



An Assessment of Residents' Satisfaction with Environmental Quality in Ikot Ekpene Urban, Nigeria.

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ABSTRACT

This study investigates residents' satisfaction with environmental quality in Ikot Ekpene urban, Nigeria, recognizing the critical role of the environment in shaping urban livability and overall satisfaction. Drawing on a comprehensive survey-based approach, data were collected from 500 respondents across eight urban settlements. Results reveal a nuanced understanding of residents' socio-economic characteristics and their influence on environmental satisfaction. While factors like telecommunication services, road conditions, and proximity to schools received higher satisfaction scores, waste management, public power supply, aesthetics, and security were noted as areas of concern. The Relative Satisfaction Index (RSI) of 0.5404 indicates marginal satisfaction among residents. To enhance satisfaction levels, prioritizing waste management, improving drainage infrastructure, and developing green spaces are recommended. These initiatives not only promote environmental stewardship but also foster resilient, sustainable, and livable urban environments conducive to residents' well-being and quality of life.

Keywords: Environmental quality, urban livability, satisfaction

1.0 Introduction

The environment remains the most basic unit in which social lives occur; it affects the quality of life of residents and as such, the environment should be given more attention. Umeora and Munonye (2021) are of the view that residents are often concerned more about their residential environment than with the housing unit per se, because the environment determines the accessibility or availability of some communal services and facilities many of which affect the human body and mental health. Poor environmental conditions are by far among the issues facing developing countries in the 21st century. In Nigeria, over 70% of people live in poor residential environment/neighborhood lacking in necessary facilities and maintenance required for minimum comfort of the occupant (Udoh, 2020).

Environmental quality has a large potential to contribute towards providing people with opportunity to live full/successful lives, and contributes towards all aspects of development in the individual, community and societal contexts (Oladapo, 2006). As a symbol of achievement and social acceptance and as an element of urban growth and income distribution, residential environment fulfils a social need which reflects the cultural, social and economic values of a society (Jiboye, 2009). Environmental quality refers to a set of features and characteristics of the environment; generic or local as they affect human beings and other organisms. In this sense, residential environment is a setting in which systems of human activities take place and where population lives (Ofem and Coker, 2023).

Shi (2006) opines that the quality and desirability of a house is affected by environment and by the services and amenities available in the location. Within this norm, households are often looking for neighbourhoods that could provide for the needs of each member of the household, this entails a neighbourhood that is close to work, shopping mall, school and recreation centres. Also, the neighbourhood must be quiet, clean, safe, serene and stable. A home that has these locational advantages is often more valuable and desirable than the same without such. Dimuna and Olutuah (2020) asserts that the satisfaction which residents derive as a result of the quality of the residential environment is very vital for their overall housing satisfaction. Satisfaction in with the environment occurs when neighbourhood situation is consistent with the cultural, family and community housing norms, satisfaction thus indicates the absence of complaints and a high degree of agreement between actual and desired situations, and the meeting of resident's daily needs by the environment. On the contrary, incongruence between their actual and desired housing conditions may lead to dissatisfaction and abandonment (Schwanen, 2004).

This study is hinged on the lack of insights into the extent of residents' satisfaction with the environmental quality in Ikot Ekpene Local Government Area, Nigeria. Earlier studies by Akpabio (2010) and Etim, Ivo and Eteng (2023) dealt with the housing conditions and residential area dissonance in Ikot Ekpene-urban respectively and most environmental variables and socio economic characteristics of the respondents were not considered. This study thus seeks to bridge this gap in the literature as it seeks out to assess the socio economic characteristics of residents of Ikot Ekpene and seek to also investigate

whether these socio economic characteristics have significant relationship with environmental satisfaction levels of the respondents. Environmental variables will also be assessed to determine which ones are prime determinants of satisfaction levels of respondents.

2.0 Literature Review

In a nation-wide study in eight European countries Fine-Davis and Davis (1982) evaluated respondents' satisfaction with the dwelling, the neighbourhood, health services and life in general. Satisfaction was measured by using a four-point scale. Predictor variables were demographic characteristics, objective aspects of the residents' dwelling, and perceptions of attributes of the respondents' dwelling and neighbourhood. Data were analyzed by means of multiple regression analyses. The scores of satisfaction with the dwelling, the neighbourhood and life in general were regressed on the scores of their underlying determinants and attributes (e.g., demographics and objective and subjective evaluations). In general satisfaction with environmental quality in the eight countries was largely predicted by satisfaction with the facilities in and properties of the dwelling, such as the kitchen, bathroom, heating, and dwelling size. The predictive power of the dwelling attributes across different countries was found to be moderate to reasonably high (range of the proportion of explained variance: 41% to 56%). Satisfaction with the neighbours was the most important predictor of satisfaction with the neighbourhood in seven of the eight countries.

Other important predictors of neighbourhood (dis)satisfaction were: dissatisfaction by vandalism and noise, satisfaction with public transportation, the condition of property and personal safety. However, these findings were less consistent across countries. The proportion of explained variance in satisfaction with the neighbourhood by the neighbourhood attributes was found to be low to moderate across the eight countries studied (range: 16% to 33%). Personal characteristics on the other hand showed less predictive value and were found to be less consistent across countries. The authors suggest that personal characteristics may mediate other attitudinal variables and may do so differently in different countries due to varying social structures.

Baker (2002) observed that locational characteristics are important considerations for understanding the formation of residential satisfaction among with environmental quality. Whereas the environment is likely to be a source of satisfaction, elements of the neighbourhood such as the level of crime, lack of amenity or industrial development or work place location are likely to be sources of dissatisfaction. Ogu (2002) studied urban residential satisfaction of inhabitants of core, intermediate, suburban, and planned areas of Benin City, Nigeria, and found that while most housing component variables generally contributed positively to residential satisfaction, environmental variables made negative contributions to residential satisfaction.

Okwakpam (2021) assessed the quality of urban residential environment in Port Harcourt LGA. The study was a household based cross sectional survey. It was found out that the environment exhibited many attributes that was associated with neighborhood decay which led to environmental degradation. Majority of respondents were dissatisfied with the drainage condition, source of water supply and waste disposal method. In a similar study, Jiboye (2012) observed that the variables of the dwelling, environment, and management components of public facilities actually affected residents satisfaction with their housing in public housing in Lagos, Nigeria. The quality and desirability of a house is affected by its physical environment including the services and amenities available in the location. Within this norm, households often seek for neighbourhoods that could provide for the entire household, most likely an environment that is close to place of work, shopping centers, school and recreation centers and at the same time quiet, clean, safe and stable (Shi, 2006).

In their studies of satisfaction with public core housing in Abeokuta, Nigeria, Ibem and Amole (2012) found that educational background, employment sector, age and sex have significant contribution towards residential satisfaction. An empirical study indicates that socio-economic variables such as age, education, and family composition and life circle changes are major determinants of Residential satisfaction. Age is an influencing variable in the study of residential satisfaction as people of different age expresses different satisfaction level, Galster (1987) found that older resident have a lower level of aspirations but higher level of tolerance towards any short comings regarding the residence. Vera-Toscano and Aleca-Amestoy (2007) found out that people with higher education have higher housing/ environmental expectations and are thus more critical of their environmental quality. Furthermore, it has also been noted that women tend to be more satisfied with their residential environment than their male counterparts (Galster and Hesser, 1981), while older residents often express greater residential satisfaction than those in younger age groups (Galster, 1987). The study of Francescato *et al* (2017) found out that there is a strong link between housing satisfaction and physical and social environment. The correlation between housing satisfaction and physical environment as explained by Francescato *et al*. (2017) can be defined along with the notion of fifteen aspects which include well-being/ security, density/crowding, site facilities, aesthetics/appearance, access to companions, site location/access to the community, maintenance, management policy, economic costs, personal freedom/privacy, sense of community, the perception of community, personality attributes, the perception of neighbours and socio-economic characteristics.

3.0 Study Area

Ikot Ekpene – Urban is known throughout Nigeria as “Raffia city” and locally as “I.K”. The area is an historic Town in the Niger –Delta region of Nigeria. It is the second most populated urban centre in Akwa Ibom State after Uyo –the State capital. It is also the political and cultural capital of the Annang ethnic group. Ikot Ekpene urban extends from Latitude 5^o15’ to 5^o18’ North and longitude 7^o4’ to 7^o45’ East. It is located on a relatively raised elevation of 90m, it is the headquarters of Ikot Ekpene Local Government Area in Akwa Ibom State, Nigeria.

4.0 Research Methods

The study employed a comprehensive survey-based approach to assess satisfaction with various environmental factors, including housing, infrastructure, amenities, and services. Respondents' prioritization of specific factors within each domain provided insights into their preferences and concerns. The data for this study were gathered from both primary and secondary sources. The primary data were from questionnaire designed to gather information from residents, secondary sources of data were journals, dissertations and textbooks. Ikot Ekpene Local Government Area is made up of sixty-five (65) settlements, out of these: eight (8) settlements are classified as urban areas (NPC, 1991). From the review of related literature, studies on satisfaction with environmental quality is often urban based, hence the eight settlements will constitute the sampling frame.

The 2006 population of Ikot Ekpene urban (97175) was projected to 2023 using the geometric formula of population projection, this gave a population figure of 185,878persons. This constituted the population of the study. A sample size of 500 was drawn from the total population. With reference to the National population policy (1998), to acquire the number of households in a settlement, the projected population figure is often divided by the estimated average household size of six. To arrive at the sample size for each settlement, the number of households in each settlement will be divided by the sum of the households in the study area, and then multiplied by the total number of sample size of 500. The systematic random sampling was used in selecting the households which the questionnaires were to be administered in each village.

Table 1.0 Table Showing Sample size

S/N	Name of Settlement	1991 Pop. Figure	2023		Sample Size	Skipping Range
			Projected Pop.	No.of Households		
1	Ikot Abia Idem	2732	7450	1242	24	52
2	Ikot Obong Edong	5700	15561	2594	50	52
3	Abiakpo Ikot Essien	9650	26344	4391	85	52
4	Ikot Ekpene	695	1897	316	6	53
5	Uruk Uso	8012	21873	3645	70	52
6	Ifuhu	4814	13142	2190	42	52
7	GRA	5294	14453	2408	47	51
8	Ibiakpan Akan Anwan	20030	54682	9114	176	53
Total		56927	155410	25900	500	

Source: NPC (1991). Researcher's Computations, 2024

5.0 Results and Discussion of Findings

The personal characteristics of the respondents were collected as a background to the study. This was done to have a relative knowledge about the inhabitants of the area as this may influence their levels of satisfaction with the environmental conditions of the area.

The gender distribution of respondents indicated a majority of females (54.8%), possibly due to sampling at homes where males often work. This highlights a gender dimension and a balanced gender opinion in the study. Marital status showed 45.2% married, with varying percentages of single, separated, and widowed respondents. Educational attainment was diverse, with 6.8% having no formal education, 52.4% having secondary education, and 22.0% having tertiary education, suggesting functional literacy and awareness of the subject matter. Most respondents were artisans (45.2%), followed by traders (30.0%), reflecting urban secondary activities. Income distribution revealed 42.8% earning 30,001-50,000 monthly, and 28.2% earning 90,001 Naira and above, with implications for economic disparities. Household size for 83% of respondents was 5 persons and above, reflecting extended family dynamics. Home ownership was primarily owner-occupied (59.6%), highlighting the significance of housing tenure in the study. These demographic aspects collectively provide insights into the diverse perspectives influencing satisfaction with environmental quality.

Table 5.1 Socioeconomic Characteristics of Respondents

Characteristics	Categories	Frequency	Percentage (%)
Gender	Male	226	45.2
	Female	274	54.8
	Total	500	100.0
Age	less than 20	103	20.6
	21-40	136	27.2
	41-60	158	31.6
	61 and above	103	20.6
	Total	500	100.0
Monthly Income	Below 30,000	32	6.4

	30,001-50,000	214	42.8
	50,001-70,000	64	12.8
	70,001-90,000	49	9.8
	90,001 and above	141	28.2
	Total	500	100.0
Marital Status	Single	210	42.0
	Married	226	45.2
	Separated	21	4.2
	Widowed	43	8.6
	Total	500	100.0
Educational Level	No Formal	34	6.8
	Primary	94	18.8
	Secondary	262	52.4
	Post Secondary	110	22.0
	Total	500	100.0
Occupation	Farming	35	7.0
	Civil Service	71	14.2
	Artisans	226	45.2
	Traders	150	30.0
	Retirees	18	3.6
	Total	500	100.0
Household Size	1-2	15	4
	3-4	52	13
	5-6	201	50
	7 and Above	132	33
	Total	500	100.0
Home Ownership	Renters	202	40.4
	Owner Occupier	298	59.6
	Total	500	100.0

Source: Field Survey, 2024

5.2 Factors influencing satisfaction with environmental condition

S/N	Variable	Very Dissatisfied	Dissatisfied	Undecided	Satisfied	Very Satisfied	Total Score	No of Resp.	MWV
1	Telecomm	5	102	32	247	114	1863	500	3.726
2	Roads	8	44	211	109	128	1805	500	3.61
3	Noise level	58	70	48	216	108	1746	500	3.492
4	Proximity to schools	106	81	22	47	244	1742	500	3.484
5	Proximity to Church	41	60	205	172	22	1574	500	3.148
6	Housing condition	92	172	102	49	85	1361	500	2.726
7	Market	42	274	61	27	96	1361	500	2.722
8	Water supply	75	61	310	46	8	1351	500	2.702
9	Proximity to Health facility	175	70	33	201	21	1323	500	2.646
10	Proximity to Workplace	201	106	50	59	84	1219	500	2.438
11	Drainage system	161	197	10	90	42	1155	500	2.31
12	Waste disposal	182	164	5	122	27	1148	500	2.296
13	Proximity to Recreational	251	98	20	30	101	1132	500	2.264
14	Power supply	211	161	14	62	52	1083	500	2.166
15	Aesthetics	206	148	42	77	27	1071	500	2.142

16	Friendliness	273	43	104	22	58	1049	500	2.098
17	Security	206	184	51	35	24	987	500	1.974
									45.944
									2.702

Source: Field Survey, 2023

From table 5.2, it could be seen that respondents were satisfied with telecommunication services (3.726), roads (3.61), noise levels (3.492), proximity to schools (3.363) and proximity to places of worship (3.148). However, the satisfaction level of respondents with waste management (2.296), proximity to recreational areas (2.264), public power supply (2.166), aesthetics (2.142), friendliness (2.078) and security (1.974) were generally low. However, respondents were marginally satisfied with housing conditions (2.726), proximity to market (2.722), public water supply (2.70), proximity to workplace (2.438) and drainage system (2.31). The findings highlight key factors influencing satisfaction with various aspects of environmental quality, each with distinct implications. Affordable housing, proximity to services, and quality telecommunications enhance urban living while mitigating environmental strain. Reliable electricity supports efficiency and reduced reliance on backup power sources. Clean water accessibility and efficient waste disposal minimize pollution and plastic waste. Well-maintained roads and drainage systems improve transportation and prevent flooding. Proximity to essential facilities encourages active and sustainable lifestyles. Nearby worship and recreational areas enhance community well-being and outdoor engagement. Low crime rates and reduced commute stress contribute to safety and air quality. Noise control and aesthetics promote enjoyable public spaces. Addressing these factors can foster sustainable, resilient, and harmonious urban environments that prioritize both residents' well-being and the health of the surrounding ecosystem.

The environmental variables which respondents were most satisfied with were telecommunication services, good conditions of road, low noise level of the environment, proximity to schools and worship centers. This infers that most of Ikot Ekpene urban has telecommunication coverage, good road networks and low noise level. The low noise level could be attributed to scarcity of manufacturing industries in the area. From the answers of the respondents, it could be seen that there is a fair spatial spread of schools and churches in the area. Respondents were marginally satisfied with housing conditions, proximity to market, public water supply, proximity to workplace and drainage system. However, the satisfaction level of respondents with waste management (2.296), proximity to recreational areas (2.264), public power supply (2.166), aesthetics (2.142), friendliness (2.078) and security (1.974) were generally low, this means that the public power in the area is erratic, and the security of lives and property in the region is worrisome. This collaborates with the findings of Etim *et al.*, (2023) who asserted that the cause of residential area dissonance in Ikot Ekpene were insecurity and long distances between home and workplace. From the results, it is seen that recreational areas are not readily accessible in the area and much needs to be done in terms of sanitation and landscaping in order to enhance the aesthetical outlook of the area.

5.3 Relative Satisfaction Index of respondents.

The summation of the Mean Weighted Value of all the seventeen environmental variables was 45.944, in order to obtain the mean satisfaction score of respondents in the study area, this figure (45.944) is divided by seventeen (17).

$$\text{Mean Weighted Value} = \frac{45.944}{17} = 2.702$$

$$\text{Relative Satisfaction Index} = \frac{2.702}{5}$$

$$= 0.5404$$

An RSI value ranges from 0 to 1, where: RSI = 0 implies complete dissatisfaction,

RSI = 1 implies complete satisfaction.

In this specific scenario, the RSI value of 0.5404 indicates that people in Ikot Ekpene urban are marginally satisfied with their environmental condition. While the satisfaction level is above half of the maximum value (1), it still suggests that there is room for improvement in the overall environmental conditions of the area.

The mean satisfaction score of respondents in Ikot Ekpene urban was found to be 2.702 on a scale of five (5), implying a relative satisfaction index of 0.5404 which shows that people are marginally satisfied with their environmental quality in Ikot Ekpene urban. This is worrisome as the liveability of the environment is at its breaking point according to the ratings, if the environment is left unplanned and concerted efforts are not made to enhance its liveability, it is likely going to fall into a state of decrepitude. Relative satisfaction index of 0.5404 is lower than that reported by Makinde (2020) in Ibadan which showed that the Old Bodija Scheme, Alalubosa GRA and Kolapo Ishola Scheme had RSI of 0.808, 0.82 and 0.776 respectively. The mean satisfaction score of Shelter Afrique Estate was found to be 2.93 on a scale of 5 (RSI; 0.583) by Nwanezie and Ezema, (2019) which is slightly above the score in Ikot Ekpene urban, this means that the environmental conditions of Ikot Ekpene urban is still livable, though facilities and renewal activities are needed.

6.0 Conclusion

This research was conducted with the aim of assessing residents' satisfaction with the environmental quality of the urban area. The study emphasizes that housing is more than just providing shelter; it involves considering the surrounding environment and the amenities and services available within the community. Residents' satisfaction with environmental conditions was found to be influenced by socio-economic factors, including income, household size, educational status, occupation, and homeownership. The Relative Satisfaction Index (RSI) value of 0.5404, on a scale of one (1) suggests that residents were marginally satisfied with their environmental conditions. In conclusion, this research underscores the crucial role of the environment in shaping urban livability and residents' overall satisfaction. By examining a comprehensive range of environmental variables, this study reveals key factors that influence residents' contentment with their living conditions in Ikot Ekpene.

Based on the findings of the studies, several key initiatives must be prioritized in order to enhance the satisfaction levels of respondents with environmental quality. Firstly, enhancing waste management systems is essential. This involves the implementation of effective waste collection, recycling, and disposal facilities. Additionally, public awareness campaigns play a crucial role in promoting responsible waste disposal practices among residents, fostering a culture of environmental stewardship.

Another critical aspect is the improvement of drainage infrastructure to mitigate the risks of flash flooding. This requires investing in and maintaining a robust drainage system capable of handling increased precipitation levels. Integrating sustainable storm water management practices, such as permeable pavements and rainwater harvesting, into urban planning can further enhance resilience against flooding while promoting eco-friendly approaches. Furthermore, developing green spaces and recreational areas within the urban landscape is vital for enhancing residents' quality of life. These areas provide opportunities for people to connect with nature, engage in physical activities, and improve overall well-being. Preserving existing green spaces and creating new ones fosters a healthier and more sustainable urban environment, promoting both ecological and social resilience.

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