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# BIBLIOMETRIC ANALYSIS OF INNOVATION AND ENTREPRENEURSHIP EDUCATION IN CHINA: BASED ON CNKI DATABASE (2014-2023)

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**Abstract:**

Innovation and entrepreneurship education is the engine and driving force to promote social and economic development and advancement. China's innovation and entrepreneurship education has been researched and developed for more than 20 years. In order to grasp the current situation, hotspots, trends and future of innovation and entrepreneurship education research in China, 1330 sample literatures in CNKI database are used as the research object, and bibliometric methods are adopted to visualise, analyse and compare the big data of the literature in terms of the annual volume of published papers, research topics, disciplinary distributions, authors of the published papers, journals of published papers, institutions of the published papers, high citations, downloads, and categories of sources, etc. The results are as follows. The results found that: China's innovation and entrepreneurship education research disciplines are mainly divided into higher education and vocational education; journals such as Education and Career, Science and Technology in Chinese Colleges and Universities, and Secondary School Politics Teaching Reference are the main dissemination carriers; Peking University Core is the main journal source; Northeast Normal University, Xiamen University, and Wenzhou Medical University are the main publishing institutions; and the National Educational Science Programming Project, and the National Social Science Foundation are the main funding funds.

**Keywords:**

Innovation and Entrepreneurship, Innovation and Entrepreneurship Education, Entrepreneurship Education, CNKI

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## Introduction

Globally, innovation is the focus of competition (Nie & Yang, 2023). As one of the supporting points of innovation, innovation and entrepreneurship education has become the engine and driving force to promote socio-economic development and advancement (Fan, 2019).

In China, General Secretary Xi Jinping emphasised that 'innovation is the soul of social progress, and entrepreneurship is an important way to promote economic and social development and improve people's livelihood.' In September 2014, Premier Li Keqiang first put forward the strategic slogan of 'mass entrepreneurship and innovation for all' at the opening ceremony of the Summer Davos Forum, pointing out that it is necessary to take advantage of the east wind of reform to set off a new wave of mass entrepreneurship and form a new situation of innovation for all. The strategy of 'mass entrepreneurship and innovation' has provided a new engine for the high-quality development of China's economy in the new period.

The theme of innovation and entrepreneurship has become a difficult and hot issue for many scholars, and most Chinese scholars have elaborated on it from the perspectives of higher education, enterprise, agricultural economy, etc., but mainly in the field of higher education. Innovation and entrepreneurship education for college students is a new concept that transforms the cultivation goal of higher education from elitism to popularisation and universality, which gives higher education a new connotation, i.e. to cultivate pioneering talents with innovation and entrepreneurship consciousness in order to adapt to the needs of the social development and national strategic planning. Therefore, how to carry out innovation and entrepreneurship education activities to achieve the goal of talent cultivation has become a common topic in the reform and development of China's education model.

Clearly sorting out and portraying the thematic evolution trajectory of research in the field of innovation and entrepreneurship education and grasping the development trend of this research field play an important role in promoting the development of innovation and entrepreneurship education and its related disciplines (Feng et al., 2023).

## Scope

This study provides a bibliometric analysis of academic output related to innovation and entrepreneurship education in China from 2014 to 2023. Using the CNKI database, data from academic journal articles were extracted and analysed to determine the number of published papers, prolific authors, popular themes and major research institutions within the field. A Guide to the Core Journal of China, also known as Peking University Core Journals, abbreviated as PKUC, is the result of a research project on the evaluation of Chinese core journals, which was attended by many journalists and experts from a dozen university libraries in Beijing. Chinese Social Sciences Citation Chinese Social Sciences Citation Index, abbreviated as CSSCI, is a database developed by the China Social Sciences Research and Evaluation Centre of Nanjing University, which is used to retrieve the papers included in the Chinese social sciences and cited in the literature, and it is a landmark project in the field of humanities and social sciences evaluation in China. Papers included in the Peking University Core and CSSCI databases in China are high-quality research papers. In order to ensure the quality of research, the academic papers selected for this study are Peking University core and CSSCI papers in CNKI database.

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**Research Objectives**

The main objective of this study is to systematically examine the scholarship surrounding innovation and entrepreneurship education in China, with a focus on identifying trends, influential authors, popular themes, and the main journals and institutions in which they are published. The study aims to provide insights into the current research state of innovation and entrepreneurship education research in China. The study specifically achieves the following objectives:

1. To analyse data on published journal articles from 2014 to 2023.
2. To identify the major topics of innovation and entrepreneurship education research in China.
3. To identify the main disciplinary distribution of innovation and entrepreneurship education research in China.
4. To identify the top 10 journals that publish papers on innovation and entrepreneurship education research in China.
5. To identify the top 10 institutions that publish papers on innovation and entrepreneurship education research in China.
6. To identify the top 10 authors of published papers on innovation and entrepreneurship education in China.
7. To identify the top 10 articles cited in China's innovation and entrepreneurship education research papers.
8. To identify the top 10 downloaded articles of China's innovation and entrepreneurship education research papers.
9. To identify the top 10 fund projects that fund China's innovation and entrepreneurship education research.
10. To analyse the source categories of China's innovation and entrepreneurship education research papers.

By achieving these goals, this study aims to gain insight into the current research status of innovation and entrepreneurship education research in China, and to provide researchers of innovation and entrepreneurship education with valuable resources to help scholars conduct deeper research.

**Literature Review**

Frederick et al. (2016) argues that as a driver of economic growth, entrepreneurial behaviour has in recent years provided a strong support for the overall economic recovery, the improvement and refinement of the quality of services, and the improvement of the structure of the local economy. Schumpeter believes that innovation consists of five innovative facets such as product, technology, market, resource allocation and organization (Schumpeter & Nichol, 1934; Sun & Wei, 2020). The theme of innovation and entrepreneurship has become a difficult and hot issue for many scholars, and most Chinese scholars have elaborated on it from various perspectives such as higher education, enterprise, and agricultural economy, etc., but the field of higher education is the main one (Zhang & Lu, 2019). In the field of higher education, scholars have analysed and researched innovation and entrepreneurship from the perspective of the specialties established by universities. In addition, scholars have also analysed and researched the innovation and entrepreneurship education model, the benefits and difficulties of innovation and entrepreneurship in higher education.

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In the past 20 years, there have been a large number of studies on innovation and entrepreneurship education in China, but the research boom has been concentrated in the last decade. Cao and Yang (2022) selected the literature in CSSCI and PAUC from 2019 to 2021, and based on the visual analysis of VOSviewer, they conducted a review and outlook of the research on innovation and entrepreneurship education. Fan (2019) systematically analysed the main research results of innovation and entrepreneurship education in the Web of Science database in the past ten years (2009-2018) by using VOSviewer visualization software. It was found that the research in the field of innovation and entrepreneurship education has entered a stable period in recent years, with North American institutions of higher education as the main research force and active inter-prefectural cooperation. The data show that three research hotspots have been formed in this field: disciplinary system, ecological network and educational evaluation.

Shao et al. (2022) studied 265 relevant literatures in the China Social Science Citation Index database from 2000-2018, and used bibliometric methods and CiteSpace software to visualise, analyse and compare the big data of the literatures in terms of authors' cooperation, co-citations, and keyword co-occurrences, as well as to draw a knowledge mapping. The results show that: scholars in the field of innovation and entrepreneurship among college students have mostly conducted research with small-scale cooperation, and there is a lack of cooperation in the field, which has not yet formed a complete and mature academic system; the research areas mainly focus on innovation and entrepreneurship education, entrepreneurship policy, entrepreneurial intention, and innovation and entrepreneurship ability.

These recent literature reviews describe the current status of international research on innovation and entrepreneurship education and the development of innovation and entrepreneurship education in China (García-Lillo et al., 2023; Sreenivasan & Suresh, 2023). CNKI is the largest academic journal database in China, and there are not many results of research on innovation and entrepreneurship education using CNKI's own visual analysis. China's research results on innovation and entrepreneurship education in the past decade have been very fruitful, especially in 2015, which is the first year of China's innovation and entrepreneurship education. Therefore, limiting the time to 2014 to 2023, it is very necessary to conduct bibliometric analyses of innovation and entrepreneurship education using CNKI database.

**Research Questions**

1. What are the trends in innovation and entrepreneurship education research in China according to the year of publication?
2. What are the main research topics?
3. What is the distribution of major disciplines?
4. Which are the top 10 journals for publishing research papers?
5. Which are the top 10 institutions in terms of number of publications?
6. Who are the top 10 authors in terms of number of publications?
7. Which are the top 10 cited articles in research papers?
8. Which are the top 10 downloaded research papers?
9. Which are the top 10 Funded Projects for research?
10. What are the source categories for research papers?

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## Methodology

This study mainly adopts bibliometric methods. This study uses CNKI's own visual analysis method to conduct econometric analysis of relevant literature.

Bibliometric analysis is a branch of library and intelligence research that integrates mathematics, statistics, and bibliography, and can quantitatively depict, evaluate, and predict the current status and development trend of academics, and has a significant macro research trend of objectivity, quantification, and modelling (Gao, 2005). Through the metrological analysis of the literature in a particular field, it can effectively grasp the research hotspots, the development trend of each field, and then objectively evaluate and predict the field.

Scientific knowledge mapping is a kind of image that shows the development process and structural relationship of scientific knowledge with knowledge domain as the object. It has the dual nature and characteristics of 'diagram' and 'spectrum': it is both a visual knowledge graph and a serialised knowledge spectrum, which shows the complex relationships implied by networks, structures, interactions, intersections, evolutions and derivations of knowledge units or knowledge clusters, and breeds new knowledge (Chen et al., 2015; Liu, 2010). The visual analysis of CNKI can analyse the trend and distribution of related literature, which is very intuitive and convenient.

## Data Collection Strategy

This study is a literature research on innovation and entrepreneurship education in China, and the search source is CNKI database. The search method is advanced search, with Chinese as the language, 'Academic Journals' as the literature category, and 'Peking University Core' and 'CSSCI' as the source categories. The source category is 'Peking University Core' and 'CSSCI' as the journals. The search condition 'Title' is 'Innovation and Entrepreneurship Education'. The time frame was set from 2014 to 2023. Results: A total of 1,330 sample articles were retrieved.

**Table 1: The Selection Criterion Search String**

| Criterion | Inclusion | Exclusion |
|---|---|---|
| Language | Chinese | Non-Chinese |
| Timeline | 2014-2023 | <2014 |
| Literature Type | Journal (Article) | Conference, Book Review |
| Publication Stage | Final | - |
| Source Category | PKUC, CSSCI | - |

## Data Analysis

CNKI covers a wealth of resources, is a search platform using the concept of knowledge management, combined with search engine, full-text search, database and other related technologies, can be found in the knowledge and information and access to the information you need. CNKI database provides Chinese academic literature, foreign language literature, dissertations, newspapers, conferences, yearbooks, tools and other types of resources, and provides online reading and download services. The fields covered include: basic sciences, literature, history and philosophy, engineering science and technology, social sciences, agriculture, economic and management sciences, medicine and health, and information science and technology.

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CNKI academic journals library can realise the integrated search of Chinese and foreign language journals. Among them, there are more than 8510 Chinese academic journals, including more than 1960 core journals of Peking University and more than 2130 network-first journals, with the earliest date back to 1915, and a total of more than 57.5 million full-text documents; foreign-language academic journals include more than 57,400 journals from more than 650 publishers in more than 60 countries and regions, covering 94% of the JCR journals, 80% of the Scopus journals, and the earliest date back to the 19th century, with the earliest date back to 19th century. CNKI database is the largest Chinese database in the world, with the earliest date back to the 19th century, and a total of more than 110 million foreign language titles, which can be linked to the full text.

CNKI, as the portal and network publishing and distribution platform of China Knowledge Resource Database, not only realises the comprehensive integration and dissemination of academic literature resources, but also promotes the dissemination of Chinese academic literature. CNKI has a powerful full-text search system for network databases, and its search method is simple and flexible, so that even users who don't have professional knowledge of searching can also master it easily. And because of the advantages of large information content, wide coverage, rapid and timely updating, and full-featured retrieval services, it has received more and more attention from scholars and become an indispensable way to retrieve Chinese materials (Tu et al., 2019).

CNKI visual analysis is a kind of academic research tool with the help of computer technology and data visualisation method. It captures, organizes and analyses a large amount of academic data (e.g. papers, patents, projects, etc.) and displays them through a graphical interface to help researchers understand complex academic fields in an intuitive and clear way.

CNKI Visual Analytics is not only an efficient research tool, but also a power to change the way we do academic research. It enables researchers to quickly mine valuable information from massive amounts of academic data, providing new perspectives and insights for research. At the same time, this type of analysis also improves the reproducibility and transparency of research, allowing other researchers to more accurately assess the quality and value of research work.

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## Results and Findings

### *What Are The Trends In Innovation And Entrepreneurship Education Research In China According To The Year Of Publication?*

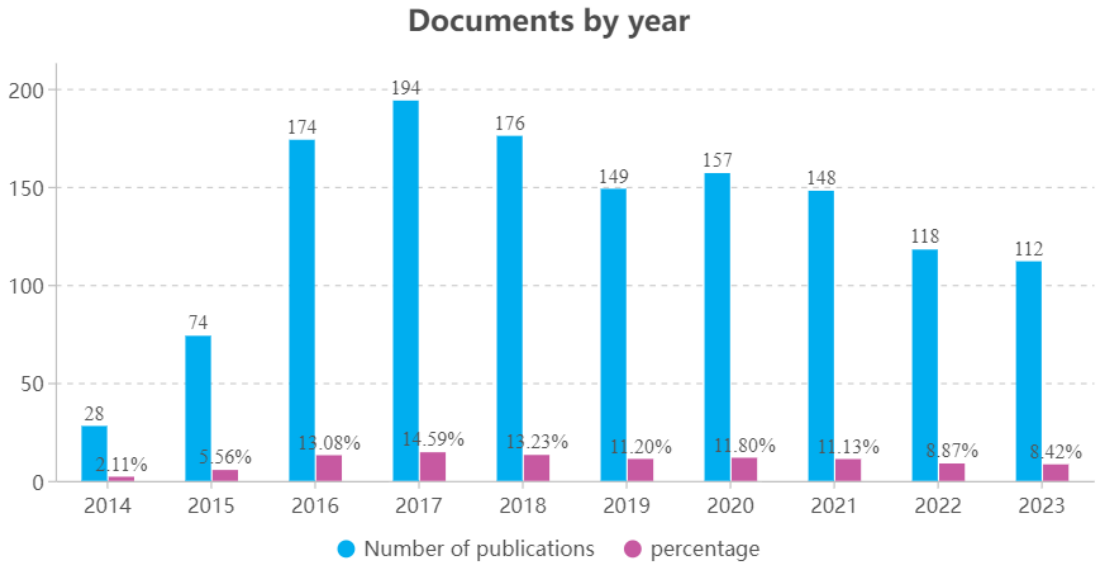


**Figure 1: Annual Published Literature Statistics**

The trend of the number of published papers in the annual paper somehow reflects the attention and heat of research in the field (Wang, 2022). From the time series of 1,330 documents in CNKI core journals from 2014 to 2023, the number of documents grew significantly after 2015, reaching an all-time high of 194 annual publications in 2017. It then levelled off, remaining at an annual average of 140 papers. It is expected to remain essentially flat at 120 papers for some time to come, or with minor fluctuations.

For the large-scale research that started in 2015, the authors believe that it is closely related to the great importance China attaches to innovation and entrepreneurship. In March 2015, the General Office of the State Council issued the Guiding Opinions on the Development of Crowd-Creation Spaces to Promote Mass Innovation and Entrepreneurship, which called for promoting innovation and entrepreneurship from the aspects of public services, financial support, market financing, innovation of activities, and creation of an atmosphere, making crowd-creating spaces bigger and stronger On 13 May 2015, the General Office of the State Council promulgated the 'Implementation Opinions on Deepening the Reform of Innovation and Entrepreneurship Education in Colleges and Universities', which requires colleges and universities to improve the quality standard of talent cultivation, innovate the mechanism of talent cultivation, and assist the smooth implementation of the 'dual-creation' education in terms of the curricula and teaching, the management system, the teaching staff, and the financial policies. 'In June 2015, the State Council issued the Opinions on Several Policies and Measures for Vigorously Promoting Mass Entrepreneurship and Innovation, pointing out that it is necessary to innovate the system and mechanism, optimise the financial support, build the ecology of entrepreneurship, construct a platform for dual-creation, and improve the synergy mechanism. Under the call of the Chinese government and the Ministry of Education, all parties have actively cooperated with each other to study the related contents of innovation and entrepreneurship in depth, which to a certain extent reflects the guiding role of the national

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policy(Zhang & Lu, 2019).

***What Are The Main Research Topics?***

**Table 2: Main Research Topics**

| Research Topic | No. Documents |
|---|---|
| Innovation and entrepreneurship education | 966 |
| Innovation and entrepreneurship education in colleges and universities | 264 |
| Innovation and entrepreneurship | 188 |
| Innovation and entrepreneurship education for college students | 153 |
| Higher vocational school | 121 |
| Innovation and entrepreneurship education system | 56 |
| Innovation and entrepreneurship education model | 49 |
| College students' innovation and entrepreneurship education —— based on the Internet + perspective | 46 |
| Entrepreneurship education | 38 |
| Reform of innovation and entrepreneurship education | 35 |
| Ideo-political education | 30 |
| The entrepreneurship education ecosystem | 27 |
| Innovation and entrepreneurship of college students | 26 |
| Innovation and entrepreneurship education courses | 26 |
| Professional education | 25 |
| Collaborative education | 23 |
| Ideological and political education in colleges and universities | 22 |
| Ideological and political education | 19 |
| "Internet +" | 19 |
| Ecosystem | 19 |

The top twenty research topics are selected and organised into Table 2. The main research topics focus on the related expressions of innovation and entrepreneurship education, innovation and entrepreneurship education in colleges and universities, innovation and entrepreneurship, innovation and entrepreneurship education for college students, etc. There is a relatively similarity or a close connection between the topics, and the core words are all innovation and entrepreneurship education. The distribution of research topics is very wide, involving education system, education model, ecosystem, reform, curriculum, specialisation, synergy, etc., all of which are closely concerned with innovation and entrepreneurship education.

***What Is The Distribution Of Major Disciplines?***

**Table 3: Main Research Disciplines**

| Branch of Learning | No. Documents |
|---|---|
| Higher education | 1074 |
| Occupational education | 220 |
| Enterprise economy | 39 |
| Light industry handicraft industry | 18 |
| Educational theory and educational management | 16 |
| Agricultural economy | 14 |
| Organic chemical industry | 13 |
| Library Information and Digital Library | 12 |

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| | |
|---|---|
| Medical education and the medical edge discipline | 11 |
| Computer software and computer applications | 10 |

The top ten research themes were selected and collated into Table 3. The results show that the main disciplines of Chinese innovation and entrepreneurship education research are distributed in higher education and vocational education, which account for the vast majority of all the studies. This indicates that innovation and entrepreneurship education focuses on higher education and vocational education, which is in line with the direction guided by the Chinese government's policy.

***Which Are The Top 10 Journals For Publishing Research Papers?***

**Table 4: Top 10 Journals For Published Research Papers**

| Academic journals | No. Documents | IF |
|---|---|---|
| Education and career | 114 | 2.542 |
| Science and technology in Chinese universities | 98 | 2.017 |
| Middle school politics teaching reference | 52 | 0.510 |
| School Party building and ideological education | 42 | 2.718 |
| Heilongjiang Higher education research | 38 | 2.073 |
| Vocational education forum | 36 | 2.710 |
| Chinese adult education | 33 | 0.643 |
| Research on science and technology management | 30 | 2.923 |
| Continuing education research | 25 | 0.648 |
| Educational theory and practice | 21 | 1.946 |

Academic journals are vehicles for disseminating the results of academic research. Statistics on the number of papers published in academic journals are useful in identifying the core journals that have a significant impact on the subject area. Table 4 lists the top 10 academic journals published in the sample literature. The results show that educational journals are the main source of knowledge in the field of innovation and entrepreneurship education, with the top-ranked Education and Career reaching 114 articles. Chinese College Science and Technology, which published 98 articles, was also the main dissemination vehicle.

***Which Are The Top 10 Institutions In Terms Of Number Of Publications?***

**Table 5: Top 10 Institutions In Terms Of Number Of Publications**

| Institution | No. Documents |
|---|---|
| Northeast Normal University | 25 |
| Xiamen University | 15 |
| Wenzhou Medical University | 13 |
| Tongji University | 12 |
| Changzhou University | 12 |
| East China Normal University | 11 |
| South China Normal University | 11 |
| Wenzhou University | 11 |
| Tsinghua University | 10 |
| Guilin University of Electronic Technology | 9 |
| Southwest University | 9 |

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| | |
|---|---|
| Zhejiang University | 9 |
| South China Agricultural University | 9 |
| Beijing Union University | 9 |
| Nantong University | 9 |
| Yangzhou University | 9 |
| Jilin Agricultural University | 8 |
| Beijing Normal University | 8 |
| Zhejiang Financial College | 8 |
| Nanjin university | 8 |

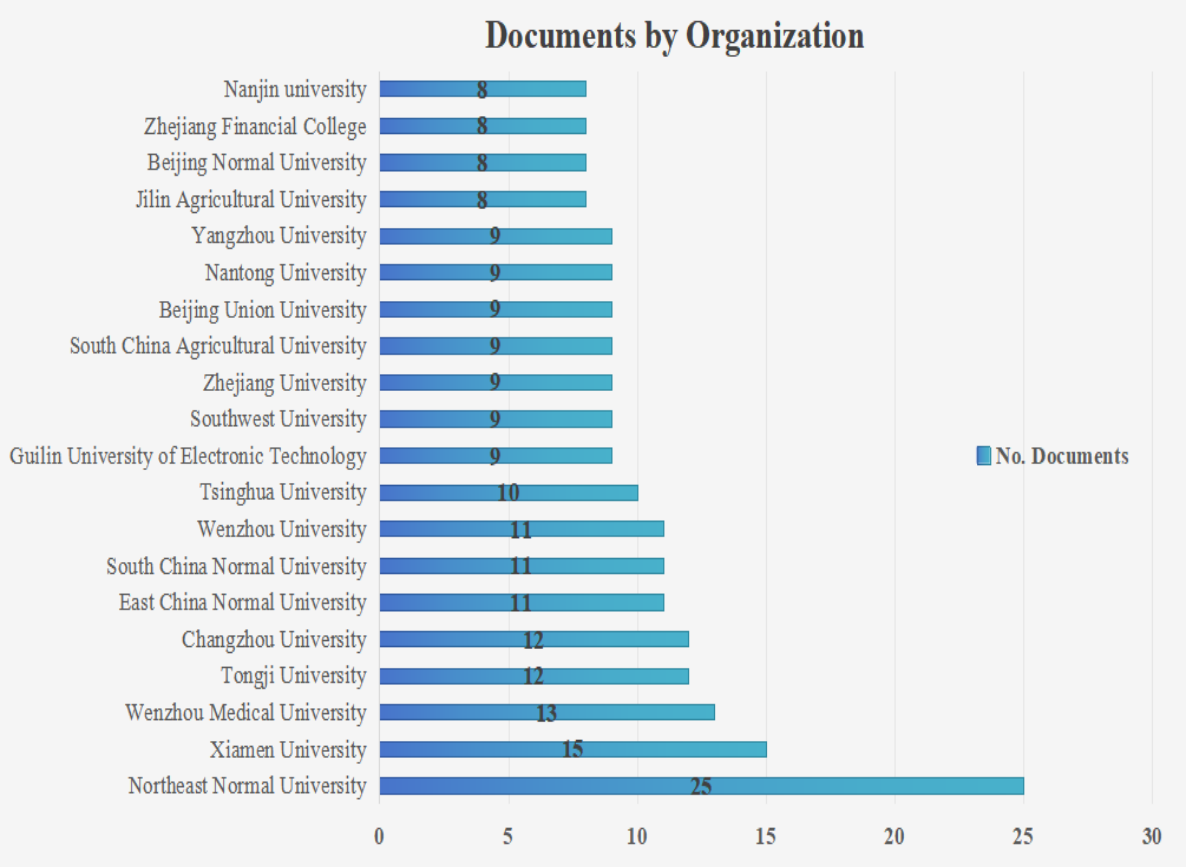


**Figure 2: Top 10 Institutions In Terms Of Number Of Publications**

Innovation and entrepreneurship education research published papers institutions mainly in universities, published papers more than 8 have 20 units, in addition to 1 college, the other 19 are universities, published papers the most Northeast Normal University, published a total of 25 papers, more prominent, much higher than the second-ranked Xiamen University 15. There are 9 units with more than 10 published papers. Universities are the main publishers of papers in Table 5, and are the backbone of innovation and entrepreneurship education research in China.

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***Who Are The Top 10 Authors In Terms Of Number Of Publications?***

**Table 6: Top 10 Authors In Terms Of Number Of Publications**

| Author | Institution | No. Documents |
|---|---|---|
| Wang Zhanren | Northeast Normal University | 14 |
| Wang Hongcai | Xiamen University | 10 |
| Li Yayuan | Northeast Normal University | 6 |
| Huang Zhaoxin | Hangzhou Normal University | 5 |
| Zhuo Zelin | Wenzhou Medical University | 5 |
| Wang Zhiqiang | Wenzhou University | 4 |
| Tian Xianpeng | East China Normal University | 4 |
| Xu Tao | Tongji University | 4 |
| Song Yan | Northeast Normal University | 4 |
| Fei Zhiyong | Changshu Institute of Technology | 4 |
| Xu Jiahui | Hebei Finance University | 4 |

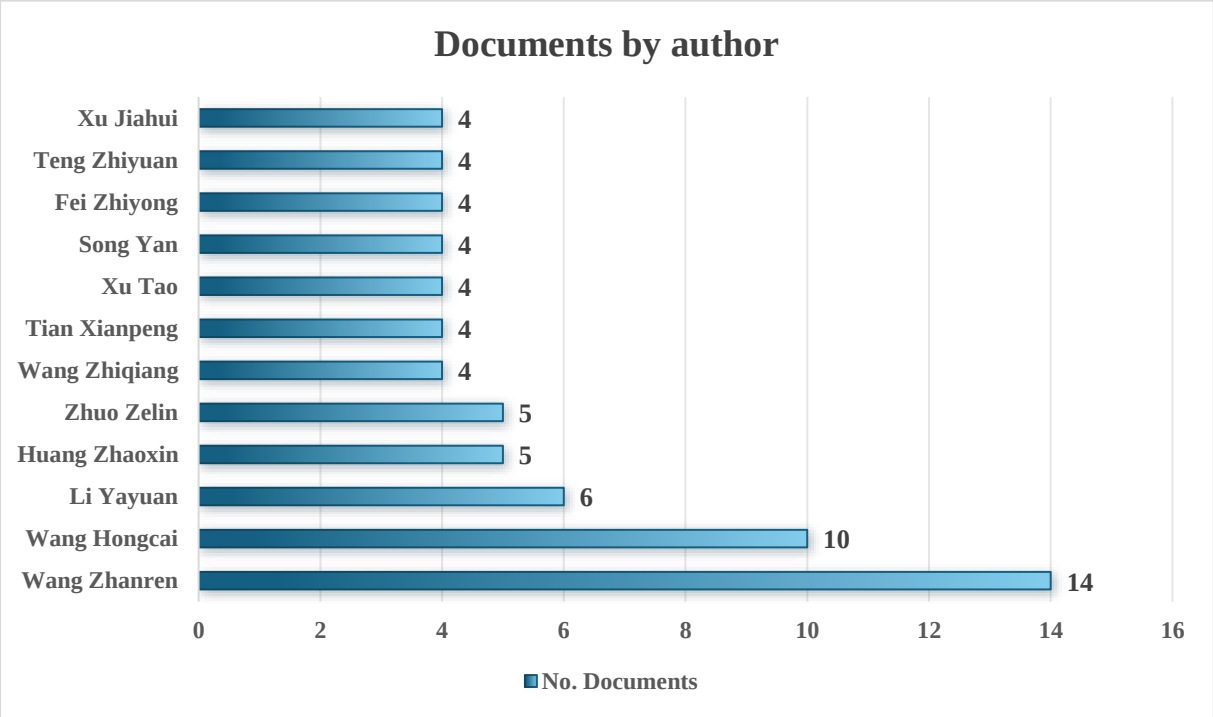


**Figure 3: Top 10 Author In Terms Of Number Of Publications**

Analysed from the representative scholars, a total of 11 scholars were counted to have published 4 or more papers. The author with the most papers published is Wang Zhanren (14 papers), also from Northeast Normal University, which has the most published institutions. The author with 10 publications is Wang Hongcai, also from Xiamen University, which is the second largest publishing institution. Wang Zhanren, Li Yayuan and Song Yan in Table 6 are all from Northeast Normal University, which shows that a research team led by the three of them has been formed at Northeast Normal University. There are six universities appearing in both Table 5 and Table 6. This shows that, in terms of publishing institutions and representative scholars, Northeast Normal University, Xiamen University, Wenzhou Medical University, Tongji University, East China Normal University, and Wenzhou University have published papers at a relatively high level and have significant research results.

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***Which Are The Top 10 Cited Articles In Research Papers?***

**Table 7: Key Information On Highly Cited Papers**

| No. | Cited by | Authors | Title | Year |
|---|---|---|---|---|
| 1 | 856 | Ma Yongbin et al. | Research and Exploration on the Practical Mode of Innovation and Entrepreneurship Education in Universities | 2015 |
| 2 | 629 | Wang Zhanren | System Structure and Theoretical Value of 'Broad Spectrum' Innovation and Entrepreneurship Education | 2015 |
| 3 | 563 | Liu Yan, etc. | Deep Integration of Innovation and Entrepreneurship Education and Professional Education | 2014 |
| 4 | 468 | Wang Zhanren | The Overall Concept of Changing the Concept of Innovation and Entrepreneurship Education in Colleges and Universities | 2015 |
| 5 | 420 | Wang Yanxin | Reflection and Mode Construction of Innovation and Entrepreneurship Education in Colleges and Universities | 2015 |
| 6 | 326 | Liu Wei et al. | Survey on the Current Situation of Innovation and Entrepreneurship Education in Chinese Universities and Policy Suggestions - Based on Sample Analyses of 8 Universities | 2014 |
| 7 | 320 | Xue Chenglong et al | Review and Reflection on Innovation and Entrepreneurship Education in Colleges and Universities during the 'Twelfth Five-Year Plan'-Analysis Based on the third Party Evaluation Report of Higher Education | 2016 |
| 8 | 320 | Hao Jie et al. | Construction and Inspiration of American Innovation and Entrepreneurship Education System | 2016 |
| 9 | 320 | Xie Heping | Deepening Education and Teaching Reform Comprehensively with Innovation and Entrepreneurship Education as Guidance | 2017 |
| 10 | 311 | Li Zhiyi | My Opinion on Innovation and Entrepreneurship Education | 2014 |

The 10 highly cited articles in the sample literature are detailed in Table 7. The 10 classic literatures were published relatively early, with 3 articles in 2014, 4 articles in 2015, 2 articles in 2016 and 1 article in 2017. The quality of these 10 articles is very high, the number of citations were more than 300, and the highest reached 856.The existence of these classic articles has laid a solid foundation for the research in this decade, and helped a lot of researchers of innovation and entrepreneurship education.

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***Which Are The Top 10 Downloaded Research Papers?***

**Table 8: Key Information Of The Most Downloaded Papers**

| No. | Download | Authors | Title | Year |
|---|---|---|---|---|
| 1 | 25946 | Ma Yongbin et al. | Research and Exploration on the Practical Mode of Innovation and Entrepreneurship Education in Universities | 2015 |
| 2 | 18695 | Liu Yan et al. | Deep Integration of Innovation and Entrepreneurship Education and Professional Education | 2014 |
| 3 | 13597 | Wang Zhanren | System Structure and Theoretical Value of 'Broad Spectrum' Innovation and Entrepreneurship Education | 2015 |
| 4 | 12256 | Hao Jie et al. | Construction and Inspiration of American Innovation and Entrepreneurship Education System | 2016 |
| 5 | 11369 | Liu Wei et al. | Survey on the Current Situation of Innovation and Entrepreneurship Education in Chinese Universities and Policy Suggestions - Based on Sampling Analysis of 8 Universities | 2014 |
| 6 | 11244 | Zhang He | Research on Innovation and Entrepreneurship Education in Colleges and Universities: Mechanism, Path and Mode | 2014 |
| 7 | 11031 | Wang Zhanren | Overall Concept of Changing the Concept of Innovation and Entrepreneurship Education in Colleges and Universities | 2015 |
| 8 | 9946 | Xue Chenglong, etc. | Review and Reflection on Innovation and Entrepreneurship Education in Colleges and Universities during the 'Twelfth Five-Year Plan'-analysis based on Third Party Evaluation Report on Higher Education | 2016 |
| 9 | 9425 | Wang Yanxin | Reflection and Mode Construction of Innovation and Entrepreneurship Education in Colleges and Universities | 2015 |
| 10 | 9347 | Zhao Jun et al. | Research on the Construction of Innovation and Entrepreneurship Information Platform under the Environment of 'Internet+'--Taking College Students' Innovation and Entrepreneurship Education as an Example | 2016 |

There are 113 articles in the sample literature that have been downloaded more than 2000 times, of which 20 articles have been downloaded more than 6000 times. The authors have selected the information of the articles that have been downloaded more than 9000 times to form Table 8. The comparison of the information in Table 7 and Table 8 shows that there are 8 articles that are the same. This indicates that 80% of the articles are both highly cited and highly downloaded articles. It confirms that these articles are high quality classic articles. In terms of the time of publication, it is concentrated in 2014, 2015 and 2016. This indicates that these are

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foundational literature in the field of innovation and entrepreneurship education, which deserves in-depth study by researchers.

***Which Are The Top 10 Funded Projects For Research?***

**Table 9: Top 10 Funded Projects For Publications**

| Funded Projects | No. Documents |
|---|---|
| The National education science planning project | 47 |
| The National Social Science Fund of China | 34 |
| Jiangsu Provincial Department of Education, College Education philosophy and Social Science Foundation project | 23 |
| National Natural Science Foundation of China | 21 |
| Jiangsu Provincial Department of Education Humanities and Social Sciences Research Fund | 17 |
| The Humanities and Social Sciences Research Project of the Ministry of Education | 17 |
| Research topic of Higher education teaching reform in Jiangsu Province | 15 |
| Teaching quality and teaching reform project of Guangxi colleges and universities | 15 |
| Jiangsu Province education science planning project | 11 |
| Jilin Province education science planning project | 10 |
| Zhejiang Province philosophy and social science planning topic | 10 |

The research most funded by fund projects is the National Education Science Planning Project, with 47 articles. The national level includes 34 documents of the National Social Science Foundation projects, 21 documents of the National Natural Science Foundation of China, and 17 documents of educational humanities and social science research projects. Among the relevant topics of each province, the fund funding of Jiangsu, Guangxi, Jilin and Zhejiang provinces ranked at the top. Among the 11 funds ranked in the top ten, there are 4 funds in Jiangsu Province, accounting for 36%, which is a very large proportion, which is particularly prominent among the fund grants of all provinces. This is in line with Jiangsu Province's large GDP, active economy, and good environment for innovation and entrepreneurship.

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***What Are The Source Categories For Research Papers?***

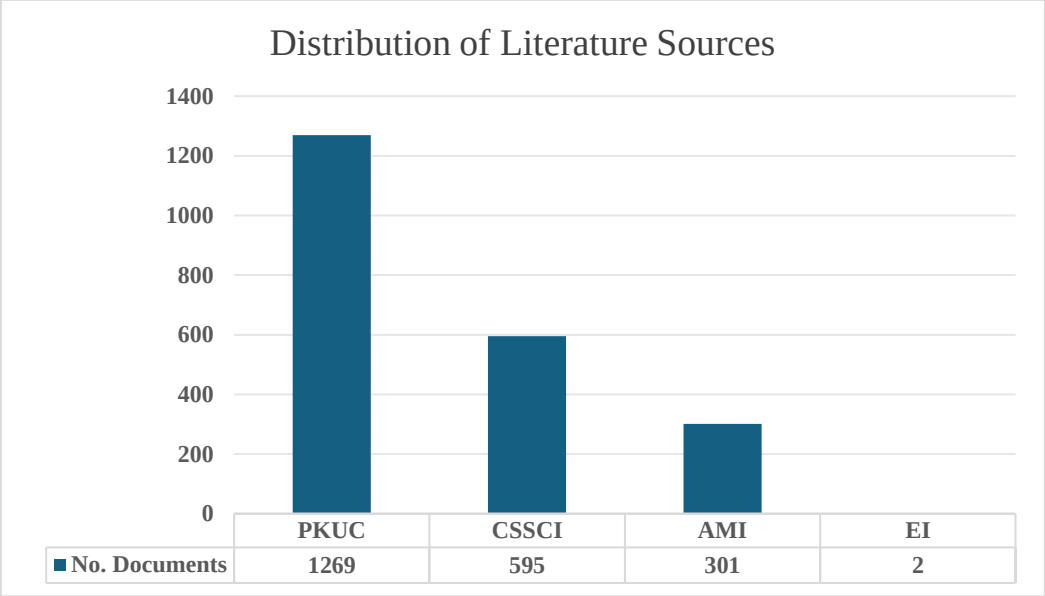


**Figure 4: Categories Of Sources For Research Papers**

Among the 1330 sample documents, 595 were indexed by CSSCI, which contains the highest quality Chinese core documents. There are 1,269 documents indexed by PKUC. There are also 301 documents simultaneously indexed by AMI and 2 documents simultaneously indexed by EI.

**Discussion and Conclusion**

Bibliometric analyses reveal interesting trends in the field of innovation and entrepreneurship education research in China. Through the above analyses, this study obtained the following conclusions.

In terms of the chronological release of the number of published papers, the number of published papers increased sharply from 2014 to 2023 and then levelled off. Since the sharp rise from 2015, the importance of the field is more and more obvious, and the number of research results grows rapidly. This is closely related to a series of strategic initiatives on innovation and entrepreneurship in China. Under the guidance of the national strategy, the research on innovation and entrepreneurship education will maintain a high level of attention.

From the point of view of research themes and disciplinary distribution, the research focuses on higher education and vocational education, and the theme hotspots include innovation and entrepreneurship education, innovation and entrepreneurship education in colleges and universities, innovation and entrepreneurship, and innovation and entrepreneurship education for college students.

In terms of the institutions, number, journals and authors of published articles, universities are the main research force, with Northeast Normal University and Xiamen University being the most influential. The authors with the highest number of published articles are also from Northeast Normal University and Xiamen University, of which three scholars in the top 10 published articles are from Northeast Normal University. The journals with the largest number

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of published articles are education journals, mainly Education and Career, China College Science and Technology, Secondary School Politics Teaching Reference and School Party Building and Ideological Education.

In terms of the number of citations and downloads of published articles, eight articles overlapped in the top ten of highly cited articles and the top ten of highly downloaded articles, indicating that high-quality research results were very concentrated. It is also found that high-quality articles are clustered in the three years of 2014, 2015 and 2016.

From the perspective of literature funding funds and source categories, national funds including the National Social Science Foundation Project Literature, the National Natural Science Foundation of China, the Education Humanities and Social Sciences Research Project and the Jiangsu Provincial Fund are the main funding sources. Meanwhile, 44.7% of the literature was included in the CSSCI database, indicating that the research results are of remarkable quality and high impact.

This study achieved the research objectives as planned. This study has made significant contributions and can help scholars sort out the current status and trends of innovation and entrepreneurship education research in China in the past 10 years, laying a foundation for future research.

Future research will focus on the construction of the university innovation and entrepreneurship education ecosystem and the existing problems.

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The insights presented in this literature review are indispensable for a comprehensive understanding of the current state of research on innovation and entrepreneurship education in China. Their work forms the basis of this study. Their contribution to the field of innovation and entrepreneurship education in China is invaluable. In addition, we would like to thank the developers of CNKI for providing a database that greatly facilitated the data analysis for this study. Finally, we would like to thank the Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan.

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