

Urban Governance Research in China (2012-2022): Progress and Reflections

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Abstract. Since the 18th Party Congress, urban governance has gained more and more academic attention. By combing through the Chinese urban governance research literature in the last decade (2012-2022), this paper aims to describe the current status of research in this field and point out the development direction of future research. After screening 519 core Chinese journals, a comprehensive analysis of qualitative and quantitative methods was conducted with the help of the software Cite Space. The results of the analysis show that, in terms of the construction of "invisible academy" and academic community, the participation in the field of urban governance research is on the rise, but the construction of cooperative network of researchers and research institutions needs to be improved. In terms of research themes, the number of theoretical and motivational studies has increased significantly and accounted for a large number of studies, while value-level studies have received less attention and have limited content; in terms of research types, there are more exploratory and descriptive studies and fewer explanatory studies. Overall, during this decade, the academic community of urban governance research has been gradually improved, the research themes have been refined, and the research types have been enriched. However, there is still a need to further improve the value-level and interpretive research on urban governance and to enhance interdisciplinary communication.

Keywords: Urban Governance; Research Review; Invisible Academy; Academic Community.

1. Introduction

In the report of the 20th Party Congress, the Party Central Committee, with Comrade Xi Jinping as the core, focused on exploring and solving urban issues, and constructively put forward a series of important discussions on urban construction and development, such as "improving urban planning, construction and governance, and creating livable, resilient and intelligent cities" [1]. There is no doubt that, with the deepening of urbanization, China's urban development has entered a new stage. Since the 18th Party Congress, China's urban population has increased by 198 million, and the urban resident population has reached more than 920 million by the end of 2022. [2] It can be seen that the governance of cities has become an important aspect of national governance nowadays. As an important part of the national governance system, urban governance plays an important role in promoting the modernization of the national governance system and governance capacity and improving the national capacity.

From a practical point of view, during the ten years from the 18th to the 20th Party Congress, China has fought the battle of precise poverty eradication and successfully achieved comprehensive poverty eradication. In this context, a large number of people have flocked to cities, and urban managers have paid more and more attention to the development of urban management and the high-quality development of urban dad. From the theoretical point of view, urban governance research has experienced an explosive growth in the past decade, as shown in Figure 1 The trend of urban governance in China Knowledge Network academic attention. From the figure, it can be found that the academic attention of urban governance in China shows a continuous growth from 2012 to 2021, peaking in 2021 and decreasing slightly in 2022. For comparison, the academic attention on foreign urban governance research from Zhiwang.com peaks in 2020, declines briefly, and then stabilizes from 2021 to 2022. Chinese academic research has been more or less influenced by Western governance theories, and accordingly, the trend of academic attention to urban governance in foreign

academia is generally ahead of that in China. In view of this, this paper predicts that the academic research on urban governance in China will also enter a relatively stable stage in the years after 2022. In summary, urban governance has made some progress in both practice and theory, and it is necessary to make a phase review based on the previous studies.

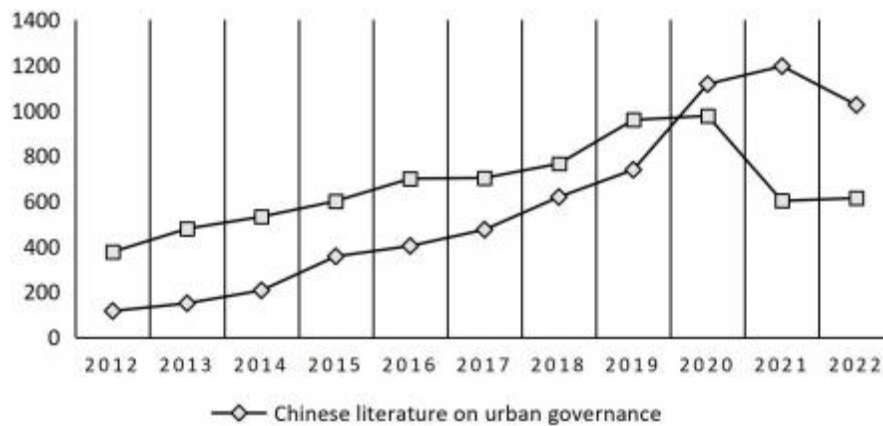


Fig 1. Trend of academic interest in urban governance in CNKI(2012-2022)

Note: Data extracted on February 25, 2023

Source: CNKI

As a review article, this study summarizes and analyzes urban governance research in the last decade, and is innovative in terms of research perspectives and research methods. In terms of research perspective, this article chooses to combine the perspectives of invisible colleges and universities, and focuses on the construction of academic communities and the development of knowledge dissemination and knowledge networks in the field, while combing the changing trends and development of the existing urban governance research field in the past decade, filling the research gap of the current research that focuses solely on the theory itself but ignores the research community. In addition, in terms of research methodology, the software Cite Space is used to visually visualize the cooperative network of researchers and research institutions and the co-occurrence network of research keywords in the field of urban governance, which facilitates a more systematic understanding of urban governance research.

At present, in terms of governance practice, compared with the developed Western countries, China's urban development started late and developed relatively, plus China is still in and will be in the primary stage of socialism for a long time, and there is still a lot of room for development in China's cities. In this context, it is in line with the objective need to increase the research on urban governance to provide theoretical reference for the scientific development of cities.

2. Analytical Framework: Exploring the Intangible Academies, Themes and Types of Urban Governance Research

This paper uses the 'Invisible Academy' - Themes - Types' as the main analytical framework to examine the trends, current situation and characteristics of the field of urban governance research.

The framework of the "invisible academy" is used to describe the current situation and characteristics of the field of urban governance. The invisible academy is a theory that reflects the interaction of scientists from different disciplines in the field of science [3]. The study of this theory dates back to the mid-17th century, when the philosopher Boyle first raised the issue in a correspondence with a close friend. Pusrey pioneered the field of study of the invisible academy, transposing the invisible academy from the history of science to the social study of contemporary science, using the number, structure and crystallization of papers as indicators of research, seeing the invisible academy on the basis of a network of information exchange. [4]After this, Diana Crane further divides the development history of disciplinary knowledge into four stages: the incipient

period, the period of rapid growth, the period of stability and maturity, and the period of decline, based on the law of Logos curve of disciplinary development proposed by Price. [5] In the period of infancy, paradigms and innovative works emerge; in the period of rapid growth, a large number of scientists and researchers develop the discipline based on their predecessors and the invisible academy becomes larger; in the period of maturity, controversy increases and professionalization gradually takes place; and in the final period of decline, research membership decreases and research becomes smaller due to the maturity or difficulties of the discipline. With reference to this criterion of stages, this paper finds that the development of an intangible academy of urban governance in China is in a period of rapid growth.

Focusing on the development status of intangible colleges in the field of urban governance, this paper focuses on analyzing the overview, research hotspots and research gaps in this research topic in the last decade. Drawing on the work of Chinese scholar Dong Hui. [6] In terms of philosophical reflections on the core elements, operational mechanisms, value goals and strategic paths of urban governance, this paper attempts to correspond the research themes of urban governance literature to three dimensions: theoretical level, value level and motivation level. First, the theoretical dimension focuses on cognition, with the main topics including how to understand the city, how to promote the urbanisation process, how to understand and construct a healthy relationship between urban subjects and objects, and how to solve problems in the interaction between the city and governance. In a word, theoretical studies help readers to explore the laws of urban governance more intuitively through the aggregation and analysis of advanced and scientific ideas. Secondly, studies at the dynamics level focus on practice, looking at the actual operation of urban governance from a relatively dynamic perspective, from which the factors that influence the direction of urban development can be identified. In this regard, the subject of dynamics includes information technology, institutions and laws, social forces, and market enterprise mechanisms. Thirdly, for the value level, the value level bridges the theoretical level and the dynamic level, and exists as a bridge and intermediary between the two. Value exists first and foremost because of the subject, and urban governance research at the value level is mostly concerned with value claims and value orientations. Taken together, the three types of research themes have their own focus and together they cover important topics in the field of urban governance research. Moreover, the interaction between theory, value and motivation is in line with the dialectical relationship movement between understanding and practice.

In addition, this paper also analyses the urban governance research paradigm from the perspective of research types. In terms of research types, this paper divides urban governance research into three major categories, namely exploratory research, descriptive research, and explanatory research, based on the purpose of the research [7]. Exploratory research answers the question of "what is", and its main role is to provide a rational direction and theoretical basis for specialised and in-depth research. Descriptive research, on the other hand, provides a clear description of certain phenomena or characteristics of the research field, presenting the regularity, comprehensiveness and systematicity of the research. In contrast to exploratory research, descriptive research usually uses a variety of research methods such as case studies and comparative studies. Explanatory research focuses on explaining developmental patterns and cause-and-effect relationships, and is an in-depth exploration of phenomena and factors. This type of research mostly adopts quantitative analysis research methods, by designing multiple variables to conduct statistical analysis.

3. Data and Methods

This paper provides a bibliometric and content analysis of core national journals with the aim of demonstrating the Invisible Academy. This section presents the data sources, search and selection criteria and analysis methods for the review of urban governance literature from 2012 to 2022.

3.1 Data Sources and Cleaning

First, the journals were selected. The articles analyzed came from representative journals in the field of social sciences in China, mainly including China Administration, Journal of Public Administration, Exploration and Controversy, Social Science, Political Science Research, Nanjing Social Science, etc.

Secondly, a literature search was conducted. This paper was searched in the CNKI journal database, and the search subject terms included "urban governance", "community governance", "people's city", "intelligent city", "wisdom city", and "city", "Urban Politics", "Collaborative Governance", with a time frame of January 2012 to December 2022. Combined with the literature screening mentioned above, a fuzzy search was used to retrieve a total of 1131 documents.

Subsequently, data cleaning was carried out. Firstly, by reading the article titles and abstract contents, some irrelevant fields were excluded, including 30 articles deleted from the content of journals in sports disciplines, 12 articles in automation technology, 32 articles in water conservancy and hydropower engineering, 42 articles in agricultural economics and 291 articles in construction science and engineering, retaining the literature related to the topic of urban governance and deleting short reviews and book reviews, resulting in a sample of 519 documents. Table 1 summarizes the situation of some representative journals in the literature sample in terms of urban governance research articles published in the past ten years. Among them, Chinese Administration has the highest number of published literature with 86 articles, Exploration and Controversy 35 articles, and Nanjing Social Science 33 articles. Comparing the number of papers in each year reveals that the number of papers on the topic of urban governance is low overall.

Table 1. Annual distribution of urban governance literature by journal

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	TOTAL
<i>Chinese Administration</i>	2	3	5	8	6	11	13	11	12	8	7	86
<i>Explorations and Controversies</i>	0	3	2	6	5	5	0	2	2	4	6	35
<i>Nanjing Social Science</i>	2	2	6	3	1	0	1	4	4	4	6	33
<i>Journal of Public Administration</i>	0	1	0	2	4	2	4	2	4	1	5	25
<i>Comparative Economic and Social Systems</i>	0	0	2	2	2	4	0	2	0	1	4	17

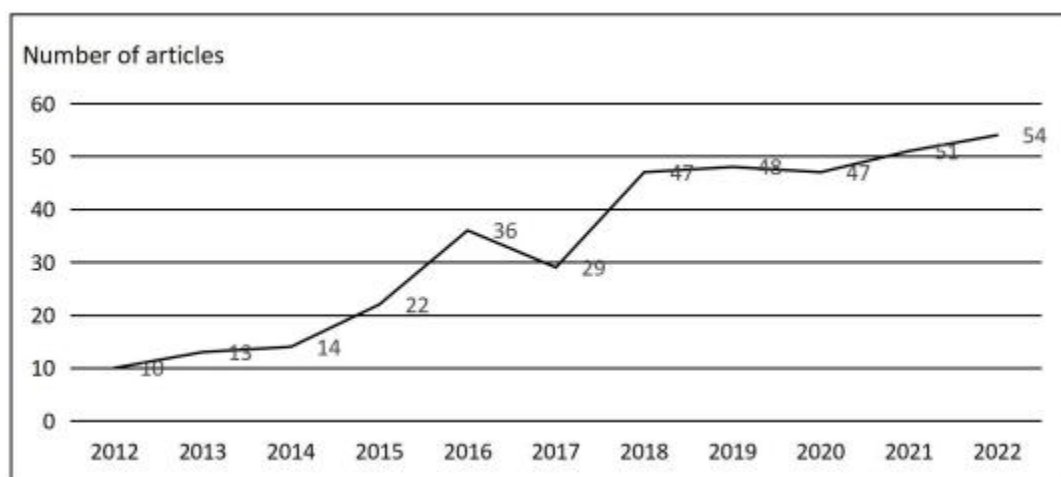


Fig 2. Annual distribution of the number of urban governance research articles

Source: Compiled by the author

Based on the trend in the number of urban governance studies presented in the sample literature, it can be seen (Figure 2) that the overall trend in urban governance research has increased over the past decade or so. Based on a comprehensive analysis of academic concerns, this paper predicts that the volume of urban governance literature will still show a steady and small increase in the coming years.

3.2 Research Methodology

In order to more intuitively display and study the invisible institute, this paper adopts a bibliometric approach to analyse and explore the content of existing literature in the field of urban governance. In the process of analysis, this study uses Cite Space software to statistically and quantitatively analyse the literature, counting the frequency of occurrence of information such as keywords, researchers and research institutions, while correspondingly drawing a more intuitive visual knowledge map in order to understand the distribution of topics in urban governance, the degree of involvement of researchers and institutions, and other content.

4. Analysis of the Current Situation and Trends of Urban Governance Research

This section will analyse the current situation and trends of research in the field of urban governance research from three major aspects: the development of academic communities, research themes and research types.

4.1 The Evolution of Academic Communities: The Development of Committed Researchers and the Formation of Cooperative Networks within the Field

The invisible academy of urban governance research in China has gone through a period of incipient and rapid development in the last decade. First, on the institutional front, the China Institute of Urban Governance Modernisation was founded in 2015 under the leadership of the People's Daily along with the participation of research institutions such as the Chinese Academy of Sciences, the Chinese Academy of Social Sciences, the Development Research Centre of the State Council and other renowned experts and scholars in China. Immediately afterwards, in 2016, with the support of the Shanghai Municipal People's Government, Shanghai Jiao Tong University and the Development Research Centre of the Shanghai Municipal People's Government cooperated to build the China Institute of Urban Governance. Secondly, at the level of academic forums, a number of forum exchanges in related fields have been organised, such as the China Urban Governance Forum (2015), the China Urban Governance Innovation Forum (2020), the China Tianjin International Forum on Urban Governance (2021) and the China Happy City Governance Forum (2022). Thirdly, at the level of academic journals, Sanya College and the Institute of Urban Governance of Peking University hosted the academic journal China Governance Review in 2012, and the China Institute of Urban Governance of Shanghai Jiao Tong University hosted the serial publication Urban Governance Research in May 2017, with Professor Chen Yingfang as the founding editor-in-chief.

In addition to the increase in tangible academic exchanges and discussions described above, the relatively dispersed intangible exchanges between studies are also an important part of academic networks. The following section presents a quantitative statistical and structural network visualisation analysis around the collaboration of researchers and research institutions to make the intangible exchanges and collaborations tangible and provide a comprehensive understanding of the academic community in the field of urban governance.

Research membership in the field of urban governance research has gradually stabilised over the past decade or so. Because of the large difference and the obvious trend of overall increase in the volume of literature published in the two phases from 2012-2017 and 2018-2022, this paper divides the period 2012-2022 into the above two phases for comparative study in the analysis process. 2012-2017 belongs to the early stage of research, innovative researchers conducted basic research on urban

governance, among which the scholars with more publications are Cao, Navy (5 articles), Yang, Hongshan (4 articles), Peng, Bo (4 articles) and Wu, Xiaolin (3 articles). The more prominent researchers in the fast-growing period 2018-2022 are Li Wenzhao (10 articles), Han Zhiming (9 articles), Dong Hui (8 articles), Yao Shangjian (8 articles) and Lock Liming (8 articles). The volume of publications thus reveals that in the field of urban governance research, new researchers continue to join and expand the invisible network based on the foundation of their predecessors, forming a relatively stable group of researchers and maintaining a steady output of research and articles.number of articles issued

Table 2. Ranking of highly productive authors, 2012-2022

2012-2017		2018-2022		Total number	
AUTHOR	Number of articles issued	Author	Number of articles issued	Author	Number of articles issued
Cao haijun	7	Han zhiming	10	Yang hongshan	11
Yang hongshan	4	Li wenzhao	10	Han zhiming	10
Peng bo	4	Wu xiaolin	9	Wu xiaolin	10
Wu xiaolin	4	Yao shangjian	9	Li wenzhao	10
Lu wengang	4	Suo liming	8	Yao shnagjian	10
Sun tao	3	Dong hui	8	Suo liming	9
He jixin	3	Yanghongshan	7	Dong hui	8
Xu aiping	3	Chen shuisheng	7	Chen shuisheng	7
Liu feng	3	He yanling	6	Sun tao	6
He xuefeng	2	Sun tao	6	He yanling	6

In terms of relational networks, combined with the analysis in Figure 3, it can be seen that the two most prominent collaborative networks in the field of urban governance research in China during 2012-2022 are the collaborative network formed by Han Zhiming, Li Chunsheng, Wu Jiannan and Liu Yuxie, the collaborative network of Cao Cejun and Wang Yu, and the collaborative research network of Yang Hongshan and Li Zhan, He Yanling, Zhao Junyuan, Xia Zhiqiang and Chen Peijiao. The comparison reveals that the current collaborative network on urban governance in China is small in number, small in scale and loose. Moreover, some of the highly productive authors and stable researchers are not in a stable collaborative network.

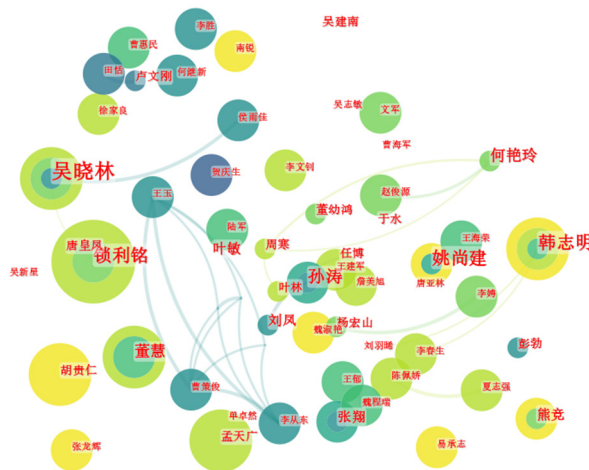


Fig 3. Map of key collaborative networks of crisis researchers, 2012-2022
Source: Author's compilation based on results generated by Cite space software.

At the same time, the paper also analyses the institutions with high research output and their collaborative networks. Similar to the previous analysis steps, the research was counted in two stages (Table 3). Taken together, Shanghai Jiao Tong University topped the list at each stage, with Renmin University of China, Nankai University, Fudan University, East China University of Political Science and Law, Tsinghua University, Huazhong University of Science and Technology, Sun Yat-sen University, Wuhan University and Sun Yat-sen University in the top ten in terms of cumulative numbers. By stage, Shenzhen University, Jinan University, Jilin University and East China University of Science and Technology were involved in research on urban governance in the early stages, while Fudan University, East China University of Political Science and Law, Huazhong University of Science and Technology and Tsinghua University produced more results in the development stage.

Table 3. Ranking of research institutions in terms of number of publications 2012-2022

2012-2017		2018-2022		2012-2022	
Research institutions	Publish volume	Research institutions	Publish volume	Publish volume	Publish volume
Shanghai Jiao Tong University	13	Shanghai Jiao Tong University	59	Shanghai Jiao Tong University	72
Renmin University of China	12	Renmin University of China	48	Renmin University of China	60
Nankai University	11	Fudan University	37	Nankai University	45
East China Normal University	11	Nankai University	34	Fudan University	44
Shenzhen University	9	East China University of Politics and Law	34	East China University of Politics and Law	40
Jinan University	9	Huazhong University of Science and Technology	25	Tsinghua University	29
Jilin University	8	Tsinghua University	25	Huazhong University of Science and Technology	28
Sun Yat-sen University	8	Sun Yat-sen University	19	Sun Yat-sen University	27
East China University of Technology	7	Wuhan University	17	Wuhan University	20
Fudan University	7	Tongji University	16	Beijing University	20

In terms of institutional cooperation, Figure 4 illustrates the main institutional cooperation networks in the field of urban governance. It can be found that the most dense cooperation network is the relatively large cooperation network led by the School of International and Public Affairs of Shanghai Jiao Tong University and composed of more than ten institutions, including the China Institute of Urban Governance of Shanghai Jiao Tong University, the Centre for Public Policy and Governance Innovation of Shanghai Jiao Tong University, and the School of Government Administration of Nanjing University. Also more representative is the collaborative network formed by Fudan University, Nanjing Normal University, the Soochow Think Tank, Tongji University and the Shanghai Community Development Research Association, as well as the collaborative network formed by Renmin University of China and Sun Yat-sen University. It is worth noting that Nankai University, the institution with the more prominent output, has a lesser degree of collaborative

network construction. Looking at the overall picture, some of the current institutional collaborative networks remain within institutions, with a low level of cross-institutional collaborative network building and a scarcity of cross-geographical networks.



Fig 4. Collaboration network of major research institutions in the field of urban governance, 2012-2022

Source: Compiled by the authors based on the results generated by Cite Space software

4.2 Research Themes: Relatively Stable Choice of Themes and Insufficient Attention to Value Studies

As mentioned earlier, this article refers to the research ideas of scholar Dong Hui on the core elements of urban governance, and divides the research themes into three parts: theory, value, and motivational research. Although there may be crossover of research themes for the same article, this section only provides a focused analysis, focusing on the themes that the authors aim to focus on.

Table 4. Keyword frequency statistics for papers in the field of urban management 2012-2022

2012-2017		2018-2022		Accumulation	
Keywords	Frequency of statistics	Keywords	Frequency of statistics	Keywords	Frequency of statistics
Urban Governance	26	Urban Governance	126	Urban Governance	152
Governance	9	Grassroots governance	21	Grassroots governance	27
Social governance	7	Smart City	16	Social governance	23
Grassroots governance	6	Social governance	16	Smart City	19
Big Data	5	Digital governance	16	Governance	19
Supercity	4	Big Data	13	Big Data	18
Innovation in Governance	4	Mega City	12	Digital governance	16
Smart City	3	Urban Communities	12	Mega City	14
Urbanization	3	Governance	10	Urban Communities	14
Government Governance	3	Collaborative Governance	7	supercity	11

On the whole, the research themes on urban governance in China are generally focused on theoretical and motivational studies, and less on value studies. Of the 519 literatures, 275 are dynamics studies, 201 are theoretical studies-based, and only 43 focus on value studies. The frequency statistics of keywords in the literature likewise attest to this phenomenon. Table 4 shows that among the existing literature on urban governance, "grassroots governance", "big data" and "social governance" have been the most popular in the last decade; " Collaborative governance", "mega-city" and "people's city" have gradually received more attention and research from scholars as emerging hotspots. The cumulative high-frequency keywords in the past decade include "urban governance", "grassroots governance", "smart city", "mega-city ", "digital governance", and "urban community". In addition, in the keyword co-occurrence network in Figure 5, the above high-frequency words tend to have more important node positions, have more node connections, and have a more comprehensive and holistic nature. In the process of counting keywords, it is found that high frequency terms such as "urban governance theory" and "people's city" focus more on the elaboration and analysis of theories, while terms such as "digital governance", "technology governance", and "technology governance" focus more on the analysis of theories, The high-frequency terms such as "technological governance", "big data" and "artificial intelligence" are more focused on the content of power research. The key words on the value dimension are not only less involved in number, but also do not occupy a significant position in the network and are not strongly related to other nodes.

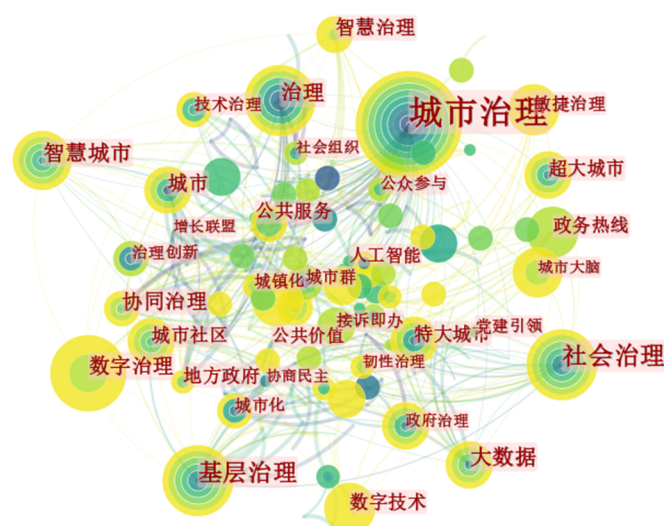


Fig 5. Keyword co-occurrence network in the urban governance literature, 2012-2022

Source: Author's compilation based on results generated by Cite Space software.

Specifically for each study, hot topics at the level of theoretical research focus on urban governance concepts, models and characteristics. In the process of theoretical research, there exists a large number of theoretical analyses and literature reviews: Sheng Guangyao (2012) [8] summarises the research progress of urban governance at home and abroad since 2009 from five aspects: urban governance structure, urban governance model, urban community governance, urban regional governance and urban governance evaluation; Xu Lin and Lu Yujie (2016) [9] provides a problem domain and methodological review of urban governance research for a historical development review and outlook; and Li Qingrui (2021) [10] reviews the Chinese model of urban governance through a literature review and puts forward practice-oriented development suggestions, taking into account the introduction of Western theories in Chinese urban governance. In addition, scholars also draw on comparative studies and case studies for discussion. Through a comparison between China and the West, Zhang Yunchun, Shan Zhuoran and Xu Shuncai (2016) [11] and others found that Western governance focuses on collaborative governance and lacks research on the value of urban governance

despite its theoretical localisation. Du Lihong (2021) [12] clarifies the dual attributes of labour and social problems that exist behind the rickshaw driver problem by sorting out the historical social phenomenon of rickshaw drivers, and concludes from it that social governance and government management work together as a way of governance. Taken together, the existing theoretical studies provide important reference values for understanding the concepts and theoretical bases related to urban governance.

Among the dynamics studies, the themes of information technology, subjective co-governance, mechanism construction and innovation are hotly explored. In terms of information technology, scholars correspond technology and urban governance issues to study digital transformation (Chen, Shuisheng, 2022)[13], digital technology-based agile governance in mega-cities (Xie, Xiaoqin and Ren, Shihui, 2022)[14], the role of digital technology in enhancing urban resilience and urban risk governance under the technology governance paradigm (Zhang, Longhui and Zhao, Zechuan, 2022)[15]. Specifically under the theme of co-management of subjects, Guo Shihong and Lu Jian (2020)[16] emphasize the importance of joint participation of government-led, market-operated and public participation in urban governance through waste classification; Wang Yongjian and Wang Bigang (2017)[17] emphasize that urban governance, as an act of co-management of multiple subjects, requires the joint participation of government, citizens, enterprises, social organizations and community organizations to create a co-construction, co-management and shared urban The new pattern of governance. On mechanism construction, Li Wenzhao (2022)[18]. A study on the mechanism of interactive governance in mega-cities with the help of Beijing's "Receiving and Handling Complaints", Zhan Meixu (2021)[19] and others have explored a new model of urban health check governance, and Rongzhi (2021)[20]. Learning from the lessons of the epidemic and exploring governance innovations for enhancing urban health security resilience.

Value studies, on the other hand, focus on people-centred value care and spatial justice. Yi Chengzhi (2022) [21] provides a relatively in-depth analysis of value in the logic of people's city governance. He Xuesong and Hou Qiuyu (2021) [22] consider the value concern of the people's city to reflect on the limits of governance. In the field of spatial justice, Xia and Chen Peijiao (2021) [23] reflect on current research and argue that most of China's current research on spatial justice in urban governance is based on borrowing from Western theories of spatial justice, and that the results are mainly focused on theoretical exploration, reality critique and path exploration in urban governance. The authors also argue that in the context of the modernisation of urban governance in China, there are still many shortcomings in these results in terms of deep theoretical exploration, local discourse construction and systematic problem solving. Wang Tuanli and Xing Yuli (2016) [24], on the other hand, take spatial justice as a principle and focus on neighbourhood avoidance in urban governance, arguing that neighbourhood avoidance facilities in China have value deviations in spatial production cognition, decision-making process and outcome compensation, and that neighbourhood avoidance actions should be redefined under the principle of spatial justice to realise urban power, promote effective stakeholder participation in spatial production decision-making, and scientifically plan for highlighting spatially Multiple compensation schemes.

4.3 Types of Research: Mainly Exploratory and Descriptive Research, with a Small Proportion of Interpretive Research

In accordance with the previous section, this paper categorises research into exploratory, descriptive and interpretive studies by referring to Al Babi's classification criteria. After sorting through the existing sample of articles, it is found that exploratory and descriptive studies are the main types of research in the existing urban governance studies, and their number is much larger than that of explanatory studies. In the sample literature, there are 279 exploratory studies, 198 descriptive studies and only 42 explanatory studies. The explanatory nature of most of the studies is limited to a simple elaboration of the relationship between different elements or the influencing factors of a concept, and there is a lack of specific studies.

Exploratory research is highlighted as the study of theories and exploration of pathways. Zhai Wenkang et al.(2020)[25] use a case study approach to build a framework for interface governance and provide ideas for mega-city governance pathways; while Dong Hui and Li Fei Fei (2020) explore philosophical thinking about urban governance to observe urban governance from a more comprehensive and three-dimensional perspective. Of course, exploratory research is also applicable to the study of ephemeral phenomena to sort out and analyse the lineage of a certain event or theme [26]. For example, Han Kezi (2022)[27].It is to focus on the picture of urban governance changes over the past century, to construct a framework of urban governance in China from eight aspects, such as management themes, management goals and management issues, and to summarize the experience in the process of combing the historical development to find methods.

The main purpose of descriptive research is to describe situations and events, and researchers mostly use questionnaires, field studies, content analysis, historical comparative studies or literature reviews, which are mainly qualitative. Wu Jiannan and Zheng Changxu(2017)[28] describe the hotspots of urban governance research in China, the distribution of disciplines, and the cooperation of papers based on the econometric analysis of academic papers in the form of a review. Some of the descriptive studies also explore the reasons for the existence of things and their implied meanings. Deng, Minglei (2022)[29] explains the greater advantages of digital technology in urban risk management and emergency management and the important role it plays in enhancing the resilience of urban governance.

Explanatory research has focused on the study of influencing factors and causal relationships in the urban governance process. Wu Zijing and Zhang Ping (2022)[30] used rooted theory analysis to reveal in-depth the influencing factors of the effectiveness of urban community governance; Li Hongzhen and Wang Yibao (2019) [31]investigated the sense of security of urban residents in the Yangtze River Delta, from which they explored the path of urban governance to improve people's sense of access. The interpretive research themes focus on urban governance, urban environmental governance, community governance, etc. Most of the studies belong to empirical studies that combine theory and quantitative results of data for analysis.

5. Challenges of Existing Research and Future Prospects

This paper reviews the initial development of urban governance research over the past decade and summarises the research profile of the field through bibliometrics with the help of Cite Space software. In general, over the past decade, the size of the invisible school of urban governance has grown, and the academic community in the field has gradually strengthened its ties and forged consensus. In addition, urban governance research topics have been enriched, research methods have diversified and research levels have become more comprehensive. However, there are still shortcomings in the field of urban governance in terms of academic community cooperation, research themes and research types, which need the attention of the academic community. Based on the findings of the above research, this section will identify the current problems and analyse the research approaches that can be taken forward in the future.

5.1 Academic Community: Promoting Institutional Cooperation Network Building and Knowledge Communal Sharing.

The intangible academy in the field of urban governance is in a period of rapid growth, with forums and journals related to the topic of urban governance developing in an orderly manner, the number of researchers increasing, the scale of research becoming larger, the stages refined and the standardization of research enhanced. However, cooperation and exchange between individual researchers and research institutions is still relatively lagging behind, and the construction of cooperation networks has not reached a mature standard either in terms of quantity or scale. Therefore, to promote the construction of collaborative networks and knowledge sharing on the basis of existing theories is the right thing to do for the main team of invisible colleges to develop towards maturity.

Firstly, the cooperative network is the foundation and channel of knowledge communication in the academic community. Researchers should consciously invest in knowledge network construction and share their research with more scholars in the field of urban governance through forums and informal academic exchanges in order to further promote the dissemination of knowledge. At the same time, research institutions need to expand the scope of cooperation, increase cross-institutional and cross-regional exchanges, and improve the university think tanks on urban governance. Second, as scholars Wu Jiannan and Zheng Changxu (2017)[32] suggest, the current interdisciplinary exchange and cooperation needs to be further promoted. At present, there are many "urban diseases" in cities that are difficult to solve, with many causes and complex mechanisms behind them, all involving a large number of subjects and the interaction of these subjects. This requires researchers to look beyond the boundaries of their disciplines and break through the inertia of disciplinary thinking, and to use an open perspective to strengthen cooperation and promote the study and resolution of real urban diseases. Researchers need to integrate the perspectives and approaches of different disciplines, synthesize the results of various fields to conduct in-depth research and find feasible ways to solve the problems. Finally, in addition to communication within the academic field, the involvement of the practical sector is also essential. The academic community can further promote cooperation with the practical sector in the future. As urban governance is a highly practical topic, some researchers often find it difficult to achieve a comprehensive and complete grasp of urban governance due to a lack of long-term practice. Increasing cooperation with frontline practice departments can help researchers understand urban governance issues and theoretical applications from a more three-dimensional perspective, which can in turn lead to theoretical results that are truly in line with social reality and can effectively solve problems, thus truly enhancing the practical guidance value of academic research.

5.2 Research Themes: Expanding Research Content and Tapping Academic Results From a Value Perspective

The hot topics of research on urban governance have been relatively stable in recent years, and both theoretical and dynamic research on urban governance are being updated in line with the development of the times. However, it should be noted that the selection of current research themes is largely influenced by the hotness of research and ignores the real needs, and there is less research on the value perspective in urban governance. Therefore, there is a need to further expand the research content and explore theoretical findings in the field of value in the future research process.

The practice of urban governance in China is entering a new phase, so in future theoretical research, the choice of topics for urban governance research in China should be closer to the needs of practical development in all aspects. In terms of the current reality of urban governance research in China, there are not many studies on transformation hotspots such as new development pattern, people's city, optimization of governance system and green development. These hotspots are closely related to the top-level design and reflect the direction that needs further breakthrough in urban governance, which should be given more attention. In addition, research on the value of urban governance is necessary. Information technology has brought about great changes to the way cities develop. In this context, how can urban governance optimise the internal resources of cities, harmonise the imbalance of urban spatial development and realise people's aspirations for a better life. Answering the above questions requires researchers to consider the value aspirations and value orientations of urban governance, and to explore the path of safeguarding the spatial rights of subjects. In today's world where more emphasis is placed on the role of people, the normative, checks and balances and integration of values are of high research significance. Topics such as spatial justice and the value bias of people in the city are worthy of further research in the context of the local situation.

5.3 Types of Research: Increasing Attention to Interpretive Research

Based on the above analysis, both exploratory and descriptive research are of great importance. Researchers often use exploratory research to gain new perspectives when developing new areas of

research, and it is important for researchers to enter academic research networks. In addition, the accumulation and dissemination of knowledge in academic communities relies on conversable concepts, theoretical propositions and consensus, and descriptive research can further facilitate the dissemination of knowledge in invisible academies by making concepts or events more explicit through rational analysis and sorting. Exploratory research and descriptive research are therefore important both in terms of theoretical analysis and in the construction of academic networks, which explains their current dominance in urban governance.

However, both types of research share the problem that they rarely answer research questions satisfactorily. Exploratory research for the most part simply points the way to an answer, and descriptive research, because of its representativeness and large sample size, struggles to provide definitive answers. Moreover, the refinement of explanatory propositions is a prerequisite for the development of operational propositions, and only when causal relationships and operational logic are clearly analysed can high-quality operational results be produced. Therefore, the lack of explanatory research is an important reason for the seriousness of the current phenomenon of homogenisation, modelling and hollowness of urban governance paths. Therefore, in future research, it is important to increase the importance of explanatory research and to analyse in depth the relationship between the elements in urban governance. There are also many researchers currently focusing on and working on interpretive research, including Gao Che (2023) [33] and others who use Wuhan message boards as a data source to innovatively explore the spatial characteristics and influencing factors of governance issues. Such interpretive studies, which are close to social reality and attempt to localise, often provide a more scientific and effective analysis of the interactions between the actors involved in urban governance. With answers to the 'why', diverse approaches to urban governance can be more easily proposed.

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