

# Residential Satisfaction Model for JnNURM Beneficiaries

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## Abstract

This paper examines beneficiaries' satisfaction with JnNURM housing in West zone of Surat city. This was accomplished by assessing the levels of housing satisfaction of the householders and the degrees of satisfaction of beneficiaries living in selected JnNURM housing schemes estates within west zone of Surat city. Four major housing components – Basic Amenities (A), Dwelling (D), Neighborhood (NH) and management (M). Seven JnNURM housing schemes are selected as a study area in this schemes total 1872 housing unit are constructed in which 590 housing units are interviewed. The results of analysis indicate that level of beneficiaries housing satisfaction varies and it's dependent on the basic amenities, dwelling, neighborhood and management interaction system. It demonstrated that the level of beneficiaries' satisfaction with the housing management and neighborhood was below average (Dissatisfied) but their level of beneficiaries' satisfaction with the housing basic amenities was above average (satisfied). The study shows that user's inputs and preferences should be strongly considered by planners and public housing agencies when planning and designing public housing projects.

**Keyword- Housing, Dwelling, Satisfaction, Urban poor**

## I. INTRODUCTION

Housing for poor a prime responsibility, the government has largely focused its attention towards development of large number of houses and allotted them to the poor. Funds have been garnered for development of such units, with the remaining cost shared between a bank and the beneficiary.

Demand for residential property among urban poor is increasing because of a rapid urbanization. Since, there is a shortage of land in cities; an effective urban policy requires to be brought into effect to optimize proper land use. This research work is mainly carried out with the study of present JnNURM housing for urban poor existing in different T.P. Schemes of west zone of Surat city. Data collection is made by Home based interview method. Socio economic profile, location, transportation, basic amenities, neighborhood, dwelling and management aspects of the schemes are taken under consideration.

## II. OBJECTIVES AND SCOPE

The main objective of this study is to analyses the different components and gives the suggestion for how to improve the residential satisfaction index of the urban poor housing schemes prepare under the Jawaharlal Neharu National Urban Renewal Mission (JnNURM) for the west zone of Surat city. To achieve this objective following are the sub objectives for the study:

- To assess socio- economic features of JnNURM Beneficiaries.
- To assess JnNURM schemes from location acceptance point of view.
- To analyse the variables of residential satisfaction.
- To develop the “RESATUP” Residential Satisfaction Model for Urban Poor's.

The scope of this study is limited to JnNURM housing schemes which already prepared and located in west zone of Surat Municipal Corporation limit.

## III. METHODOLOGY

This report contains the study of housing schemes for urban poor's prepaid under JnNURM scheme west zone of the Surat city. The major four components are analysing such as Basic amenities, dwelling, neighborhood and management. Detail survey has been carried out by collecting data from various T.P.schemes of west zone Surat city and analysing them through “RESATUP” Model. “RESATUP” model it means Residential Satisfaction Index Model for Urban poor's, it is used to check residential satisfaction level of the particular schemes.

After finding the Residential Satisfaction Index of selected seven schemes are priorities for the step wise improvement and finally, find out revise Residential Satisfaction Index for the individual Schemes.

#### IV. METHODS OF DATA COLLECTION

Primary data for this study were obtained by administering prepared questionnaires to selected households within the study area. Information on beneficiaries' perception of levels of housing satisfaction was obtained from the selected JnNURM housing schemes in west zone of Surat city. Using the questionnaires, out of 1872 unit's 590 dwelling units samples are interview. The beneficiaries to the questionnaire administration were the household heads. One house hold head per house was engaged in the interview and questionnaire administration. The data collected were analysed using descriptive statistical analysis and the evaluation of residential satisfaction index (RSI).

Sr. No.	JnNURM Schemes (T.P.Scheme)	Total No. of Housing Units	No. of Selected Housing Units
1	T.P.23/1 F.P. 37 (Rander)	80	35
2	T.P.23/2 F.P. 54 (Rander)	120	71
3	T.P. 23/3 F.P. 63 (Rander)	264	76
4	T.P.30/1 F.P. 61 (Rander)	576	175
5	T.P.30/2 F.P.44 (Rander)	384	133
6	T.P.30/3 F.P. 143 (Rander)	112	40
7	T.P.32/1 F.P. 14 (Adajan)	192	60
Total		1872	590

Table 1: Housing sample for questionnaire

Source: Author's field survey, 2010

#### V. DATA ANALYSIS AND DISCUSSION

A review of available literature suggests that certain components are relevant for JnNURM housing evaluation. Beneficiaries residential satisfaction was examined based on the interacting components of the basic amenities (A), the dwelling (D), the neighborhood (NH), and the management (M) components of JnNURM housing schemes (table 2). Beneficiaries satisfaction level with these components were obtained using a five point Likert scale ranging from highly dissatisfied (rated as 2) to highly satisfied (rated as 10).

Subsequently, the total weighted values (TWV) and the mean values (X) for each component were obtained and used to evaluate the degree of residential satisfaction index (RSI) for the beneficiaries' in the study area. The level of satisfaction being tested was determined by adopting the midpoint value of the index, which is six (6) (that is average or partially satisfied), as the acceptable mean. This implies that any results significantly from this mean value was assumed to be either positive or negative.

Satisfaction Weight (W)	Rating	Number of Opinion (n)	%
<b>1. BASIC AMENITIES COMPONENTS (A)</b>			
2	Highly Dissatisfied	15	2.54
4	Dissatisfied	20	3.39
6	Partially Satisfied	71	12.03
8	Satisfied	240	40.68
10	Highly Satisfied	244	41.36
Total		590	100

Satisfaction Weight (W)	Rating	Number of Opinion (n)	%
<b>2. DWELLING (D)</b>			
2	Highly Dissatisfied	43	7.29
4	Dissatisfied	88	14.92
6	Partially Satisfied	162	27.46
8	Satisfied	179	30.34
10	Highly Satisfied	118	20.00
Total		590	100

Satisfaction Weight (W)	Rating	Number of Opinion (n)	%
<b>3. NEIGHBORHOOD FACILITY (NH)</b>			

2	Highly Dissatisfied	84	14.24
4	Dissatisfied	160	27.12
6	Partially Satisfied	164	27.80
8	Satisfied	143	24.24
10	Highly Satisfied	39	6.61
	Total	590	100

Satisfaction Weight (W)	Rating	Number of Opinion (n)	%
4. MANAGEMENT (M)			
2	Highly Dissatisfied	56	9.49
4	Dissatisfied	59	10.00
6	Partially Satisfied	135	22.88
8	Satisfied	215	36.44
10	Highly Satisfied	125	21.19
	Total	590	100

Table 2: Beneficiaries satisfaction level with housing

Source: Author's data, 2010.

Table 2 shows the result of beneficiaries rating levels of their satisfaction with housing in the study area. There are apparent similarities between beneficiary's satisfaction with their basic amenities and dwelling (housing units). A good number of the beneficiary's interview claimed they were generally satisfied with their basic amenities and dwelling. The analysis shows that the majority of the beneficiaries (41.36% and 36.44%) claimed they were satisfied or highly satisfied with their basic amenities and dwelling respectively (table 2). The analysis of survey small proportion of the beneficiaries (6.61% and 21.19%) claimed they were highly satisfied or satisfied with their neighborhood and management respectively (table 2).

#### A. Evaluation of Beneficiaries Housing Satisfaction

The analysis of beneficiary's levels of satisfaction with housing was carried out using the values obtained from the rated components of housing satisfaction discussed above to determine the indices for satisfaction.

$$TWV = \sum_{i=1}^N n_i * W_i$$

Where, TWV is total weight values of rated component, n is no of opinion, W is satisfaction weight and the formula,

$$RSI(n) = \frac{\sum \bar{x}}{N}$$

Where, RSI is the normal residential satisfaction index and  $\sum \bar{x}$  is the total sum of the mean of rated component, N is no components.

$$RSI = \sum_{i=1}^N RSI(n)_i * w_i$$

Where, RSI is weighted residential satisfaction index and w is weight of different component. Using the equation stated above the indices for housing satisfaction (RSI) was evaluated for all the component of housing rated in table 2 above. The results are presented in table 3 and table 4.

Sr. No.	Components	Total Weighted Value (TWV)	Mean values ( $\bar{x}$ )
1	Basic Amenities	4896	8.30
2	Dwelling	4022	6.82
3	Neighborhood	3326	5.64
4	Management	4128	7.00
Total ( $\sum \bar{x}$ )			27.75
RSI (n) = $\sum \bar{x} / N$			6.94

Table 3: Evaluation of beneficiaries housing satisfaction

Table 3 shows total weight and mean value of each components. It is also represent normal residential satisfaction index for the study area.

Sr. No.	COMPONENTS	RSI (n)	WEIGHT	RSI
1	Basic Amenities (A)	8.30	0.48	4.02
2	Dwelling (D)	6.82	0.24	1.62
3	Neighborhood (NH)	5.64	0.15	0.85

4	Management (M)	7.00	0.13	0.90
Weighted Residential Satisfaction Index (RSI) =			7.39	

Table 4: Weighted residential satisfaction index.

Source: Author's data, 2010.

Table 4 represents the weighted residential satisfaction index for the study area which is 7.39 it comes under 6.00 to 7.50, so as per table 5 this study area results are comes under fair category.

Sr. No.	Classification	Category
1	< 6.00	Poor
2	6.00 – 7.50	Fair
3	7.51 – 8.50	Acceptable
4	>8.50	Best

Table 5: RSI classification and category.

Source: Author's data, 2010.

## VI. CONCLUSIONS

- The satisfaction level of beneficiaries with their housing, basic amenities and dwelling is average while the management and neighborhood components are below average.
- The findings indicate that there are variations in the housing satisfaction level of beneficiaries and these depend primarily on the basic amenities, dwelling, management and neighborhood interaction sub system.
- The findings thus suggest that while residents are satisfied with the dwelling and basic amenities component, they find that the management and neighborhood component requires significant improvement.
- The implications of these findings are that there is need to investigate those salient features of housing, particularly within the context of the component which provide residents with the desirable level of satisfaction.
- It is necessary that housing design and development are integrated with the cultural context and social realities of the people.
- This study points out that the need for adequate and satisfactory housing is crucial to the socio-economic, cultural and physical wellbeing of man. Therefore, this investigation can serve as an important document to housing agencies, architects, planners and developers alike in guiding them toward the application of appropriate design criteria and management requirements when planning future housing scheme.

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