

Evolutionary Paths, Hot Spots and Trends in the Study of Business Environment of Private Enterprises

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Abstract

The business environment of private enterprises is an important issue in the study of deepening reform nowadays. With the increasing research, especially the rapid increase of the literature since the reform of "management and service", it is necessary to systematize the previous studies. The article uses CiteSpace software to analyze the relevant literature in the CNKI database from 2007 to 2022, exploring the research results on the business environment of private enterprises in China over the past ten years in terms of the number of articles, journals, authors and keywords, and combining high-frequency words and emergent keywords to reveal the research hotspots and trends in this field. The study found that there are problems such as content to be explored in depth, lack of foresight in the topic, and insufficient extension of existing research.

Keywords

CiteSpace; Private Enterprises; Business Environment; Hot Spots.

1. Introduction

Business environment is a complex and comprehensive system, including political, economic, market, legal and other elements that affect the activities of enterprises. The degree of business environment directly affects the operation of enterprises in the region and has a significant impact on the economic development and social and livelihood issues of the region, and is an important reflection of the comprehensive competitiveness of a country or region. The private economy is the most dynamic, high-potential and creative force in the market economy, and is an important support for China's economic development. Private enterprises play a pivotal role in promoting employment, creating tax revenue and driving economic development.

In this paper, we used CiteSpace software to quantify and analyze the graphs of journals with advanced search topics of "private enterprises" and "business environment" in China Knowledge Network (CNKI) database, and obtained a total of 1003 valid CNKI data. We have obtained a total of 1003 valid CNKI data (one for each article), and we have discussed the literature in terms of the number of articles, authors, institutions, research fields, research hotspots and trends, and systematically reviewed the hotspots and trends of domestic research on the business environment of private enterprises, so as to provide a reference for the research and optimization of the business environment of private enterprises.

2. Data Sources and Research Methods

2.1. Data Sources

The data of this paper are obtained from China Knowledge Network (CNKI), and the corresponding search conditions are set in the "advanced search": the topics are "private enterprises" and "business environment", and the search time is In order to ensure the quality of the research, we manually excluded non-academic articles such as book reviews, conference announcements, news interviews, duplicate publications or documents not related to the topic, and finally obtained 1003 valid articles. The final result was 1003 valid documents.

2.2. Research Method

CiteSpace, a visualization software developed in Java language, is used to analyze and analyze the research progress and frontiers of the subject area in a systematic, dynamic and time-phased manner through knowledge mapping, which is helpful for scholars to better grasp the research hotspots and future research trends in the field.

3. Visual Analysis of Research Hotspots

3.1. Distribution of the Number of Publications Over Time

Figure 1 shows the chronological distribution of research literature on the business environment of China's private enterprises in the China Academic Network Publishing Database (CNKI). As can be seen from the figure, the first literature in this field was published in 2007, and the number of publications from 2007 to 2016 was relatively small, all below 10; since 2017, the number of publications gradually increased and rose year by year, and it is predicted that the number of publications will reach 496 in 2022. This shows that the business environment of private enterprises has received extensive attention from domestic research scholars. The reason for this is that in 2017, the 19th Party Congress proposed that the main contradiction of our society has changed to the contradiction between the people's growing need for a better life and unbalanced and insufficient development, and the pursuit of high-quality development of private enterprises in the new era has become inevitable, and scholars are increasingly researching in the field of business environment for private enterprises.

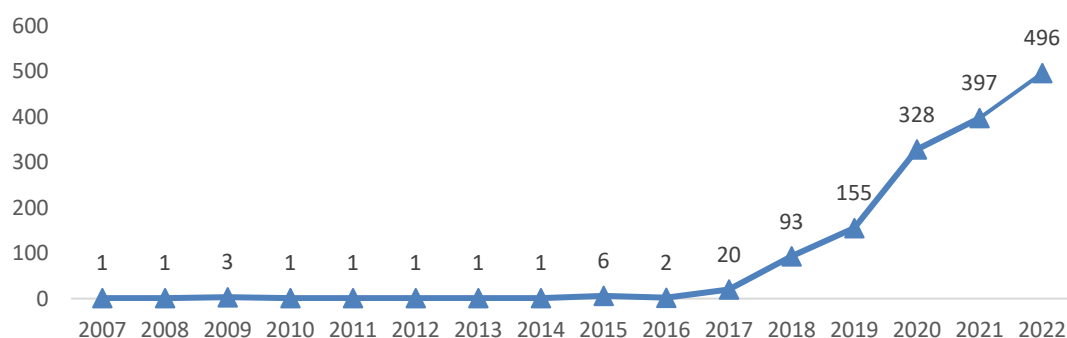


Figure 1. Volume of articles issued

3.2. Institutional Co-occurrence Analysis

The issuing institution is the indirect subject of CiteSpace visualization research. The co-occurrence analysis of the issuing institution can effectively reveal the main research institutions and teams in the research field. In the operation interface of CiteSpace, select the node type as Institution for visualization analysis, and get the visualization map as Figure 3. Similarly, the larger the font size of the institution name, the more frequently the institution appears in 1003 data, and the "E" indicates the linkage, and the linkage between nodes indicates the relationship between institutions, and the thicker the linkage, the more frequently they

appear in the same literature. According to the graph "E=31 (Density=0.0015)", it means that the connection between institutions is not close enough and the cooperation needs to be strengthened.

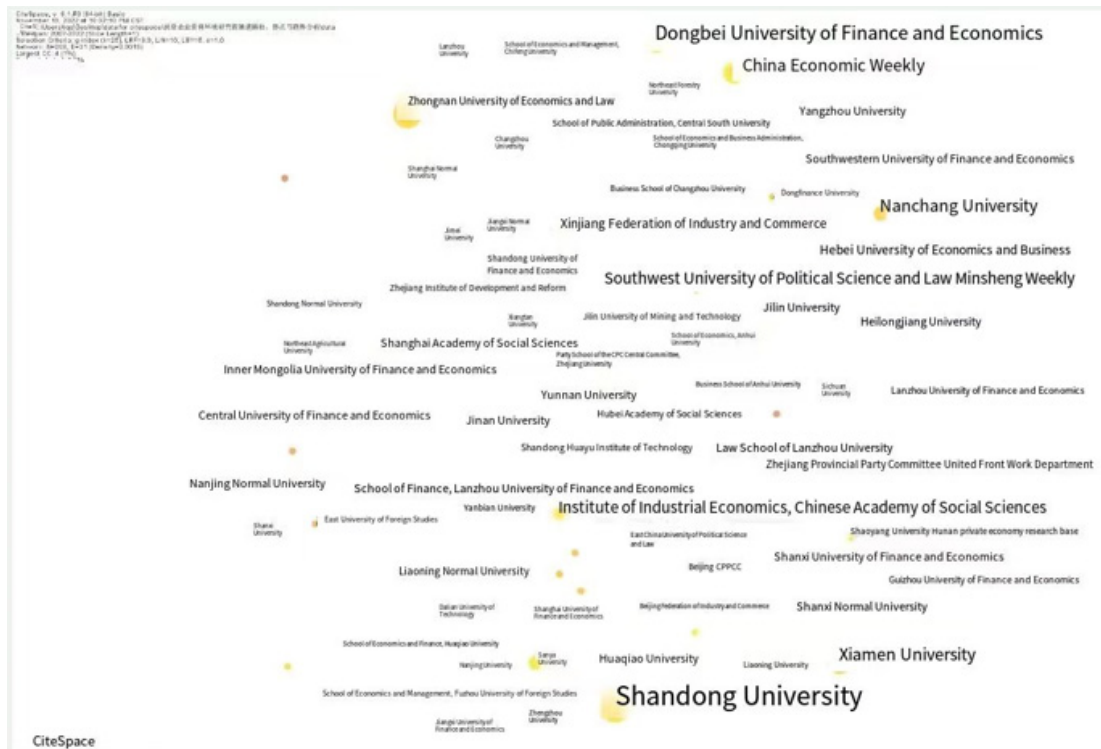


Figure 2. Institution mapping

In order to show the important related research institutions more clearly, this paper draws Table 1 with the help of relevant data in CiteSpace, listing the top 10 institutions with a high number of published articles. Most of the institutions in the table are higher education institutions and research journals, among which Shandong University publishes more articles, taking the first place with 13 articles, and Zhongnan University of Economics and Law publishes 8 related documents, taking the second place. Northeast University of Finance and Economics, Hebei University of Economics and Business, and Yanbian University all published 5 articles. Other institutions and teams have published less than 5 articles. According to the summary table, it can be seen that the research on the business environment of private enterprises has gradually increased in the last 3-4 years.

Table 1. Research information of important institutions

Serial number	mechanism	Number of publications	starting year
1	Shandong University	13	2020
2	Zhongnan University of Economics and Law Dongbei	8	2019
3	University of Finance and Economics Hebei University of Economics and Business	5	2019
4		5	2020
5	Yanbian University	5	2020
6	Nanchang University	4	2020
7	Xinjiang Federation of Industry and Commerce	4	2020
8	Minsheng Weekly	4	2019
9	China Economic Weekly	4	2020
10	Shandong University of Finance and Economics	4	2021

3.3. Research Field

The node type of the operation interface of CiteSpace is selected as Keyword for visual analysis of scientific mapping, and the keyword co-occurrence mapping can be obtained as shown in Figure 4 below. The keywords in the mapping are clustered and summarized according to the relevant algorithm to obtain the keyword clustering mapping as shown in the figure below. The clustering mapping focuses on reflecting the structural features among clusters and highlighting the key nodes and important connections. Combining the relevant keyword data in the two graphs can analyze the main research areas of the core research circle about the business environment of private enterprises.

In this paper, by selecting the keywords that appear in the top 10% of each time slice (1 year) to draw the co-occurrence map, the color of the keyword co-occurrence map relationship line transitions from dark red to light yellow over time, and the node size characterizes the keyword frequency, in which the business environment, private enterprises, private economy, rule of law, and government services are strongly related, because since 2012, when we entered the new era of Xi Jinping's socialism with Chinese characteristics, the development of China's private enterprises also entered the stage of high-quality development from the scientific development stage, emphasizing the construction of a unified and open, competitive and orderly market system and fair, open and transparent market rules, the construction of a new type of government-business relationship, and the continuous optimization of the business environment for private enterprises. However, other keywords with relatively small nodes appear in Figure 3, such as enterprise innovation, countermeasure suggestions, and legal protection, indicating that scholars are still concerned about other topics.

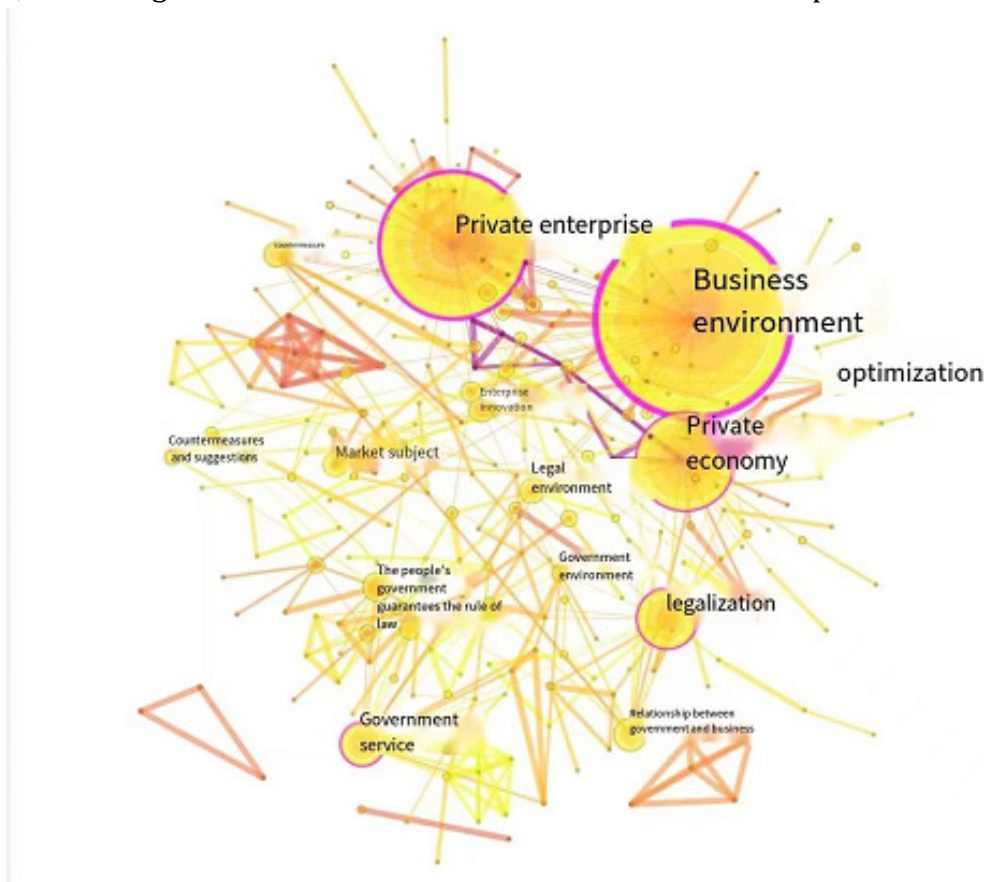


Figure 3. Keyword co-occurrence mapping

There are many keywords in Figure 3, and in order to improve the accuracy of summarizing research areas, this paper makes use of the keyword clustering function of CiteSpace. CiteSpace

provides two indexes, Q value (Modularity Q) and S value (Mean Silhouette), based on the network structure and the clarity of clustering. is significant, and when the S value reaches 0.7 the clustering is considered reasonable. The data in the upper left corner of Figure 4 shows that $\text{Mean}(Q,S) = 0.806$, so the clustering structure of this clustering profile is very significant and the results are convincing.

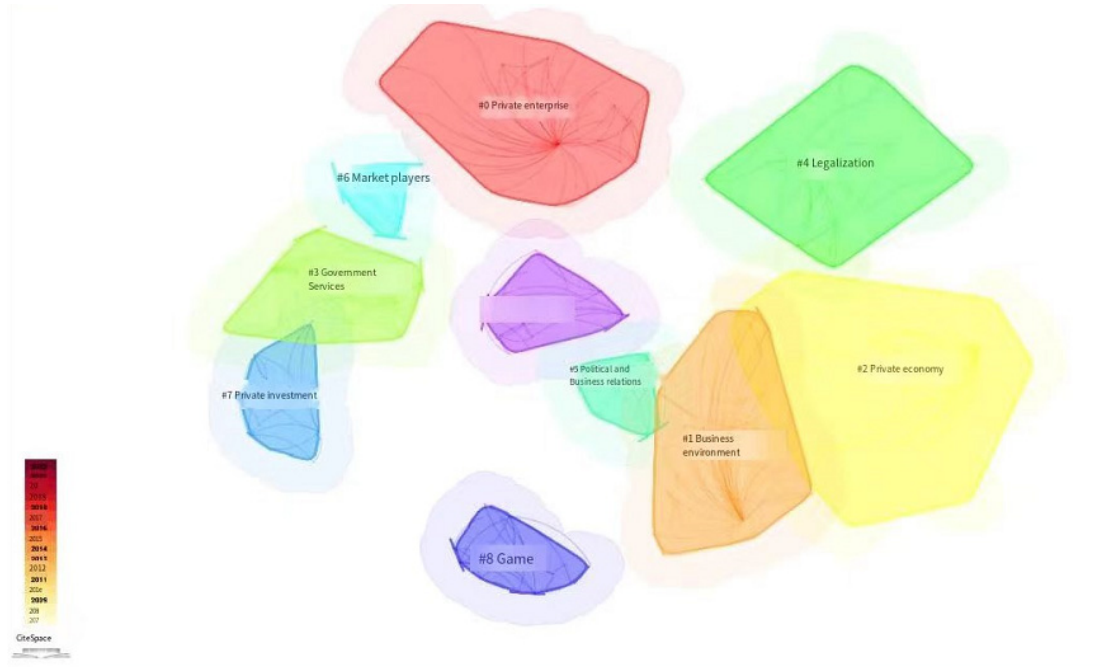


Figure 4. Keyword clustering map

In Figure 4, the number of literature contained in each cluster decreases from small to large, and the relevant data of the top 10 clusters in CiteSpace are intercepted in Table 2. The keywords are used to locate the research areas of the core research circle on the business environment of domestic private enterprises.

By integrating the keywords in Figure 3 and combining the keyword information in Figure 4, the research on the business environment of domestic private enterprises can be divided into the following 10 fields. According to the content categories, it can be divided into "private enterprises", "business environment", "private economy", "government services", "rule of law", and "business environment". "rule of law" "government-business relationship" "market players" "private investment" "Countermeasures" "Xi Jinping".

3.4. Research Hotspots

The keyword co-occurrence graph in Figure 4 is converted into a keyword timeline mapping, and combined with CiteSpace software to summarize the research hotspots that emerged from 2001-2022, which is conducive to the discovery of research hotspots in different stages. The keyword timeline mapping of private enterprise business environment research keywords is shown in Figure 5, with the years from 2017-2022 arranged at the top of the mapping, and the cluster labels on the right side of the mapping indicate the keywords contained in the cluster, and the solid line in the left horizontal line represents the increase of keywords in the cluster, and the dashed line indicates that the cluster has not yet been formed or the cluster has started to decrease. As can be seen from the timeline, the three clusters of "private enterprises," "business environment," and "private economy" first appeared in 2008 and had their first references. The clusters of "rule of law" and "government-business relationship" started in 2018 because since the 19th Party Congress, the domestic awareness of the necessity and importance of optimizing the business environment for private enterprises has reached new

heights, and more attention has been paid to issues such as legal protection and government-business relationship. .

According to the content of Figure 5, the research on the business environment of private enterprises in China can be roughly divided into three stages. The first stage (2008-2012) is the budding stage, under the guidance of the 16th Party Congress and adhering to the "two unshakable" policy, domestic scholars began to try to explore the scientific development of private enterprises; the second stage (2013-2016) is the growth period, along with the "two all In the second phase (2013-2016), scholars gradually focused on the construction of the business environment index system for private enterprises and the optimization of countermeasures, along with the introduction of the important statement of "both are", the Party and the State focused on breaking monopolies, regulating market order, improving the fairness and transparency of market rules, and emphasizing the "two inviolables". In this period, under the guidance of the 19th National Congress of the Communist Party of China and the comprehensive promotion of the rule of law, domestic scholars no longer confine their research to the system and optimization, but pay more attention to the rule of law, government service centers and market players.

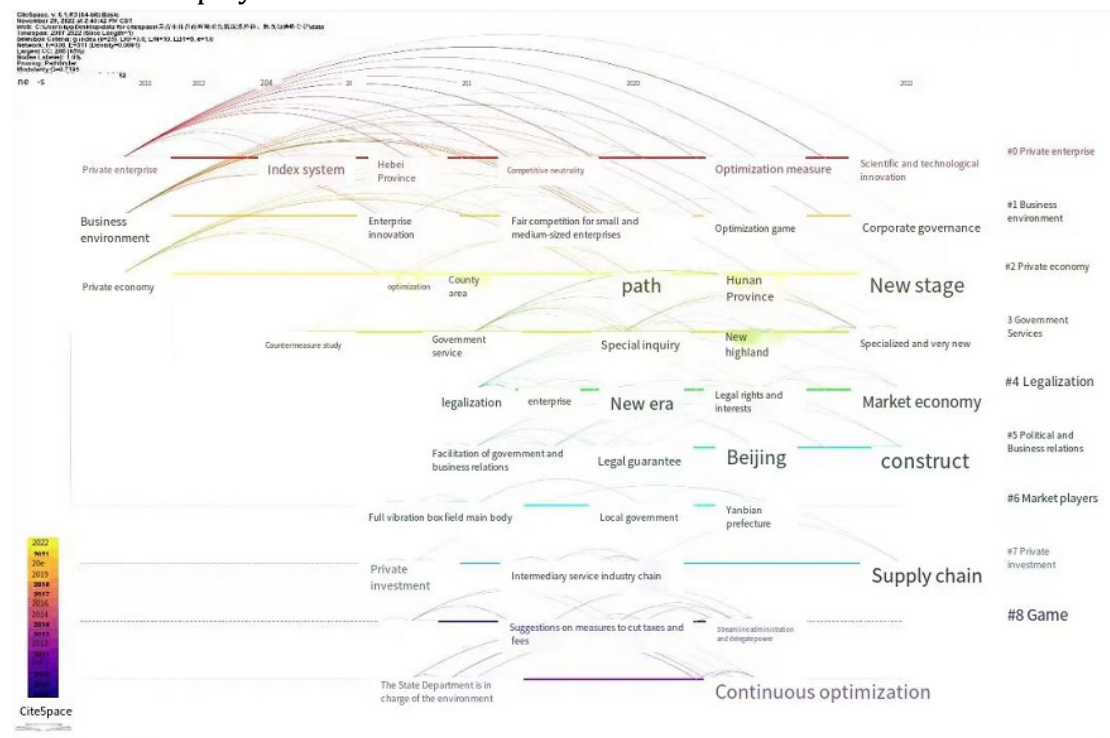
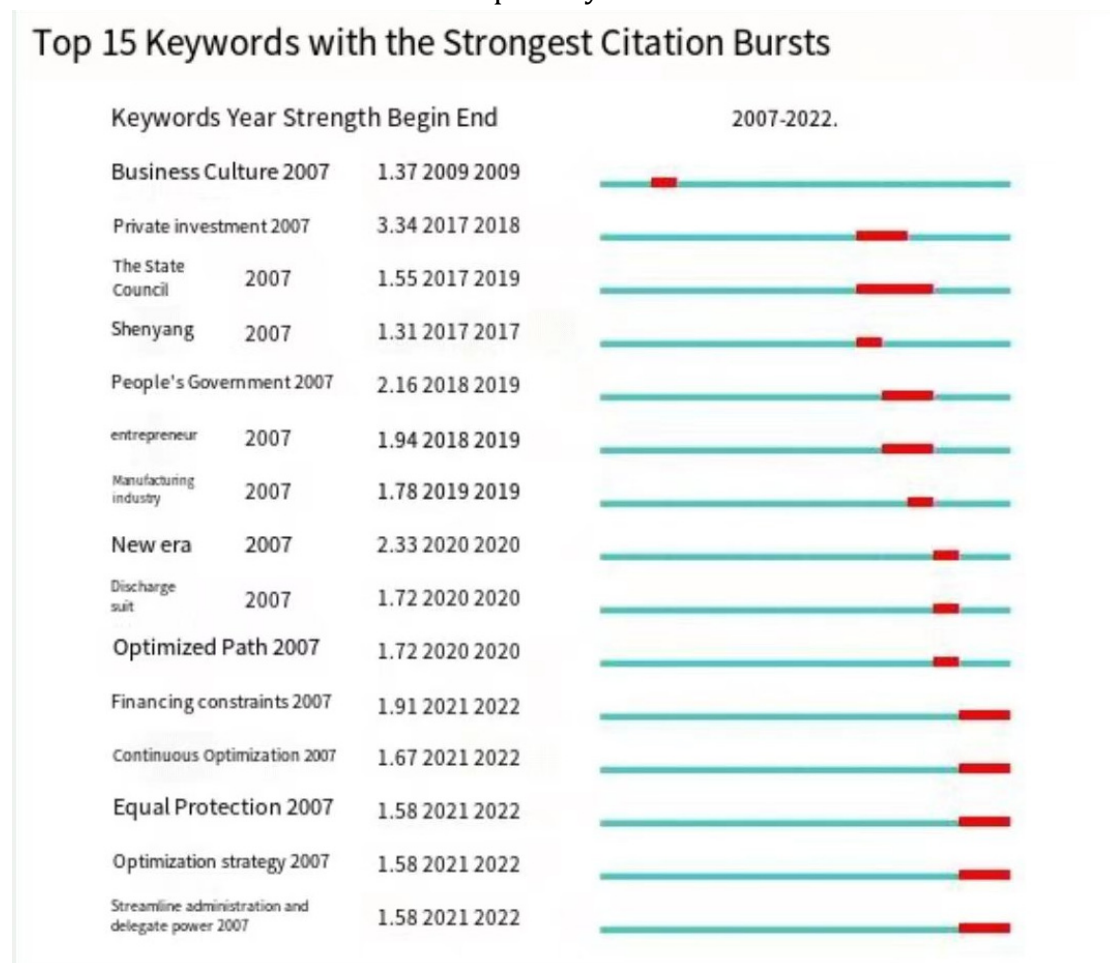


Figure 5. Keyword timeline graph

The keyword emergence degree can reflect the influential research areas over a period of time. In this paper, 15 emergent words were selected in the keyword analysis of the literature on the business environment of private enterprises (Table 2), reflecting the phase shift of domestic research trends. Among them, the keywords ranked in the top 10 emergent words are, in order: private investment, new era, people's government, entrepreneurs, financing constraints, manufacturing industry, continuous optimization, equal protection, optimization measures, and simplification of government and decentralization. In the above-mentioned research budding period and growth period, the key words emerged less, and in the explosive period of research, the aspects of research in this field increased significantly, especially since 2021, the research trends are "financing constraints", "equal protection", and "decentralization" and "optimization strategies".

Table 2. Map of keyword mutation



4. Problems and Suggestions of Current Research

4.1. Problems

1. The domestic research on the business environment of private enterprises started late and still needs to be deepened. It can be seen from the analysis of the number of articles and research trends that there were scholars gradually exploring the business environment of private enterprises in China only in 2007, and the focus of the early literature was relatively single, mostly on the optimization of business environment countermeasures, and did not focus on the discussion of specific difficulties. At the same time, the content, scope and level of domestic scholars' research on the business environment of private enterprises need to be deepened and expanded.

2. Close cooperation between domestic scholars and research institutions has not yet been formed. According to the author co-existence chart, although the attention of domestic scholars to the business environment of private enterprises has gradually increased in recent years, close cooperation among scholars has not been formed, and there is a lack of a stable group of authors. Meanwhile, the cooperation among institutions is also relatively loose. In the future research trend, it is hoped that communication and cooperation can be strengthened to jointly promote the in-depth development of research.

4.2. Suggestions

1. Mining research methods

The existing research methods in this field include regression analysis, entropy value method and AHP method, among which regression analysis method is more frequently used. For

example, the Qualitative Comparison Approach (QCA), which has emerged in recent years, is suitable for exploring the combination of conditions that lead to a particular outcome and is widely used in strategic management and business trade.

2. Expanding the research dimension

Most of the available research results focus on the impact of domestic policies on the business environment of private enterprises, but with the increasing role of international circulation in China's economic development in recent years, changes in the international business environment also have a greater impact on the domestic, future research can expand this dimension of business environment indicators measurement methods.

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References

- [1] Chen Yue, Chen Chaomei, Liu Zewen. The methodological function of CiteSpace knowledge graph[J]. Scientology Research, 2015, 33(02): 242-253.
- [2] Guo Chaoxian, Li Chengzen. Achievements of China's private enterprises in the past 70 years since the founding of New China and future strategies for high-quality development[J]. Enterprise economy, 2019, (09).
- [3] Chen D, Liu ZB. 70 years of private economic development in New China: evolution, revelation and outlook[J]. Journal of Statistics, 2020, 1(02).