The International Journal of Social Sciences and Humanities Invention 4(1): 3192-3201, 2017
DOI: 10.18535/ijsshi/v4i1.03 **ICV 2015: 45.28**
ISSN: 2349-2031

Research Article

Neighbourhood Quality Indicators in informal Settlements in Port Harcourt Municipality

Ebiwari Wokekoro

Department of Estate Management, Rivers State University of Science and Technology, PMB 5080, Port Harcourt.

ABSTRACT: This study rated neighbourhood quality indicators by residents in informal settlements in Port Harcourt municipality, Nigeria. Neighbourhood indicators were studied in situ without experimental manipulation and at one period in time, i.e. the study adopted a passive-observational research design. The study utilized both secondary and primary data sources. Primary data was collected using face-to-face administration of a largely pre-coded household questionnaire, to a probability sample of 192 respondents, drawn from the 2 neighbourhoods. Data analysis was based on responses from 191 questionnaires retrieved and the univariate analytical method was adopted. The study found that large percentage of residents reported a negative rating of neighbourhood quality indicators such as waste collection and disposal, safety of lives and property, fire stations, neighbourhood quality indicators, cleanliness of the neighbourhood, residential planning, government provision of housing for the poor, hospitals/clinics, recreational areas,maintenance of streets, aesthetic condition, noise level and the neighbourhood condition. Residents rated markets adequate and fire hazards low. The study concluded that majority of the residents rated neighbourhood quality indicators inadequate. The study concluded that government intervention in terms of infrastructure is absent. The study recommended that government should intervene in these areas to improve the neighbourhood quality to achieve sustainability.

KEY WORDS: Neighbourhood, quality, rating, residents, indicators, Port Harcourt.

1.1 Introduction

Quality of life and quality of the urban environment throughout the world are issues of concern for researchers as well as planners, policy makers and urban residents (Mridha and Moore, 2011). Senecal (2002) stated that the concept of quality of life, as applied to the urban environment, is usually understood in two ways. The first concerns the living environment and involves the patterns of advantages, disadvantages and opportunities that affect each citizen through accessibility to services, facilities and amenities. Other elements of the living environment include economic vitality and social equity, which encapsulate an infinite number of specific issues, notably, the quality and affordability of housing. The second approach relates to the natural environment in urban spaces. This approach holds that such factors as air, water, soil quality; and the amount of available green space affect the ways we live (Senecal, 2002).

Senecal (2002) added that other aspects that may be used to identify quality of life include aesthetic value, satisfaction with one's home, and patterns of governance and there are also issues of perception that take into account people's experiences in the city, the routes they travel, and the sensory quality of their surroundings.

The meaning of the phrase "urban quality of life" differs a good deal as it is variously used but, in general, it is intended to refer to either the conditions of the environment in which people live (air and water pollution, or poor housing, for example), or to some attribute of people themselves (such as health or educational achievement) (Pacione, 2003).

Lotfi and Solaimani (2009) stated that there are two sets of indicators for measuring quality of life with which most of the researchers have agreed. The first set comprises objective indicators which refer to the objective and visible aspects of urban life and are defined by different elements, for example the number of hospitals in a city, unemployment rate, the volume of crime and the area of urban green spaces. The second set comprises subjective indicators which try to measure and quantify the citizens' satisfaction with those objective attributes.

A number of domains of QOL (well-being) have been identified in the international quality of life literature. For example, University of Oklahoma School of Social Work (*www.gdrc.org*) identifies the following: family and friends; work; neighbourhood/shelter; community; health; education; and spiritual. Each domain contributes to one's overall assessment of the QOL as a whole. The focus here is on the residential environment or what is referred to above as Neighbourhood/Shelter. Various researchers have addressed this dimension.

Indeed, the process of urban planning and management is aimed at raising quality of life, especially with regard to improvement of facilities and services that fulfil socio-economic needs such as education, health, housing, entertainment, and safety *(*Discoli, *et. al.*, 2006).

Port Harcourt, one of Nigeria's major cities, has been experiencing rapid urbanization since its inception in 1913. The city has grown from 5,000 persons in 1915, two years after its inception to over one million recently. This level of population growth has meant considerable spatial expansion, which has engulfed once distant villages on the urban periphery, to the extent that they can no longer be

distinguished but have become part of the urban fabric (Wokekoro and Owei, 2006).

Urban infrastructure and services have failed to keep pace with this growth. In addition to rising urban poverty, there is a worsening of urban environmental problems. Such challenges as poor solid waste management, uncontrolled housing and neighbourhood development, flooding, traffic congestion, poor state of the urban physical environment and rising crime rates have been documented (Ugwuorah, 2002; Mchi, 1997). More recently, Obinna, Owei and Mark (2010) have also noted the deplorable housing, inadequate space, and absence of basic services in the informal settlements of the city.

This state of affairs triggered the desire to ascertain how residents' rate neighbourhood quality indicators in two informal settlements in Port Harcourt Municipality. The aim was to demonstrate the nature and magnitude of deficient conditions in the municipality and propose appropriate measures to deal with them. Spatially, the study covered two (2) neighbourhoods in Port Harcourt Municipality; that is, Port Harcourt Local Government Area (PHALGA), namely: Marine Base Water Front and Afikpo Water front settlements.

1.2 Goal and Objectives of the Study

The goal of this study is to ascertain how residents' rate neighbourhood quality indicators in Port Harcourt Municipality.

The objectives of the study are to:

(i) Ascertain residents' rating of neighbourhood quality indicators.

(ii) Ascertain residents' rating of government provision of housing for the poor and residential planning.

1.4 Background Information about the Study Area

Port Harcourt, capital city of Rivers State, Nigeria, lies 40 km up the mouth of the Bonny River, in the Niger Delta. Originally known as "Igwu-Ocha" by the indigenous Ikwerre, was founded in 1913 by the British in an area traditionally inhabited by the Ikwerre and the Okrika Ijaw. It was named after Viscount Harcourt, then British Secretary of State for the Colonies. The initial purpose of the port was to export the coal, which geologist Albert Ernest Kitson had discovered in Enugu in 1912 (Ogionwo, 1979).

It is one of Nigeria's fastest growing cities. The average annual growth rate of Port Harcourt between 1963 and 2010 has been computed to be 5.2%. The growth of Port Harcourt is tied to the social and economic history of the country. Figure 1.1 is a map of Port Harcourt Municipality showing the study locations.

The city is a major educational, administrative, and industrial centre, and is regarded as the oil capital of Nigeria, since it hosts most of the nation's multi-national oil and gas exploration and production companies, two refineries, petroleum-related service companies, as well as a fast expanding commercial sub-sector (Wokekoro and Owei, 2006).

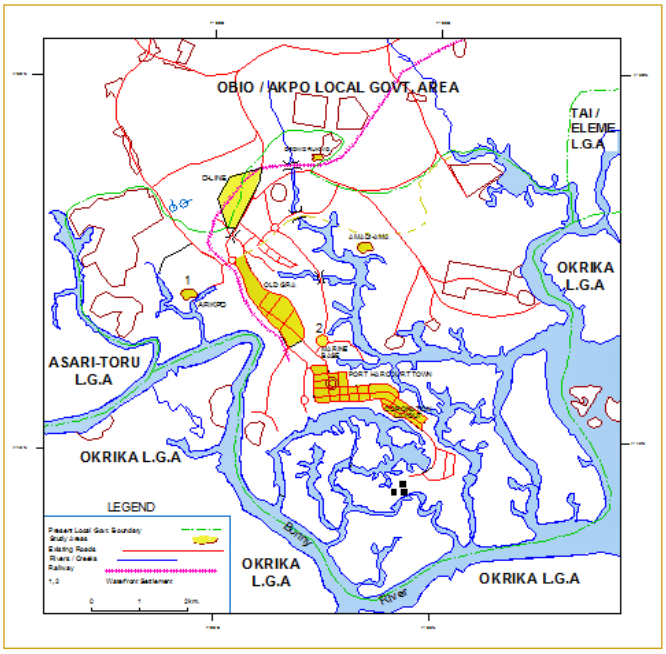

Figure 1.1: Port Harcourt Municipality Showing the Study Areas

2.1 Research on Residential Quality of Life

Salau (1986) examines the variations in the quality of life at the relatively neglected inter-urban scale in a developing nation. Based on a sample survey of 3,800 heads of households in Nigeria cities ranked into three categories: large, medium and small, the study found that level of living is related to city size, with the residents of large cities having a higher quality of life than those in the medium and small cities.

A highly influential but often underemphasized determinant of residential satisfaction is how residents perceive and feel about their neighborhoods. In this study, factors representing different aspects of residents' neighborhoods were identified and examined in relation to their overall assessment of their homes and neighborhoods. Relationships among neighborhood aspects and overall housing and neighborhood assessments were examined separately for residents of conventional homes, mobile homes, and apartments. Results based on all residents indicated that evaluations of neighborhood aspects were unrelated to housing satisfaction, but were moderately related to positive sentiments and satisfaction with the neighborhood. Separate analyses by housing type revealed that neighborhood perceptions of apartment residents were influential in affecting housing satisfaction. For all residents, the neighborhood's attractiveness and pleasant- friendliness were the most important determinants of neighborhood acceptance and satisfaction. The results also indicated that despite sharing similar determinant patterns of neighborhood acceptance with the other two housing type groups, the basis for mobile home residents' evaluations was considerably less related to the

factors identified as influential. The findings indicated that different neighborhood factors formed the basis for differences in overall housing and neighbourhood satisfaction among residents living in the three housing types. However, since the type of housing does not by itself define a neighbourhood, the differences that were found need to be considered in the larger context of other components of a neighbourhood like economic and community characteristics typically associated with a specific structure type.(Gruber and Shelton, 1987)

According to Omuta (1988) third world cities face many persistent planning problems. He further stated that the problems persist partly because planning has not been sufficiently responsive to local peculiarities. This lack of responsiveness is in turn because of the gross scale at which problems are conceived and attacked. One of the persistent problems in all Nigerian cities is their poor environmental quality. His study, investigated the environmental problems of Benin City, capital of Bendel State of Nigeria. Six environmental dimensions were measured and analysed in his study. He derived a composite conceptual index of quality of life from the six dimensions, and compared it with an index of perceived quality for each area. The study adopts the neighbourhood as the unit in collecting and analysing data, and in proposing solutions. He recommended that planning administration in Benin City must be decentralized, if it is to be more responsive to intra-city environmental eccentricities, and improve the quality of life.

Giannais (1996) used a structural approach to hedonic equilibrium model to obtain a quality of life ranking of six cities in Southern Ontario, Canada namely: Guelph, Kitchener, London, Sarnia, St. Catharine, and Windsor and found that residential quality of life is a function of housing and neighbourhood characteristics (number of rooms, age of the house, crime rate, air quality, and mean annual temperature). The model was estimated using census tract data for the six cities. The study revealed that each of the six cities provides a different QOL distribution to its residents.

Jongudomkarn and Camfield (2005) studied residential quality of life of people in north-eastern and southern Thailand and presented findings from five rural and peri-urban sites. They used Person-Generated Index (PGI)**,** Semi-Structured Interviews (SSIs) and Focus Group Discussions (FGDs) to obtain their data. The Person Generated Index (PGI) was obtained by asking people to indicate aspects of life that contributed to their well-being; rating them according to how important they were and how satisfied they were with them. The PGI emerged from a three-step measure. The individuals nominated up to five areas that they considered important to their lives (for example, family, house) and scored these from 0-6 to indicate their level of satisfaction (the higher the score the higher their satisfaction level). They then 'spend' ten points across the areas to illustrate their relative importance and a final score was calculated to represent the shortfall between people's desired and actual achievement in these areas.

Coker, *et al.* (2007) carried out a survey of housing quality and neighbourhood environments in Ibadan City, Nigeria. The study evaluated the housing infrastructure and identified those areas where there was a likelihood of future incidences of disease and epidemics. Based on existing demographic and land use characteristics, the city could be divided into high, medium and low-density zones. Penalty scoring, rather than positive scoring, was used to assess the conditions and quality of houses and the neighbourhood environment in each of the zones. Houses in the high-density area had the worst property and environmental characteristics followed by houses in the medium-density area. Based on housing condition alone, approximately half of all the dwellings surveyed (n = 172) in the three zones were categorised as either substandard or unfit for human habitation. Based on neighbourhood environment, none of the high and medium-density housing areas and only one of the low density areas attained the good-scoring grade. This is attributed in part to the many residents who are polygamists. The houses are overcrowded with perhaps up to eight persons per room and to tenant abuse by internal conversion to increase the occupancy rate. More than half of the houses surveyed have at least one or more major defect. Recommendations include government directed infrastructure improvements; a regeneration-drive by private investors with possible displacement of residents from the high-density zone to new towns; a vigorous programme of housing and health education; enhanced collaboration between stakeholders to develop enforceable standards for existing housing stock and future builds.

Hall, *et.al.*(2008) considered valuation of amenities in urban neighbourhoods and satisfaction with both those neighbourhoods and life in general. First, rents were used to estimate neighbourhood amenities price in San Jose, which explained 39 percent of the standardized variation in rents. Some districts ranked very high in housing characteristics but poorly in neighborhood amenities, while others ranked poorly in housing characteristics but high in neighborhood amenities, suggesting that policy measures might reduce inequality in urban areas through improving neighborhood amenities.

Second, the paper explored differences in the valuation of amenities by calculating prices in different urban areas. In more sparsely populated urban areas, distance to national parks was less important, but distance to primary roads became more important. Finally, housing and safety satisfaction represented the key components of life satisfaction.

Mridha and Moore (2011) explored the quality of life(QOL) in six major residential areas in Dhaka, Bangledesh, as part of a citywide research program examining residential environments. Their study examined how people assess their lives and life experiences and, in particular, their satisfactions with housing and neighbourhoods. Findings indicate the importance of the holistic socio-physical neighbourhood as a major contributor to residential satisfaction in medium- rise and high-rise housing in Dhaka. Other findings revealed that

specific socio-physical features of the neighbourhood and community influence overall life satisfaction more than physical design features of dwellings.

Akpan, Obisung, and Asuquo (2012) carried out a study of aircraft noise and quality of life of residents living around Port-Harcourt international airport, South - South Nigeria. 1552 out of 1800 questionnaires representing 86 percent of the total which bordered on aircraft noise annoyance and disturbances were received, collated and analysed. There was a very high correlation between noise annoyance and the daily disturbances from the aircraft noise on people which included fatigue, lack of concentration, headache, night sleep, relaxation and communication disturbances. The number of highly annoyed people which cut across the youth, middle age and adults increased as the day- night sound levels of the aircraft noise increased. These findings show clearly that the quality of life of people living around Port Harcourt International airport has greatly been impaired by noise from aircraft.

Housing is an essential tool by which most individual measure quality of life. This study assesses residents' satisfaction in public housing estates in Osogbo with a view to suggest strategies to improve residents' life quality having examined housing conditions and adequacies of existing infrastructure. Residents' socio-economic characteristics, satisfaction of housing conditions and neighbourhood qualities were obtained from six (6) public housing estates using structured questionnaires administered on 312 household heads. Residents' assessments of their housing conditions and satisfaction of their housing and neighbourhood qualities were collated using Likert scale ratings. Mean Weighted Values (MWV) were computed upon which comparisons were based. The study reveals that the entire study area were poorly equipped with infrastructure, only 56.6% of expected infrastructure were found in at least one of the housing estates. The study recommends improvement in infrastructure provision through Public- Private Partnership Initiatives (PPPI), resuscitation of Estate Management Board and the use of upgraded local building materials to enhance improved neighbourhood qualities, employment creation and forestall the volatility of movement within and outside the housing estates (kehinde et.al, 2015).

Novianto et.al (2016) conducted a study on the method of evaluating the residential environment in terms of neighborhood facilities and urban planning. Subjective evaluations through questionnaire survey were performed in order to grasp the residents' behaviours and preferences. In 2013, questionnaires were distributed to more than 3,000 households of younger families located in Kitakyushu City, Northern Kyushu Island, Japan. In this study, the results from questionnaires were analysed with the statistical method .The results revealed that almost all the respondents were still dissatisfied with safety, even though the safety level score has increased during 10 years and more than 60% of households realized their comprehensive wish on living condition, which means the target of residential environment plan and design are nearly achieved.

Marans (1979) conducted a study for the U. S. Department of Housing and Urban Development (HUD) and examined the relationship between respondents' evaluations of neighbourhood conditions and services and their overall assessment of neighbourhood quality. Using Multiple Classification Analysis (MCA), predictor variables reflecting the perceived presence or absence of neighbourhood conditions were examined in relation to the neighbourhood rating scores. The study revealed that perceptions covering the 12 conditions such as trash/litter, crime, rundown houses, abandoned structures, streets impassable, street noise, heavy traffic, industrial activities, odors/smoke, streets that need repair, poor street lighting and airplane noise account for 16.7% of the variance in ratings. The study also revealed that perceptions of the existence or absence of trash/litter and neighbourhood crime are the most important predictors of the overall neighbourhood rating with beta coefficient of .142 and .134 respectively while the presence or absence of streets in disrepair, poor street lighting, airplane noise has virtually no bearing on how people evaluate their neighbourhoods with beta coefficient of .036, .023 and .008 respectively. He also found that evaluations of neighbourhood conditions were stronger predictors than objective conditions, accounting for 23% of the variation in the neighbourhood rating.

3.1 Research Method

The target population is composed of household members residing in the planned neighbourhoods. This study adopted the stratified multistage sampling technique (Kish, 1965). The sampling stages are given below:

Stage 1: Selection of two (2) neighbourhoods from all the neighbourhoods in Port Harcourt Municipality (see selected neighbourhoods in Table 1).

Stage 2: Listing of buildings and households from the selected neighbourhoods.

Stage 3: Selection of households to be studied from the chosen Neighbourhoods; and

Stage 4: Selection of household respondents in the households to be studied, preferably heads of households, since they are usually the most knowledgeable about neighbourhood attributes

To achieve a representative sample of households in each neighbourhood, Yamane (1967) formula (given below) was applied.

$$n = \frac{N}{1+N(e)^2} \quad \ldots\ldots (1)$$

Where **n** is the sample size, N is the population size, and **e** is the level of precision (here set at 10%).

Following determination of the sample size, the systematic sampling method (Kish, 1965) was used to select the households to be questioned from the ordered list of

population elements).

Table 1: Sampling Details

Name of Stratum	Name of Neighbourhood/ Community	Total No. of Buildings	Total of No. Households (N)	Sample Size *
Informal Settlements	Marine Base Water Front	770	3,850	98
	Afikpo Water Front	185	1,488	94
Total		**955**	**5,338**	**192**

***Using the Taro Yamane Formula @ 10% Level of Precision**

This study adopted a passive-observational research design. Passive-observational research designs pertain to studies where there has been no prior "treatmemt", intervention, or manipulation of subjects. The data was collected through a household questionnaire and utilized univariate analysis. This study formed one index – Neighbourhood Satisfaction Index (NSI), using subjective neighbourhood attributes.

4.0 Results and Discussion

This section presents results of analyses carried out in the course of the study. One hundred and seventy-one (192) household questionnaires were administered and 191 retrieved, i.e. a response rate of 99.5%. Analysis was therefore based on 191 households in the two neighbourhoods.

4.1 Residents Rating of Neighbourhood Quality Indicators

Residents were asked to rate selected neighbourhood attributes whether they were adequate or not. The results are presented below.

The study revealed that over three quarter (79.6%) of the residents rated government provision of plots and layouts for individual home construction inadequate (See Table 2). The study also showed that almost all (93.7%) of the residents rated government provision of housing especially for the poorer people inadequate. The Provision of housing for the masses is a social responsibility of government so the government at all levels should intensify effort in the provision of housing for the poor. It is as a result of the failure of government to provide housing for the poor that led to the development of informal settlements in the city to carter for the housing needs of the poor.

Interestingly, 93.7% of the residents in the two informal settlements reported a negative rating of government efforts to keep their neighbourhoods clean. Observation revealed that these settlements are really dirty which shows absence of government intervention in these settlements. This also showed that the Rivers State Environmental Sanitation Authority and Ministry of Environment have performed not only poorly but also neglected these settlements completely. These two government agencies should improve in their effort to keep these settlements clean. Environmental sanitation should be the collective effort of both the government and the residents.

Almost all the residents (92.2%) in the two neighbourhoods rated the maintenance of streets in their neighbourhoods inadequate. This is expected as road networks are almost absent in these settlement. There is only one road leading to each of the two settlements and it is in a poor condition.

The study further revealed that 79.1% of residents in two informal settlements rated safety of lives and property inadequate. These informal settlements are known areas of crime such as drug addiction, militant hideouts and burglary. Table 2 revealed that most (45.6%) of residents in the two neighbourhoods rated crime levels high.

Table 2 also indicated that over two third (71.2%) of the residents rated government residential planning inadequate. There is complete absence of residential planning in the informal settlements. The only way government intervention will be possible is to resettle the residents in a new location and properly plan these areas. The study showed that two third (66.0%) of the residents rated public transportation inadequate. Transportation is provided mainly by the public sector such as taxis and mini buses.

The study indicated that 60.2% of the residents rated public schools inadequate. There no public schools in these settlement. Government owned schools are located in close neighbourhoods such as Old Port Harcourt Township and Mile 1 Diobu. The children of the poor still pay transport fare and even trek long distances to school risking the lives of these young children. These conditions negate the sustainable development goals.

Table 2 revealed that about two third (64.4%) of the residents rated recreational areas inadequate. The study revealed that there are no government owned recreational areas in the two informal settlements. The available recreational areas are small local bars were men go to relax and drink. Slightly greater than half (56.0%) of the residents rated traditional markets adequate while a quarter (25.6%) of the residents rated them inadequate. There are roadside markets located fairly close to these settlements.

Greater than two third (70.7%) of the residents reported a negative rating of hospitals/clinics. It showed that hospitals/clinics are inadequate. There no hospitals and clinics located in these neighbourhoods. Health facilities are located far from the people. The available government owned health facilities are often overcrowded with patients lying on the floor at the emergency sections.

Table 2 revealed that a large percent (87.4%) of the residents rated fire stations in the two informal inadequate. There is only one government owned fire station in Port Harcourt Municipality. This is a serious problem because some properties and facilities such as the Timber Shade, Mile 1 market and New Layout market have been gutted by fire in

recent times in the city and this is an indication of huge loss of investment.

Table 2 revealed that most (43.4%) of residents across the two settlements rated police station adequate while a quarter rated it as inadequate. There is a police station located opposite Marine Base water front settlement. This is the only visible government presence in these settlements, probably to combat crime in the area.

The study showed that (83.2%) of the residents rated general neighbourhood conditions poor while 83.5% rated aesthetic conditions poor (See Figure 2). The study showed that most (80.7%) of the residents rated solid waste collection and disposal poor. These results showed that conditions very bad.

Figure 2: A typical View of an Informal Settlemen
(Source: Author's Field Survey)

The study revealed that 62.8% of residents rated noise levels high in the two informal settlements. In general noise pollution has become a manace in most neighbourhoods as a result of noise from electric generators used by residents because of frequent power supply cuts. This is the reality in the municipality and requires concerted intervention by government to ameliorate the situation. The incessant power cuts have increased noise pollution in our neighbourhoods and this also poses health risks as a result of the noise and air pollution. This shows that electricity supply is a major problem in the city of Port Harcourt and the country in general. The problem had worsened under Port Harcourt Electricity Distribution (PHED) company. Akpan et al (2012) found that there was a very high correlation between noise annoyance and the daily disturbances from the aircraft noise on people which included fatigue, lack of concentration, headache, night sleep, relaxation and communication disturbances. They also found that the quality of life of people living around Port Harcourt International airport has greatly been impaired by noise from aircraft. Most residents (59.2%) also rated fire hazards low.

Table 2: Rating of Neighbourhood Quality Indicators in Port Harcourt Municipality

Neighbourhood Attributes	Informal Settlements	
	N	%
How do you rate government provision of plots and layouts for individual home construction? Would you say that it has been very inadequate, rather inadequate, neither adequate nor inadequate, fairly adequate, or very adequate?		
1. Very Inadequate	102	53.4
2. Rather Inadequate	50	26.2
3. Neither Adequate Nor Inadequate	8	4.2
4. Adequate	5	2.6
5. Very Adequate	6	3.1
6. Missing Data	20	10.5
Total	191	100
Next, how do you rate government provision of housing especially for the poorer people?		
1. Very Inadequate	149	78.0
2. Rather Inadequate	30	15.7
3. Neither Adequate Nor Inadequate 4. Adequate	0	0
5. Very Adequate	4	2.1
6. Missing Data	4	2.1
	4	2.1
Total	191	100
How do you rate government efforts to keep your neighborhood clean?		
1. Very Inadequate	132	69.1
2. Rather Inadequate	47	24.6
3. Neither Adequate Nor Inadequate	8	4.2
4. Adequate	0	0.0
5. Very Adequate	4	2.1
6. Missing Data	0	0
Total	191	100
Also the maintenance of streets in this neighborhood. How do you rate government efforts in this regard?		
1. Very Inadequate	127	66.5
2. Rather Inadequate	49	25.7
3. Neither Adequate Nor Inadequate 4. Adequate	7	2.6
5. Very Adequate	4	2.1

6. Missing Data	2	1.0
Total	191	100
What about safety of lives and property in your neighborhood. How do you rate government efforts to achieve this?		
1. Very Inadequate	113	59.2
2. Rather Inadequate	38	19.9
3. Neither Adequate Nor Inadequate 4. Adequate	12	6.3
5. Very Adequate	24	12.6
6. Missing Data	4	2.1
	0	0
Total	191	100
Everything considered, how do you rate government residential planning?		
1. Very Inadequate	113	59.2
2. Rather Inadequate	23	12.0
3. Neither Adequate Nor Inadequate	9	4.7
4. Adequate	14	7.3
5. Very Adequate	32	16.8
6. Missing Data	4	2.1
Total	191	100
Rating of public transportation		
1. Very Inadequate	77	40.3
2. Rather Inadequate	49	25.7
3. Neither Adequate Nor Inadequate 4. Adequate	23	12.0
5. Very Adequate	21	11.0
6. Missing Data	16	8.4
	5	2.6
Total	191	100
Rating of public schools		
1. Very Inadequate	61	31.9
2. Rather Inadequate	54	28.3
3. Neither Adequate Nor Inadequate 4. Adequate	16	8.4
5. Very Adequate	45	23.6
6. Missing Data	4	2.1
	11	5.8
Total	191	100
Rating of number of recreational areas		
1. Very Inadequate	96	50.3
2. Rather Inadequate	27	14.1
3. Neither Adequate Nor Inadequate 4. Adequate	32	16.8
5. Very Adequate	2	1.0
6. Missing Data	5	2.6
	29	15.2
Total	191	100
Rating of number of markets		
1. Very Inadequate	22	11.5
2. Rather Inadequate	27	14.1
3. Neither Adequate Nor Inadequate 4. Adequate	26	13.6
5. Very Adequate	73	38.2
6. Missing Data	34	17.8
	9	4.7
Total	191	100
Rating of number of hospitals and clinics		
1. Very Inadequate	106	55.5
2. Rather Inadequate	29	15.2
3. Neither Adequate Nor Inadequate 4. Adequate	21	11.0
5. Very Adequate	20	10.5
6. Missing Data	2	1.0
	13	6.8
Total	91	100
Rating of fire Station		
1. Very Inadequate	145	75.9
2. Rather Inadequate	20	10.5
3. Neither Adequate Nor Inadequate 4. Adequate	10	5.2
5. Very Adequate	0	0
6. Missing Data	2	1.0
	14	7.3
Total	191	100
Rating of number of police stations		

1. Very Inadequate	35	18.3
2. Rather Inadequate	21	11.0
3. Neither Adequate Nor Inadequate 4. Adequate	40	20.9
5. Very Adequate	70	36.6
6. Missing Data	13	6.8
	12	6.3
Total	191	100
Rate the neighbourhood Conditions		
1.Very bad	81	42.4
2. Bad	78	40.8
3. Average	10	5.2
4. Good	11	5.8
5. Very good	0	0
6. Missing Data	11	5.8
Total	191	100
Aesthetic conditions		
1.Very bad	95	49.7
2. Bad	76	39.8
3. Average	16	8.4
4. Good	0	0
5. Very good	4	2.1
6. Missing Data	0	0
Total	191	100
Solid waste collecti Solid waste collection and disposal		
1. Very bad	104	54.5
2. Bad	50	26.2
3. Average	29	15.2
4. Good	2	1.0
5. Very good	6	3.1
6. Missing Data	0	0
Total	191	100
Rating of noise level		
1.Very High	53	27.7
2. High	67	35.1
3. Average	22	11.5
4.Low	39	20.4
5.Very Low	10	5.2
6. Missing Data	0	0
Total	191	100
Rating of crime		
1. Very High	45	23.6
2. High	42	22.0
3. Average	39	20.4
4. Low	47	24.6
5. Very Low	18	9.4
6. Missing Data	0	0
Total	191	100
Rating of fire hazard		
1. Very High	13	6.8
2. High	7	3.7
3. Average	58	30.4
4. Low	59	30.9
5.Very Low	54	28.3
6. Missing Data	0	0
Total	191	100

(Source: Author's Field Survey)

5.0 Conclusion

In this study residents rated neighbourhood quality indicators in informal settlements in Port Harcourt municipality. The study found that large percentage of residents in the two informal neighbourhoods in Port Harcourt rated neighbourhood quality indicators such as cleanliness of the neighbourhood, safety of lives and property, residential planning, provision of housing for the poor, hospitals/clinics, recreational areas, public schools, maintenance of streets and fire stations inadequate. Majority of the residents rated waste collection and disposal, aesthetic condition and the neighbourhood condition poor while noise level was rated high. However, a large percentage of residents rated police stations and traditional markets adequate. The study also indicated that fire hazard is low.

The study concluded that most residents rated most neighbourhood quality indicators inadequate. The study concluded that government intervention in the form of infrastructure in these settlements is absent. The only visible government presence is a police station opposite Marine Base water front settlement. The study recommended that the government should intervene in these neighbourhoods to improve their neighbourhood quality.

Note: This work is a small part of a Ph.D thesis by the Author.

REFERENCES

Adewale, B.A., Taiwo, A. A., Izobo-Martins, O.O. and Ekhaese, E.N. (2015). Age of Residents and Satisfaction with the Neighbourhood in Ibadan Core Area: A Case Study of Oke Foko. Global Journal of Arts Humanities and Social Sciences,3(2),52-61.

Andrews, F. M. (1980). Subjective Social Indicators, Objective Social Indicators, and Social Accounting Systems. Survey Research Centre, The University of Michigan, Ann Arbor, USA.

Coker, A.O, Awokola, O.S., Olomolaiye, P. O., and Booth, C. A. (2007). Challenges of urban Housing Quality and its Associations with Neighbourhood Environments: insights and experiences of Ibadan City,Nigeria.Chartered Institute of Environmental Health www.cieh.org Accessed 16/ 7/ 09

Discoli, Rosenfeld, Juan,s., Martini, Barbero, Ferreyro,and Dicroce (2006)." Urban Integration and Disintegration Forces: The habitants/Users Perception in an Urban life Quality Model for the Surroundings of LaPlata, Buenos Aires, Argentina."A paper presented at the 42nd International Society of City and Regional Planners (IsoCARP) Congress, 2006.

Giannias, D. A (1996).Quality of Life in Southern Ontario. Department of Economics,University of Crete, Athens Greece. www.findarticles.com Accessed 15/5/11.

Gruber, K. J. and Gladys G.(1987) Assessment of Neighborhood Satisfaction by Residents of Three Housing Types. Social Indicators Research, 19(3), 303-315.

Hall, L.J. , Madrigal,R. and Robalino, J.(2008)."Quality of Life in Urban Neighborhoods in Costa Rica", Inter-American Development Bank, Latin American Research Network, Research Network Working Paper www.iadb.org/res/publications/pubfiles#R-563. Accessed 16/ 7/ 09

Hebert Research (2009). Resident Satisfaction Survey, Seattle Housing Authority, Bellevue, WA. www.seattlehousing.org

Jongudomkarn, D. and Camfield, L.(2005). "Exploring The Quality of Life of People in North Eastern And southern Thailand" WeD Working Paper 11. Retrieved from www.welldev.org.uk Accessed 16/ 7/ 09

Kehinde,O.J., Ojo,T.I. and Oginni,E.O.(2015).Residents' Satisfaction in Public Estates in Osogbo, Nigeria. Merit Research Journal of Art, Social Science and Humanities, 3(1),010-017.

Kish, L. (1965). Survey Sampling. John Willey and Sons Inc. New York.643pp.

Lotfi, S. and Solaimani, k.(2009). "An assessment of Urban Quality of Life by Using Analytic Hierarchy Process Approach(Case study: Comparative Study of Quality of Life in the North of Iran)" Journal of Social Sciences 5(2):123-133.

Marans, R. W. (!979). The Determinants of Neighbourhood Quality: An Analysis of the 1976 Annual Housing Survey. A Report Prepared for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

Mchi, A.A. (1997)."Assessing Residential Environmental Quality withinSelected Resid ential Areas of Port Harcourt." Unpublished B.Tech Project. Department of Urban & Regional Planning, Rivers State University Science & Technology, Port Harcourt.

Melnick,D., McNeely, J. , Navarro,Y.K., Schmidt-Traub, G. and Sears, R. R.(2005).Environment and Human Wellbeing: a Practical Strategy. UN Millenium Project. Earthscan, London. 133pp.

Mridha, A. and Moore, G. T.(2011)The Quality of Life in Dhaka, Bangledesh: Neighborhood Quality as a Major Component of Residential Satisfaction. www.researchgate.net

Doi 10. 1007/978-94-007-1742-8_11

Novianto, D.,Gao, W., Kuroki, S. and Fukahori, H. (2016) Statistical Evaluation on Neighbourhood Facilities in Relation with Residential Satisfaction and Preference. American Journal of Environmental Sciences.12(3),169-181

Obinna, V.C., Owei, O. B. and Mark, E.O.(2010). "Informal Settlements of Port Harcourt and Potentials For Planned City Expansion." Environmental Research Journal Vol.4, No. 3, pp 222-228.

Ogionwo, W. (1979). A Social Survey of Port Harcourt. Heinemann Educational Books (Nig.) Ltd, Enugu. 273 Pp.

Omuta, G.E.D. (1988) "The Quality of Urban Life and the Perception of Livability: A Case Study of Neighbourhoods in Benin City, Nigeria."Social Indicators Research, 20 (4), 417-440.

Pacione, M. (2003). "Urban Environmental Quality and Human Wellbeing—A Social Geographical Perspective." Landscape and Urban Planning 65. pp.19–30.

Salau, A. T. (1986). "Quality of life and city size: An exploratory study of Nigeria."Social Indicators Research Vol.18, No.2 pp.193-203

Senecal,G.(2002)."Urban Spaces and Quality of Life: Moving Beyond Normative Approaches'' http://policyresearch.Gc.Ca/page.Asp?Pagenm=vsnl-art-06

Accessed 18/12/2002

Ugwuorah, A. N. (2002). The Relevance of the Urban and Regional Law (Decree. 88 of

1992) to Environmental Management in Port Harcourt Metropolis." Unpublished M. Phil.

Thesis, Department of Environmental Management, Institute of Geosciences and Space Technology, RSUST , Port Harcourt.

UNHSP(2008). The State of African Cities, A framework For Addressing Urban Challenges in Africa.UN Habitat. Nairobi, Kenya. 206pp.

Wokekoro, E. and Owei, O.B.(2006). "Environmental Indicators of Derelict Housing in Nigerian Cities case Study of Port Harcourt, Rivers State." A Paper Presented at the International Conference on Infrastructure Development and the Environment (ICIDEN), Abuja Nigeria. September 10 – 15, 2006.

Yamane, T. (1967). Statistics, an Introductory Analysis 2nd ed., Harper and Row, New York. 919pp