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RESIDENTIAL ENVIRONMENTAL QUALITY AND NEIGHBOURHOOD ATTACHMENT OF RESIDENTS IN UYO URBAN, AKWA IBOM STATE, NIGERIA

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ABSTRACT

Purpose: The paper examined the relationship between the residential environmental quality and neighbourhood attachments in Uyo urban, Akwa Ibom State, Nigeria..

Design/methodology/approach: The research design adopted was survey technique in which 381 copies of questionnaire were administered in 10 sampled neighbourhoods in Uyo urban. Data were extracted from 298 questionnaire that were returned fit for analysis. With the aid of Stata statistical tool regression analysis technique was applied on the data.

Findings: The study revealed that residents are more attached to neighbourhoods with good road network accessibility, and availability of recreational services. It was also revealed that commercial services significantly influenced residents to live for a long time in their neighbourhoods.

Research limitations/Implications: There were no clear cut residential neighbourhoods but communities of mixed uses. The communities were taken as residential neighbourhoods and the focus was on residential buildings.

Practical implications: Based on the findings, it is recommended that government should improve on the provisions of security to protect both lives and properties of the residents, ensure timely waste evacuation, to constantly keep the residential environment clean, ensure the availability of commercial and educational services. The implication of this is that neighbourhoods would continue to degenerate with attendant health hazards on residents.

Originality/value: Residents are not quite satisfied with the quality of residential environment in Uyo urban. I addition, findings revealed that residents are more attached to neighbourhoods with good road network accessibility, and availability of recreational services.

Keywords: Residential; Environmental quality; Neighbourhood attachment; Uyo urban; Accessibility; Liveability.

1. INTRODUCTION

Environmental quality refers to a set of characteristics of the environment; generalized or local as they affect human beings and other organisms. Components of environmental quality include both

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natural environment such as vegetation, air, land and water; the built environment comprising man-made features; the purity or pollution of all these elements and their potential effects on physical and mental health of populations (European Environment Agency, 2012). A residential environment is defined as a setting in which systems of human activities take place. These form a subsystem of the environment where individuals live (Bae *et al.*, 2019). Environmental quality is an assessment of the environment in connection with one or more aspects requirements or for any human need or desire (Adriaanse, 2007). It comprises components such as nature, open space, infrastructures, built environment, facilities of physical environment and natural reserves. A quality residential environment comprises a good quality of life and the protection of economic, social and cultural activities.

Residential environmental quality, according to Kesalkheh and Dadasphoor (2012) is related to concepts such as: quality of life, liveability, living quality, living environment, quality of a place, residential perception and satisfaction; and the evaluation of the residential and living environment.Today, improvement in environmental quality is one of the core concerns of urban policy and planning (Moser, 2009). One of the issues regarding residential environmental quality is to regard the interaction and perception of the person to the surrounded environment. How they perceive an environment and their level of satisfaction. The quality of a residential environment focuses on physical amenities, resources, aesthetics, safety, stimulation, peacefulness heterogeneity and homogeneity of the population together with interaction or withdrawal (Kesalkheh and Dadashpoor, 2012). Residential environmental quality is desirable in Nigeria's fast growing population. Both community satisfaction and housing satisfaction have been employed as measures of quality of life and quality of individual life (Sirgy, 2002; Lewicka, 2011).

The topography of dwellings and neighbourhood built by man is a vital factor worthy of consideration to an individual's social and psychological well-being. Landscape of places designed by humans could add or subtract from individual's sense of security and safety (Austin *et al.,* 2002). In studying the effects of neighbourhood conditions on social and psychological outcomes, previous studies had depended on resident's perceptions of the physical conditions of their houses and neighbourhoods (Teernstra, 2014). Neighbourhood attachment involves dynamic and lasting positive bonds between people and prized social and physical settings, such as home. These bonds reflect and help cultivate group and individual identity. Residential place attachments often lead to feelings of pride in the residential area and its appearance and an overall sense of well-being.

Uyo being the capital city of Akwa Ibom State had experienced change in size and shape over the years. The growth of Uyo urban population is as a result of the legal and administrative criteria for establishment of urban centres in Nigeria. The estimated population in the last national census in 1991 of Uyo urban was 110,054. Stevenson and Wolfers (2013) posited that there were many consequences for the nature of population growth in an urban area such as urban expansion, urban sprawl, high cost of infrastructural development, increased emissions from transport vehicles that can cause air pollution which reduces air quality in the residential environment and affects human and environmental health in Uyo urban (Aliyu and Ahmadu, 2017).

2. LITERATURE REVIEW

2.1. Residential Environmental Quality

Residential environmental quality is one of the basic elements for quality of life and the main support for activities of economy, culture and society (Xiaoyu*et al.,* 2007). One of the main issues in relation to person and its environment is seen the satisfaction of the environment since the urban residential environment is seen as a hierarchical and multidimensional concepts and environmental quality is described by essential characteristics such as satisfaction of residents with environmental quality (Kesalkheh and Dadashpoor, 2012).

Kesalkheh and Dadashpoor (2012) grouped residential environment into two categories namely: dwelling and neighbourhood. Dwelling consists of facilities and size, costs and upkeeps. Neighbourhood comprised physical - spatial characteristics, functional - structural characteristics and social-cultural characteristics. Moon *et al.* (2018) considered some Perceived Residential Environmental Quality (PREQ) scales which include architectural or town planning features

comprising architectural and town planning space, organization of accessibility and green areas. The second scale being social relation features comprising people and social relations. The third scale being functional features including welfare services, recreational services, transport services and commercial services. The fourth scale being context features comprising pace of life, environmental health, upkeep and care while the fifth scale being neighbourhood attachment.

Sanni and Akinyemi (2009) posited that factors that are considered as residential environmental quality include a planned area with necessary infrastructural facilities which include good roads, potable water supply (pipe borne) and electricity which make a place conducive for living. Findings in Ibadan urban centre revealed that educational level and estimated monthly income of housing consumers for instance, were major factors that determined the influence of the demand for residential neighbourhoods of housing consumers while others were employment and official status (Obiowo, 2017).

The quest for living a good life is usually centred in cities, since cities have become the target of quality of life measurement, due to the fact that they exhibit current culture trend ranging from technological development to social progress (Wokekoro, 2015). Infrastructures and services in the urban areas have not been able to keep pace to rising population which usually brings spatial expansion; with rising urban poverty and deterioration in urban environmental conditions (Lee and Son, 2017). Wokekoro (2015) posited that most residents in an urban area believed that employment, provision of basic amenities, good housing will improve their residential quality of life. And that residents' suggestions on what will improve housing conditions in the neighbourhoods and cities were that government should force landlords to renovate their houses, building of low-cost housing estates and provision of basic amenities, hospitals/clinics, fire stations, police stations, waste collection and disposal, state of public schools and shopping facilities.

Choi (2016) also was of the opinion that educational attainment of residents was expected to be influential as people with higher educational attainment are high in status, more enlightened and seek residential locations that satisfy the dwellings befitting their status and neighbourhood. Choi (2016) added that the higher the earnings of the resident, the higher the rate of occupancy of owner, indicating that home owners will hardly move out of their neighbourhoods due to the high level of satisfaction derived from the neighbourhood. Factors that accounted for resident's attraction to residential environment included: nearness to work place, serenity, good housing, proximity to relatives, high community cohesion, better schools for children, low rent, place of birth, low value of property, and proximity to resident's community (Bonaiuto *et al.*, 2003). Housing satisfaction assesses the perception of and feelings for the housing units of residents and the environment, which serves as a predictor to measure an individual's perception of the quality of residential environment (Ogu, 2002). The Perceived Residential Environmental Quality Indicators (PREQIs) and residential satisfaction are measured using variables such as architectural and urban planning, road accessibility, security, education, transport service, waste management, commercial service, recreational service, neighbourhood upkeep, neighbourhood serenity.

2.2. Neighbourhood Attachment

Neighbourhood attachments are nourished by daily encounters with the environment and neighbours, seasonal celebrations, continued physical personalization and upkeep, and affective feelings toward and beliefs about the home and neighbourhood (Werner *et al.*,1993). Place attachments are profoundly disrupted when environments change rapidly, such as when floods or other environmental disasters strike (Brown and Perkins, 1992). Yet the more gradual process of neighbourhood decline is likely to affect more residents and continue over longer periods of time (Fishman, 2000). Neighbourhood attachments promote and provide stability, familiarity, and security. Yet attachments also change as individuals and households develop, environments age, or the processes supported by settings alter. Liao (2004) noted that some studies observed that satisfaction with place of residence affects thoughts about mobility, but only has an indirect effect on actual mobility. Presently, urban settings are being developed without consideration of the quality of urban life. Most developers of residential neighbourhoods only plan for the accommodation aspect, such as housing needs, without taking into consideration diverse habitat needs and the liveability perceptions of the residents. As a result, the social and perceptual dimension is generally ignored. Enhancing the built environment and its social and perceptual dimensions by improving the quality of the physical

characteristics of neighbourhoods according to user specifications should help satisfy inhabitant and user needs for a more liveable and enjoyable built environment thereby fostering attachment.

Some researchers have also identified a wide range of determinants of community attachment. For instance, length of residence has been examined as both a determinant and indicator of community attachment. Also, residents of urban areas are expected to be less integrated into and involved in their communities than people in areas with a small population as primary social relations and the social importance of the local community are assumed to weaken with urbanisation. High-density living, alongside anonymity and rise in social disorder are expected to result in diminished attachment to the neighbourhood. Stinner *et al.* (1990) and Mao *et al.* (2015) found that individual social characteristics had different effects on community attachment. Some effects were dependent on community size, while others were not. Population factors identified as determinants of attachment were population size, population density, degree of population heterogeneity, and rapidity of population change. However, the research did not provide a clear conclusion about the significance of population factors as attachment determinants (Goudy 1990). However, Woolever (1992) found that a high level of population diversity was not detrimental to attachment. Furthermore, extensive range of housing factors has been identified as determinants of neighbourhood attachment. These include housing density, type, tenure and condition; the housing market and household crowding.

Woolever (1992) also found that high housing density was related to dissatisfaction with the neighbourhood and weaker ties of attachment. Studies that dealt with crime and social disorder as determinants of attachment considered a wide range of factors. These included aspects of the physical environment and appearance of the neighbourhood that may be related to crime, safety or nuisance, such as graffiti, abandoned vehicles, presence of empty or dilapidated houses, noise and pollution.

Residential environmental quality which relates to the perception, satisfaction and attachment to neighbourhoods by people living in a residential environment is vital to the quality of life of residents. The urbanized residential environment has become the main habitat for people worldwide and the assessment of the urban neighbourhoods has become an important issue both for residents and policy makers. However, residential environmental quality and neighbourhood attachment of residents in Uyo urban have not been empirically established. The aim of the study therefore, is to examine residential environmental quality and neighbourhood attachment by residents in Uyo urban.

2.3. The Study Area

Uyo urban is located between latitudes 4^{o}32'and 5^{o}38' north of the equator and longitudes 7^{o}25' and 8^{o}25' of the Greenwich meridian as shown in Figure 1. The area is located on an elevation of about 60.96 metres (2090 ft) above sea level (Njungbwen and Njungbwen, 2012). Uyo urban covers the most developed part of Akwa Ibom State. The territory is centrally located as the administrative capital of Akwa Ibom State (Akwa Ibom State Government, 2008).

3. METHODOLOGY

3.1. Research Design

The research design adopted for this study is the survey technique, to examine the quality of residential environment and neighbourhood attachment in Uyo urban. A 5-point Likert scale was used to measure the independent (X) and dependent variables (Y) (Potter *et al*.,2004). The sampling unit of the study area of Uyo urban are houses, where respondents particularly, head of the households were issued the questionnaire. Ten neighbourhoods were taken for this study. The population of the study is Uyo urban comprising all the neighbourhoods in the study area. Seventy-five (75) communities were taken as neighbourhoods that make up the study area. These communities are not purely residential but mixed uses. This was a limitation since the research focused on residential use. To overcome the limitation the communities were regarded as residential neighbourhoods while focusing only on residential buildings. According to Udofia (2011), ten percent (10%) of the total population is ideal for use. However, to obtain a wider coverage of Uyo urban, thirteen percent (13%) of the total neighbourhoods were considered, making a total of ten (10) neighbourhoods (Table 1). Systematic random sampling was used, by arrangement of the neighbourhoods in an alphabetical order. The first neighbourhood on the list was selected, after which a skipping range of eight (8) was used to select ten (10) neighbourhoods from the 75 neighbourhoods to be sampled. The number of

the households under the study area would be determined by dividing by six (6) (NPC's average household's size in Akwa Ibom State) (National Population Cmmission, 1991).

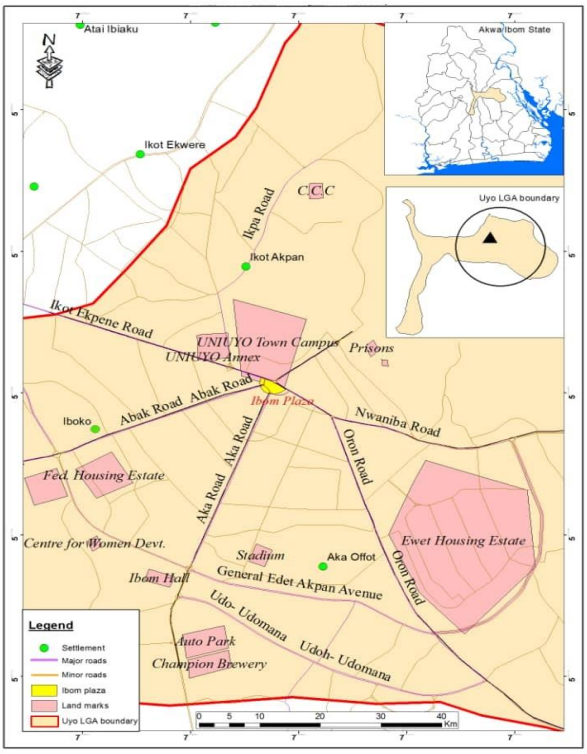


Figure 1: Map of Uyo Urban

Source: GIS Laboratory, Department of Geography and Natural Resources Management (2022)

Table 1: Ten Neighbourhoods and their Projected Population, Household and Sample Size

SN.	Neighbourhood	1991 Population	2020 Projected Population	Number of Households	Sample size
1	Afaha Atai	2,482	6,545	414	19
2	Anua Offot	6,521	17,195	2866	133
3	Ifa Ikot Akpabio	616	1,624	271	13
4	Ikot Akpa Etok	1,853	4,886	814	38
5	Ikot Mbon	1,291	3,404	567	26
6	Ikot Okubo	2,213	5,835	973	45
7	Mbak Ikot Abasi	1,883	4,965	828	38
8	MbikpongAtai	1,176	3,101	517	24
9	NungUkana Ikot Obio	1,567	4,132	687	32
10	Use Ikot Ebio	640	1,687	281	13
	Total	**20,242**	**53,374**	**8224**	**381**

Source: Researchers' compilation (2021)

Data on population, residential environmental quality and neighbourhood attachment of ten neighbourhoods in Uyo urban were taken and analysed. Neighbourhood attachment was determined by retrieving data from the questionnaire, with the aid of a 5-point Likert scale and the mean values calculated and analysed using regression model from a Stata statistical tool.

The sample size of the study was determined using Taro Yamane formula.

$$n = {}^{N}/_{1} + N(e)^2 \quad \ldots eqn.1$$

Where: n = present population, N = finite population, and e = significant level of 0.05.

3.2. Identification, Definition and Measurement of Variables

Tables 2 and 3 present both the independent and dependent variables identified for the study. Data for analysis were collected based on these variables.

Table 2: Independent Variables (PREQIs)

SN	Indices	Definition	Unit of Measurements
X_1	Architectural and urban planning space	Refers to the space between houses in the neighbourhood	Metre square (m^2)
X_2	Road Accessibility	Refers to the road network connections linking the neighbourhood to other parts of the city.	Number of road networks
X_3	Security	Refers to how safe the neighbourhood is from criminal activities.	Number
X_4	Education	Refers to schools in the neighbourhood.	Number
X_5	Transport Service	Refers to proximity of residents to the public transport pick up point.	Distance in Metre
X_6	Waste Management	Refers to the dumpsite volume and frequency of evacuation of waste by waste management agency.	Frequency
X_7	Commercial Service	Refers to availability of stores to serve the neighbourhood.	Number
X_8	Recreational Service	Refers to availability of areas for outdoor activities like sport, sit-out etc.	Number
X_9	Neighbourhood Upkeep	Refers to the cleanliness and maintenance culture in the neighbourhood.	Number
X_{10}	Neighbourhood Serenity	Refers to the degree of noise and calmness in the neighbourhood.	Frequency of cases

Source: Adapted from Mao *et al.* (2015), Bonaiuto *et al.* (2015)

Table 3: Dependent Variables

SN	Indices	Definition	Unit of Measurements
Y_1	Residential Satisfaction	Refers to the level of satisfaction derived by residents living in the neighbourhood	Likert scale
Y_2	Neighbourhood Attachment	Refers to the degree of harmony residents have with the neighbourhood they live in	Likert scale
Y_3	Residential Quality	Refers to the level of aesthetic, design of an environment	Likert scale

Source: Adapted from Mao *et al.* (2015)

The regression models are specified below.

$$RES_SAT = \gamma_0 + \gamma_1 \Delta POP_GRT_1 + \gamma_2 URB_PLN_2 + \gamma_3 RD_ACC_3 + \gamma_4 SEC_4 + \gamma_5 EDU_FAC_5 + \gamma_6 REC_SERV_6 + \gamma_7 COMM_SER_7 + \gamma_8 TRAN_SERV_8 + \gamma_9 NEB_SERE_9 + \gamma_{10} WST_MGT_{10} + \gamma_{11} NEB_UPK_{11} + \mu_3 \quad \ldots eqn.\ 2.$$

$$NEB_ATT = \beta_0 + \beta_1 \Delta POP_GRT_1 + \beta_2 URB_PLN_2 + \beta_3 RD_ACC_3 + \beta_4 SEC_4 + \beta_5 EDU_FAC_5 + \beta_6 REC_SERV_6 + \beta_7 COMM_SER_7 + \beta_8 TRAN_SERV_8 + \beta_9 NEB_SERE_9 + \beta_{10} WST_MGT_{10} + \beta_{11} NEB_UPK_{11} + \mu_2 \quad \ldots eqn.\ 3.$$

Where: γ_0 and β_0 are constants in equations 2 and 3. $\beta_1, \beta_{2\ldots}, \gamma_1, \gamma_{2\ldots} \gamma_{12}$ (equation 2) and β_{12} (equation 3) are coefficients of estimate; RES_QUA is residential quality, NEB_ATT is neighbourhood attachment.

The variables on the right hand side of the equality sign represent the perceived residential environmental quality indicators (PREQIs), the independent variables. The independent variables X_1 to X_{10} were measured using a 5-point Likert scale, while X_{11} was derived from 1991 population figure.

4. PRESENTATION AND DISCUSSION OF RESULTS

4.1. Demographic/ Socio-economic Profiles of the Respondents in Uyo Urban

The personal characteristics of the respondents were collected as a background to the study. This was done to have an approximate profile of the heads of household that responded in this study. The survey data in Table 4 represent the marital status, age, income level, occupational status, educational status, and duration of residence of the respondents.

Table 4 presents the age groups of the respondents; the age range of 18-40 comprises 53 persons, which accounted for 17.44% of the respondents. The age range of 41-44 consists of 58 persons, accounting for 19.46% of the respondents, while the age group of 45-60 is made up of 171 persons, making up 57.4% of the respondents; while those in 61 years and above are 17 or 5.70% which forms the least number of respondents among the age group. According to Table 4, for marital status, 69 persons were single, accounting for 23.15% of the respondents, while 170 persons were married, and accounting for 57.04% of the respondents, 34 divorced persons, representing 11.40% of the respondents, while 25 persons were widowed, comprising 8.38% of the respondents, revealing the lowest number of the respondents in the group.

Table 4 also presents 125 persons who represent 41.94% of the respondents with First School Leaving Certificate (FSLC), 168 persons representing 56.37% of respondents for those with tertiary education and 5 persons comprising 1.67% respondents with no formal education. The occupation status of the respondents in the study area is also contained in Table 4. The data shows that168 persons were civil servants, making up 56.37% of the respondents, and ranking highest, followed by 47 persons as farmers, comprising 15.77% of the respondents, while 83 persons were involved in trading or business, representing 27.85% of respondents, ranking the lowest in the occupation status.

The distribution of income of the respondents as presented in Table 4 indicates that 84 persons earned below #18,0000 which comprises 28.18% of respondents; while188 persons earned between #18,000 - #60,000, representing 63.08% and ranking the highest in the group. The number of persons earning #61,000 and above is 26 accounting for 8.72% of respondents, ranking the lowest in the group. In addition, Table 4, also shows the duration of residence (years) in the study area. It revealed that 150 persons lived in the area from 1- 10 years, making up 50.33% and the highest in rank, while 121 persons lived from 11-20 years, accounting for 40.60%, which is the second in ranking; while 27 persons lived from 21 and above years, accounting for 9.06% of respondents, and is the lowest in ranking among the group.

Table 4: Distribution of Respondents According to their Personal characteristics

Characteristic	Frequency	Percentage
Age		
18-40	53	17.44
41-44	58	19.46
45-60	171	57.38
61-above	17	5.70
Total	298	99.98
Marital Status		
Single	69	23.15
Married	170	57.04
Divorce	34	11.40
Widowed	25	3.28
Total	298	99.97
Educational Status		
First School Leaving certificate	125	41.94
Tertiary	168	56.37
No Formal Education	5	1.67
Total	298	99.98
Occupation		
Civil Servant	168	56.37
Farming	47	15.77
Trading/Business	83	27.85
Total	298	99.98
Income (Naira)		
Below #18,000	84	28.18
#18,000-#60,000	188	63.08
#61000-above	26	8.72
Total	298	99.98
Duration of Residence (years)		
1-10	150	50.33
11-20	121	40.60
21-above	27	9.06
Total	298	99.99%

Source: Field data (2021)

4.2. Residential Environmental Quality and Neighbourhood Attachment in Uyo Urban

Residential environmental quality and neighbourhood attachment as shown in Table 5 for AfahaAtai reveals that neighbourhood attachment with respect to environmental quality (2.3) has a low rating and that residents are not attached to their neighbourhoods. Anua Offot reveals that residents are not attached to their neighbourhoods based on the mean score (2.7). Residents in Ifa Ikot Akpabio and Akpa Etok also have a low attachment to their respective neighbourhoods according to the mean values of 2.1 and 2.8 respectively. Residents in both Ikot Mbon, Ikot Okubo and MbikpongAtai have an attachment to their neighbourhoods with mean scores of 3.1, 3.4 and 3.0 respectively. NungUkana Ikot Obio residents have a low neighbourhood attachment (2.8) while, Use Ikot Ebio residents have a neighbourhood attachment (3.0).

Table 5: Mean Value of Residential Environmental Quality and Neighbourhood Attachment

SN	NH	Y_1	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}
1	AA	2.3	3.2	3.8	3.8	2.6	2.8	3.0	3.1	4.2	3.2	3.1
2	AO	2.7	2.6	4.3	2.1	2.9	2.6	2.8	2.9	3.0	3.3	3.0
3	IIA	2.1	2.6	3.5	3.3	3.4	3.2	2.5	2.6	4.1	3.2	2.7
4	IAE	2.8	2.8	4.3	3.2	3.6	2.6	3.5	2.0	4.2	3.0	2.5
5	IM	3.4	1.8	3.7	2.4	3.1	2.4	3.3	3.3	3.8	2.8	2.8
6	IO	3.1	2.3	3.1	3.2	3.2	3.3	3.1	2.7	3.3	2.9	2.9
7	MIA	2.1	2.9	3.5	3.1	2.3	2.1	3.0	3.3	3.4	2.9	2.7
8	MA	3.1	3.0	3.7	2.6	3.0	2.2	2.7	2.8	3.1	2.2	2.3
9	NUI	2.8	3.2	3.3	2.7	2.4	2.2	2.9	2.7	3.5	3.0	2.0
10	UIE	3.0	3.0	3.6	3.0	2.7	2.6	2.2	2.8	3.6	3.2	2.7

Source: Field data (2021)

Key: Y_1 – Neighbourhood attachment, X_1- Architectural and urban planning space, X_2 - Road accessibility, X_3 – Security, X_4- Education, X_5 - Transport service, X_6 - Waste management, X_7 - Commercial service , X_8 - Recreational service, X_9 - Neighbourhood upkeep, X_{10} - Neigbourhood serenity.

NH- Neighbourhood, AA- AfahaAtai, AO - AnuaOffot, IIA - Ifa Ikot Akpabio, IAE - Ifa Akpa Etok, IM - Ikot Mbon, IO - Ikot Okubo, MIA - Mbak Ikot Abasi, MA – MbikpongAtai, NUI – NungUkana Ikot Obio, UIE – Use Ikot Ebio.

Table 6: Residential Environmental Quality and Neighbourhood Attachment
Dependent variable: NEB_ATT

Variable	Coefficient	Standard Error	t-stat
URB_PLN	-0.0228	0.1111725	-0.21
RD_ACC	0.244**	0.137666	1.79
SEC	0.098	0.1259145	0.94
EDU_FAC	-0.076		-0.61
TRAN_SERV	0.004	0.1043104	0.06
WST_MGT	0.004	0.081331	0.07
COMM_SERV	-0.038	0.0607006	-0.44
REC_SERV	0.224***	0.883894	2.38
NEB_UPK	-0.022	0.940158	-0.37
NEB_SERE	-0.103	0.0611182	-1.30
Constant	3.115**	0.0796883	1.67
Observations	298	1.865801	
R^2	0.042		

t-statistics is significant at 1%***, 5%** critical value is 1.64

Where: URB_PLN is urban planning, RD_ACC is road accessibility, SEC is security, EDU_FAC is educational facility, REC_SERV is recreational service, COMM_SER is commercial service, TRAN_SERV is transport service, NEB_SERE is neighbourhood serenity, WST_MGT is waste management, NEB_UPK is neighbourhood upkeep. The value of the R^2 is 0.042 (4.2%) so the independent variables of the regression model explained 4.2% of the variation in the dependent variable (NEB _ ATT).

4.3. Discussion of Findings

From the result in Table 6, the coefficient of road accessibility (RD_ACC) is 0.24 with t-statistics 1.79 greater than critical value 1.64 is significant at 5%. The coefficient of recreation services (REC_SERV) is 0.22 with t-statistics 2.38 which is greater than critical value 2.32 is significant at 1%. This finding suggests that road accessibility and recreational services are the highest positive predictors of neighbourhood attachment in Uyo urban. This is in line with Liao (2004) and Mao *et al.*

(2015) findings that neighbourhood attachment (NEB_ATT) plays a significant role in the process of mobility for decision making, and neighbours who were attached to their communities were less likely to relocate. In addition, Bonaiuto*et al.* (2015) established that there was a strong relationship with neighbourhood attachment and perceived residential environmental quality indicators (PREQIs).

5. CONCLUSIONS AND RECOMMENDATIONS

Residents are not quite satisfied with the quality of residential environment in Uyo urban. In addition, findings revealed that residents are more attached to neighbourhoods with good road network accessibility, and availability of recreational services. However, evidence was also found that transportation and commercial services significantly influenced residents to live for a long time in their neighbourhoods. On the basis of the findings of the study, the following recommendations are made:

I. There is need for government to improve on all the listed perceived residential environmental qualities such as reducing the perceived rate of criminal activities by ensuring the adequate provisions of security operatives to protect both lives and properties of the residents. Also, to ensure timely waste evacuation, to constantly keep the residential environment clean and ensuring adequate availability of commercial services, and educational services.

II. To improve neighbourhood attachment, the government and town planners should ensure that aside road network and recreational services which are currently as expected, other perceived residential environmental qualities (PREQs) should be urgently given attention, so that they can also serve as incentives for the residents to derive satisfaction to continue to live in their neighbourhood.

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