

Analysis on the promotion problems of adding elevators in old communities in Shanghai——Based on 67 interviews in Pudong New Area, Shanghai

Xianglong Dong, Xiaoke Wang, Quanling Li, Xinchun Chen*

School of Economic and Management, Shanghai University of Electric Power, Shanghai, China, 201306

*Corresponding author: fchg609@163.com

Abstract. At present, the renovation of old houses is in a prominent position in the urban renewal system. In the form of interview, this paper selects 4 towns in Pudong New Area of Shanghai, a total of 8 communities, and uses the method of accidental investigation to collect 67 interview materials. Through the collation of interview data, it reveals the complexity of the main body of installing elevators in old residential areas, the one sidedness of promotion and the singleness of form.

Keywords: Interview materials; Qualitative analysis; Residential committee; Resident.

1. Introduction

In recent years, there have been calls for the installation of elevators in old multi-storey buildings. In 2015, the Ministry of housing and urban rural development and the Ministry of Finance jointly mentioned that the renewal of old elevators is conducive to facilitating the travel of owners and residents, eliminating potential safety hazards in elevator operation, and ensuring the safety of people's lives and property [1]. In March 2017, the NPC government encouraged the installation of elevators in old residential areas and provided guidance [2]. In recent years, under the policy guidance of the central government, local governments have also continued to explore this field. Taking Shanghai as an example, the municipal government has increased its support for the approval procedures, financial subsidies and owner consent standards for the installation of elevators in old campuses. By the end of April 2021, a total of 3181 door openings in Shanghai have been consulted by residents, 797 have been completed and put into operation, and 585 are currently under construction.

However, the project has not been carried out smoothly [3-5]. Low level residents are not satisfied with the compensation; Housing reform was a veto; Low rise residents were blocked and forced to install elevators. Various social problems about installing elevators in old communities have exposed people's different views and public conflicts about installing elevators. In order to promote the renovation of adding elevators in old residential areas, and further understand the different views of different floor homeowners on the installation of elevators, according to the field investigation and interview of the promotion documents of the installation of elevators in Pudong New Area, Shanghai, the author went deep into the community owners, neighborhood committees, industry committees and other multi-party subjects to investigate the willingness to add elevators, and understood the difficulties and solutions faced by stakeholders, And through qualitative analysis to put forward practical suggestions and measures for related problems.

2. Analysis framework and research method of adding elevators in old communities in Shanghai

The renovation of old houses is the first problem in the urban renewal system. On January 15, 2021, the Shanghai Municipal People's government put forward a series of opinions on the transformation of old residential areas to improve people's quality of life in accordance with the guiding opinions on comprehensively promoting the transformation of old residential areas in cities and towns (GBF [2020] No. 23) [2] issued by the general Office of the State Council. The installation

of elevators in old residential areas is not only part of the construction of barrier free environment, but also part of the construction of elderly care facilities, which is an important work related to people's livelihood.

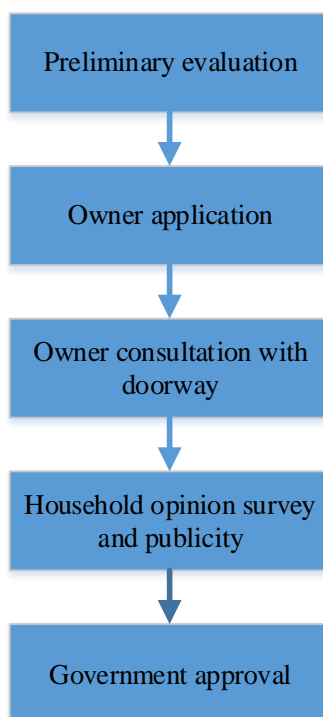


Figure 1. Flow chart of adding elevators in old residential areas

The overall process of installing elevators in old residential areas is shown in Figure 1. According to recent research and survey results, the first step of building evaluation and the second step of residents' consultation encounter great difficulties. Building evaluation involves whether the building structure matches the elevator installation scheme. Residents' consultation involves the balance of interests and interpersonal relationships between residents, as well as the residents' trust in neighborhood committees and industry committees. This article will pay more attention to these two aspects.

The sample selected in this paper is the Pudong New Area of Shanghai, which is located in the southeast of Shanghai, with a total of 36 streets (towns) in the whole region. Based on the situation of elevator installation, according to the different processes of elevator installation, a total of 8 communities in 4 towns were selected for investigation. This selection method is based on the saturation of the interview content, and comprehensively explores the installation of elevators in old residential areas in Pudong New Area, Shanghai (Table 1).

Table 1. Survey Samples

Gender(Quantity)		Identity type (Quantity)		Age distribution	
Male	20	Residential Neighborhood Committee	4	20-40 years old	14.5%
		Property management company	1	40-60 years old	48.3%
Female	42	housemaster	6	≥60 years old	37.1%

The preparation of the interview outline is mainly based on the above analysis framework. The questionnaire designs projects from the main situation of installing elevators in old communities, opinions on installing elevators, views on neighborhood committees, and difficulties. Conduct a pre survey before the formal survey to ensure that the questions raised in the outline can clearly convey the meaning to the respondents, and determine the residents' concerns about the elevator installation

project in the old community. Try to have a comprehensive and in-depth understanding of residents' views and personal experience of the project. The data of this study were collected by one-to-one semi-structured in-depth interview. The interviewees were randomly selected in the community by chance survey. The time of each interview is designed according to the situation of residents, about 10 ~ 20 minutes. The interviewers encourage the interviewees to answer questions according to their real thoughts and ideas as much as possible. The interviewer appropriately adjusted the order of interview questions according to the concerns of the respondents. After the interview, turn the recording into written materials, cross check the recording materials, and convert the dialect into Mandarin. Finally, the written materials shall be archived and saved. After data saturation, a total of 21 audio data were collected, which were converted into text data of about 62000 words, and 67 tables [6,7].

3. Content analysis of interview data on the addition of elevators in old communities in Shanghai

After the interview data were collected, NVIVO11plus qualitative analysis software was used for coding analysis. A large number of interview materials need to be processed.

3.1 Open coding analysis of elevator addition

Coding analysis is the process of generalizing the key content of the research object with a brief discourse, and then naming and classifying it, that is, the conceptualization of the original data [3]. After consulting the interview materials for many times and repeatedly adjusting, a total of meaning units were generated, forming a total of 49 primary nodes and 7 secondary nodes. Table 1 shows some excerpted interview data coding cases (Table 2) [8].

Table 2. Excerpts from interview data coding

Raw data	Code
Interviewee 1: Has the neighborhood committee publicized it? Interviewee 3: Yes , we have Interviewee 3: No direct communication	The neighborhood committee called a meeting and said, but there was no door-to-door publicity.
Interviewee 3: In case of disagreement, is it self coordination or neighborhood committee? Interviewee 3: Last year, the Spring Festival also wrote a signature, but the last four did not agree. Interviewee 3: Not much now. Recently, he didn't go online. After agreeing, he waited for the bidding, didn't he?	At first, four companies disagreed, but now all agree that the neighborhood committee should take the lead to negotiate with the company that installed the elevator. Now waiting for bidding.

3.2 Secondary coding analysis of adding elevators in old communities

After the primary coding is preliminarily completed, this kind of coding is re integrated to form a secondary coding. Second level coding is to organically associate the conceptual categories found in the first level coding stage, integrate the categories at a higher level of abstraction, and determine the nature and dimensions of related categories. In this paper, the primary coding is summarized (Table 3) [9].

Table 3. Frequency distribution of secondary nodes with elevators in old residential areas

Secondary node name	Material source	Reference point
Objective factors	11	12
Thrust	11	11
Hinder	72	73
Solution	5	5
Neighborhood committee	5	6
Residents and neighborhood committees	17	17
Reason	3	12

Objective factors are the key conditions for mutual recognition in the process of installing elevators. It can be seen from Table 4 that residents are most concerned about the proportion of money for installing elevators, accounting for 31% of the total. The second is how the first floor and the second floor should be funded or compensated and the elevator installation plan, accounting for 23% of the total respectively. Other problems occur less frequently.

Table 4. Frequency distribution of objective factors of elevator installation in old residential areas

Name	Material source	Reference point
Objective factors	14	15
The first floor and the second floor do not contribute without compensation	3	4
Elevator type	1	1
The proportion of money for installing elevators	4	4
Management of adding elevators	1	1
Elevator installation scheme	3	3
Installation sequence of elevator	1	1
Neighborhood committee negotiation bidding	1	1

The thrust is the power to promote the installation of elevators in the process of installing elevators. It can be seen from Table 5 that among the installed door openings, the exemplary party members have taken the lead to have a strong impact on the installation of elevators, accounting for 47% of the total. The second is the facade room. When the low floor is close to the street, the facade room occupies 1-2 floors, and the opinions of the low-level householder can be ignored, accounting for 29% of the total.

Table 5. Frequency distribution of elevator thrust installed in old residential areas

Name	Material source	Reference point
Thrust	7	7
CCP takes the lead in coordination compensation	3	3
Facade room	2	2
Community pension	1	1
Management of adding elevators	7	1
Willing to pay more for installing elevators	3	7

Resistance refers to the difficulties currently encountered by residents in the process of installing elevators, as shown in Table 6, including 18 primary nodes such as "the last eight stairs". Among them, affecting ventilation and lighting is the focus of residents' attention, accounting for 19% of the total. The second is the elevator price, accounting for 13% of the total. Residents' reaction to the

disharmonious relationship between residents and the problem of house price are the third problem, accounting for 12.5% of the total.

Table 6. Frequency distribution of resistance of elevator installed in old residential areas

Name	Material source	Reference point
Resistance	72	73
House safety	2	2
Inconvenient communication	2	2
Additional cost of installing elevator	4	4
The price of installing elevators is expensive	11	11
Adding elevators will affect vehicle travel	1	1
Reduce parking spaces	1	1
Reduce the greening area	1	1
Disharmony among residents	9	9
Building type problem	3	3
Occupy the fire passage	1	1
Distrust neighborhood committee	1	1
Affect safety	4	4
Affect daylighting	15	15
Affect house prices	9	9
Affect the image of the community	2	2
Difficulty in coordinating with water and electricity departments	1	1
Slow government approval	1	2
The last eight stairs	4	4

The work of the neighborhood committee is the work content and attitude of the neighborhood committee towards the installation of elevators in the process of installing elevators. According to Table 7, among the interview records of the five neighborhood committees, 2 left the work to the residents themselves, and the neighborhood committee was responsible for submitting the form. The neighborhood committee mentioned that due to its busy work, it was difficult to devote energy to coordinating the opinions of residents, so it had to ask the building head of the doorway to communicate directly with residents.

Table 7. Frequency distribution of neighborhood committee work

Name	Material source	Reference point
Neighborhood committee work	8	9
Install an elevator to solve the problem by itself	2	3
The neighborhood committee has limited energy	1	1
The head of the building is responsible for the implementation of the installation of elevators	5	5

However, this has caused residents' distrust of the neighborhood committee. According to Table 8, 70% of the 17 interviewees who responded to the neighborhood committee were dissatisfied with the work of the neighborhood committee and asked the neighborhood committee to pay more attention to residents.

Table 8. Frequency distribution of relations between residents and neighborhood committees

Name	Material source	Reference point
Relationship between residents and neighborhood committees	17	17
Dissatisfied with the neighborhood committee	12	12
Willing to trust the neighborhood committee	5	5

The reason why residents urgently need to install elevators. According to Table 9, the proportion of anti-aging factors is the largest, reaching 66%. At the same time, patients, blind people and other physical factors must install elevators.

Table 9. Frequency distribution of reasons for installing elevators in old residential areas

Name	Material source	Reference point
Reasons for installing elevator	6	6
There are patients at home	1	1
The blind need	1	1
Provide for the aged by elevator	4	4

4. Problems faced by adding elevators in old communities

4.1 Complexity of installing elevator main body in old communities

The main body of installing elevators includes residents, neighborhood committees and elevator companies, among which residents can be divided into low-level residents, middle-level residents and high-rise residents. Residents, neighborhood committees and elevator companies have different positions, and even each different floor has its own position. Low rise households hope to reduce the impact on their lighting and ventilation, and try to compensate for the loss of their house prices. The middle-level households are considering the life of the elderly and hope to invest less. High rise households. At the same time, it is difficult for the neighborhood committee to allocate energy to intervene in the process of residents' negotiation, and the ability to solve residents' negotiation is lacking. The elevator company is eager to enter the Shanghai market.

4.2 Obstacles to the promotion of installing elevators in old communities

The poor progress of the installation of elevators in old communities is mainly due to the one sidedness of the neighborhood committee in the promotion process of the installation of elevators. The neighborhood committee and the head of the building did not have an in-depth understanding of the residents' demands. The main promotion methods are posting announcements, distributing leaflets and asking residents to sign.

In this survey, as shown in Table 7, 70% of residents are dissatisfied with the neighborhood committee. The reason is that the neighborhood committee is disconnected from the residents. The installation of elevators is not only a project to build a "community for the elderly" for the benefit of the country, but also a project to help "vulnerable groups" for the benefit of the people. The difficulties of installing elevators cannot only be put on residents. Neighborhood committees should give full play to their coordination and leading role.

4.3 Singleness of elevator installation form

The obsolescence of installing elevators in old communities is reflected in the fact that the scheme of installing elevators has been criticized by residents. According to Table 2, residents are more concerned about the scheme of installing elevators. The current plan to install elevators does not allow residents to reach their homes directly, but requires another eight steps. In response, a mother-in-law said, "when I get old and can't go up a step in a wheelchair, what do I want this elevator to do?" The

scheme of installing elevators needs to be improved urgently to adapt to different old buildings, think about the difficulties of the people, and solve the worries of the people.

5. Solutions

5.1 Establish and improve the legal and policy guarantee of installing elevators in old communities

On January 15, 2021, the Shanghai Municipal People's government put forward a series of opinions on the transformation of old residential areas to improve people's quality of life in accordance with the guiding opinions on comprehensively promoting the transformation of old residential areas in cities and towns [10] (Guo Ban Fa [2020] No. 23) issued by the general office of the State Council. This document provides principled guidance for the installation of elevators in old residential areas. Each township should issue the relevant "rules of procedure manual for community elevator installation consultation" and "list of issues for community elevator installation" according to its own situation. Only by clarifying the method and system of community negotiation can we make everyone sit quietly at the negotiation table.

5.2 Strengthen the publicity and education of elevator installation in old communities and improve the quality of negotiation subjects

First, understand the importance of installing elevators. Installing elevators has a far-reaching impact on the community. It is an excellent way to improve people's livelihood and protect vulnerable groups, which is beneficial to the whole and individuals. Second, build a diversified negotiation system, including low-level, middle-level, high-level householders and neighborhood committees, as well as relevant elevator installation experts, to listen to the views of all parties. Third, strengthen the awareness of rules, reasonably and legally express their own demands, clearly express their own ideas, and listen to the solutions of others. So as to reduce the strangeness between residents, improve interpersonal relations, and neutralize complex interest relations.

5.3 Strengthen the publicity and education of elevator installation in old communities and improve the quality of negotiation subjects

The installation of elevators must be guaranteed by funds. The groups with large demand for elevators are vulnerable groups. According to the interview data, the pension of most elderly people is about 3000. Even with government subsidies, it is difficult to afford the cost of installing elevators as high as 800000. Enterprises need to find a better way to provide innovative elevator installation services.

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