

THE STUDY OF LOW-INCOME HOUSING RESIDENTS' SATISFACTION (CASE STUDY: COMPARATIVE AFFORDABLE HOUSING OF SARVESTAN AND ABADEH - IRAN)

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Abstract:

As cited in the constitution of the Islamic republic of Iran, it's one of the responsibilities of the government to provide appropriate housing for the people of Iran. The results of analytic and descriptive case study on residential satisfaction of Abadeh as a residential apartment complex and Sarvestan as a residential villa complex in Fars province were also reported. Randomly selected heads of 100 households residents for at least 1 year were asked a couple of questions about characteristics of households, employment status, level of satisfaction with indexes of the present accommodation, social quality rate of the complex, urban access situation, and satisfaction about general aspects of affordable housing. Most of the residents stated that their housing problem has been resolved by the affordable housing. In contrast, poor access to city center as well as public transportation services and inappropriate cultural status were reported as the main drawbacks of the sites.

Keywords: low-income communities, satisfaction rate, mehr housing

1. INTRODUCTION

According to the estimates of the United Nations (UN) Human Settlements Program, one-third of 3 billion residents of the cities live in slums or places involved with several problems such as non-identified property rights, abnormal structure of house conditions, poor access to healthy drinking water system as well as nutrition, and high density (UN-Habitat, 2005).

Part of the economic argument in favor of income-related housing allowances is a priori in nature, emphasizing increasing housing choice and improved targeting of assistance (Wood & et al, 2005).

The Islamic Republic of Iran constitution has been considered a suitable and ideal shelter as a right for each Iranian household. It also emphasizes that an appropriate housing is not only a shelter, but also provides an ideal conditions such as skylight, environmental hygiene, structural stability, urban and architecture principles and promoting social as well as human values

In this paper, we first briefly reviewed new policies in regarding affordable housing for providing housing for low-income communities in Iran was introduced. Finally, the results of analytic and descriptive case studies on residential satisfaction of Sarvestan and Abadeh affordable housing project were offered and discussed. To the best of our knowledge, various aspects of affordable housing project especially its residential satisfaction in Iran have not been considered yet.

1.1. Residential satisfaction definitions

Most housing satisfaction studies have integrated both objective and subjective attributes for the assessment of housing satisfaction (Mohit, 2009). Large construction companies use satisfaction ratings to assess their products, improve future developments and get a sense of the market to keep up with tendencies, to stay competitive (Kowaltowski & et al, 2011).

Study approaches on residential satisfaction vary with according to the focus of the investigation. Varady and Carrozza (2000) analyzed residential satisfaction in public housing by looking a trend rather at one point in time (Salleh, 2007).

Hayes, (1995), Kowaltowski & Pina (1995), Reis & Lay (1995) believe that satisfaction rates are often part of indicators, but must be used with reserve in low-income family housing questions (Kowaltowski & et al, 2006).

Housing satisfaction is defined as the degree of contentment experienced by an individual or a family member with regard to the current housing situation. It is basically a noneconomic and normative quality evaluation approach which is used to assess the quality of housing units and services (Mohit, 2011).

Those research, Ilesanmi (2010) in Nigeria, Ralid (2001) in Brazil and Liu (1999) in Hong Kong, give meaningful contribution on establish environment plays important role as a primarily predictor in assessing residential satisfaction (Khair & et al, 2012).

Also, Quality is a measure of the extent to which customer (low-cost housing owners/ tenants/users) requirements and expectations are satisfied (Ai Tee, 2008).

The question of which of these aspects are most important for neighborhoods satisfaction is difficult to answer, because studies vary greatly in the range of variables they cover and their sample population (Westaway, 2009). Also Permentier (2009) surveys effect of neighborhood satisfaction and perceived reputation on intentions to leave a neighborhood (Permentier & et al, 2009).

1.2. Affordable housing for low-income communities in current years in Iran

Studying comprehensive housing program in years 2005 and 2006 revealed that these policies were not much effective in the accommodation of low-income communities. This is confirmed by the fact that about 3.5 million families live without proprietary house and 50% of them were belong to the first 4 income deciles.

On the other hand, in comprehensive housing plan studying which its strategic-executive documents completed in 2006, 55 programs have been considered. Assigning the right of land exploitation to low-income communities, called locally as Mehr housing, was one of its major programs (Motamedi, 2004). Mehr housing program was designed to provide appropriate housing for low-income communities, implement social justice, support governmental role to empower low-income communities through housing cooperatives, housing donors, and supportive institutes, achieve integrated management, decrease land contribution in the cost price of residential units, and encourage mass housing. This program was prepared and suggested by the Housing and Urban Development Ministry as the main organization of planning and guiding the housing sector in Iran and got approved by the cabinet in May 2007.

2. METHODS

During 2 consecutive days in April 2013, 100 households of Abadeh and Sarvestan located in the Fars province, Iran, who were residents of Mehr housing for at least one year were randomly selected. Their heads were asked a couple of questions from a pre-designed questionnaire by 2 well-trained architectural students as interviewers. The structures of the questions were direct and simple for respondents and were according to the aim of the study. The items of the questionnaire were as follows:

- A) Characteristics of households including age of households head, monthly income, household size, previous settlements, ownership status
- B) Employment status of household heads
- C) Level of satisfaction with indexes of the present accommodation including residential building and/or utility quality, landscape architecture, parking facilities, building elevation, housing cooperative functions, Maskan bank function (as a major bank in Iran which provides loans for building)
- D) Social quality rate of the complex including security, cultural situation, and social participation
- E) Urban access situation including city center, public transportation, and public service of neighborhood
- F) Residents' satisfaction about general aspects of Mehr housing

Statistical analysis

Continuous variables were expressed as means \pm standard deviations (SD) and categorical variables as percentages. All descriptive analyses were done using the SPSS 11.5 software.

3. RESULTS AND DISCUSSION

Table 1 summarizes the characteristics of the studied households in Abadeh. Their mean \pm SD age was 40.76 ± 8.7 years. The household size was 3.2. The average \pm SD monthly income of each household was $3,600,000 \pm 700,000$ Riyals (300 \$). According to the last official definitions about poverty line in Iran (less than 9,000,000 Riyals [734 \$] per month), all of the studied households fall below the poverty line. The previous settlement of 95% of the residents was Abadeh city and the remaining five percents had lived in the country side and then moved to the site. This suggested the same cultural status of the site residents. Ninety three and seven percents of the residents were owners and tenants, respectively.

Table 1: Characteristics of the studied households in Abadeh

Age of household heads (mean \pm SD, years)	40.76 \pm 8.7
Monthly income (mean \pm SD, Riyals) ¹	3600000 \pm 700,000
Previous settlement (%)	
Abadeh city	95
Country side	5
Household size (person)	3.2
Ownership situation (%)	
Owner	93
Tenant	7

1- One US \$ is approximately equivalent to 12,260 IRR in 2013

Source: Authors

Table 2 summarizes the characteristics of the studied households in Sarvestan. Their mean \pm SD age was 33.26 ± 5.6 years. The household size was 3.6. The average \pm SD monthly income of each household was $2900000 \pm 660,000$ Riyals (240 \$). According to the last official definitions about poverty line in Iran (less than 9,000,000 Riyals [734 \$] per month), all of the studied households fall below the poverty line. The previous settlement of 100% of the residents was Sarvestan city. This suggested the same cultural status of the site residents. 76% and 24% of the residents were owners and tenants, respectively.

Table 2: Characteristics of the studied households in Sarvestan

Age of household heads (mean \pm SD, years)	33.26 \pm 5.6
Monthly income (mean \pm SD, Riyals) ¹	2900000 \pm 660,000
Previous settlement (%)	
Abadeh city	100
Country side	0
Household size (person)	3.6
Ownership situation (%)	
Owner	76
Tenant	24

1- One US \$ is approximately equivalent to 12,260 IRR in 2013

Source: Authors

In Abadeh employment status of household heads in Abadeh is demonstrated in table 3. More than 95% of the household heads were employed.

Table 3: Employment status of household heads in Abadeh

Self-employed	35%
Employee	17%
Labor	44%
Unemployed	4%

Source: Authors

In Sarvestan employment status of household heads in Sarvestan is demonstrated in table 4. More than 93% of the household heads were employed.

Table 4: Employment status of household heads in Sarvestan

Self-employed	34%
Employee	16%
Labor	43%
Unemployed	7%

Source: Authors

In Abadeh Unit elevation was considered as the most satisfied index of the accommodation complex (69%) followed by utilities quality of residential units (62%) and landscape architecture (55%). The heads of the studied households reported parking facilities (38%) as the most not-satisfied characteristic of the site. Fifty percent of the respondents believed that Maskan bank function as a financial provider can be beneficial and satisfactory if monthly payments can be lower (Table 5).

Table 5: Level of satisfaction with indexes of the present accommodation in Abadeh

	<i>Satisfied</i>	<i>Well, but it depends</i>	<i>Not-satisfied</i>
Residential building quality	42%	48%	10%
Landscape architecture	55%	26%	29%
Parking facilities	36%	26%	38%
Units elevation	69%	29%	2%
Utilities quality of residential units	62%	26%	12%
Housing cooperatives function	43%	38%	19%
Maskan bank function	31%	50%	19%

Source: Authors

In Sarvestan Unit elevation was considered as the most satisfied index of the accommodation complex (40%) followed by utilities quality of residential units (69%) and landscape architecture (37%). The heads of the studied households reported parking facilities (8%) as the most not-satisfied characteristic of the site. Forty four percent of the respondents believed that Maskan bank function as a financial provider can be beneficial and satisfactory if monthly payments can be lower (Table 6).

Table 6: Level of satisfaction with indexes of the present accommodation in Sarvestan

	<i>Satisfied</i>	<i>Well, but it depends</i>	<i>Not-satisfied</i>
Residential building quality	21%	56%	23%
Landscape architecture	37%	28%	55%
Parking facilities	62%	30%	8%
Units elevation	40%	44%	16%
Utilities quality of residential units	69%	16%	15%
Housing cooperatives function	33%	46%	21%
Maskan bank function	13%	44%	43%

Source: Authors

In Abadeh more than half of (55%) of the respondents were satisfied with the security level of the site. In contrast, 50% were not-satisfied with the cultural status. This might be partially due to fact that residents came from different settlements (city versus country side) with probably distinct level of cultures. Forty three percents of household heads declared that they will more be eager to participate in social activities if they received more social training to improve cultural relations (Table 7).

Table 7: Social quality rate of the complex in Abadeh

	<i>Satisfied</i>	<i>Well, that depends</i>	<i>Not-satisfied</i>
Security	55%	19%	26%
Cultural status	17%	33%	50%
Social participating of residents	21%	43%	36%

Source: Authors

In Sarvestan more than half of (72%) of the respondents were satisfied with the security level of the site. In contrast, 18% were not-satisfied with the cultural status. Thirty one percents of household heads declared that they will more be eager to participate in social activities if they received more social training to improve cultural relations (Table 8).

Table 8: Social quality rate of the complex in Sarvestan

	<i>Satisfied</i>	<i>Well, that depends</i>	<i>Not-satisfied</i>
Security	72%	17%	11%
Cultural status	52%	30%	18%
Social participating of residents	43%	31%	26%

Source: Authors

In Abadeh sixty and 62% of the respondents stated that access to the city center and public transportation services is hard, respectively. They attributed this to far distance between the complex and city center and lack of needed urban infrastructures such as transportation services. In contrast, about 79% of the household headers were satisfied with access to the public services such as bakery, butchery, and supermarket. Providing adequate public facilities in the site can be due to its location in the suburb of the city (Table 9).

Table 9: Access status in Abadeh

	<i>Easy</i>	<i>Hard</i>	<i>Too hard</i>
Access to city center	21%	60%	19%
Access to the public transportation services	12%	62%	26%
Access to the public services of neighborhood	79%	21%	0%

Source: Authors

In Sarvestan forty three and 46% of the respondents stated that access to the city center and public transportation services is hard, respectively. They attributed this to far distance between the complex and city center and lack of needed urban infrastructures such as transportation services. In contrast, about two percents of the household headers were satisfied with access to the public services such as bakery, butchery, and supermarket. (Table 10).

Table 10: Access status in Sarvestan

	<i>Easy</i>	<i>Hard</i>	<i>Too hard</i>
Access to city center	21%	43%	36%
Access to the public transportation services	12%	46%	42%
Access to the public services of neighborhood	2%	41%	57%

Source: Authors

Regarding general aspects of Abadeh Mehr housing, 86% of respondents stated that their housing problem has been resolved by this approach. More than 50% of household headers (57%) believed that what was introduced to them as Mehr housing is similar to what they currently being accommodated. Above three-fourths of the residents (76%) declared that Mehr housing is in accordance to the cultural structure of their previous settlement (Table 11).

Table 11: General aspects of residents' satisfaction in Abadeh Mehr housing

	<i>Yes</i>	<i>No</i>
Is the family housing problem solved by assigning Mehr housing?	86%	14%
Is the Mehr house you accommodated according to what they introduce to you?	57%	43%
Is the Mehr housing harmonized to the cultural structure of the city?	76%	24%

Source: Authors

Regarding general aspects of Sarvestan Mehr housing, 79% of respondents stated that their housing problem has been resolved by this approach. Less than 40% of household headers (39%) believed that what was introduced to them as Sarvestan Mehr housing is similar to what they currently being accommodated. More than three-fourths of the residents (82%) declared that Sarvestan Mehr housing is in accordance to the cultural structure of their previous settlement (Table 12).

Table 12: General aspects of residents' satisfaction in Sarvestan Mehr housing

	<i>Yes</i>	<i>No</i>
Is the family housing problem solved by assigning Mehr housing?	79%	21%
Is the Mehr house you accommodated according to what they introduce to you?	39%	61%
Is the Mehr housing harmonized to the cultural structure of the city?	82%	18%

Source: Authors

It seems that Abadeh Mehr housing complex is consistent with macroeconomic policies of Iran government in providing housing for low-income communities with the following achievements:

1) Correcting the pattern use of urban lands; 2) Controlling general level of house and land prices; 3) Increasing housing access index; 4) Improving household density per residential unit; 5) Increasing building quality; 6) Enhancing social justice; and 7) Promoting mass building and industrialization. Poor access to city center as well as public transportation services and inappropriate cultural status were identified (reported) as the main drawbacks of the site.

The following suggestions seem useful to improve the cultural-social status of the complex:

- Development of consult centers to reduce social problems of the residents
- Constructing of the pre-designed central park of the complex
- Constructing the pre-designed mental training center for art and cultural activities

Considering programs for establishment of relationship between designing standards and residents' satisfaction seems crucial in designing low-cost housing for low-income communities to prevent probable problems.

Mehr housing is the biggest government-sponsored project that has been designed on the principles of constitution for low-income groups. Given the sample studied (Sarvestan Mehr housing) the following results have been obtained:

- Residents' satisfaction of security and cultural-social relations due to low number of housing units (4 units) and kinship ties of residents in a complex (which as possible are considered in the selection of residents).
- Partial satisfaction of the quality of housing units and facilities reflect the purpose of monitoring and implementation of the project. Although location of parking in each complex (not in public) has provided the satisfaction of residents, the uniform design and lack of diversity of landscaping has caused their dissatisfaction.
- The inaccessibility to city center and public transportation has caused some problems for the residents. Moreover inaccessibility to public services (Considering the fact that these services have been anticipated in the design of complex) have caused problem for residents trying to meet their basic needs.
- Given the very low-income of the residents, the repayment of bank loans is very difficult and this issue has made them dissatisfaction.
- Given the partial satisfaction of residents and if urban services and social protections are provided, this project can be a successful example in the country.

4. CONCLUSION

Our preliminary, observational study demonstrated that most of the residents of Mehr housing in two cities (Abadeh and Sarvestan) from the Fars province in the southwest of Iran stated that their housing problem has been resolved by the affordable housing. In contrast, poor access to city center as well as public transportation services and inappropriate cultural status were reported as the main drawbacks of the sites. Although it seems that housing complex is consistent with macroeconomic policies of Iran government in providing housing for low-income communities, but it suffers from a number of drawbacks and disadvantages that deserve special attention.

5. PROPOSED SOLUTIONS

According to the policies of provision of housing for low-income groups in Iran we consider some points that provide a suitable ground for planning and strategies of provision of housing for low-income groups in Mehr housing plan:

1. The location of the Mehr housing project in terms of location, distance from city and urban infrastructure and facilities should be examined.
2. In the project of Mehr housing, climate, cultural, social (family) and economical conditions (family's income) should be considered.
3. Inefficient housing cooperatives influence the quality of construction of the residential housing and it should not be degraded due to the management of cooperative companies and the pressure of time limitation. So we suggest that they implement Mehr housing project on the basis of regulations and frameworks.
4. Ignoring the different conditions of the applicants, the same area of residential units, a uniform pattern used in the design of residential space and lack of public services are the problems of this plan, so it is suggested that experts consider them.
5. Quality control and monitoring of the projects should be done carefully by the state organizations because of hastening and as a result the weakness of monitoring due to the short time planning of this project and the time limitation of the government.
6. Disproportion between banking facilities and construction costs and inability of low-income group to repayment of bank loans given the annual inflation rate should be considered.
7. Given the construction costs in small cities and low land prices, designing the residential units more than two floors is not economically reasonable and also it is not idealistic for the residents therefore it is suggested that in small cities this project is implemented in two-floor units.

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