

Evaluating the Satisfaction Rate of Low-Income Communities about Low-Cost Housing (Case Study: Abadeh Mehr Housing in 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 main aim of current study was to assess satisfaction rate of a Mehr housing residents in Fars province, southwest of Iran. Randomly selected heads of 100 households residents of Abadeh Mehr housing 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 Mehr housing. Residents were generally satisfied with the security status and accessibility to the public services of neighborhood. Most of the residents stated that their housing problem has been resolved by the Mehr 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 site.

Keywords: *Low-Income Communities, Satisfaction Rate, Mehr Housing.*

INTRODUCTION

Residence has been the oldest, first and foremost human need which has been reformed and evolved continually, and has always been influenced, and continues to be influenced, by thousands of factors including environmental, cultural, social, psychological, and economic ones (Rahbarimanesh, 2013).

Housing provision has always been one of the problems of many people, especially low-income families in urban areas. Over the last few decades, a variety of programs and policies has been defined and implemented for providing housing for low income people (Hajipour & Ataee, 2013).

According to the estimates of the united nation (UN) human settlements program, one-third of 3 billion residents of the cities live in slums or places involve 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).

Therefore, neglecting the housing situation of low-income

communities is concerning. This problem is clearly visible in urban development planning in Iran (Athari, 2005; Ghomami et al., 2007; Meireh, 2005).

The rapid growth of construction as a result of considering the quantitative aspects of space and ignoring the quality of life have led to many problems in different areas the cultural problems of the residents of these buildings can be mentioned as the most significant issue (Safdarian & Habib, 2014).

Low-income communities have encountered problems to prepare housing from the first step of selecting a location for residing to the extent of their housing and type of building materials, taking permission to build and using credits and government loans. 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

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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 a descriptive case study on residential satisfaction of Abadeh Mehr housing project were offered and discussed. To the best of our knowledge, various aspects of Mehr housing project especially its residential satisfaction have not been considered yet.

Literature Review of Residential Satisfaction

Neighborhood satisfaction is an important component of life satisfaction. As a contributor to life satisfaction, neighborhood satisfaction is influenced by individual and household background variables. However, there is limited understanding of how physical environments influence neighborhood satisfaction. In fact, Sirgy and Cornwell (2002) believe that neighborhood satisfaction is a significant predictor of community satisfaction, which is a predictor of life satisfaction (Kweon et al., 2010). Most housing satisfaction studies have integrated both objective and subjective attributes for the assessment of housing satisfaction (Mohit & Nazyddah, 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 & Granja, 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 & Nazyddah, 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 & Yahaya, 2011).

Jeffres & Dobos, (1995) refer to quality of life in the broader social environment, environmental quality of life. Moller (2001) & Veenhoven, (1994) focused their study on Environmental quality of life domains include satisfaction with

housing, schools, health services, safety and security, roads and transport (Westaway, 2006).

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 surveys effect of neighborhood satisfaction and perceived reputation on intentions to leave a neighborhood (Permentier et al., 2009).

Mehr Housing: A New Approach to Provide Housing for Low -Income Communities 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.

Abadeh Mehr Housing

Abadeh is the capital city of Abadeh county, northwest of Fars Province, Iran. It is located at a height of 6,200 feet (1,890 m) above sea level on the highroad between Isfahan and Shiraz, 140 miles (230 km) from the former and 170 miles (270 km) from the latter. According to the 2006 census in Iran, Abadeh population was 52,042 people or 14,184 families. The population has been estimated to be about 59,042 in 2009. Abadeh Mehr housing is located in the southeast of the city. The east hand of this land is open without any residential development (Fig.1).

According to detailed plan of Abadeh, this land is enclosed by access networks with suitable width from 4 sides.

The 292-units project of Abadeh Mehr housing is located in a land with 2.5 hectares area and 90-130 square meters area for each unit. It has been formally started in 2011 (Fig.2).

Residential Population

According to related criteria, household size in Abadeh in 2006 was about 4.2 people. The density of Mehr housing is estimated



Fig.1: Location of Mehr housing in Abadeh

to be approximately 29% of occupation level. The site involves 17 building blocks which contains 12 four-floors and 5 five-floors. Occupation level of each building block is about 434 m². There are 192 and 100 residential units in 4-floor and 5-floor blocks, respectively. Therefore based on 4.2 household sizes, the site can totally accommodate about 292 families or 1.226 people.

Defining and Classifying of the Settlements

Land use characteristics of the site including estimated surface area, its percent from total site, and average per person are demonstrated in Table 1.

Considering the average 9.91 meters public service area for each resident in the site, it's seems that the complex can be known soon among Abadeh citizens as a desirable as well as self-sufficient environment. The site can also encourage Abadeh citizens to change traditional into modern and high-quality residential pattern. Security, quick access to extensive

transportation services, safe parking, various and suitable green spaces, sport spaces, and short distance between house and daily shopping centers are some of the predictable benefits of living in such a complex.

General Concept of the Complex

According to the role of Abadeh Mehr housing in the development of urban structure and introducing a new pattern of habitation, it's expected that the site can make deep changes in the traditional urban habitation patterns. Strategies considered in both architecture and urban designing of the site are as follows:

- Defining hierarchy of open and closed spaces;
- Using variable plans with similar structure (SAR system, Habraken's theory);
- Location of service space in the center of the site with suitable access;
- Separation of pedestrian zones from roadways;
- Designing the complex according to climatic conditions and the Qibla;
- Adequate lighting, non-predominant residential units, creating sense of being together, and sharing open service spaces;
- Designing the complexes with central yard;
- Creating the sense of space continuity and enabling continuous circulation for residents;
- Considering sport and playing instruments, fountain for refreshing the space and benches for local meeting of residents;
- Providing green space and continuous movement of pedestrians all over the site;
- Designing the complex on the basis of desired skyline.

MATERIALS AND METHODS

During 2 consecutive days in April 2012, 100 households of Abadeh, located in the northwest of 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



Fig.2: The residential complex of Abadeh Mehr housing

Table 1: Land use characteristics of the site

Land use	Surface area	Percent	Average per person (Per capita)
Residential	7395.08	29	6.03
Commercial	276	1.00	0.22
Communication services	52	0.2	0.04
Sport	1102	4.3	0.89
Green and park	2574	10	2.09
Roadways	5748	22.5	-
Landscape-pedestrian	7118.4	-	-
Preschool education	555	2.17	0.45
Parking area	500	-	-
Mental training center	238	0.93	0.19
Total	25558.45	100	9.91

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:

Characteristics of households including age of households head, monthly income, household size, previous settlements, ownership status;

Employment status of household heads;

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);

Social quality rate of the complex including security, cultural situation, and social participation;

Urban access situation including city center, public transportation, and public service of neighborhood;

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.

RESULTS AND DISCUSSION

Table 2 summarizes the characteristics of the studied households. 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 5% 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 7% of the residents were owners and tenants, respectively.

One US \$ is approximately equivalent to 12.260 IRR in 2012. Employment status of household heads is demonstrated in table 3. More than 95% of the household heads were employed. 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 4).

More than half of (55%) of the respondents were satisfied with the security level of the site. In contrast, 50% were not-

Table 2: Characteristics of the studied households

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

Table 3: Employment status of household heads

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

Table 4: Level of satisfaction with indexes of the present accommodation

	Satisfied	Well, but it depends	Not-satisfied
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%

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 5).

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 6).

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 7).

Table 5: Social quality rate of the complex

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

Table 6: Access status in Abadeh

	Easy	Hard	Too hard
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%

Table 7: General aspects of residents' satisfaction in Abadeh Mehr housing

	Yes	No
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%

CONCLUSION

Our preliminary, observational study demonstrated that most of the residents of Mehr housing in the investigated city (Abadeh) 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.

Regarding the policies of provision of housing for low-income groups in Iran, the following strategies for improving Mehr housing plan for low-income groups can be suggested:

Development of employment office to support occupation of the residents;

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;

Establishment of relationship between designing standards and residents' satisfaction;

Careful quality control and monitoring of the project by the state organizations;

Facilitating the repayment process of bank loans based on the annual inflation rate and income of the residents;

Development of housing cooperatives on the basis of regulations and standard from works;

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