# Tenants' priority of renovation measures and their willingness to pay higher rent to implement these

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**Abstract:** In 2013 a web based questionnaire was sent out to residents living in apartments in multifamily housing areas with the aim to get their opinions on what renovation measures they prioritized and what they would be willing to pay in terms of percentage rent increase. On a neighbourhood level, the result showed that higher indoor standard followed by higher standard on the exterior façade and windows were on the top of the list followed by better light environment, parking spaces and waste rooms. On apartment level, the most important measures were renovation of kitchen and bathroom followed by a reduced noise from neighbours and increased thermal comfort. The willingness or ability to pay for these measures was however quite low. More than one third of the tenants could not accept any rent increase while nearly half of the residents could accept a rent increase of 1-10 percent and very few could accept rent increases above 10 percent. Considering the cost for implementing the desired measures, the rent increase would probably be considerably higher than 10 percent. This is why it is of crucial importance to have a close dialogue with residents at an early stage in the renovation process in order to find the most cost efficient package of renovation measures that responds to the technical, environmental and social needs of the buildings and their residents.

Keywords: Renovation measures, rent increase, thermal comfort, indoor environment, tenants

# 1 Introduction

An important part of the multifamily building stock built in Sweden during the record years 1961-1975 is still in need for extensive renovation measures. Common for many of these buildings are that neglected maintenance has led to technical shortcomings such as; high energy use and low thermal comfort due to bad insulation, unsatisfactory air tightness and leaky windows, inefficient heating systems and insufficient ventilation, moisture damage due to leaking building envelope and leaking pipes. Complaints about cold floors, drafts from windows and doors, smells from own and neighbours' cooking as well as disturbing sounds from neighbours are more prominent in multi-family houses built in 1961-1985 [1]. However, the people living in these buildings are not willing to or do not even have the ability to pay higher rents that are entailed by extensive renovations. In some cases, the building owner implements reno-

vation measures considered unnecessary among residents, causing considerable rent increases, forcing some people to leave their homes [2]. A study of renovation needs and average incomes in Swedish multifamily housing areas show that extensive renovation needs often coincide with low income of the tenants [3].

Former studies show that tenants place a higher value on visible features rather than on those that have high effect on energy efficiency [4]. Improvements in flats, relative to those in the building as a whole, have been stressed as most important [5]. A case study, involving interviews with tenants in a Swedish renovated multifamily housing area, shows that several participants are initially worried about how much the renovation would increase their rent. The results from interviews show a higher acceptability of a rent increase for changes that one thought of as beneficial for oneself (for example, increased security), than changes that was perceived as of less/no visible value (i.e. energy saving equipment), or even disadvantageous to oneself (colder indoor temperatures and less ability to control the temperatures than before as well as damages and disturbance during renovation) [6].

However, there have not been many surveys about the residents' requests for renovation and their ability to pay for the increased rents after renovation. The authors therefore formulated four questions with multiple-choice answers concerning the tenants' preferences of renovation of their living environment and apartments as well as how much higher rent they would be willing to pay after renovation.

# 2 Method of investigation

## 2.1 Questionnaire

In December 2013 a web based questionnaire was sent out to residents living in apartments (approximately 80 % rented and 20% owned) in multifamily housing areas, covering a number of issues on their living conditions as well as on other topics of current interest. The questions were formulated by the authors of this paper but the survey was practically handled by the company Sweden Research, which meant that they identified a representative sample, distributed and collected the web based questionnaires. Sweden Research conducts studies and analyses on issues concerning social sustainability and urban development for authorities, municipalities, and other publicly financed organisations. Since 2009, they have conducted four surveys among residents living in the Swedish multifamily housing areas mainly built during the record years in 163 out of 290 Swedish municipalities. The selected residential areas are attributed to a lower socio-economic status of residents than in surrounding areas.

The selection of sample was made by distributing an invitation to a survey to several hundred thousand residents. The first about 1000 respondents that qualify to participate based on a number of background parameters and criteria were included in the survey. One such criterion was that the respondent lived in a multifamily housing area not located in the city centre. The language used in the web based questionnaire was Swedish.

#### 2.2 Respondents

Over a thousand (1021) respondents living in seventy-seven multifamily housing areas replied to the questions considering the perception of their housing area, the labour market and what types of housing are most desirable. One section of the questionnaire included questions with the aim to get the residents opinions on what renovation measures they prioritized and what they were willing to pay in terms of percentage rent increase if these measures were carried out. The data presented in this paper was based on the response on these questions and has been analysed by the authors. The respondents were tenants the age of 14 or older, living in apartments in multifamily buildings that were mainly built during the record years 1961-1973.

Among the respondents, 53% were women and 47% men, and 72.5% had parents that are both born in Sweden. Almost a third had completed 3-year high school and, in addition to that, 42.8% had finished university (at least 2 years). Many of the respondents had full-time jobs (35.7%), were retired (24.5%) or were students (16.5%), whereas 7.4% stated that they were unemployed. One third worked in the private sector (33.2%), almost one sixth within the municipal or local governmental sector (15.3%) and 5.2% in the governmental sector. The average income was 19 336 SEK/month, which is approximately 2000 Euros/month.

The respondents represented a small sample of people living in multifamily houses in Sweden. In 2013 more than 2 378 000 people, all ages, lived in rental apartments in Sweden. The average income of the persons that participated in this survey was below the national average of 21 858 SEK/month (year 2013). This figure included people living in all types of dwellings [7]. The unemployment rate was however lower than the national average at the time, which was 8% [8].

## 2.3 Ouestions asked

Four questions were formulated by the authors regarding what renovation measures were the most prioritized by tenants and what were their willingness to pay for an increased rent for these measures. Two of the questions had multiple-choice answers, where a maximum of three alternatives could be chosen. The respondents were also given the opportunity to give a free text answer. The questions are declared in full text in the results section 3 together with the answers (original questions were in Swedish):

#### 3 Results

#### 3.1 Responses to questions

The tables in this chapter show in percentage how many of the respondents chose the different alternatives for each question.

**Table 1.** Responses to question Q1. In case of possible refurbishment in your area, what do you think would be the most important changes? Mark the most important things to you (maximum three). The alternatives that many respondents marked most important are bolded.

Multiple-choice alternatives	%
Better green spaces	15.9
Better internal standard of the houses, such as bathroom, kitchen, changing pipes	37.6
Better external standards on the houses, such as new facade and windows	27.2
Better parking places	21.2
Better bike and moped parking	8.6
More common areas, such as barbecue areas, playgrounds, skate parks	15.2
Better storage facilities (basements / garbage rooms)	13.2
Better room to store and sort waste	18.9
Better access to public transport	12.5
Better common rooms for gathering	7.1
Better lighting environment, outdoor lighting	25.6
Better bus, train and subway station	6.4
Otherwise, namely:	8.2

**Table 2.** Responses to question Q2. If your house were undergoing refurbishment and the measures you indicated in question 1 were taken care of, how much higher rent would you accept to pay before you would start looking for a new apartment? The alternatives that many respondents marked are bolded.

Multiple choice alternative	%
Nothing, 0%	33.9
A little higher, 1-10%	49.7
Somewhat higher, 11-20%	7.7
Pretty much higher, 21-30%	0.8
Much higher, more than 30%	0.3
Do not know	7.6

**Table 3.** Responses to question Q3. In case of possible renovation in your apartment, what do you think would be the most important measures? Mark the most important things to you (maximum three). The alternatives that many respondents marked most important are bolded.

Multiple-choice alternatives	%
Renovate kitchen	29.1
Renovate bathroom	23.5
Better locks on doors	6.8
Change of sewage pipes	12.0
Better air indoors	9.9
Better heat / indoor temperature	21.1
Reduce the draught	13.1
Better daylight in the apartment	2.2
Better lighting in stairs and entrances	2.4
Reduce noise from neighbours	24.0
Reduce noise from the outside	11.4
Less smell from stairwells or other apartments	7.6
Clean stairwells	5.6
New laundry rooms	9.0
New facade on the houses	8.5
New windows	14.5
Better accessibility	2.1
Otherwise, namely:	6.4
I see no need for renovation	17.0

**Table 4.** Responses to question Q4. If your apartment was renovated and measures you indicated in question 3 were taken care of, how much higher rent would you accept before you would start to look for a new apartment? The alternatives that many respondents marked are bolded.

Multiple choice alternative	%
Nothing, 0%	33.1
A little higher, 1-10%	46.5
Somewhat higher, 11-20%	10.0
Pretty much higher, 21-30%	1.6
Much higher, more than 30%	0.4
Do not know	8.4

#### 3.2 Results from free text answers

The questionnaire gave the possibility for the tenants to give a free text answer. As seen in the tables above 8.2% respectively 6.4% of the respondents took the opportunity to express their own opinions about their wishes and needs for a possible refurbishment of the housing area as well as a possible renovation of their apartments. Many of these tenants expressed that they were satisfied with their housing conditions. The more critical free text answers could be divided into the following categories:

- Safety and security: Invest in safety, install intercom instead of key, safety doors, safer at night,
- Apartment: New wallpaper, floors, change of floorplan, install kitchen fan
  with light, better heating, reduce draught, better ventilation, noise insulation to avoid noise from neighbours, better indoor quality, glazed-in balconies, refurbish balconies, prohibit smoking inside, eliminate moisture,
  radon and mould.
- Common facilities: Storage rooms, bike and motorcycle parking, garage, carport, laundry rooms, elevators, weight training facilities, pool, build new top floor with apartments, waste handling, room for bulky waste, total renovation of facades.
- Outdoors: Better and nicer roads and path ways, nicer gardens, better outdoor environment.
- Social: Tenant involvement, local garden and city culture.
- Services in the neighbourhood: Lively centre, better shops, better services.

#### 4 Discussion

The findings of the questions covered by this paper were that more than one third of the tenants could not accept any rent increase while almost half could accept a rent increase of 1-10 percent and very few could accept rent increases above 10 percent. These findings correspond well with the predictions made in [9]. Our experience is however, that tenants are very sensitive even to minor rent increases, wherefore a finer span would have been even more interesting.

Similar to findings in [5], measures in the respondents' own apartments were more preferred compared to measures in common areas, where renovation of kitchens and bathrooms were the highest priority together with noise reduction from neighbouring apartments. Next on the priority list was a thermal comfort aspect, namely better heat/indoor temperature. However, there were also a number of people who see no need for renovation of the apartments. Whether these tenants were among those not willing to pay any rent increase is not known to the authors.

Many of the aspects that people thought was in need of renovation in this survey confirm findings of other studies such as the comprehensive national investigation of the Swedish housing stock [1]. This regards for example noise disturbance and thermal comfort problems. Kitchen and bathrooms are clearly part of the visual appearance of a dwelling which usually is of great importance to residents [4].

In the present study, other important issues were renovation measures related to the building itself. This was followed by a number of issues related to everyday situations such as better lighting environment, parking and waste facilities. Further measures that were thereafter desired and affecting the housing area as a whole were related to creation and social activities.

Free text answers were only given by a small proportion of the respondents and several of these were satisfied with their housing situation. Others expressed a variety of desired measures, where issues related to safety and indoor environment, common facilities and outdoor environment were frequently stated.

Although quite a large group of the tenants were willing to pay up to 10% more rent after renovation, the renovation measures the tenants expressed a need for or required are quite extensive and usually implies a rent increase of typically up to 50% [9]. To implement the necessary renovation measures, new financing models are required rather than just raising the rent. [10].

Nevertheless, this discrepancy between the costs for desired renovation measures and the willingness/ability to pay a higher rent for these measures means that it is of crucial importance to have a close dialogue with residents at an early stage in the renovation process. A successful tenant dialogue will increase the possibility to find the most cost efficient package of renovation measures that responds to the technical, environmental and social needs of the buildings and their residents [11]

The respondents represent residents living in rental multifamily houses and people who generally have a lower capacity for large living costs compared to the average person in Sweden, considering income levels. One should note that the survey in this study addressed individuals and not households, hence the households' total income levels are not known. But generally, low income households often live in rental housing in Sweden [12] and most of the respondents in the survey lived in in houses from the "Record years", which are housing areas where the incomes tend to be even lower than in other housing areas with rental apartments [13].

#### 5 Conclusions

The main conclusions of this study can be summarised as:

The willingness or ability to pay for renovation measures is quite low.
 Several tenants would however accept a higher rent if desired renovation measures are implemented, but maximum 10% increase.

- Renovation measures related to the residents' own apartments are preferred compared to common areas. These measures include renovation of kitchens and bathrooms as well as noise reduction from neighbouring apartments.
- Regarding the common areas, the tenants would preferably see renovation measures related to everyday situations such as better lighting environment, parking and waste facilities.
- The costs for the desired renovation measures do not correspond to what the tenants are willing or able to pay in rent increase.

On large, the conclusions of this study confirm results of previous studies. The findings imply that there will be a need for other approaches than just to increase the rent in order to meet the need of extensive renovation of the Swedish multifamily housing stock. This is especially true for houses built in the period of 1961-1975 within the "Record years", where generally the economic situation for the low income households is strained. This could mean that new financial models are needed together with establishing a sincere dialogue with the tenants in order to find feasible solutions.

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