

Collaborative Stakeholder Governance of Urban Village Renovation under Demand Coordination: A Case Study based on the Renovation Project of Beichen District, Tianjin City

SUN Chunling¹, ZHENG Xiaoru², DENG Binchao³, LIU Jingjing⁴

Author Affiliations 1 Professor, Doctoral Supervisor, Corresponding Author, Email: hyscl@263.net; 2 PhD candidate, School of Management, Lanzhou University; 3 Associate Professor; 4 Lecturer, Department of Cultural Tourism, Yuncheng University; 1 & 3 School of Management, Tianjin University of Technology

ABSTRACT: Collaborative stakeholder governance is the key to promoting the smooth and efficient implementation of urban village renovation projects, but the stakeholder relationships and interest demands at each phase of the renovation practice are intricate and complex. Taking a renovation project in Beichen District, Tianjin as a case study, this research employs social network analysis to systematically and comprehensively analyze the network characteristics and evolutionary patterns of stakeholder relationships and their demands across different phases of the project. The results indicate that the coordination of stakeholder interest demands is most difficult during the demolition and resettlement compensation phase; the roles and functions of the same stakeholder differ significantly at different phases of the project; and building a living environment that satisfies the public is the core interest demand of diverse stakeholders. By using social network analysis to dissect the key issues in coordinating stakeholder relationships and demands, this study provides a scientific reference and basis for the collaborative stakeholder governance of urban village renovation projects.

KEY WORDS: urban village renovation projects; stakeholders; coordination of interest demands; social network analysis

Introduction

On July 21, 2023, the State Council Executive Meeting reviewed and approved the *Guiding Opinions on Actively and Steadily Promoting the Transformation of Urban Villages in Mega- and Super-large Cities*, which clearly pointed out that actively and steadily implementing urban village renovation in megacities and super-large cities is an important measure to improve people's livelihoods, expand domestic demand, and promote high-quality urban

development. The urban village renovation in the new era has evolved beyond a simple demolition and reconstruction process and has become a holistic and strategic initiative for promoting high-quality urban development and improving refined urban governance [1]. However, as non-standard construction areas, urban villages have complex stakeholders, tangled property rights, diverse interest demands, and relatively weak governance and management under a dual urban-rural system. If not handled properly,

[The format of citation in this article]

Sun CL, Zheng XR, Deng BC, Liu JJ. Collaborative stakeholder governance of urban village renovation under demand coordination: a case study based on the renovation project of Beichen District, Tianjin City. *South Architecture*, 2026;(3):1-11.

• **Fund Projects:** National Natural Science Foundation of China (72072126); Guangdong Provincial Philosophy and Social Sciences Planning Project (GD21CGL31)

Document Identification Code A
Received: 2026-7-15

DOI 10.33142/jsa.v3i3.20295
Accepted: 2026-8-03

Article number 1000-0232(2026)03-001-11

this can easily lead not only to contradictions and conflicts [2] but also to a series of problems that affect the success of the project, such as structural mismatch and supply model failure [3]. Therefore, in the context of high-quality urban development and the construction of people-oriented cities, coordinating the complex relationships and interest demands of diverse stakeholders is a necessary condition for the government, market entities, residents, and other diverse stakeholders to collaborate deeply and successfully complete the decision-making and implementation of urban village renovation projects.

Research on stakeholder relationships in urban village renovation projects mainly focuses on three aspects: First, the status and role of stakeholders in urban village renovation projects. The demands and role characteristics of core stakeholders, such as the government, developers, and residents, play a decisive role in the renovation projects [4]. Second, the relationships between stakeholders, mainly focusing on interest distribution mechanisms [5], conflict coordination mechanisms [6], stakeholder gaming behaviors [7], collaborative governance models [8], etc.; Third, the exploration and innovation of theoretical foundations and research methods, including theoretical expansion that combines stakeholder theory with rent gap theory, interest coordination theory, etc. [9], the shift in research thinking from individual analysis to network analysis [10], and methodological innovation that combines qualitative and quantitative methods [11]. In summary, existing research has explored the status, roles, relationships, and theoretical and methodological aspects of stakeholders in urban village renovation. However, it mainly analyzes the stakeholder relationships and interests of entire renovation projects from a qualitative perspective, neglecting the differences in stakeholder relationship networks, roles, functions, and interest demands at different phases of urban village renovation projects. Therefore, taking different phases of urban village renovation projects into account, an in-depth analysis of the changes in stakeholder relationships and interest demands at each phase is a necessary prerequisite for deepening stakehold-

ers' understanding of their rights and responsibilities, coordinating diverse interest demands, and achieving collaborative stakeholder governance.

Based on the above analysis, this study, grounded in stakeholder theory and employing social network analysis, conducts a case study of the E Village renovation project in Beichen District, Tianjin, focusing on answering key questions: "Who are the stakeholders involved in each phase of the project? What are their interest demands? What are the differences in the core stakeholders and their core interest demands at different phases? How can we coordinate the relationships among diverse stakeholders from the perspective of demand coordination?" and so on.

1 Current Research Status

Urban villages are a legacy issue under the dual urban-rural land system in China [12]. Due to the complexity of property rights, the diversity of stakeholders, and the significant differences in interest demands, the governance of urban village renovation projects is highly complex and challenging [13]. The division of urban village renovation projects into phases varies depending on the research objectives, but their life cycle basically covers the following four phases: project initiation, demolition and resettlement compensation, construction and implementation, and maintenance and operation [14]. Among them, stakeholder conflicts often occur during the demolition and compensation phase [15].

Stanford University researchers initially proposed the concept of stakeholders and defined it as follows: "those groups without whose support the organization would cease to exist" [16]. Later, scholars from various fields such as economics, sociology, and management added and modified the definition of stakeholders for their respective fields, and finally defined stakeholders as any group or individual that can influence or be influenced by the achievement of organizational goals [17]. Stakeholder theory has been widely applied in urban village renovation projects [18], and the interest demands of stakeholders have become the focus of scholars [19]. Based on this, Jia Shenghua et al. analyzed and constructed a "four-in-one"

interest coordination mechanism involving the local governments, development units, village collectives, and temporary residents [20]. Indeed, the study of the evolution of stakeholder roles has also come into the researchers' view. He Donghua et al. analyzed the land redevelopment model under the influence of the role of local government and summarized the evolution trend of the role of local government from three perspectives: Value orientation, renovation model, and governance paths [21].

With the widespread development of stakeholder research, scholars have begun to explore and innovate in terms of theoretical foundations and research methods. On the one hand, the combination of stakeholder theory and related theories of interest coordination has become a research focus. Zhong Wenhui et al. analyzed the implementation paths of the urban village renovation projects in Shenzhen from the perspective of rent gap theory and argued that rent gap distribution is crucial to safeguarding the interests of stakeholders in urban villages and ensuring fairness[22]. Deng Maoying and Deng Cefang believed that the coordination and distribution of interests is the key to the implementation of urban village renovation projects. They proposed an innovative path for interest coordination based on public priority, interest sharing, joint planning, and joint management [23]. On the other hand, analyzing stakeholder relationships from a network perspective has become a major research trend. Huang Zhiji et al. depicted the process of power exchange among stakeholders under different governance models and proposed the optimization direction of the urban renewal governance mechanism [24]. Zhang Wei et al. analyzed the complex stakeholder action networks in urban renewal in Shenzhen and Chongqing, and proposed governance strategies from multiple perspectives, including policy formulation, stakeholder governance, and technological support [25].

In summary, the cooperation, competition, participation, and collaboration among stakeholders in urban village renovation exhibit two major trends: first, coordinating the interest demands of diverse stakeholders is a key

focus of stakeholder relationship research; and second, characterizing and analyzing stakeholder relationships from a network perspective has become a new research approach. However, existing research has the following shortcomings: First, in the study of stakeholders in urban village renovation projects, few studies have quantitatively analyzed stakeholders and their interest demands in a network environment; second, in the study of stakeholder demands, few studies have considered that the composition of stakeholders and their interest demands differ at different phases of urban village renovation projects. In view of this, this study takes the E Village renovation project in Beichen District, Tianjin, as the research object from the perspective of the whole life cycle. It uses social network analysis to analyze the evolutionary characteristics and patterns of the stakeholder and interest demand networks at each phase of the project, clarifies the core stakeholders and key interest demands at each phase, identifies the key and difficult issues in coordinating the interest demands of diverse stakeholders during the renovation process, and proposes targeted countermeasures and suggestions to promote collaborative cooperation among diverse stakeholders.

2 Research design

2.1 Research methods

This study employed a 2-mode social network analysis (SNA) to analyze the stakeholder-interest demand network. The indicators and corresponding formulas are as follows:

(1) Network density. This refers to the ratio of the number of connections between network nodes to the maximum number of connections in the entire network. The higher the network density, the closer the connections between nodes.

$$D = \frac{2m}{n(n-1)} \quad (1)$$

Where D represents network density, m represents the total number of connections in the relational network, and n represents the total number of nodes in the relational network.

(2) Core-periphery. Based on the closeness between

different nodes in a social network, nodes can be divided into core and peripheral zones. Nodes in the core area occupy a more important position in the entire social network.

(3) Centrality

1) Degree centrality. It refers to the ability to communicate and exchange information directly with other stakeholders. The higher the degree centrality, the higher the status and the greater the power in the relationship network.

$$C_{RD_i} = \frac{\sum_{j=1}^n x_{ij}}{n-1} \quad (2)$$

Where C_{RD_i} represents degree centrality, x_{ij} is either 0 or 1 (if node i and node j are related, x_{ij} is 1; otherwise, 0), and n represents the number of nodes.

2) Closeness centrality. It represents the sum of the distances between each stakeholder and other stakeholders. The smaller the closeness centrality, the lower the dependence and the higher the independence.

$$C_{RP_i} = \frac{n-1}{\sum_{j \in N} d_{ij}} \quad (3)$$

Where C_{RP_i} represents the closeness centrality, d_{ij} represents the length of the shortest path between node i and node j , and n represents the number of nodes.

3) Betweenness centrality. It represents the degree of separation among stakeholders; the higher the betweenness centrality, the stronger the ability to control resources.

$$C_{RB_i} = \frac{2 \sum_{j < k} \frac{g_{jk}(i)}{g_{jk}}}{(n-1)(n-2)} \quad (4)$$

Where C_{RB_i} represents the betweenness centrality, $g_{jk}(i)$ represents the number of shortest paths connecting nodes j and k that pass through node i , g_{jk} represents the number of shortest paths connecting node j and node k , and n represents the number of actors.

2.2 Case Selection

This study selects the E Village renovation project in Beichen District, Tianjin as the research object, and collects, observes, organizes, and summarizes the real data of

this project to analyze the impact of the relationship between stakeholders and their interest demands on the success of the project. The project was launched in 2005, but due to difficulties in negotiating the demolition issues, the demolition work did not begin until 2015. The first batch of villagers were relocated and resettled in 2021. Based on the project's priorities and the phase-specific characteristics of stakeholders, the project is divided into the following four phases: the Pre-preparation Phase (PP), the Demolition and Resettlement Compensation Phase (DC), the Construction, and Implementation Phase (CI), and the Maintenance and Operation Phase (MO).

The main reasons for choosing this case are as follows: (1) The development model of government-led, village-enterprise cooperation, and market-oriented operation is typical. (2) Data availability. Due to geographical and relational advantages, the research team has been tracking this project since 2014. (3) Completeness of the project cycle. Villagers have already moved into the project site, and the project has gone through its entire lifecycle from start to the maintenance and operation phase.

2.3 Data collection and analysis

2.3.1 Identification of stakeholders and their interest demands

This study uses a combination of literature review and case analysis to identify stakeholders and their interest demands. First, this paper collected and organized relevant papers on stakeholders and their interest demands in urban village renovation projects, identifying a total of 11 stakeholders and 16 interest demands. Then, based on the literature review, the authors invited 20 participants and those affected by the renovation project of Village E in Beichen District, Tianjin (covering all categories of the initial stakeholder list) to supplement and integrate the existing stakeholder and interest lists. Finally, the researchers invited 8 senior urban village renovation experts to conduct semi-structured interviews to verify the findings, ultimately identifying 13 stakeholders and 14 interest demands (Tables 1 and 2).

Table 1 Stakeholder List for Each phase of the Urban Village Renovation Project

Number	Code	Stakeholder	Main description	Participation phase			
				PP	DC	CI	MO
1	S1	Government	Decide whether to approve urban village renovation projects and supervise their implementation, involving municipal, district, and town-level government departments	✓	✓	✓	✓
2	S2	Construction management unit	Project approval and management departments, such as the Development and Reform Commission, the Planning Bureau, and the Environmental Protection Bureau	✓	✓	✓	
3	S3	Land consolidation and expropriation unit	Integrate and manage geographically dispersed land parcels and be responsible for demolition, expropriation, and other related work		✓		
4	S4	Development unit	The entity implementing the project, also the investor in the project	✓	✓	✓	✓
5	S5	Contractor	Responsible for on-site construction management of the project			✓	
6	S6	Consulting service unit	Including surveying and design, planning, bidding agency, consulting, and supervision units	✓		✓	
7	S7	Supplier	Material suppliers during project construction			✓	
8	S8	Financial institutions	Provide funding and loans to other stakeholders, such as banks and trusts.		✓	✓	
9	S9	Legal institutions	Provide legal advice for project disputes		✓		
10	S10	Community committee (formerly village collective)	Coordinate relationships between the government, businesses, and residents	✓	✓		✓
11	S11	Property management unit	Responsible for the daily operation and management of the project in its later phase				✓
12	S12	Public	Original property owners, tenants, and residents around the project	✓	✓	✓	✓
13	S13	News media	Provide a platform for showcasing the progress of the project	✓	✓	✓	✓

Notes: “✓” indicates stakeholders participating in this phase.

Table 2 List of Stakeholders' Interest Demands for Urban Village Renovation Projects

Number	Category	Code	Interest demand	Description of interest demand
1	Economy	D1	Achieve political achievements	Complete the tasks assigned by the higher-level government and achieve good results
2		D2	Maximize economic benefits	Based on its own capabilities, maximize economic benefits
3		D3	Provide financial support	Provide financial support for project implementation
4		D4	Establish good working relationships with partners	Strive to establish long-term cooperative relationships with partners
5		D5	Ensure the smooth implementation of the project	Promote project implementation and ensure its successful operation
6	Society	D6	Maintain social stability	Resolve project conflicts and maintain social stability and development
7		D7	Safeguard public rights	Safeguard the public right to know, right to participate, and right to property from infringement
8		D8	Improve project information transparency	Timely disclose project progress information to improve project transparency
9		D9	Enhance corporate brand image	Through renovation activities, create a positive corporate image
10		D10	Gain public satisfaction	Meet public demands and gain public recognition
11	Environment	D11	Adjust land use layout	Optimize land use layout through renovation activities
12		D12	Improve the quality of living environment	Improve the quality of residents' living environment
13		D13	Improve project construction quality	Ensure the quality level of the project renovation results
14		D14	Ensure safety at the construction site	Ensure that no safety accidents occur at the project construction site

In the stakeholder validation process, given that “property management units” are the main stakeholders in the project’s maintenance and operation phase, and “news media” play a particularly important role in the dissemination of project information, this study includes “property management units” and “news media” in the stakeholder list. When supplementing and integrating interests, although based on different entities, “obtaining the maximum demolition compensation” and “maximizing economic benefits”, both essentially aim at economic interests. Therefore, they are integrated into one category — “Maximizing economic benefits”. “Obtaining continuous tax returns” is one of the government’s main interests, while no other stakeholders have expressed such a demand. Therefore, considering the research issue, it is removed from the list of demands.

2.3.2 Establishment of stakeholder-interest demand matrix

This study uses questionnaire surveys to determine the relationship data between stakeholders and their interest demands. The research team distributed questionnaires to project stakeholders (covering all stakeholder categories) in June-July 2014, September-October 2016, June-July 2018, and September-October 2021. A total of 620 valid questionnaires were collected in four rounds (with a response rate of over 94%). The four periods of questionnaire distribution coincided with different phases of the project’s construction.

The questionnaire consists of two parts: first, a basic survey of the respondents, including stakeholder categories and levels of understanding of the project; and second, a scoring system for their interest demands, using a five-point Likert scale. “1” represents strongly disagree. “5” represents strongly agree. Taking one government official as an example, if he believes that safeguarding public rights is his interest demand at this phase, he can mark “4” or “5” in the scoring table of the “D7 Safeguard public rights” in the list according to the level of agreement. During questionnaire data processing, if more than 80% of the respondents rate their level of agreement with a particular interest demand at 4 or above, the demand is regarded as a stakeholders’ interest demand for that phase and is coded as “1” in the relationship matrix. Conversely, if more than 80% of the respondents rate their level of a-

greement below 3, the demand is not considered a stakeholders’ interest demand for that phase and is coded as “0” in the relationship matrix.

3 Network analysis results

3.1 Stakeholder-interest demand 2-mode network analysis

Based on the constructed “stakeholder-interest demand” matrix, this study used NetDraw to visualize the 2-mode and 1-mode networks for each phase (Table 3). Analysis revealed that the network densities at each phase of the stakeholder-interest demand network were 0.357, 0.310, 0.302, and 0.333, respectively, indicating that the overall values were relatively low and that there were significant differences in the interest demands of the diverse stakeholders at each phase. Among them, the DC phase has the highest stakeholder network density and the lowest interest demand network density, indicating that the stakeholder relationships are the most complex and the differences in interest demands are the most obvious in this phase, so special attention should be paid to coordinating the stakeholders’ interest demands.

The core stakeholders and their core interest demands have been changing at each phase of the urban village renovation project. As shown in Table 4, the core stakeholders in the PP phase are the government, construction management unit, development unit, and consulting service unit; the main objectives of this phase are to adjust the land use layout, improve the quality of the living environment, and achieve public satisfaction. The core stakeholders in the DC phase are the government, development units, land consolidation and expropriation units, and the public; the main objectives of this phase are to safeguard public rights, maximize economic benefits, achieve public satisfaction, ensure the smooth implementation of the project, and maintain social stability. The core stakeholders in the CI phase are the development units, contractors, consulting service units, and suppliers; the main objectives of this phase are ensuring construction site safety, improving construction quality, and enhancing the corporate brand image. During the MO phase, property management units, the public, and community committees become the core stakeholders; this phase aims to safeguard public rights, achieve public satisfaction, and improve the quality of the living environment as sustainable development goals.

Table 3 Network Diagram of Each Phase of Urban Village Renovation

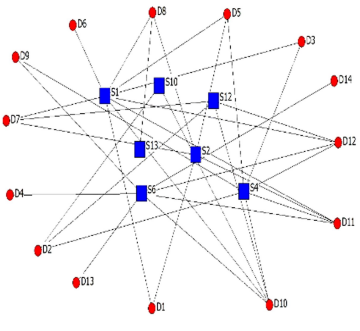
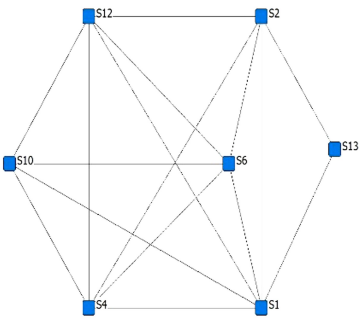
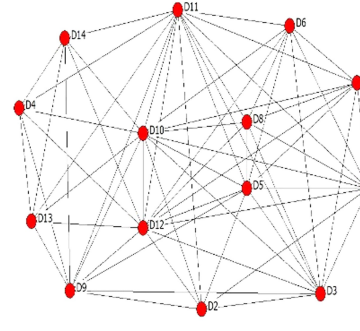
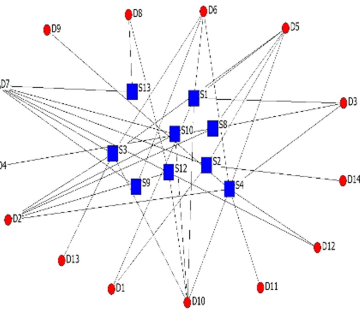
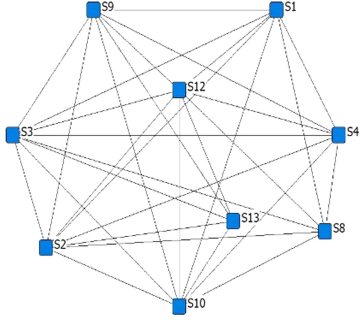
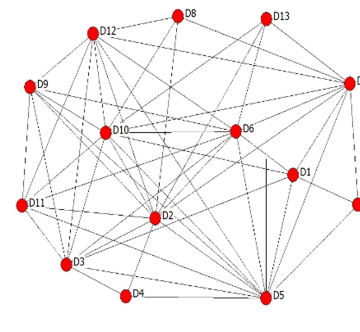
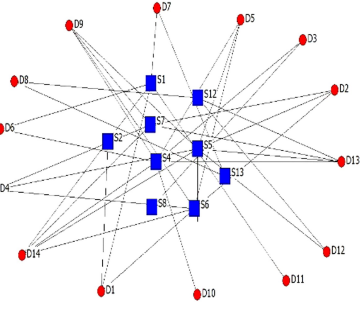
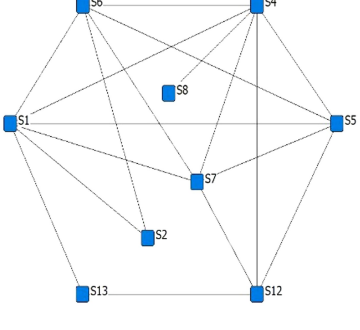
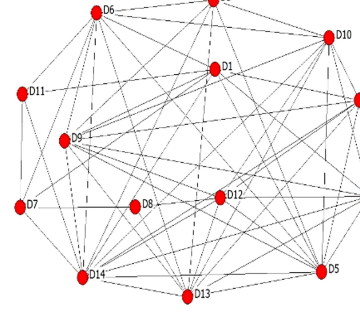
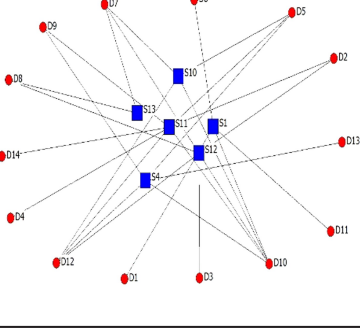
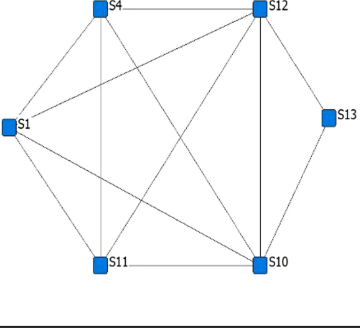
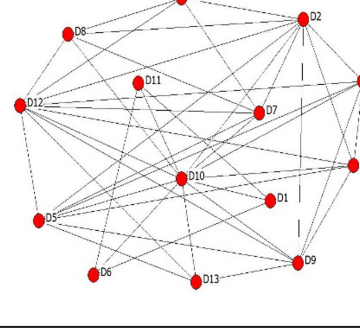
Phase	Stakeholder-interest demand 2-mode network	Stakeholder relationship network	Interest demand relationship network
Density	0.357	0.762	0.692
PP phase			
Density	0.310	0.889	0.462
DC phase			
Density	0.302	0.510	0.604
CI Phase			
Density	0.333	0.800	0.484
MO phase			

Table 4 Core Stakeholders and Their Core Interest Demands at Each Phase of Urban Village Renovation Projects

Phase	Core stakeholder	Core interest demand
PP phase	Government	Adjust the land use layout
	Construction management unit	Improve the quality of the living environment
	Development unit	
	Consulting service unit	Achieve public satisfaction
DC phase	Development unit	Safeguard public rights
	Land consolidation and expropriation unit	Maximize economic benefits
	Government	Achieve public satisfaction
		Ensure the smooth implementation of the project
	Public	Maintain social stability
CI phase	Development unit	Ensure safety at the construction site
	Contractor	Improve project construction quality
	Consulting service unit	
	Supplier	Enhance corporate brand image
MO phase	Property management unit	Safeguard public rights
	Public	Achieve public satisfaction
	Community committee	Improve the quality of the living environment

3.2 Stakeholder network analysis

The stakeholder network density at each phase of urban village renovation is greater than 0.500, indicating that the stakeholders are closely connected (Table 3). The functions of different stakeholders may differ at the same phase, and the roles of the same stakeholder may also differ at different phases. As shown in Fig. 1, the government has the highest degree centrality and betweenness centrality in the PP phase, indicating that the government has the strongest interaction and resource control capabilities in this phase and holds a significant power and position in the stakeholder relationship network. In the DC phase, the government's degree centrality and betweenness centrality decrease significantly, while the development unit's two centrality indicators rise to the highest level, indicating that the development unit takes on the main coordination and organization work in this phase instead of the government. Contractors and development units occupy the core dominant position in the CI phase, responsible for the allocation of resources on the construction site. In the MO phase, the degree centrality and betweenness centrality of both the development units and the government decrease, while the property management units and the public occupy the core position in this phase. The degree centrality and betweenness centrality of the public exhibited an N-shaped trend throughout the project

renovation process, indicating that the public had limited influence and a low level of participation during the PP and CI phases. Interestingly, the closeness centrality of the news media remained at the lowest level throughout the project, indicating that this entity was not easily influenced by other entities and had strong independence.

3.3 Analysis of interest demand networks

The network density of interest demands at each phase of the urban village renovation project is significantly lower than that of the network density of stakeholders, indicating that there are significant differences in the interest demands of stakeholders at each phase (Table 3). The core interest demands of stakeholders also change at different phases. As can be seen from Fig. 2, achieving public satisfaction, adjusting land use layout, and improving the quality of the living environment have high betweenness centrality in the PP phase, indicating that if these three interest demands are satisfied, other interest demands can be satisfied to a certain extent. The core interest demands in the DC phase are numerous, including safeguarding public rights, achieving public satisfaction, maximizing economic benefits, and ensuring the smooth implementation of the project. At its core, it is still a process of interest negotiation between the public and the development unit, ultimately achieving a win-win result of public satisfaction, development unit satisfaction,

and smooth project implementation. During the CI phase, ensuring construction site safety and improving project construction quality are common goals of stakeholders. Achieving public satisfaction and improving the quality of the living environment are the main objectives of the MO phase. It can be found that the interest demands in this phase have a high degree of overlap with those in the PP phase, both revolving around public satisfaction and the living environment. This highlights the

common interest demands of stakeholders in the urban village renovation project, namely, improving the living environment and enhancing the quality of life so that the public can achieve satisfaction and happiness from it. Furthermore, the closeness centrality analysis results show that the interest demands at each phase are not independent but highly interconnected. Therefore, addressing the core interest demands at each phase is key to coordinating stakeholder relationships.

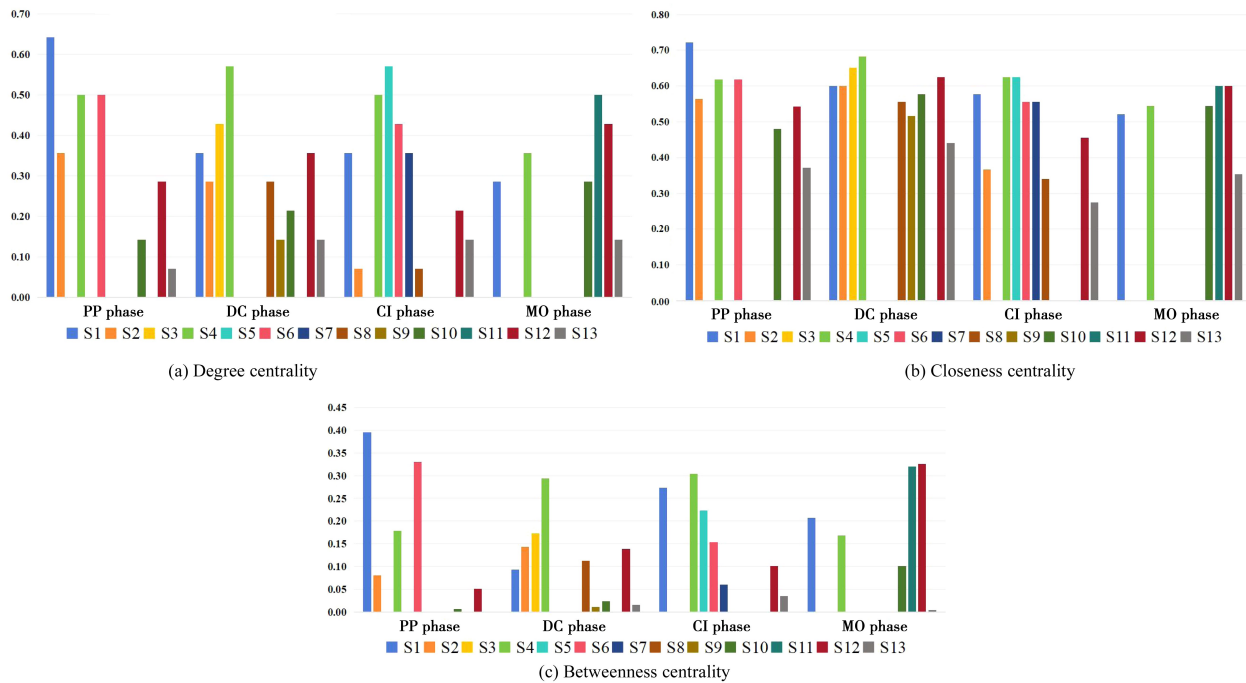


Figure 1 Centrality index of stakeholders at each phase of urban village renovation projects

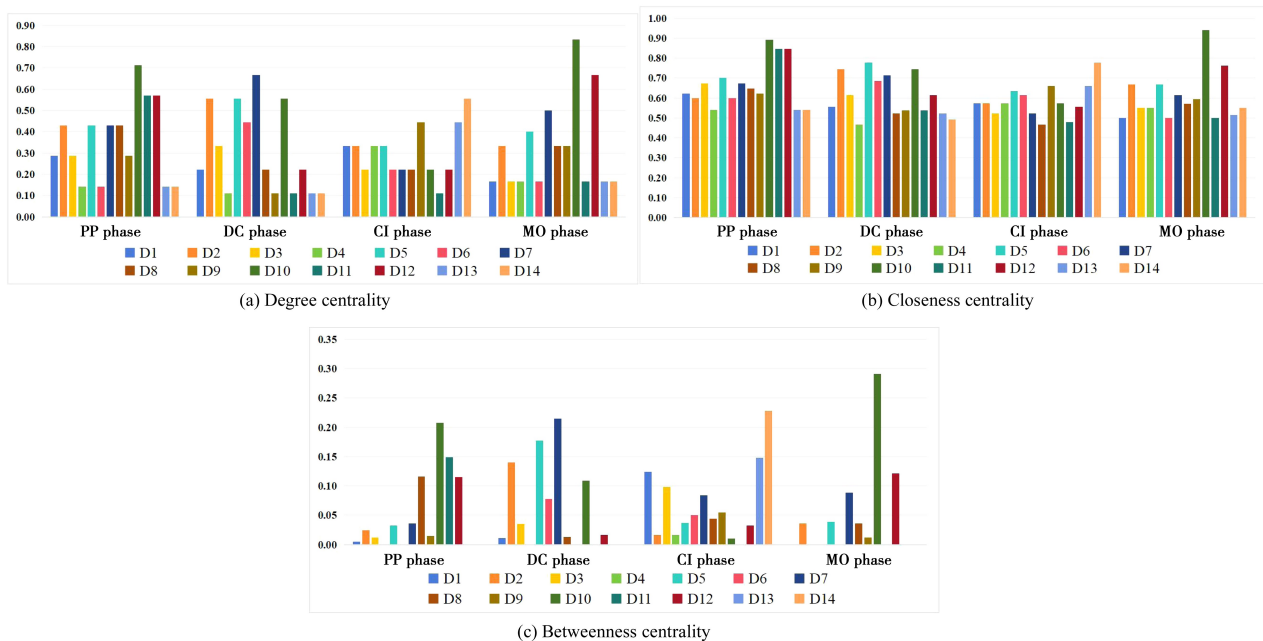


Figure 2 Centrality index of interest demands at each phase of urban village renovation projects

4 Conclusions and discussion

This study takes the E Village renovation project in Beichen District, Tianjin as the research object, and uses social network analysis to clarify the core stakeholders and their core interest demands during the renovation process, explore the evolution of stakeholder roles, and identify the key and difficult issues in coordinating stakeholder interest demands. The main conclusions are as follows:

(1) The coordination of stakeholder interest demands is the most difficult during the demolition and resettlement compensation phase.

The interest demands of stakeholders differ significantly at each phase of urban village renovation projects, and the core stakeholders and their core interest demands are constantly changing at each phase. Among them, the stakeholder relationships are the most complex, the differences in interests are the most obvious, and the coordination is the most difficult during the demolition and resettlement compensation phase.

(2) The roles and functions of the same stakeholder differ significantly at different phases of the project.

Throughout the project's entire life cycle, the government underwent a role transition from a leader to a coordinator; the public evolved from passive recipients to active participants; development units assumed the role of resource coordinators; and the news media exhibited the highest level of independence, functioning as "marginal supervisors".

(3) Building a living environment that satisfies the public is the core interest demand of diverse stakeholders.

The interests at each phase of urban village renovation projects are highly interconnected, and coordinating the core interest demands at each phase is key to effectively coordinating the relationships among stakeholders. The desire for public satisfaction and improved living environment quality forms a closed loop in the PP and MO phases of urban village renovation projects, indicating that building a living environment that satisfies the public is the core interest demand of diverse stakeholders in urban village renovation projects.

Based on the above research content and conclusions, this paper puts forward the following suggestions for coordinating stakeholder relationships in urban village renovation projects:

First, attention should be paid to coordinating economic interests during the demolition and resettlement compensation phase. The core of stakeholder relationship coordination at this phase is the process of bargaining over economic interests. Given the obvious profit-seeking nature of development units and villagers, the government should leverage its dominant power to effectively promote a balance of interests among various stakeholders and achieve the goal of both fairness and efficiency in the project. Second, in the future, we should ensure public participation in the entire decision-making process. The research results indicate that building a living environment that satisfies the public is the core interest demand of the diverse stakeholders in urban village renovation projects. It is recommended to cultivate public awareness and ability to participate, and to ensure smooth two-way communication channels so that the public can truly participate in the entire decision-making process of the project renovation, thereby creating a people-centered project that fully reflects public voices. Third, it is recommended to leverage the leading advantage of core stakeholders. Core stakeholders hold a high position and have a strong voice in coordinating stakeholder relations. In the future, we should leverage the leading advantage of core stakeholders to fully mobilize the participation of other stakeholders and form a collaborative governance situation among diverse stakeholders, such as the government, market entities, and the public. Fourth, it is recommended to build an interactive and sharing platform in the future. The research results show that the core interest demands of diverse stakeholders are highly overlapping, but the relationships among stakeholders are difficult to coordinate. It is recommended to establish a multi-stakeholder interactive platform to break down information exchange barriers, deepen communication and cooperation among diverse stakeholders, and provide a guarantee for collaborative governance among diverse stakeholders.

There are still areas for improvement in this study: The stakeholder relationships and interest demands of urban village renovation projects under different renovation models vary significantly. This paper mainly focuses on the stakeholder relationships and interest demands under the government-led, village-enterprise cooperation, and

market-oriented operation models. In the future, we can delve deeper into the relationships and interest demands of stakeholders under other renovation models, or conduct in-depth research on the differences in stakeholder relationships and interests under different renovation models.

Sources of Figures and Tables

All figures and tables in this paper were prepared by the authors.

References

- [1] Hu HJ, Zhang JX. Analysis and governance path of urban renewal dilemma based on collective action theory. *Urban Development Studies*. 2022;29(10):22-30.
- [2] Yan D, Guo YY, Liang YL. The relationship of tripartite stakeholders in the renovation of old residential areas: a case study of Shenzhen. *Geographical Research*. 2021;40(3):779-792.
- [3] Yu Y, Wan CW, Jiao YL, Ye YM. Institutional innovation of public housing provision at the era of urban renewal: evidence from Shuiwei Village in Shenzhen. *Public Administration and Policy Review*. 2023;12(3):86-100.
- [4] Zhuang T, Qian QK, Visscher HJ, Elsinga MG, Wu W. The role of stakeholders and their participation network in the decision-making of urban renewal in China: the case of Chongqing. *Cities*. 2019;92:47-58.
- [5] Xu HF, He DH. Redistribution of incremental land value from urban renewal viewpoint: Guangzhou transportation land redevelopment. *Planners*. 2018;34(6):35-41.
- [6] Han QY, Lai S, Liu GW. Financing Conflict Modeling and Policy Design for Historic District Renovation. *Urban Development Studies*. 2022; 29(2):1-6, 11.
- [7] He DH, Liu YT, Wang XM. The gaming of land residual rights and their configuration mechanism under incomplete contracting: a case in Guangzhou. *Planners*. 2021;37(17):68-73,85.
- [8] Chu X, Shi ZJ, Yang LC, Guo SJ. Evolutionary game analysis on improving collaboration in sustainable urban regeneration: a multiple-stakeholder perspective. *Journal of Urban Planning and Development*. 2020;146(4):04020046.
- [9] Wang KL, Li G. Rural tourism stakeholder conflicts and reciprocal governance mechanisms: an exploration based on symbiosis theory. *Social Scientist*. 2023;310(2):53-58, 80.
- [10] Zhu FW, Sun MX, Wang LZ, Sun XX, Yu M. Value conflicts faced by local government in stock public-private partnership projects: a network perspective. *Journal of Public Management*. 2019;16(2):131-146,175.
- [11] Yu Y, Li YL, Yu MX, Jiao YL. Analysis of stakeholders and their networks in collective land rental housing development: the case of Beijing Shibaidian Township project. *Urban Problems*. 2022; 328(11):84-93.
- [12] Tian L. Commentary on the phenomenon of “countryside in the city”: an analysis of the contradictions and harmonized development in the period of rural-urban transformation. *Urban Problems*. 1998;(6):43-46.
- [13] Wei ZK, Han Q, Cui YP, Wang JZ, Xue QL. Study on the benefit distribution mechanism of participating subjects in urban village transformation. *Construction Economy*. 2021;42(9):67-71.
- [14] South A, Eriksson K, Levitt R. How infrastructure public-private partnership projects change over project development phases. *Project Management Journal*. 2018;49(4):62-80.
- [15] Zhang LZ, Ye YM. 40 years of urban village renewal governance: evolution and prospects of academic thought. *City Planning Review*. 2022;46(5):103-114.
- [16] Freeman RE. Strategic management: a stakeholder approach. Cambridge: Cambridge University Press; 1984.
- [17] Magill M, Quinzii M, Rochet JC. A theory of the stakeholder corporation. *Econometrica*. 2015;83(5):1685-1725.
- [18] He DH, Wang XM, Liu YT, Yu M. Research on hotspots and trends in urban land redevelopment: analysis of a knowledge map based on CiteSpace. *South Architecture*. 2022;(7):36-43.
- [19] Li X, Zhang F, Hui EC, Lang W. Collaborative workshop and community participation: a new approach to urban regeneration in China. *Cities*. 2020;102:102743.
- [20] Gu SH, Zheng WJ, Tian CH. Theory and countermeasures of stakeholder governance in urban village transformation. *City Planning Review*. 2011;35(5):62-68.
- [21] He DH, Du YY, Liu YT. Changing roles and action paths of local governments in land redevelopment: empirical evidence from Guangzhou's old village transformation under urban corporatism. *City Planning Review*. 2023;47(5):34-43,120.
- [22] Zhong WH, Wu JH, Zhang JM. Study on the renewal of urban villages in Shenzhen from the perspective of rent gap distribution. *Urban & Rural Planning*. 2022;(3):79-88.
- [23] Deng MY, Deng CF. Assessment of the implementation path of urban renewal from the perspective of interest coordination: case study on Guangzhou urban village redevelopment. *Tropical Geography*. 2021;41(4):760-768.
- [24] Huang ZJ, Han D, Yi CD, Bi TY, Fan ZD. Comparison of urban renewal governance models and optimization of mechanisms under the perspective of social networks. *Urban Development Studies*. 2022;29(3):15-25.
- [25] Zhang W, Zhang X, Wu G. The network governance of urban renewal: a comparative analysis of two cities in China. *Land Use Policy*. 2021;106:105448.