

# A Retrospective and Frontier Research on Human Resources Service Industry in China

## —Bibliometric Analysis Based on the CiteSpace Knowledge Graph

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### ABSTRACT

Based on the papers on human resources services collected from CNKI Journal Library as basis and Cite Space software as a tool, this research conducts high-yield institution analysis, author collaboration analysis, author-keyword coupling analysis and research topic analysis of the related literature, and use visual knowledge graphs to show China's human resource services spatial distribution characteristics and evolutionary context of industry research. The results show that the human resource service industry is subdivided into 7 hot research topics: overview of China's human resources service industry, the enlightenment of foreign human resource service industry development to China, human resource service industry and "outsourcing", the role of human resource service industry on the construction of human resource market, human resource service industry development countermeasures under the labor market reform, human resource service industry space gathering, and the innovative development of human resources service industry in the sharing economy. The research hotspots are gradually diversified, depicting the new characteristics and trends of China's human resource service industry research, and put forward the latest frontier issues for future traceable analysis from the following four perspectives: perfect the diversification of research methods and build a theoretical framework for human resource service industry research with Chinese characteristics, strengthen the construction of human resource service industry system, cultivate human resource service industry reserve force and broaden the research field of human resources service industry.

**Keywords:** Human Resources Service Industry, Cite Space, Knowledge Graph.

### 1. INTRODUCTION

The human resource service industry has become a hot issue of great concern to the government. The state has made comprehensive plans for the development of human resource service industry, and three ministries and commissions have jointly issued *Opinions on Accelerating the Development of Human Resource Service Industry*, which makes the human resource service industry increasingly the focus of attention of the government and enterprises. It is not only beneficial for scholars to better grasp the research hotspots in this field, but also provide theoretical guidance and policy reference for the development of this field to promote the prosperous development of HR service industry.

In view of this, this paper uses the literature related to human resource service industry in CNKI journal repository as the data source, and uses bibliometric

method to conduct spatio-temporal characteristics analysis and research theme analysis. The possible contributions are reflected in three aspects: (1) visualizing the knowledge map to show the spatial distribution characteristics and evolution of HR service industry research in China; (2) identifying academic groups that have made major contributions to HR service industry research in China, and pointing out the frontiers of HR service industry research by analysing the research deficiencies in the knowledge map; (3) the traditional qualitative method relies on personal subjective experience to collect and classify literature, while this paper uses Cite Space tool to conduct quantitative analysis and information mining, and the empirical results obtained are more objective and precise.

## 2. DATA SOURCES AND RESEARCH METHODOLOGY

### 2.1. Data sources

On October 23, 2021, we entered the database of China Knowledge Network (CNKI), selected "academic journals", clicked [Advanced Search], took "human resources service industry" as the topic, selected [Exact Match], and set the source journals as SCI source journals, EI source journals, Peking University Core, CSSCI and CSSCD. The total number of papers retrieved was 208. Through screening, papers without clear authors and those not related to the selected topics were removed, leaving 181 papers. The 181 converted paper records were imported into Cite Space software for high-yield institution analysis, author collaboration analysis, author-keyword coupling analysis, and research topic analysis.

### 2.2. Research methodology

Cite Space software is an information visualization tool that shows the knowledge map and development of a research field, and identifies new developments and trends in the subject area.

## 3. SPATIAL DISTRIBUTION CHARACTERISTICS OF CHINA'S HR SERVICE INDUSTRY

In order to reveal the development of human resource service industry research in China more clearly, the spatial characteristics such as institutional distribution and author distribution of research results are analysed.

### 3.1. High-yield institutions for domestic human resource service industry research

Cite Space software was used to analyse the institutional cooperation of 181 sample documents, with the time span set to "1992-2021" and the time slice set to 1, to study the current situation of domestic HR service industry and the actual contribution of institutions. Figure 1 shows the co-occurrence map of institutional cooperation obtained from the Cite Space analysis, from which the top three institutions in terms of the number of articles are the Ministry of Human Resources and Social Security, the Chinese Academy of Personnel Science, and Peking University. The network density is 0.0041, which indicates that there are 175 HR service industry research institutions in the sample, and the degree of cooperation among institutions is low.



Figure 1 Co-occurrence map of domestic human resource service industry research institutions

### 3.2. Author cooperation analysis in domestic human resource service industry research

According to the search results, since 1992, there are 244 researchers engaged in human resources services in China, and 18 authors have published more than 2 articles. The distribution of authors shows that domestic human resources service industry research is developing and has not formed many relatively stable research cooperation groups, and the authors are relatively scattered (as shown in Figure 2).



Figure 2 Co-occurrence network of authors in the field of domestic human resource service industry

### 3.3. Author-keyword coupling analysis in domestic human resource service industry research

The node type was selected as "author" and "keyword", and the top 100% per slice was selected to obtain a hybrid network knowledge graph with author and keyword co-occurrence. Among the top authors, Yongpo Tian is selected as the research object, and the knowledge map indicating his research direction is partially enlarged in Figure 3. It can be seen that the key words representing his research direction mainly include business model, talent system, technological progress, industrial agglomeration, park construction, Internet+, regulation and system, etc.

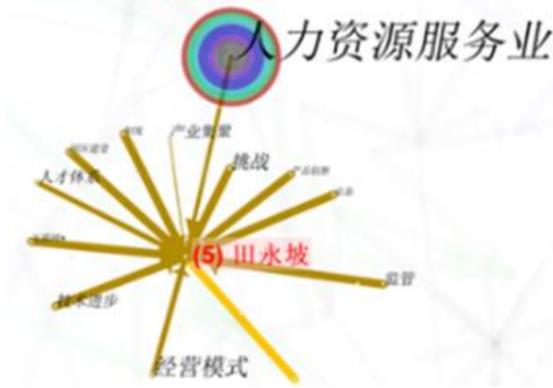


Figure 3 Yongpo Tian's research directions

**4. RESEARCH THEMES AND TRENDS**

The keywords in academic papers usually directly or indirectly imply the topic of that paper. The keyword co-occurrence network knowledge map of China's human resource service industry was mapped using Cite Space software to show the thematic evolution of China's human resource service industry research, as shown in Figure 4.



Figure 4 Co-occurrence network of keyword in the field of HR service industry research in China

By reading each of the 181 papers and combining them with software tips, the research results of the HR service industry are divided into the following seven areas.

**4.1. Overview of the human resources service industry**

According to the analysis of papers on HR service industry profile, it is found that scholars mainly study the current situation of HR service industry, challenges faced and development ideas.

For example, Nina Yang (2015) summarized the overview of theoretical research on human resources service industry in China based on the meaning, classification and development status of human resources service industry[1]; Liangkun Dong (2021)

pointed out that China's human resources service industry is currently facing the challenges of lack of integrity and insufficient market supervision<sup>[2]</sup>; Fei Yu (2018) believed that the development of human resources service industry should be promoted from the aspects of cultivating professional talents, developing new technologies and new businesses<sup>[3]</sup>.

**4.2. Foreign human resources service Industry: current status, trends and insights**

It is found that the scholars' research mainly focuses on the revelation of foreign human resource service industry development to China. Youwei Lai (2017) proposed policy options to promote the transformation and upgrading of China's human resource service industry based on the development of global human resource service industry [4]; Yi Wang (2007) pointed out the problems in the development of human resources service industry in China by comparing the development of human resources service industry in developed countries in Europe and America [5].

**4.3. Human resources services and "outsourcing"**

According to the analysis of papers on HR service industry and "outsourcing", scholars mainly analyse the importance of "outsourcing" to HR service industry, the development trend of business outsourcing strategy, and the inspiration of government service outsourcing to HR service industry. Zhaoyun Wu (2011) proposed that HR service outsourcing can concentrate limited resources to highlight the core competitiveness of enterprises [6]; Xiaoli Zhang (2011) analysed the competitive intensity of the HR outsourcing industry [7]; Yixuan Zhao (2014) used a case to analyse the guidance of HR outsourcing on employee behaviour in service-oriented enterprises [8].

**4.4. Human resources services and human resources market**

After analysis, it is found that scholars mainly study the role and value of HR service industry to HR market construction. Lili Zhu (2018) proposed a strategy to promote the integration of Beijing, Tianjin and Hebei human resource markets under the new normal [9]; Qing Ni (2015) proposed countermeasures on how to build a human resources market development model [10].

**4.5. Human resource services and labor market**

It is found that scholars mainly study the countermeasures of HR service industry development under the labour market changes. Yongpo Tian (2016) studied the development countermeasures of HR service

industry under the change of labour market [11]; Wenwei Yu (2019) explored the impact of labour market changes on HR service industry [12].

#### **4.6. Development of human resources service industrial park**

According to the analysis of papers about the development of HR service industrial park in China, it is found that scholars mainly analyse the spatial aggregation of HR service industrial park and HR service industry. Yan Cui (2017) analysed the current situation of the development of human resource service industrial park in China [13]; Shuai Wu (2015) analysed the current opportunities and challenges facing the construction of industrial parks [14]; Linxue Wang (2016) summarized three spatial agglomeration organization modes of HR service industry, such as circle type, integrated and industrial park [15].

#### **4.7. Sharing economy and human resources service industry**

Scholars mainly analyse the innovative development of HR service industry under the sharing economy. Xiaoyun Xie (2021) analysed HRM practices in the context of digitalization and sharing economy based on structural theory and actor network theory [16]; Danxia Wei (2021) analysed the current situation of economic environment such as sharing economy and shared employees to elaborate the development direction of HR service industry [17].

### **5. SUMMARY AND OUTLOOK**

#### **5.1. Research results**

With the increased demand for HR services in practice, scholars have been driven to research on HR services, and many results have emerged, specifically in the following areas.

##### **5.1.1. Gradual improvement in research results and research capacity**

In terms of research results, not only the number of publications is increasing, but also the trend of diversification focus on the latest frontiers. For example, after the issuance of *Notice on Effectively Doing the Work Related to Human Resource Services during the Prevention and Control of the New Coronary Pneumonia Epidemic in 2020*, the research on this issue began to increase, mainly analysing the impact of the notice on guiding the healthy development of the human resource service industry.

##### **5.1.2. Research hotspots show a gradual change in diversity**

By reading and analysing 181 papers one by one, combined with the visualization mapping of Cite Space tool, we found that since 1992 scholars' research themes have diversified, and some hot spots in practice and theory have gradually been focused on by scholars.

##### **5.1.3. The formation of an international perspective**

As the issue of China's human resource service industry is gaining attention, more and more international scholars are turning their attention to China, such as the 17th China International Talent Exchange Conference held in 2019. Not only that, the progressively hot research of scholars on China's HR service industry has promoted mutual discussions among scholars, making the cooperation between authors and other institutions gradually increase.

#### **5.2. Track and analyze the latest cutting-edge issues**

In recent years, the human resource service industry has developed rapidly, but there is still a certain gap compared with the requirements of China's economic and social development, which provides directional guidance for future scholars' research on human resource service industry.

##### **5.2.1. Enhance the diversity of research methods and build a theoretical framework for HR service industry research with Chinese characteristics**

At present, most of the papers on HR service industry are mainly qualitative research, rarely involve quantitative research and survey research, and most of the research is based on mature foreign research paradigms. Therefore, there is a need to innovate on the diversification of research methods in the future and build a theoretical framework of HR service industry with Chinese characteristics.

##### **5.2.2. Strengthen the construction of human resources services system**

Innovative HR service industrial park management mode. The construction of industrial park is mainly to build a new model of industrial intensive development. Scholars should strengthen research in this area and analyse the management mode of HR service industrial park.

Improve the evaluation index system of human resources service industry. The indicator system of

human resource service industry in China has been inadequate and the corresponding research is weak. In the future, we can strengthen the research on the construction of indicator system through systematic and in-depth analysis of HR service industry.

### *5.2.3. Cultivate the backup of HR service industry*

Improve the backbone enterprise cultivation program. Future research can be conducted from setting up a backbone enterprise cultivation program, building a multi-level HR service provider cluster, and increasing the supply of HR services.

Establish a leading talent training program. Scholars can do some research on improving the professionalism of practitioners, building a high-quality talent team, and carrying out training for high-level professionals in the industry.

### *5.2.4. Broaden the research field of human resources service industry*

Carry out "Internet +" human resources service action. Scholars can focus on how to implement the requirements of the national "Internet+" development strategy to promote the deep integration of HR services and the Internet. How to strengthen the information construction of human resources services, build a human resources information base and promote the construction of information infrastructure of human resources services are also some future research directions.

Hold the creation of the theme of integrity. Scholars can carry out in-depth research on the theme of creating lines of integrity, and focus on how to promote the construction of the integrity system of the human resources service industry.

Organize HR service activities for the Belt and Road initiative. Scholars can focus on how to strengthen the cooperation with human resources services of countries along the Belt and Road, how to attract human resources service industries of countries along the Belt and Road to invest in China, and how to build an international exchange and cooperation platform for HR service along the Belt and Road.

Implement HR service actions in the post-epidemic era. Facing the development of HR service industry in the post-epidemic era, scholars should adjust the research focus of HR service industry at the right time, and effectively seize the opportunities of digital transformation to focus on specialization, digitalization and internationalization, so as to promote the high-quality development of HR service industry.

## **6. CONCLUSIONS**

To sum up, this paper depicts the new trends of HR service industry research in China, as well as the latest frontier issues that can be traced and analysed in the future, such as enhancing the diversification of research methods, constructing a theoretical framework for HR service industry research with Chinese characteristics, strengthening the construction of HR service industry system, cultivating the backup force of HR service industry, and broadening the field of HR service industry research.

## **ACKNOWLEDGMENTS**

Fund Project: 2021 School-level Teaching Reform Project of Shandong Technology and Business University "Study on the Ecosystem of School-Enterprise Collaborative Innovation and Entrepreneurship Talent Cultivation"; The 13th Five-Year Plan for Educational Science of Shandong Province in 2019 "Internet + School-enterprise Collaborative Butterfly Change: Model Construction and Practical Application of Ecosystem Model for Cultivating Innovative and Entrepreneurial Talents"(YZ2019058); 2021 National College Student Innovation and Entrepreneurship Training Project (202111688179); 2021 Shandong Humanities and Social Sciences Project(2021-YYGL-14); Shandong Technology and Business University Wealth Management Characteristic Construction Project (2019ZBK076).

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