The Development Status and Future Prospect of "China's Road" Research Since the New Era—Visual Econometric Analysis Based on Citespace Knowledge Graph (2013-2022)

Jie Wang*

The Department of Marxism, North China Electric Power University, Baoding, China
1519398390@qq.com
*Corresponding author

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Abstract: The realization of the Chinese dream of the great rejuvenation of the Chinese nation is inseparable from the Chinese road and the path of socialism with Chinese characteristics, and the study of the Chinese road is an important part of constructing China's development discourse system. “Today China's modernization has become a unique path that is different from those of the Western countries.” [1] Based on citespace, a quantitative analysis software, this paper visually analyzes the CSSCI core literature of CNKI from 2013 to 2022, so as to summarize the power and development status of "Chinese road" research since the new era, and look forward to the future of China's road research.

1. Introduction

The inter-annual variation of the number of articles published can reflect the research enthusiasm of a specific topic at a specific time, and show the development context of the research topic as a whole. The annual statistics of CNKI database journal papers were made into the annual publication statistics chart of China's road research figure 1. It can be seen from the figure that the overall research results of China's road research show a trend of increasing year by year, and the annual number of articles published in 2021 and 2022 exceeded 300.

Figure 1: Annual publication volume of road research in China
You can set the node type as institution and author in the citeseer software, run the software to obtain the distribution map of China's road research power. According to the node size and connection density, you can explore the strength of research strength and cooperative relationship. There are 310 research institutions whose research results involve this topic, and research institutions with more than 50 articles are made in Figure 2, including the Chinese Academy of Social Sciences, Chinese Minmin University, Fudan University, Wuhan University, and Peking University. Among them, the Chinese Academy of Social Sciences has published 96 articles on this theme. From the perspective of the division of faculties, they are mainly concentrated in the School of Marxism, the School of Philosophy, and the School of Political Science and Law. As far as the category of colleges and universities is concerned, the research institutions with more achievements are mainly "double first-class" universities directly under the Ministry of Education, with relatively high academic resources and platforms, and strong academic sensitivity. As far as the nature of colleges and universities is concerned, there are many universities with strong strength in humanities and social sciences, and there are also universities with strengths in science and engineering such as Tsinghua University and Tongji University. From the perspective of geographical distribution, it is mainly located in Beijing, Shanghai, Wuhan and other regions with strong disciplinary foundation, and on the whole, research resources, research platforms and output results are positively correlated. There are 161 authors who have published articles on China's road research, of which more than 10 articles are Ren Ping, Han Qingxiang, Chen Xueming, Cao Dianshun, Tang Aijun and others, as shown in Figure 3 and Figure 4.

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<td>5</td>
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Figure 2: There are more than 50 institutions in China's road research

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<tr>
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<td>9</td>
<td>Yongjun Ma</td>
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Figure 3: Author of China Road Research
2. Method

Citespace visual econometric analysis is a commonly used research tool in the field of bibliometrics, which can perform quantitative analysis of literature collections on specific topics, and form a basic understanding of the development status, hot topic evolution and future trend of this research field with the help of visual knowledge graph. This paper uses citespace software version 6.1.R1, selects the "CSSCI (Chinese Social Sciences Index)" database with high recognition by CNKI as the literature retrieval source, and the search time is from 2013 to 2022, using the search logic of "theme = Chinese road", eliminating invalid information such as conference pushes, column introductions, news notices, journal catalogs, and new book recommendations, and finally obtained a total of 2708 journal literature.

3. Results

The visual knowledge graph takes a specific knowledge domain as the research object, focuses on the relationship between the development process and structure, and has the dual characteristics of visualization of "graph" and serialization of "spectrum". Through the keyword co-occurrence map, cluster map and time zone map, the research status, evolution trend and frontier hot spots in this knowledge field can be obtained.
3.1 The keyword clustering map shows the research content

Keyword co-occurrence means that the same keyword appears more than two documents, and the larger the node in the graph, the higher the frequency. The node connection indicates the co-occurrence relationship of the keyword, and the larger the font, the stronger the centrality of the keyword, and the higher the research popularity. Through the analysis of keyword co-occurrence map and keyword clustering map, we can explore the hot content of China's road research in the academic community at this stage, as shown in Figure 5.

![Keyword co-occurrence map and cluster map of road research in China](image)

Figure 5: Keyword co-occurrence map and cluster map of road research in China

In the field of bibliometrics, the common algorithm for distinguishing between high-frequency words and low-frequency in a research topic is Donore's formula, that is: \( T = \frac{1}{2}\left[-1+\sqrt{1+8I}\right] \). Where \( T \) represents the lowest value of high-frequency words and \( I \) represents the number of keywords. Substituting the relevant data into the formula yields \( T \approx 14 \). Therefore, a keyword frequency of more than 14 times can be regarded as a high-frequency word for the subject of the study. According to the export profile of Citespace, there are 41 high-frequency keywords with frequencies greater than or equal to 14. Among them, the top ten frequencies are: "Chinese Road" (604 times), "Socialism" (113 times), "Road Confidence" (102 times), "Modernization" (83 times), "Chinese Dream" (83 times), "Chinese Characteristics" (75 times), "Reform and Opening Up" (70 times), "New Era" (67 times). Running cluster analysis on the keyword co-occurrence map shows that multiple clusters have been formed around China's road research, with a large number of members, clustered as #0 Chinese road #1 reform and opening up #2 historical logic #3 Chinese
characteristics #4 socialism #5 rule of law, etc. Combined with the keyword co-occurrence map and cluster map, the main contents of China's road research can be divided into:

First, the historical logic of the Chinese road. A historical logical perspective has been formed around the #1 reform and opening up, #2 Historical logic, #6 Modernity and "modernization (83)", "Chinese dream (83)" and other keywords. It mainly refers to the continuous exploration of leaders from all walks of life since the founding of New China, always striving for the fundamental interests of the broadest masses of the people, striving for the great rejuvenation of the Chinese nation, realizing the first centenary goal, and striving for the second centenary goal of building China into a modern socialist power.

Second, the theoretical logic of the Chinese road. Theoretical logic was formed around #10 materialist view of history, #4 socialism, keywords such as "Chinese characteristics (75)", "Mao Zedong (48)", "Marx (25)", "socialism (113)", "theoretical logic (19)" and "theoretical self-confidence (21)". On the one hand, it mainly refers to adhering to scientific socialism, combining the basic tenets of Marxism with China's specific conditions, and forming theories with Chinese characteristics, such as Mao Zedong Thought and the theoretical system of socialism with Chinese characteristics. On the other hand, it refers to the materialist view of history that upholds that the masses of the people are the creators of history, always takes the people as the center, and the Communist Party of China, as the ruling party, does not represent the interests of any privileged class, but always represents the fundamental interests of the broadest masses of the people.

Third, the practical logic of the Chinese road. Focusing on the #1 reform and opening up, #3 characteristics, #9 common prosperity, #8 road, #5 rule of law and "party leadership (26)", peaceful development (16), rural revitalization (12) and other keywords have formed a practical logical perspective. It mainly refers to the achievements made by the Communist Party of China under the leadership of the Chinese people since the founding of New China, and is advancing towards the goal of common prosperity. “Since its founding in 1921, the Communist Party of China (CPC) has remained true to its original aspiration and mission of seeking happiness for the Chinese people and rejuvenation for the Chinese nation. “[2] Since the reform and opening up, China has achieved the "two miracles" of rapid economic growth and long-term stability of people's lives, and implemented great measures for rural revitalization. We will continue to strive to build China into a prosperous, strong, democratic, civilized, harmonious and beautiful socialist country.

The world significance of the Chinese road. “In many ways, China’s modernisation has the common characteristics of modernisation, including the nature of being developmental and transformative, institutional innovation, the guiding role of values, consciousness of material exchange between man and nature, and global openness.”[3] Three influences have been formed around the #0 Chinese path, #3 Chinese characteristics, #4 Socialism and other clustering and keywords such as "world significance (35)", "Chinese model (30)", "Chinese plan (18)", and "human civilization (13)". The first is to contribute Chinese wisdom and Chinese solutions to the world. Mainly focusing on the proposal of common prosperity, poverty alleviation and other programs with Chinese characteristics, it has completed the arduous task of eliminating absolute poverty and created a human miracle in the annals of history. Second, since the founding of New China, it has achieved two miracles of rapid economic growth and long-term stability in people's lives, and provided Chinese solutions for other countries in the world that want to achieve their own development and yearn for independence. The third refers to China's advocacy of peaceful development and its contribution of wisdom to world peace and stability, and the proposal of the "Belt and Road" encourages other countries to take the express train of China's rapid development.
3.2 The research and development context of time zone map response

The time zone map can reflect the trend of annual publication of road research in China, as well as the inter-annual change, and obtain the context of the development of research topics. It can select the time zone view in the keyword co-occurrence map and run the software to get Figure 6.

![Time zone map of key words in China's road research](image.jpg)

**Figure 6:** Time zone map of key words in China's road research

Based on the time zone distribution of keywords from 2013 to 2022, combined with the annual publication trend, the evolution of research content at different stages of China's roads can be obtained. As an important part of the discourse system of China's rise, the Chinese road focuses on explaining all aspects of the theory and practice of China's development. The study of China's road can break the international unfriendly attitude towards China's development, explain the main contents of China's development theory and practice, and provide Chinese solutions and Chinese wisdom to other countries in the world that want to achieve development and want to maintain their independence.

From 2013 to 2015, China's road research was a boom stage, and the theme attracted strong attention. The average annual number of articles has increased year by year. In 2013, General Secretary preached at the first meeting of the 12th National People's Congress that "to realize the Chinese dream, we must follow the Chinese road" and "the people of all ethnic groups in the country must enhance their theoretical confidence, road confidence, and institutional confidence in socialism with Chinese characteristics, and unswervingly advance along the correct Chinese road", and the study of the Chinese road has entered a climax stage. Keywords such as "road confidence (102)", "theoretical confidence (21)", "national rejuvenation (20)" and "Chinese dream (83)" have soared in popularity since 2013. From 2015 to 2022, new hot spots continue to emerge in China's road research. In 2015, said in an important speech that "all roads determine destiny, and the Chinese people are on the right path", and new research trends have emerged such as "Chinese experience (15)", "cultural self-confidence (45)", "China plan (18)", "people first" and "centenary of the founding of the CPC" in 2021.

4. Discussion

Since 2013, the core journal CSSCI research on China's roads has increased year by year, and in general, 2013-2015 is the climax of China's road research, and the research on China's road issues in 2013-2022 is closely integrated with ideology and the development of China's economy.
However, in this new era, the following issues should be deepened.

First, the study of China's roads is closely integrated with the development trend of the international community. China's road is a great practice since the founding of the People's Republic of China, and a summary of the current situation of rapid and stable economic development and long-term stability of people's lives in China, but now with the further development of science and technology, human society has increasingly become a "global village". The study of China's road should be more closely integrated with the current situation of the international community and the development of other countries in the international community.

Second, the study of China's roads has been more in-depth. China's path is a summary of China's overall development. Since the beginning of the new era, we have built a moderately prosperous society in an all-round way and achieved the great achievements of the first centenary goal, and we will take advantage of the situation to start a new journey of building a modern socialist country in an all-round way and march towards the second centenary goal. How will the goal be achieved, how we will forge ahead in the new era, China's development will inspire countries in the third world, and the study of China's path will be more detailed to provide other countries that want to strengthen themselves with more comprehensive measures. Third, broaden disciplines and research perspectives and conduct interdisciplinary research. At present, most of the research on the road of Chinese-style modernization adopts the method of literature research, mainly through the analysis of Marxist classic documents, speeches of party and state leaders and other documentary materials, which belongs to the category of Marxist theoretical disciplines or mainly focuses on Marxist theoretical disciplines, and lacks interdisciplinary disciplines and interdisciplinary academic research. In future academic research, academic horizons can be broadened, exchanges and cooperation between disciplines can be strengthened, and integration between disciplines can be enhanced. In particular, we can study the problem of the Chinese-style modernization road from different angles and perspectives, from the disciplines of law, sociology, political science, management, economics, etc., build a theoretical system for studying the Chinese-style modernization road from different disciplines and paradigms. We need to clarify the emergence logic, scientific connotation, basic experience, success path, world significance, future approach of the Chinese-style modernization road, fully demonstrate the advantages of the Chinese-style modernization road. We need to continue to create a new situation in China's modernization construction, and continue to make new contributions to human development.

Fourth, it can promote methodological innovation and strengthen the use of comparative research methods. Due to different historical traditions and basic national conditions, the path of modernization chosen by various countries is also very different. Therefore, in the academic research of the Chinese modernization road, we should also use the method of comparative research, comprehensively compare the excellent practices and successful experiences of other countries in the world in exploring the modernization road. It can absorb and learn from the advantages of the modernization models of various countries in the world, and creatively integrate and innovate resources in line with China's basic national conditions and the requirements of the socialist system, so as to form a way of thinking and an effective path suitable for China's own modernization development.

Fifth, it can broaden the research content and enhance the practical and holistic nature of the research on the road of Chinese-style modernization. As far as practicality is concerned, at this stage, the research results of the Chinese-style modernization road are a problem of "emphasizing text over practice", and it is very necessary to innovate research methods to conduct in-depth research on this topic. For example, in the process of promoting the practice of the Chinese-style modernization road, how to deal with the crises and challenges brought by the unprecedented changes in the world in a century, how to deal with the relationship between one's own development
and the development of the world, how to build the internal logical relationship between the Chinese-style modernization road and the community with a shared future for mankind, and how to continue to explore the practical path to achieve the phased goal of common prosperity. Only by deeply considering these practical issues can we continue to further promote the study of the path of Chinese-style modernization. As far as the integrity is concerned, the Chinese-style modernization road is a century of practice and exploration under the leadership of the Communist Party of China, and the emergence logic of the Chinese-style modernization road should not only be limited to practical logic, historical logic, realistic logic, etc., but also need to deeply interpret the multi-dimensional generative logic of the Chinese-style modernization road from the dimensions of operational logic, cultural logic and value logic, in order to explain the problem of Chinese-style modernization road from the perspective of holistic; For the scientific connotation of the Chinese-style modernization road, it can strengthen the guiding theory, value orientation, system design, cultural content and other multi-dimensional elements, go beyond the surface to make a more in-depth explanation of the scientific connotation of the Chinese-style modernization road, and strive to build the connotation system of the Chinese-style modernization road.

References