

# Research Frontiers and Hot Spots of Integrated Development of Sports Industry in China: Based on Cite Space Analysis

Zongke Chen<sup>1,a</sup>, Hanqiao Liu<sup>2,b</sup>, Zhaoxiang Zhou<sup>3,c\*</sup> and Guang Liu<sup>1,d</sup>

<sup>1</sup>College of Physical Education, Sichuan Agricultural University, Ya 'an, Sichuan, China

<sup>2</sup>College of Arts and Media, Sichuan Agricultural University, Ya 'an, Sichuan, China

<sup>3</sup>Chengdu Institute of Physical Education, Chengdu, Sichuan, China

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**Abstract:** Through the visualization analysis method of Cite Space knowledge atlas, the CNKI database from 2005 to now on the research of China's sports industry integration and development of literature 714 according to the time zone map and cluster view are summarized, combined with the current situation of scientific research of China's sports industry integration and development. The results show that the sports tourism industry is one of the hot research topics, showing a full coverage of the research trend, the research on the integrated development of sports industry is rich in content, and the research scope is constantly expanding. The interaction between sports industry and other disciplines is frequent, and the research system is gradually formed.

## 1 INTRODUCTION

Although the development of sports industry started in the 1980s, in the first 30 years of development, the sports industry had no additional economic expenditure for sports consumption due to the low level of national economic development and the poor material living conditions and spiritual consumption level of the people. Therefore, the sports industry has been in a steady and slow development for a long time. It was not until October 20, 2014, when The State Council issued several Opinions on Strengthening the Development of Sports Industry and Promoting Sports Consumption (hereinafter referred to as Document no. 46), that the development boom of sports industry came back to people's vision. On July 13, 2016, the State General Administration of Sport issued the "13th Five-Year Plan for the Development of Sports Industry" (hereinafter referred to as the "13th Five-Year Plan for Sports") notice, it is pointed out that to promote the integrated development of sports in culture, pension, education and other industries, promote the coordinated development of regional sports industry. It can be seen that the development of the sports industry is not limited to "sports". As a green and sunrise industry, it should actively integrate other industries to develop

together, so as to improve the system of the sports industry. "National fitness plan (2021-2025)," pointed out that in order to implement the national fitness deep implementation of national strategy, will surely promote the development of sports industry with high quality, optimize the industrial structure, the files are also pointed out that to promote the development of the integration of the national fitness, body teaching fusion, who fused and body will become a boom brigade fusion, at the same time provides an opportunity for the integration of the sports industry development. To sum up, the integrated development of sports industry has become an inevitable outcome of the development of The Times. Grasp the research frontiers and hot spots of sports industry convergence development, conduct in-depth research and analysis on the research literature of sports industry convergence development in time line and keyword co-occurrence: Through the Cite Space knowledge map visualization analysis method, the sustainable development of sports industry integration is sorted out in all aspects, and the development concept of industry integration is covered in the sports industry, which provides theoretical support for the scientific practice of sports industry integration development for researchers in the future.

## 2 DATA SOURCES AND METHODS

### 2.1 The Data Source

In view of the research theme of this paper is the study of sports industry convergence, the theme word "sports industry" with "industry convergence" is used as the advanced search conditions, and the search is carried out in CNKI periodical data retrieval database. In order to make the content of the research more scientific, objective and complete, the literature selection is mainly based on the literature published in the journal, without setting other search conditions such as publication time, literature source and support fund. Finally, in the literature classification catalogue of "Social Science (ii)", "sports" literatures, 714 Chinese literatures, a total of 714 literatures were retrieved. (Light Richard L, 2021) Therefore, a total of 714 literatures retrieved from May 30, 2005 to July 15, 2021 were used as the literature data source for this study.

### 2.2 The Research Methods

Based on the visualization atlas software of Cite Space V.5.7.R5 version in THE JA-VA environment, it is a method of multiple, clear, complete and objective network perspective analysis for the retrieval items. (LópezCarril, 2021) Cite Space software can quickly and clearly display the research trend of the target research field within the set time in the form of knowledge maps such as cluster map and time zone map, forming the research status and the evolution of the research frontier. From time zone view, keyword view, cluster view.

## 3 THE EVOLUTION PROCESS AND CLUSTER ANALYSIS OF SPORTS INDUSTRY INTEGRATION DEVELOPMENT

### 3.1 Time Zone View Analysis of Sports Industry Integrated Development Research

The research on the integration of sports industry appeared much later than the first article on the development Strategy outline of China's Sports

Economy in 1984. Since 2005, China has gradually begun to have relevant research literature on sports industry convergence. From 2005 to now, the literature on sports industry convergence in China has shown a rising trend. Therefore, according to the overall trend of the publication, it can be divided into three stages. Of the 2008 Beijing Olympic Games held, directly promote the sports industry, sports leisure industry and the overall development of retailing, reflecting to the fusion of research in the field of sports industry at the same time embodied in: before 2008, the number of published literature present a drop has a tendency to rise, and the amount of literature after 2008 revealed a steadily rising trend. The second stage is from 2014 to 2016, during which The State Council issued the Document no. 46, which marked that the industrialization and marketization of the sports industry had reached a certain stage and the country had put forward new requirements for the future development of the sports industry. In order to further activate the development potential of the sports industry, Scholars have further explored the road of sports industry integration development. The third stage is from 2017 to now. The reason for the explosive increase in the number of literature on the integrated development of the sports industry at this stage is that the country provides top-level design plans for the blueprint planning of the future sports industry according to the specific situation of social development. For example, national fitness directly raises sports to the level of national strategy. The 13th Five-Year Plan for the Development of Sports Industry; Improving "national governance system and capacity"; Supply-side reform; As one of the effective ways to optimize the industrial structure and promote industrial consumption, the integrated development of sports industry has opened up a broad space for the research on the integrated development of sports industry. The literature of 714 was searched to the reference space software and the time zone view was selected for processing. Finally, the time zone map was used to study the process integration of the time-varying regions and the development of the whole sports industry. The research field of the integrated development of sports industry is carried out with the sports industry and the integration of industry as the main core, among which the integrated development of sports and tourism covers the overall process of the whole research, and the research also takes the largest proportion in the whole field. Sports industry as a green and sunrise industry in the process of integration is also the same with the industry nature of the same form of industry integration. At the same.

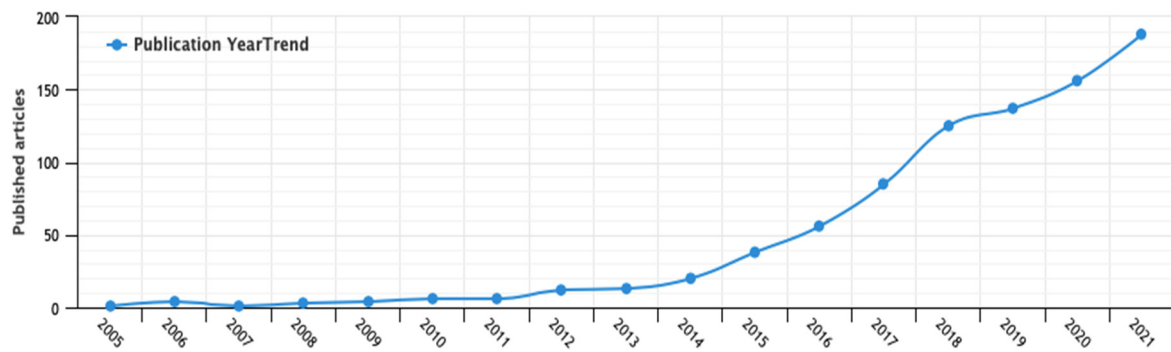


Figure 1: Overall trend chart of the number of published articles in sports industry integration research from 2005 to 2021.

time, according to (Figure 1), since 2005, China has gradually begun to have relevant research literature on sports industry integration. At the same time, from 2005 to now, the literature on sports industry integration in China has shown a rising trend. With the new requirements put forward in the new era, cultural industry, elderly care industry and "Internet +" have also appeared. It can be seen that the industry chain covered by the research field of integrated development of sports industry shows a trend of almost full coverage of 1, 2 and 3 industries. The purpose of the research on the integrated development of sports industry is to optimize the structure of sports industry and drive the consumption of sports market. For the sports industry are offered on the development of the field in the research on the path of fusion of various paths, typically in the pursuit of high quality at the same time, the development of the sports industry is also the way to the development of the sports industry characteristic, make its integration with the rest of the industry, therefore, sports town and sports industry under the digital economy arises at the historic moment

### 3.2 Cluster Analysis of Research Hotspots of Sports Industry Integration Development

Cite Space software is used to analyze the keywords cluster analysis of the research literature on the integration development of sports industry from 2005 to July 2021, and it is found that the research literature on the integration development of sports industry has a total of 12 categories after keyword cluster analysis: Sports tourism, development strategy, Sports, sports industry, path, integrated development, Industrial integrated development, sports economy, sports events, sports service industry, sports industry integration, "sports, tourism, culture, commerce and agriculture" industry

integration, Internet +.  $Q > 0.3$  means that the cluster structure is significant. Silhouette:  $S > 0.7$  means the clustering is convincing. At the same time, as shown in FIG. 2,  $Q = 0.6418$  and  $S = 0.8683$ , the clustering structure and the average contour value of the cluster in the field of integrated development of the sports industry are significant and convincing. (Chen, 2012) In the clustering view, sports tourism, development strategy and sports accounted for the highest proportion of clustering, so it can be inferred that the clustering represented by the above keywords in this field pays the highest attention in the field of sports industry integration and development.

## 4 THE RESEARCH FRONTIER AND HOT SPOT ANALYSIS OF SPORTS INDUSTRY INTEGRATION DEVELOPMENT

### 4.1 Sports Tourism Industry Is One of The Research Hotspots, Showing A Full Coverage of The Research Trend

The integrated development of sports and tourism industry can promote the sustainable development of surrounding industries. In the development process of tourism industry, both service industry and construction industry provide complete guarantee for the hardware facilities of tourism industry. In the development process of sports industry, clothing manufacturing industry and competition service industry provide further promotion for the industry chain of sports. According to the knowledge map of keyword co-occurrence and keyword clustering in

Cite Space, in the research field of "sports industry" and "industry integration", sports tourism appears more frequently and ranks first, and the clustering is large, so the weight of the theme of sports tourism in the whole field is extremely prominent and important. In the whole research field, the process of covering it started from 2006 to present the trend of almost full coverage, and the connotation and depth of its research are also deepening. In 2006, Yu Shouwen and Jin Xiuying (Liu, 2020) proposed that sports tourism had been further developed since the 1990s. Sports events need to be supported by convenient hardware facilities in the region. The development of tourism in this region has also brought more opportunities for the sustainable development of sports. The development of tourism has laid a solid foundation for the accommodation, food, transportation and other hardware facilities in this area. With the further integration and development of sports tourism, sports characteristic town also emerges at the historic moment, which deeply integrates sports industry with tourism, culture, health and other health industries in terms of technology, business and market. The research field of body-tourism integration tends to be more "materialized" and the research content is more complete. The investigation and discussion begin with specific cases, such as Zhejiang and Shanghai represented by the coastal areas. Taking the characteristic sports towns in Heilongjiang Province represented by the north and Guizhou Province represented by the mainland as the research objects, this paper conducts a complete study on the construction concept, construction industry and construction purpose of the sports characteristic towns.

#### **4.2 The Research on The Integrated Development of Sports Industry Is Rich in Content and The Research Scope Is Constantly Expanding**

According to the keyword clustering analysis of research literature on sports industry convergence development from 2005 to July 2021 by Cite Space software, it is found that there are 12 categories of keywords clustering obtained after the analysis of research literature on sports industry convergence development: Sports tourism, development strategy, sports, sports industry, path, integrated development, industry integrated development, sports economy, sports events, sports service industry, sports industry integration, "sports, tourism, culture, commerce and agriculture" industry integration, Internet +.

According to Modularity: clustering module value (Q value),  $Q > 0.3$  means clustering structure is significant; Silhouette: S value: Average Silhouette value for clustering,  $S > 0.7$  means clustering is convincing. Meanwhile,  $Q = 0.6418$  and  $S = 0.8683$  are shown in FIG. 5, so the clustering structure and clustering average contour value in the field of sports industry integration development are significant and convincing. In addition, the ranking order of 0-12 keywords is determined by the size of the cluster. The higher the ranking is, the larger the cluster is, and the more important the clustering topic is in the whole field. In the 0 cluster, the key words covered by sports tourism mainly include the high-quality development of sports industry, the integration of sports and science and technology, focusing on the future development countermeasures of "sports + tourism", discussing the existing problems of sports tourism, and exploring the road to industrialization of sports tourism development. In the first cluster, the key words covered by development strategies include exploring the perfect combination of sports tourism industry and sports tourism industry to achieve harmonious and win-win results, scientific exploration based on the development of sports characteristic towns as the carrier, and exploring the construction path of "sports +" based on the development concept of healthy China promulgated by the state. Health industry and leisure industry as its main exploration strategy. The second clustering, sports coverage prominent keywords have insisted on industry development, harmonious idea, keywords and began the cultural strategy, cultural industry with the sports industry has already started to become another development path, in combination with traditional sports publicity folk sports culture tourism implement scientific and rational industrial docking. In the third cluster, the keywords covered by sports industry include e-sports industry, animation industry and sports + 5G research and exploration, and sports marketing and industrial collaborative development research. In the fourth cluster, the key word features of path coverage put forward the collaborative development mode according to the current predicament of integrated development of sports industry. In the new era, the construction of sports characteristic towns should pay attention to rural revitalization and rural sports. In the fifth cluster, the key words covered by integrated development include attaching importance to support mechanism to develop the emerging sports industry, and the emergence of sports population and aging population also indirectly leads to the development of the pension industry in the belt and Road initiative. In the

sixth cluster, the key words covered by the integrated development of the industry pay attention to the research on the integrated development of the sports industry from multiple perspectives, mention the high-quality development and the structure of the sports industry, and draw out the key words of the sports competition. In the seventh cluster, the key words covered by sports economy are sports economy and investment trends, and related to the optimization of sports structure and the supply-side reform of health service industry. In the eighth cluster, the characteristics of keywords covered by sports events are based on the interpretation of the policy of The Guidance on Accelerating the Development of Sports Industry, and the study of industrial collaborative innovation of sports tourism products, professional sports and sports value. In the ninth cluster, the keywords covered by sports service industry focus on sports consumption of related industries, and discuss and study the value dimension, digital economy and sports consumption domestic demand in the post-epidemic era. In the 10th cluster, the key words covered by sports industry integration include sports industry theory, focusing on sports industry policy and good governance. In the 11th cluster, the key words covered by the integration of "sports, tourism, culture, commerce and agriculture" industry include the optimization path of the integration of "sports, tourism, culture, commerce and agriculture" industry, and the industry chain based on the integration concept of sports, tourism, culture, commerce and agriculture with more complete integration mechanism of other industries. In the 12th cluster, keywords covered by Internet + include sports and fitness products, cloud space and artificial intelligence. In the new era, the rise of artificial intelligence has added new meaning to Internet +. According to the figure shown after keyword clustering of sports industry integration development, there are 12 categories, and the keyword nodes contained in the 12 categories are rich and complete. It can be directly inferred that with the deepening of the research field, the research scope of sports industry integration is also expanding. The exploration of the integrated development of "sports + tourism" leads to the co-occurrence of the key words of sports events. The development of sports events should be carried out on the mode platform of "sports + tourism", and influential events with local sports tourism characteristics as the theme. Through sports events as a platform to promote tourism development and at the same time to meet the needs of participants to participate in or watch sports competitions. At the same time, the integrated

development of sports industry is in line with the current social concerns. At present, China has entered an aging society. In view of the problems that may exist in aging, and in order to improve the national quality and build a sports power, the CPC Central Committee and The State Council issued the "Healthy China 2030" Plan outline in 2016. The integration of physical education and medicine arises at the right moment, giving full play to the dual role of physical education and medical treatment. In terms of internal use, patients can intervene by medical means, and in terms of external use, disease prevention and rehabilitation at ordinary times, patients can participate in physical exercise to achieve the effect of physical fitness and physical fitness. The integrated development of sports industry involves many fields, almost covering the first, second and third industries. Meanwhile, the development concept of artificial intelligence and digital economy is also included. It can be predicted that in the future, the paper on the integrated development of sports industry will continue to study on how to promote the sustainable development of China's overall sports industry and how to solve the hot issues in the current society.

### **4.3 The Sports Industry Interacts Frequently with Other Disciplines, And the Research System Is Gradually Formed**

As a sports industry can cover more than the first, second and third industry for the industrial chain, the fusion path can have a variety of options, but in terms of the exploration stage now, and studies of "sport + tourism" literature of weight is the largest, which is due to the sport and tourism industry can use sports a common ground to both together in the development of fusion, Based on this common ground, it can directly drive the economic development of the region, and at the same time, improve the visibility of the local city and attract more industries to invest. At present, under the guidance of the Internet, the sports competition performance industry has gradually begun to mature, and the broadcast of sports events has become one of the pastimes in people's spare time. At the same time, under the influence of sports upsurge and patriotism, sports culture in modern society has gradually begun to take shape, which plays an important role in the construction of green, happy and harmonious social relations. In the process of the research on the integrated development of the sports industry, the interdisciplinary theories are gradually integrating into the research on the

integrated development of the sports industry, and the research knowledge system of the integrated development of the sports industry is gradually forming. More and more interdisciplinary studies will help to explore new fields of the integrated development of the sports industry.

## 5 CONCLUSIONS

Sports industry has become a green and sunrise industry after considerable development, but in order to achieve sustainable development in the new period, it needs to optimize its own industrial structure. Therefore, in such a demand of The Times, sports industry integration came into being. Since 2005, the research on the integrated development of China's sports industry has gradually begun to step into the deepening stage, and the intersection between various disciplines has become more and more frequent. Through the discussion of the literature published in the formal journals from 2005 to now, the research focus of the integrated development of sports industry in China is mainly manifested in that the sports tourism industry is one of the research hotspots, showing a research trend of full coverage; The research on the integrated development of the sports industry is rich in content, the research scope is constantly expanding, the interaction between the sports industry and other disciplines is frequent, and the research system is gradually formed, which provides theoretical reference for later scholars.

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