

DETERMINANTS OF HOUSING SATISFACTION IN RESIDENTIAL LOCALITIES WITHIN UYO, NIGERIA

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Abstract

In urban centers of most developing countries, one of the major problems is the assessment of the quality of residential neighborhoods. This has further compounded the problem of residential choice among urban dwellers. In Uyo, the Akwa Ibom State capital, the problem is magnified by the spatio-cultural patterns within the residential localities. By means of a survey of 20 of such localities using questionnaire, 1200 households were interviewed on housing and environment conditions expressed in 23 variables. The percentage levels of satisfaction with the conditions by the households were evaluated using factor analysis technique. Six major dimensions or factors were produced as determinants of housing satisfaction in Uyo. These factors are social infrastructure, housing facilities, consumers goods availability, health and leisure water supply and security service factors. These six factors accounted for 80% of the variation within the data set. These six factors or determinants could be used to assess the quality residential localities in Uyo and other similar urban centers in Nigeria and other less developed countries.

Introduction

In an emerging metropolis as Uyo, the capital of Akwa Ibom State, a major problem is the choice of residential locality. The demarcation of the capital territory for purpose so controlling development has engulfed many localities within the urban area. These localities are potential areas for housing development projects which may be by the public sector or private estate companies.

In the literature, factors contributing to satisfaction in housing have been identified as the area within which such houses are located, the block in which the flat was located (in case of high rise building) and the flat itself. It was further summarized that satisfaction with housing is conditioned by social relations with neighbours, the size of the flat and the floor on which such flat was located (in the case of high rise building). From the sociological point of view, factors such as family size and structure had negligible effects. (Loriue, 1956). The analyses revealed that housing satisfaction was related importantly to the immediate situation and the experiences of the individuals while the more institutionalized aspects of his social environment were not very important (Western, 1978).

Housing satisfaction is also related to the concept of live ability (Afon, 2000). This is because housing satisfaction is a function of the dwellers' overall health, efficiency and social behaviour. The immediate social environment of a dwelling is also a major factor of live ability and satisfaction (Omofonwan, 2000). Other determinants of housing satisfaction in Nigeria as reported by Abiodun (1985) in urban households include facilities such as types of energy and light, water supply, toilet, other waste

disposal methods and crowding index measure in occupancy ratios. This study was therefore carried out to assess the level of satisfaction experienced by residents in the various localities using variables which covered structural condition of houses, facilities, and environment as well as neighbourhood characteristics. The objectives are to identify the major factors or determinants of housing satisfaction and to highlight the social relations of housing satisfaction in Uyo.

Methods

The twenty residential localities were randomly selected from a total of 75 in Uyo Urban using a table of random numbers. An evaluative survey by questionnaire was carried out in all the twenty residential localities based on a ten percent systematic random sample comprising a total of 1,200 households. Households were randomly selected from systematic grouping in the local units selected for the study.

The study focused on residents' satisfaction with physical housing structure, environmental conditions as well as facilities provided. Satisfaction level for the variables was measured by the total percentages of perceived acceptable summaries of the respondents. All the heads of households were required to indicate if the general conditions as expressed by the 23 variables were satisfactory, acceptable or unsatisfactory. The data shows average levels of satisfaction in each of the localities for all the independent variables (x) while the average summarizing percentage for all the variables i.e. the average percentage evaluation of the level of satisfaction for each locality was used as the dependent variable (y).

Data Analysis

From the array of data of the independent variables it was possible through a factor analysis (Udofia, 2005) technique to identify dimensions or housing satisfaction factors in the twenty residential localities. From the literature, it is clear that there are numerous variables that interact and interrelate to ensure residential housing satisfaction Egunjobi (1988). The variables measured are sociological, psychological physical, structure, cultural and environmental; Factor analysis is a multivariate statistical technique that enables a researcher to replace a large data matrix $x_1, x_2, x_3, \dots, x_n$ to a smaller and more manageable set y_1, y_2, \dots, y_n which also tends to make sound theoretical sense. Factor analysis thus helps to achieve parsimony in data description (Udofa, 2005).

The data on the defined variables were collected for all the twenty localities through the administration of questionnaire. An R-mode factor analysis model was then applied to reduce the number of variables to major factors or determinants of housing satisfaction. The original data matrix was first transformed into standard scores using the formula:

$$Z = \frac{x - x_m}{S}$$

Where: Z = zee score
 x = variable score
 x_m = mean score
 S = standard deviation

The factor analysis model is expressed thus:

$$X_1 = b_{11}f_1 + b_{12}f_2 + b_{13}f_3 \dots \mu_1 + \sum_1$$
$$X_2 = b_{21}f_{21} + b_{22}f_{22} + b_{23}f_{23} \dots \mu_2 + \sum_2$$

Where b = unique factor for variables etc
f = hypothetical factors

Table 2 shows the result of the factor analysis of the variable measured.

Results and Discussion

The result of the survey is presented on table 1.

Table 1 shows the raw-data of the variables as collected from the residential locality units from where the survey were carried out. The independent variables (X_2) are the values for each location. The y-dependent variables are the summarizing percentage value for all the independent variables as expressed by the respondents.

TABLE 1: DETERMINANTS OF HOUSING SATISFACTION IN RESIDENTIAL LOCALITIES WITHIN UYO URBAN

S/N	Residential Localities	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20	X21	X22	X23	
		Building	Toilet facilities	Bathing facilities	Refuse disposal method	Sources of water supply	Crowding index	Nearness to place of work	Nearness to health clinic	Nearness to market & shons	Playgrounds for children	Availability of goods	Ventilation in flat	Bus/taxi service	Nearness to recreation	Nearness to security services	Nearness to sec. school	Nearness to primary school	Personal safety	Sources of energy	Amount of noise	Public security	Rent		Y-values
1	Aka Offot	28	38	65	45	30	21	35	33	28	10	15	25	35	45	40	51	52	44	32	34	45	44	35	56
2	Effiat Offot	30	60	74	50	44	45	52	56	49	24	35	40	45	50	43	51	54	42	35	34	42	54	38	47
	Itiam Etoi	29	46	61	42	52	41	55	49	46	33	40	51	50	42	50	45	35	34	38	39	45	51	37	60
3	Ikot Akpan Oku	26	44	76	43	60	25	23	35	32	36	27	56	42	35	52	43	38	35	40	41	42	54	51	37
4	Obio Etoi	27	48	70	44	56	44	35	54	33	15	24	58	43	42	51	51	40	45	43	48	44	58	49	74
5	Use Ikot Ebio	27	45	60	43	42	24	41	58	31	80	22	54	41	38	54	52	35	42	35	48	42	54	60	70
6	Afaha Offot	32	33	43	46	45	42	41	59	31	24	32	54	50	54	60	51	48	49	51	58	45	51	62	90
7	Afan Offot	25	36	45	43	44	22	31	34	34	22	34	54	55	58	57	54	51	53	60	59	48	45	57	89
8	Anua Obio Offot	31	40	38	41	43	28	34	44	60	32	44	58	45	43	44	46	41	42	41	43	44	45	58	68
10	Eniong Offot	36	38	41	42	38	40	41	42	43	34	45	44	52	54	51	56	55	61	64	66	48	69	65	78
11	Anua Offot	31	56	40	48	45	20	38	48	54	32	48	56	55	45	65	44	48	52	45	44	43	45	51	74
12	Use Offot	24	40	35	40	20	26	35	42	51	33	44	52	35	40	42	41	42	35	36	32	33	34	45	57
13	Ibiaku Offot	28	58	50	44	22	36	45	42	44	38	41	56	36	38	37	36	32	40	41	43	45	46	51	73
14	Nsukara Offot	29	44	60	47	60	24	60	22	35	15	41	58	39	45	32	34	35	38	41	43	46	51	55	52
15	Ikot Udoro Oku	30	42	60	42	48	35	50	34	45	42	43	48	59	58	52	56	61	63	65	55	54	56	55	60
16	Ikot Oku, Oku	27	35	43	42	54	32	38	35	48	45	22	48	56	55	62	61	63	65	55	54	56	55	60	73
17	Nduetong Oku	26	40	61	50	23	35	34	45	35	32	20	45	45	43	41	35	34	36	38	45	41	35	38	70
18	Iba Oku	25	42	40	42	35	45	32	49	50	61	15	49	45	42	35	31	33	34	28	41	42	43	45	72
19	Afaha Oku	33	60	77	60	55	45	38	45	44	58	30	45	53	54	51	45	51	54	41	58	45	54	63	34
20	Uyo-Uyo Offot	32	60	68	60	60	55	36	74	51	35	40	54	65	60	21	65	63	64	66	55	63	54	65	36
	Ikot Ntuen Oku Ikot Ekido Oku Iboko Offot Ewet Offot																								

Source: Author's Fieldwork, 2006

TABLE 2: ROTATED COMPONENT MATRIX (NAMING OF FACTORS)

	1	2	3	4	5	6
VAR00017	.933	.127	.072	.148	.133	.008
VAR00014	.832	.353	.170	.129	.134	-.077
VAR00018	.822	.431	.038	.193	.136	.141
VAR00016	.771	.279	.031	.275	-.033	.122
VAR00013	.633	.465	.238	.168	.235	.240
VAR00021	.614	.473	.293	.272	.072	-.105
VAR00023	.218	.798	.018	.188	.104	.306
VAR00019	.605	.739	.016	.089	.134	-.102
VAR00020	.461	.725	-.005	.126	-.100	.211
VAR00012	-.558	.683	-.036	.021	.307	.144
VAR00004	.201	.003	.785	.300	.058	.003
VAR00006	.173	.139	.751	.111	.038	.119
VAR00008	.051	.097	.682	.036	.033	.419
VAR00015	.208	.054	-.668	.226	.003	.485
VAR00002	-.145	-.193	.664	.298	.418	.148
VAR00005	.077	.379	.109	.758	.100	.031
VAR00003	-.060	-.286	.443	.727	-.259	-.134
VAR00022	.314	.339	-.036	.683	.050	.149
VAR00011	.017	.301	-.081	-.403	.861	-.158
VAR00009	.125	-.004	.222	-.043	.727	.268
VAR00007	-.029	-.174	-.034	-.400	.575	-.277
VAR00001	.223	.005	.401	.394	.507	.091
VAR00010	-.124	.054	.108	.445	-.078	.833

Extraction Method: Principal Component Analysis

Rotation Method: Equamax with Normalization

a. Rotation converged in 13 liberations

The factors were named using the rotated component matrix on table 2.

Six factors were identified. Details of the factor loadings, the eigen values and proportion of variance accounted for by each factor are on table 3

Table 3: Factor Analysis of Determinants of Housing Satisfaction in Residential Localities of Uyo Urban, Akwa Ibom State, Nigeria.

Factor No	1	2	3	4	5	6
Eigen value	7.9	3.3	2.33	1.94	1.63	1.16
Percentage of variance	34.36	14.35	10.14	8.47	7.10	5.06
Cumulative percentage of total variance	34.36	48.72	58.86	67.34	74.44	79.50
Variable	Factor Loadings					
Building types	.522	.488	.317	.135	9.55 E-02	.219
Toilet facilities	.164	.793	.328	1.829 E-02	-3998E-02	.169
Bathing facilities	.110	.713	-.400	-2874 E-02	.415	.131
Refuse disposal	.454	.718	-5.443E-02	-1.867E-02	-.170	-3.229E-02
Water supply	.574	.20	-9.865E-02	.236	.597	6.096 E-02
Crowding index	.437	.573	-3.477E-02	.130	-.269	-.179
Nearness to work	9.359E-02	.252	.386	-.373	.448	1.583 E-02
Nearness to clinic	.302	.502	6.033 E-02	.330	-.475	3.903 E-02
Nearness to market	5.108E-02	-.114	.721	-.319	-.292	.325
Playgrounds	4.820E-02	5.263 E-02	2.405 E-02	.633	-.296	.419
Availability of goods	2.79	-9.729E-02	.839	-.247	.105	-.109
Ventilation in flats	4.988E-02	-.111	.620	.606	.203	-.265
Bus/taxi service	.874	-2559 E-02	8.383 E-02	4.796 E-02	-.184	5.860 E-02
Recreation	.866	-.107	-.111	-.291	-.141	-9.230E-02
Security service	.156	-.559	6.419 E-02	.159	.171	.648
Near Sec. Schl	.798	-.160	-.255	-.130	-3.173E-02	.148
Near Pri. Schl	.810	-.134	-.189	-.419	-.147	.162
Personal security	.919	-.230	-7.245E-02	-.130	-.102	8.877 E-02
Source of energy	.859	-.334	7.501 E-02	-2.636E-02	-1.717E-02	-.293
Amt of noise	.789	-.301	-.8175 E-02	.316	-8.09E-02	-.109
Public security	.843	4.359 E-02	-.120	-8.843E-02	4.018E-02	-.226
Rent	.661	1.753 E-02	-.107	.165	.471	.145
Gen cleanliness	.705	-.247	.186	.470	3.574 E-02	-.106

The first factor defined by six items related to general social conditions within the localities. This factor is named as “social infrastructure fact”. It loads high on such variables as nearness to secondary and primary schools, bus/taxi services, public security, noise levels, recreation and source of power supply.

The second factor related to four main items of housing which include, toilet, and bathing facilities, building types, refuse disposal and crowding index. This factor is named as “housing facilities factor”. The third factor which is called “consumer goods availability factor” is more specific and loads highly on availability of consumer goods. The fourth factor loads highly on playgrounds and ventilation in flats and it referred to as “health and leisure factor”. The fifth factor focuses only on water supply. It is therefore named as “water supply factor”. These six factors account for 80% percent of the total variation in the data set and base don this information the major determinants for the explanation of housing satisfaction in the twenty residential localities were selected for this study.

Planning Implication

The findings of this study will generally be useful in residential development planning of most cities of the third world and particularly in Nigeria. It could be used to assess the quality of residential neighbourhoods with a view to meeting the gaps in

References

- Abiodun, J. O. (1985): "The Provision of Housing and Urban Environmental Problems In Nigeria" in Abiodun J. O. (eds) Urban and Regional Planning Problems in Nigeria, University of Ife Press Ltd.
- Afon, A. O. (2000): "Use of Residents Environmental Quality Indicator (EQI) Data in Core Residential Housing Improvement", in Effective Housing in the 21st Century Nigeria. The Environmental Forum, FUTA. pp 115-120.
- Egunjobi, I. (1988): Perception of Urban Environmental Problems: A Pilot Study Centre d'nt he City Ibadan, Nigeria African Urban Quarterly Vol.1 +2pp.
- Lorhwe, W. C. (1956): "Housing Characteristic and Social Disorganization" Journal of Social Problems Vol. 3, pp160-168.
- Omofonwan S. I. (2000): "Housing Quality and Needs in an Emerging Urban Centre: A Case Study of Ekpom" in Effective Housing in the 21st century Nigeria. The Environmental Forum. FUTA. pp 130-133.
- Udofia, E. P. (2005): Applied Statistics with Multivariate Methods. Immaculate Publications Ltd. Enugu, Nigeria. (Forthcoming).
- Western, J. (1978): "The Cultural Dimensions to Housing in Murson and Lea (eds) Housing in Third World Countries. Perspectives on Policy and Practice. Macmillan, London.