

An analysis of patterns of public engagement in China's community micro-rehabilitation projects: A case study of Guangzhou

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ABSTRACT

With the development of inventory planning and the contradiction between land supply and demand, urban renewal development has been gradually replacing reconstruction in China's community redevelopment projects. Such projects need multiple stakeholders' engagement. However, China's patterns of public engagement with top-down governance are different from those in developed countries with bottom-up initiatives. This fact also indicates that such developed patterns are not suitable for the context of China. Meanwhile, research on micro rehabilitation is relatively new and requires further analytical work on development pattern analysis. Therefore, the protagonist status of different stakeholders and allowing them to participate in redevelopment projects are social issues that need to be solved urgently. This paper explores patterns of public engagement in community micro-rehabilitation projects in China. Eleven communities in Guangzhou are taken as cases through participatory observation, document analysis, and interviews. This paper analyses opinions and comments from different stakeholders and summarises their information delivery paths. The findings indicate four present patterns: single-threaded, representative feedback, property involvement, and external party service patterns. Through comparative analysis, the study highlights that the participating stakeholders in the four patterns involved the projects to different degrees. However, they are all still in the "Tokenism" degree, which is in the middle category of the ladder of engagement. Furthermore, an appropriate and sustainable pattern is put forward to provide a reference and research basis for improving public engagement in community micro-rehabilitation projects in China.

Introduction

As the practical approach to addressing sustainable urban development, urban renewal has been an enduring theme in globalisation and urbanisation, from developing countries to developed countries [1]. It is a construction activity renovating the declining areas and recovering their social economy [2], which is the updated process of the original construction land space [3]. From a global perspective, one hand, numerous scholars have verified great changes in future cities led by urban renewal activities and their essential roles in improving the quality of relevant stakeholders' living environments [4–6]. On the

other hand, other studies have argued that the activities cause many social challenges, such as housing problems or displacement, social conflicts, and the loss of urban culture [7–9].

Originating from the Western, the discussion of urban renewal was primarily characterised by large-scale demolition and construction after the Second World War. In the 1980s, urban renewal was a shift into market-led economic growth through real estate development advocated by neo-liberalism. These two types of urban renewal, in essence, were large-scale redevelopment of built-up areas where a series of social problems triggered the reflection, criticism and theoretical exploration of the urban renewal approach [10,11]. With numerous complex urban

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problems which were difficult to be solved through the market or the government leading alone, urban renewal was aware to not only update the economic and physical environment but involve diversified socio-cultural elements [12,13]. As such, urban renewal gradually tended to promote joint actions involving multiple stakeholders through public and private cooperation.

Over the past ten years, in China, a contradiction between growing demands for housing and proper living environments with strict control of land development from the government has been intensifying [14]. Urban renewal has become one of the most direct and effective ways to develop old areas [6]. Urban renewal is defined as environmental improvement, functional renovation, or reconstruction and demolition projects [15]. By changing land uses and facades in densely populated urban areas, their physical and environmental structures are altered, and human settlements are improved [15,16]. Apart from changes in residential environments, a wide range of social, economic, political, and cultural impacts are also considered to be included in the process of urban renewal [17]. However, most large-scale renewal projects are accompanied by mass migration, leading to considerable social problems, such as inconvenience for residents and economic loss to the government. Small-scale renewal, on the contrary, is more adapted for sustainable development [18]. As a type of urban renewal, to achieve quality improvement of residents' living environment, micro rehabilitation ("weigaizao"/ "weigengxin") renovates and maintains community buildings, re-uses scattered and inefficient land, mines idle assets, and cultivates community culture [19]. Thus, it is treated as an essential means of preventing communities from decaying.

Although community micro-rehabilitation projects can bring tangible benefits, social conflicts and tensions between governments and people inevitably arise in the process [20]. Among many strategies to relieve or solve these problems, public engagement becomes one of the most crucial urban management strategies [21]. The public, which is a key stakeholder group, affects the projects. Mayer et al. [22] and Zheng et al. [16] stated that diverse stakeholders should be included to guarantee the achievement of objectives in each project. If they can express and communicate opinions freely, the accountability of the decision-making process can be enhanced [23]. Their engagement most depends on the types of governance strategies [24]. The necessity and complexity of public engagement have been acknowledged in developed countries with bottom-up initiatives [25]. However, current studies seem to lack concerns about the implementation of public engagement in top-down governance [16], especially research focusing on China, the largest developing country, and the most typical case of top-down governance.

A 'magnificent' blueprint announced by China's central government in 2014 for promoting urbanisation put developing old communities for 100 million people by 2020 as its key aspect [26]. In the 13th Five-Year Plan (2016–2020) for National Economic and Social Development of the People's Republic of China, micro rehabilitation involving old communities is also listed as one crucial task [27]. Under the guidance of these policies and regulations, cities like Beijing, Shanghai, and Guangzhou have experienced vast and continuous micro-rehabilitation exercises [28,29]. Additionally, although successful implementation of public engagement in project management is essential, the resident is ignored in the direct engagement process (ibid). Thus, the public engagement situation in these megacities in China should be taken as a research focus.

This paper aims to explore patterns of public engagement in community micro-rehabilitation projects in China by taking eleven communities in Guangzhou as study cases. This develops public engagement patterns in community micro-rehabilitation projects by conducting participatory observation, document analysis, and interviews. It can contribute to the knowledge body of top-down micro rehabilitation from the perspectives of different stakeholders. Although only communities in Guangzhou were put as the study focus, established patterns can provide references for other cities in China, even for other developing countries

with the same top-down governance.

The remainder of this paper is structured as follows: existing literature related to public engagement is reviewed first as the second section. Then, methodology, study areas, and data collection are introduced. After analysing the characteristics of the stakeholders and methods of engagement in the fourth section, four patterns of public engagement in the projects are identified and summarised next. Before concluding the end, the sixth section discusses promotional strategies and limitations that existed in presenting patterns.

Literature review

Urban renewal projects in old residential areas often face problems, including degradation of building performance, lack of public space, supporting facilities, poor safety management, and loss of community culture [30,31]. Comprehensive maintenance, environmental renovation, demolition, and reconstruction are some of the approaches that community redevelopment utilises to address these challenges [32]. However, reconstruction needs considerable financial support, especially in key areas in cities. In contrast, there is a low-cost and short procedure in the community micro-rehabilitation projects [30], which is much more suitable for old communities with poor living environments [33]. Micro rehabilitation, essentially a continuous process of community governance, prioritises preservation and allows necessary new constructions [34]. In addition, it highlights the pluralistic engagement of society. Various stakeholders of communities need to be reconciled, and joint actions should be taken to promote community redevelopment [19,20]. Practical obstacles exist in land use and the built environment of micro rehabilitation, which usually involves multiple stakeholders [1]. Thus, coordinating the interest of all stakeholders to a satisfactory situation becomes crucial for micro rehabilitation to achieve smooth progress and ultimate success.

Johnston (2018) stated that engagement is a "dynamic multidimensional relational concept featuring psychological and behavioural attributes of connection, interaction, engagement, and involvement, designed to achieve or elicit an outcome at the individual, organisation, or social levels" (p. 19). Public engagement is defined as a deliberative process in which interested or affected citizens, civil society organisations, and government actors participate in policymaking before political decisions are taken [35]. This definition emphasises involving stakeholders to share their understanding and reach solutions, making public engagement essential in addressing conflicts of interest and management in urban development [36]. Before investigating public engagement further, defining the scope of 'public' is essential in public engagement. Taking United Kingdom transport infrastructure projects as examples, Bickerstaff et al. [37] defined boundaries to differ different types of involved public: residents, users, businesses, and transport operators. The relationships between planning interventions, land and property development processes and distributive outcomes are complicated [38]. To clarify these relationships, the concept of "important stakeholders" was proposed by Mitchell et al. [39] who emphasised that various internal and external stakeholders should be treated differently in an organisation. This also means that many public problems in modern society can no longer be solved by relying solely on one force [40]. Joint production and planning of multiple sectors, including government organisations, non-governmental organisations (NGOs), businesses, and community groups, have become the key to problem-solving [41]. Multi-sectoral partnerships establish collaborative and supportive roles in community engagement, such as the public sector, the private sector and the third sector (residents and organisations) [1]. Johnston and Lane [42] identified two types that the public potentially implicates for the relational capital dimension of social capital including resources that can be accessed, used, or built on by networks of relationships both within and between organisations and communities. Furthermore, active citizens' engagement is vital in the successful promotion of micro-rehabilitation projects [43]. As the bearers of material

environmental losses in the rehabilitation process and the actual users of the transformed urban space, citizens should be included in the decision-making process of micro rehabilitation from the perspectives of loss compensation, market demands and public interests [44]. With the development of localisation and globalisation, the government and the public are realizing that only when citizens are involved in decision-making, can their benefits be ensured, and their traditional lifestyles and values respected [1]. Furthermore, some studies indicate that less attention to citizens' voices results in resistance and protests [45–48]. Based on this, if public engagement is not fully supported and realised, tokenism is likely to emerge [49].

The engagement model in China is a combination of top-down and bottom-up, which is different from that in Western countries [1,50]. In Western countries, collaborative governance between governments, private developers and residents has been promoted in the context of decentralisation [51]. Citizens' engagement has become essential in contributing to planning discussions in this governance process [52]. The mechanism of public engagement and its impact on community micro-rehabilitation projects in America and Europe has attracted many researchers' attention [53]. Differing from the bottom-up public engagement in the projects in developed countries, those in many developing countries are top-down [1]. Especially, deeply influenced by traditional concepts and the planned economy, the top-down renewal model dominates China's projects, leading to a solid central government authority [54]. In other words, residents are hardly involved in urban renewal projects, and whether and at what level they participated in these projects depends on government decisions. Although in China's Urban and Rural Planning Law in 2008, Article 26 explains public engagement in detail, legal constraints and supports are not formed and deeply implemented [55]. Whilst China is seen as an authoritarian state [56], the governance process is increasingly involving local governments, private enterprises and citizens [57]. Local governments which provide community public facilities, public space, and other public goods, usually promote community redevelopment from top to bottom and influence community development through policies, funds, and other measures [1]. Compared with the public engagement mechanism in micro rehabilitation in Western countries, that of China is still immature [45]. This practical weakness plus the difference in engagement model between China's micro rehabilitation and their Western counterpart requires a separate and thorough investigation.

Existing research on public engagement in China's micro rehabilitation mainly focuses on revealing large-scale and top-down micro-rehabilitation projects [58–60], the interaction among these stakeholders and its influence on the final results of micro rehabilitation [8, 54,59–63], and citizens' important but neglected participating position [1,48,54]. There is comparatively little research into how different types of stakeholders are displayed in the context of China [64]. The variety of stakeholders and their methods of engagement in micro rehabilitation remains an important, yet unclear, issue that deserves empirical studies.

Materials and methods

Case study

Guangzhou is selected as the study area based on two main reasons. First, With outstanding success [6,54], Guangzhou has become one of the most prominent cities of micro rehabilitation [6,65]. Secondly, Guangzhou stands out by its extended practice time and its more extensive and in-depth involvement than other cities in China. Since the Implementation Plan for Micro Rehabilitation in Guangzhou was published in 2016, there have been 422 community micro-rehabilitation projects in 2017, and other 587 communities were included in this renewal plan in 2018. The Master Plan of Guangzhou (2017–2035) also stated that micro rehabilitation in Guangzhou entered the rapid development stage. However, behind the significant progress of these projects, an increasing number of problems also emerged. For example,

some unresolved demands are caused by the ineffective engagement of residents during the renewal process.

The central areas in Guangzhou, including Haizhu District, Tianhe District, Yuexiu District, and Liwan District, were first regenerated, and most projects there have already been completed. To ensure the investigation and the accuracy of statistical analysis are optimised, this study selects eleven representative and typical communities in Guangzhou central district as study sites (see Table 1). They are all target communities of the first batch of Guangdong's micro rehabilitation projects.

Data collection and analysis

This study used an ethnographic mixed-method approach to collect primary and secondary data on public engagement, including participatory observation, documentary analysis, and unstructured interviews. First, the researcher used a "participant as observer" method [66], observing public engagement activities between 2015 and 2019, attending members' conferences, committee meetings, and interactions with local governments. Also, we conducted unstructured interviews with participants in the renewal projects involving residents, committee workers, sub-district officers, planners, developers, and actors. Interviews also contained experts and professors interested in the projects. Their insights on this topic were crucial due to their considerable working experience on the projects. Some guiding questions are shown in the Appendix. Table 2 shows the number of participating interviewees in each community. Through interviewing various stakeholders, different opinions and demands can be collected. The interview transcripts totalling nearly 50,000 Chinese words were coded, categorised, and interpreted. Then different patterns of public engagement in communities can be classified. Next, data were assembled into case studies, with interview transcripts analysed using content analysis linked to the theoretical arguments on public engagement. Third, due to the difficulty in approaching the truth of public engagement, we also collected discursive materials from literature reviews, including academic journals, conference papers, books, government publications, and internet resources, which were conducted as the basis of this study. These can help collect relative background knowledge and identify widespread-impact factors used in the context of public engagement in micro rehabilitation. The material obtained from all these three stages together constitutes our analysis corpus.

Characteristics of stakeholders and methods of engagement

After fieldwork and interviews, participants and their engagement methods in projects of eleven communities are summarised in Table 3. These methods can be roughly divided into three phases: (1) In the preliminary plan stage of renewal, planners visit each community to collect information on the current situation. They also interview residents, neighbourhood committees, sub-district officers, and other stakeholders. (2) During the renewal process, feedback and notices about projects are shown on bulletin boards and other places. (3) After

Table 1
Information of communities.

Community	District	Renewal period	Area (hm ²)	Population	No. of households
Tianhedong	Tianhe	2018–2019	4.5	4215	1024
Caofang	Haizhu	2017–2018	7.4	3708	824
Quantang	Haizhu	2018	4	4405	979
Xiaogangdong	Haizhu	2017	2.4	6620	2592
Enning Road	Liwan	2007–2018	9	4500	1965
Yongqingfang	Liwan	2007–2016	0.8	135	30
Yangzhong	Yuexiu	2016–2017	5.9	3568	1282
Dongyuan	Yuexiu	2017	1.44	7658	1605
Wuyang	Yuexiu	2016–2017	27	7266	1500
Baohan Street	Yuexiu	2017–2018	3.78	576	128
Zhusigang	Yuexiu	2016–2018	10	1440	320

Table 2

The number of participating interviewees in each community.

Type	Resident	Neighbourhood committee	Subdistrict office	Planner	Property company	Art organisation	Family service centre	Government
Number	5	1	1	1	1	1	1	2

Note: If some types did not participate in the projects, they were not interviewed.

finishing renewal plans, some communities would hold forums with multiple stakeholders to discuss issues presented in the projects.

As for stakeholders, they can be classified into three main categories: internal community organisations (resident, resident representative, and neighbourhood committee), public institutions (planner and sub-district officer), and external organisations (property management company and arts organisation). As owners of community property, internal community organisations adopt various strategies to protect and fight for their interests. Public institutions with administrative power act as facilitators of micro rehabilitation. External organisations can provide sufficient funds for renewal. When there are only other organisations in the project, they can also help with operational abilities and offset the disadvantages of poor professionals.

Current patterns of public engagement

Based on different types of stakeholders and their engagement methods, the following four typical patterns are summarised to represent modes of public engagement in community micro-rehabilitation projects. (1) single-threaded pattern, (2) representative feedback pattern, (3) property involvement pattern, and (4) external party service pattern.

Single-threaded pattern

In the single-threaded pattern, residents' opinions are first voiced to the neighbourhood committee. Then, the neighbourhood committee reacts to these opinions to the subdistrict office (see Fig. 1). The government makes final decisions after getting reports from the subdistrict office. When the government approves, decisions are returned to the residents in the order in which their opinions are reported. Among all surveyed communities, the single-threaded pattern existed in the Caofang community. As a village in the city, most houses were built by residents own, leading to a somewhat chaotic local environment. Bulletin boards organised by the neighbourhood committee became the primary way for most residents to obtain renewal information. If residents had feedback, they could directly communicate with the neighbourhood committee which would provide feedback to the subdistrict office. Although this pattern is straightforward to operate, low execution efficiency, a long period from feedback to solution implementation, transmission errors, and information loss are all considered limitations of this engagement pattern.

Representative feedback pattern

The operation of the representative feedback pattern is mainly based on providing an information exchange platform for public engagement (see Fig. 2). Unlike the single-threaded way, resident representatives are selected first. They collect residents' opinions and discuss them in a joint forum, involving neighbourhood committees and subdistrict offices. After discussing issues about the projects, the subdistrict office summarises a proposal and submits it to the government for approval. After the government decides, the subdistrict office instructs the neighbourhood committee to announce the results to the residents. The Quantang and Xiaogangdong community adopted this engagement pattern. Most of the buildings in these communities were built in the 1970s, including Guangdong Lighter Company, Zhujiang Shipping Company, and Guangzhou Machine Tool Factory. Lacking hardware supporting facilities and property management were typical defects of those

communities. Since various stakeholders can express their demands directly, the initial direct engagement was realised [67]. However, the representative scheme is still a relatively simple method since it is hard to guarantee representative impartiality and information timeliness.

Property involvement pattern

The property involvement pattern is similar to the representative feedback pattern (see Fig. 3). The main difference is that the property management company also collects feedback from residents. Multiple stakeholders discuss the issues in a forum, and the results are sent to the government by the subdistrict office. It delivers the information to the neighbourhood committee to release after the government's approval. The property management company does the double duty to serve and represent residents during the process. As the most common engagement way, Tianhedong, Wuyang, Dongyuan, Yangzhong, Enning Road, Yongqingfang, and Baohan Street communities adopt this pattern. Being more professional and experienced, property management companies know better about communities' updated needs. They can also develop and provide feedback in serving the residents. When non-government organisations participate in the process of making renewal plans for old communities, property management companies are more likely to accept and implement new programmes [68]. However, many property management companies do not collect sufficient information due to lacking enthusiasm and low transmission efficiency when no other interest groups restrict and supervise them.

External party service pattern

External party service pattern introduces external organisations in the community micro rehabilitation. These external organisations provide suggestions and services in forums and other community management platforms to promote the renewal process and guarantee residents' fundamental rights and life quality (see Fig. 4). The Zhushigang community adopted this pattern. Except for the family service centre organised by selected resident representatives and the property management company, external art institutions were introduced to intervene in the project. Plus, all parties including neighbourhood committees, sub-district offices, and other organisations fed their opinions back to the government directly through a forum. By integrating arts institutions, this pattern can investigate residents' demands and enrich project content. There are resident representatives, property companies, and external organisations all serving residents and forums gathering various stakeholders in this pattern. It also presents features of diverse information circulation and higher information effectiveness, which can lead to the best method to meet the interests of multiple parties. However, also because of involving many participants, this pattern is criticised as cumbersome. Projects cannot be promoted quickly with a long negotiation time, and their progress is slowed down [13]. Current systems of communication and mediation are considered challenging to support the whole process, which calls for a more complete and efficient coordination mechanism to ensure the orderly operation of this engagement pattern.

Discussions

The success of China's community micro-rehabilitation projects, supported by the government [6], has been evident. However, compared to the bottom-up engagement observed in Western countries,

Table 3
Type of stakeholders and methods of engagement in communities.

Name	Type of stakeholders					Methods of engagement						
	Resident	Neighbourhood Committee	Subdistrict Office	Planner	Property Company	Art organisation	family service centre	Government	Direct Feedback to Neighbourhood Committee	Community Forum	Resident Consultation Meeting	Bulletin Board
Emming Road	o	o	o	o	o			o	o	o	o	o
Yongqingfang	o	o	o	o	o			o	o	o	o	o
Yangzhou	o	o	o	o	o			o	o	o	o	o
Dongyuan	o	o	o	o	o			o	o	o	o	o
Zhusigang	o	o	o	o	o	o		o	o	o	o	o
Tianhedong	o	o	o	o	o			o	o	o	o	o
Caofang	o	o	o	o	o			o	o	o	o	o
Quantang	o	o	o	o	o			o	o	o	o	o
Xiaogangdong	o	o	o	o	o			o	o	o	o	o
Baohan Street	o	o	o	o	o			o	o	o	o	o
Wuyang	o	o	o	o	o			o	o	o	o	o

where non-governmental stakeholders often wield decision-making power [38,53], the Chinese government plays a crucial role in determining the extent of public engagement [9,69], thereby shaping public engagement patterns through its policies. This finding aligns with the literature reviewed, which emphasised the significance of government influence in the engagement process [36]. It is evident that all stakeholders in community micro-rehabilitation projects seek to maximise their interests [1]. However, this focus on short-term benefits can sometimes hinder the overall project outcomes, particularly for internal community organisations facing economic challenges. The existing literature highlights the importance of considering the interests of various stakeholders and their engagement in the decision-making process [37,39].

Projects inevitably affect the economic benefits of internal community organisations in the short term. For example, the benefits of housing appreciation would be temporarily unavailable. They pay less attention to the overall benefits of the projects and more to their interests and life assurance. Residents have the most considerable opinions and ideas on renewal projects as the actual owners of communities. However, residents are often neglected and disadvantaged in engagement because older people are the majority and usually have limited activity scopes. Due to the top-down approach to governance in these projects [54], they tend to rely heavily on governance arrangements. As several scholars have noted [44,45,54], residents' engagement in these projects typically focuses on receiving and comprehending project-related information rather than actively engaging with them. Although resident committees play an essential role in reflecting and resolving community issues and have duties to represent residents' voices [45,46], the dereliction of some representatives makes the issue-solving failure of communities in the long term. In addition, many uncertain factors and systemic risks such as changeable and complex finance, land, and other related policies and development models are the insurmountable concerns of neighbourhood committees. While, property management requires certain expenses to maintain operations for serving residents and managing community public resources. Other external organisations, such as arts organisations, impact the communities and use a variety of interdisciplinary methods to intervene in the projects.

Different patterns constituted by interactions among these various stakeholders have different influences on projects. The single-threaded pattern is the simplest method to participate in the projects. However, this pattern is often criticised as "passive" engagement since it can easily cause transmission errors and information loss. Although the representative feedback and property involvement patterns can help establish an effective communication platform, their information transmission efficiency is low. The external party service pattern as a relatively perfect pattern is difficult to support under the existing system of communication and mediation. Thus, a more efficient and systematic pattern of resident engagement in renewal projects is highly needed.

Based on the findings from the literature review and the empirical study, this research proposes a new pattern of public engagement suitable for the Chinese context, building upon current underdeveloped and flawed patterns [1] as shown in Fig. 5. The proposed pattern aligns with the literature's emphasis on the importance of meaningful engagement involving citizens [36]. Moreover, the engagement model in the Chinese context can learn from the collaborative governance approaches in Western countries [51] while accounting for the unique challenges and characteristics of Chinese community micro-rehabilitation projects.

To achieve meaningful engagement and citizen power, the government must empower all stakeholders fairly and appropriately without undue limitations. The existing literature highlighted the need for considering the scope of 'public' and treating various stakeholders differently in the engagement process [37,39]. In this proposed pattern, community planners and non-profit social organisations serve as project participants, bridging different stakeholders in the public engagement process [64], which aligns with the literature's emphasis on involving various sectors in problem-solving processes [41]. Furthermore, to

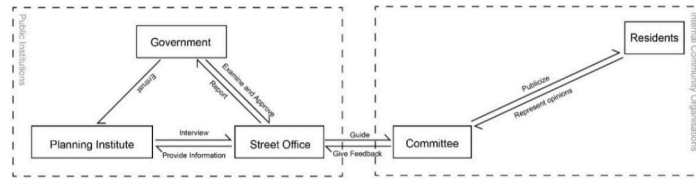


Fig. 1. Single-threaded pattern.

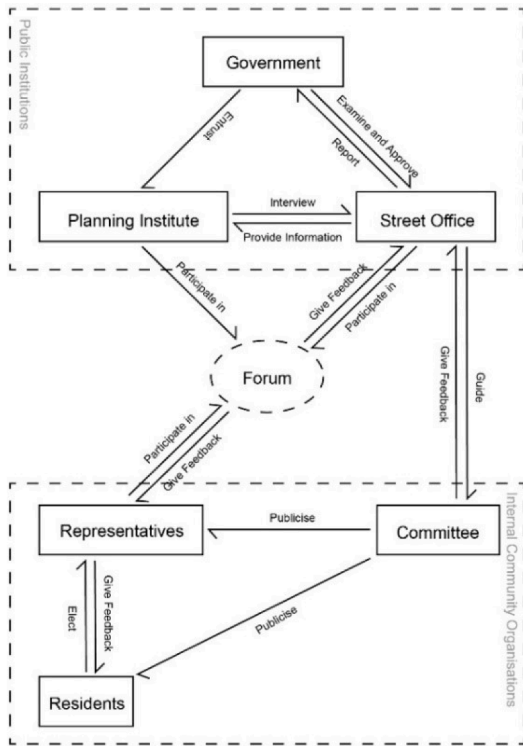


Fig. 2. Representative feedback pattern.

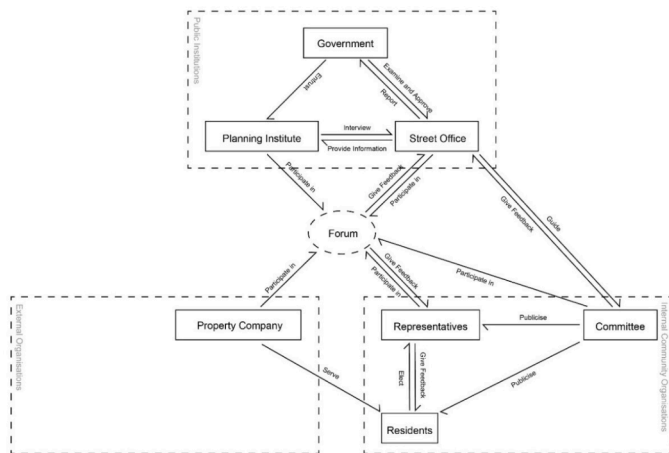


Fig. 3. Property involvement pattern.

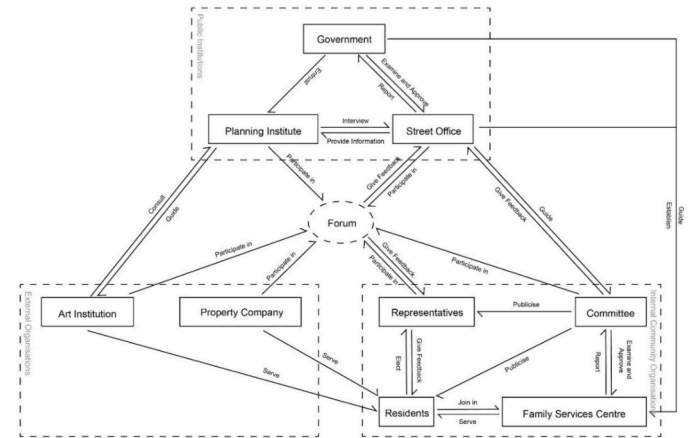


Fig. 4. External party service pattern.

decision-making processes [44,46].

Moreover, enhancing engagement methods by adding mobile application platforms for feedback and service centres can improve the timeliness of property management and provide more professional, convenient, and friendly services to all stakeholders. This aligns with the literature’s focus on improving communication platforms [53] and involving citizens in decision-making processes. The proposed pattern addresses the shortcomings of existing engagement methods [1] and strives to achieve more efficient and systematic resident engagement in renewal projects.

Conclusions

This study delved into the engagement patterns and methods of community micro-rehabilitation projects in China. Stakeholders involved in these projects were categorised into three main groups: internal community organisations, public institutions, and external organisations. Internal community organisations strategically protected their original interests as owners of regenerated properties, while public institutions acted as facilitators, leveraging administrative power to support the projects. External organisations played a crucial role by providing financial and professional support, transforming the traditional government-planner pattern into a more collaborative organisation-residents model. Moreover, in terms of public engagement, four distinct patterns emerged from the analysis of renewal projects: the single-threaded pattern, the representative feedback pattern, the property involvement pattern, and the external party service pattern. While each pattern had its advantages and disadvantages, there was a need for a more sustainable and appropriate top-down micro-rehabilitation pattern. Drawing on the insights from the literature review and empirical findings, this study proposes a novel public engagement pattern tailored to the Chinese context. By considering the unique characteristics of community micro-rehabilitation projects in China, this pattern aims to enhance the engagement process, better-involving stakeholders and fostering more meaningful participation.

Looking ahead, future research should address the study’s limitations, notably the small sample size of only eleven communities, limiting

provide institutional support, responsible actor systems should be established, where various stakeholders supply, manage and maintain public goods based on their attributes, enhancing residents’ awareness and responsibility for community management. This aligns with the literature’s emphasis on considering the interests of different stakeholders [39] and the need for active citizen engagement in

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