following three aspects:

4.2.1 National strategy boosts financial development of "three rural"

In November 2013, President Xi first proposed the important idea of "Precision Poverty Alleviation" during his investigation in Hunan Province. Since then, targeted poverty alleviation has become a key research area in the financial development of "three rural". In 2017, the Party's "19th National Congress" report first proposed the "Village Revitalization Strategy". In 2018, the CPC Central Committee and the State Council issued the "Planning Strategy for Rural Revitalization (2018-2022)", which emphasized the development of rural inclusive finance. Han X and Chen X [19] selected Qin'an county as the sample of the pilot business of "insurance + futures", pointing out that the "insurance + futures" model, under the background of the national "targeted poverty alleviation" strategy, stabilized agricultural production
and improved the "three rural" finance Service capacity has a promoting effect. Wang X [20] believed that the implementation of the "village revitalization" strategy is a strategic plan made by the Party Central Committee for the work of "three rural" in the new period, and a general program for financial institutions to do a good job in the financial development of "three rural".

4.2.2 Digital inclusive finance assists the development of the "three rural" finance

In 2016, the G20 Hangzhou Summit proposed "using digital technology to promote the development of inclusive finance". In July 2017, President Xi defined the digital development direction of China's inclusive finance. This means that digital inclusive finance has become an important direction for the future development of "three rural" finance. Yao J and others [21] believed that digital inclusive finance could make up for the deficiencies of traditional inclusive finance in coverage, flexibility and diversity in the financial field of "three rural", and could promote the development of "three rural" financial services by giving full play to its advantages of low cost and high penetration rate of digital inclusive financial services. Liu Y [22] believed that at the critical moment of the transformation and upgrading of China's agricultural economy and profound social changes, digital inclusive finance is urgently needed to be implemented in China's "three rural" areas to provide fresh power for the rural economy and society.

4.2.3 Rural small and medium-sized financial institutions assist the financial development of "three rural"

With the continuous development of inclusive finance, small and medium-sized financial institutions in China's rural areas are constantly changing, from the initial rural credit cooperatives to rural bank financial institutions, rural mutual financial cooperatives, agricultural crowdfunding platforms, and small loan companies and so on, which have become the research focus of the financial development of "three rural". Li W [23] through the survey of rural small and medium-sized institutions in Wuwei City, Gansu Province, found that rural small and medium-sized financial institutions in the region have continuously improved through management innovation, the extension of the construction of outlets, the increase of rural financial service supply, and the expansion of small loans for farmers. Enhance the effect of serving the "three rural" issues and support the development of "three rural" finance. Wang G [24] analyzed the evolution and changes of rural financial institutions and the living environment and status, and pointed out that the current rural small and medium-sized financial institutions have strengthened their support for financial policies, actively promoted the reform of the rural financial system, and cultivated financial innovation subjects. Based on "three rural", serving "three rural", and contributing to the financial development of "three rural". Headings, or heads, are organizational devices that guide the reader through your paper. There are two types: component heads and text heads.

4.3 Research Trend Analysis

In the Cite space software, select the time slice as 1 year to visualize the keyword time zone, and obtain the knowledge map of keyword time zone evolution in China’s "three rural" financial development in the context of inclusive finance (Figure 3).

Fig3. Financial Development Trend of "three rural" under the Background of Inclusive Finance

As can be seen from the figure, before 2013, the development of "three rural" finance in the context of inclusive finance was mostly concentrated in rural (inclusive) finance, small loans, and rural financial institutions. This is mainly due to the continuous development of inclusive finance, the introduction of microfinance models in rural financial institutions to promote traditional financial reforms, and more to serve the "three rural" finance. From 2014 to 2016, combining the "Internet+" and "targeted poverty alleviation" strategies, China began to develop inclusive finance in depth to improve interregional poverty. Financial poverty alleviation and targeted poverty alleviation have gradually become the focus of research in this field to gradually achieve comprehensive goal of building a well-off society. After 2017, with the gradual digitization of inclusive finance and the proposal of the “Village Revitalization” strategy, the research focus of the "three rural" financial development field has been continuously biased towards the two aspects of digital inclusive finance and rural revitalization.

5 RESEARCH CONCLUSION AND PROSPECTS

In today's rapid development of inclusive finance, the main body of "three rural" as a key service object of China's inclusive financial system, it is particularly important to pay attention to the development of "three rural" finance. In this study, we selected relevant literature on the development of "three rural" finance in the context of inclusive finance from 2006 to 2019 in the CNKI database, used the method of literature measurement, and used Cite space software to draw a visual knowledge map to mine the research status, identify research hotspots, and
analyze research trends. Fully presenting the current development status of China’s "three rural" financial research, we can draw the following conclusions: ① In the context of inclusive finance, the research on the financial development of China's "three rural" has experienced the initial development stage (2006-2012), rapid development stage (2013-2016) and steady growth stage (2017-2019). ② People's Bank, agricultural, financial and economic universities and economic colleges of various universities have contributed a large amount of research results to this research, but there is little cooperation and no close contact between research institutions, so there is no large-scale research team of "three rural" financial development. 28 authors such as Cai Y of Hunan Agricultural University can be regarded as the core authors of this study. ③ Through cluster analysis and knowledge mapping technology, this paper analyzes the research hotspots and research trends of the financial development of "three rural" in China under the background of inclusive finance. Research hotspots include inclusive finance, rural finance, targeted poverty alleviation, microfinance, and rural revitalization. Through the knowledge map, we found that the research on the development of "three rural" is mainly divided into three categories: National strategy boosts financial development of "three rural"; digital inclusive finance assists the development of the "three rural" finance; rural small and medium financial institutions assist the financial development of "three rural". In recent years, the research frontiers in the field of financial development of "three rural" have focused on the research fields represented by digital inclusive finance and rural revitalization. This article supplements the combing of relevant research literature after the report of the 19th National Congress of the Communist Party of China, especially since the "Village Revitalization Strategic Plan". And provides a certain guiding significance for the theoretical research and practice of the "three rural" financial development. However, since the documents in this article are from CNKI and are all Chinese documents, it is impossible to make a co-citation analysis and citation network analysis of the literature, and it is not possible to better demonstrate the knowledge base and research context of the study. In addition, as a key year to complete the building of a moderately prosperous society in all respects in 2020, "three rural" finance, as the key work of financial services, can continue to pay attention to and deepen research in this field.

ACKNOWLEDGMENT

The authors would like to thank the support of Ministry of Education Humanities and Social Sciences Youth Fund Project, No. 18YJC860006.

References


19. Han X, Chen X. Thoughts on the "insurance + futures" model to help targeted poverty alleviation and promote financial services for agriculture, rural areas and farmers—Taking Qin’an County in Tianshui City as an example[J]. Gansu Finance, 2019(07): 10-13.

20. Wang X. Thoughts on doing a good job in the financial services of "three rural" in the new era [J]. Modern Finance, 2019(08): 44-47.


