

# Quality of Life and Livability in selected Neighborhoods in Port Harcourt, Rivers State, Nigeria

Dr. Weje, Ikezam Innocent \*, Worahu, Faithful Ndukueze \*\*

\* Department of Urban and Regional Planning, Rivers State University, Nkpolu-Oroworokwu, Port Harcourt

\*\* Department of Urban and Regional Planning, Rivers State University, Nkpolu-Oroworokwu, Port Harcourt

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**Abstract-** Building livable and sustainable cities has become one of the imperatives of modern planning more so that the rate of world's urbanization is now on the increase especially among the less developing nations. There is also a renewed concern that improving the quality of life and livability of urban dwellers is no longer a simple matter of 'bricks and mortar', but a matter of human satisfaction with different urban attributes. Building livable cities and neighborhoods are also hinged on the fact that urban designs and structures can be very influential in the life of a city, its dwellers and indeed to the building of community itself. The present study examined the Quality of Life (QOL) and livability in selected neighborhoods in Port Harcourt with a view to highlighting the factors that predict quality of life and livability in the study area. The study adopted quasi experimental research design since there was no manipulation of the variables under study. The sample size consists of 396 heads of households who were randomly selected during the study period. The Multiple Classification Analysis (MCA), a variant of multiple regression techniques was used in data analysis. The result of the study revealed that monthly income, occupation and level of education are important factors predicting quality of life and livability in the study area. The joint explanation (R<sup>2</sup>) of the three independent variables (occupation, monthly income and level of education) on neighborhood safety is (.537). It was also observed that, monthly income and education status collectively account for significant variation in perceived neighborhood livability for housing in the three (3) neighborhoods in Port Harcourt. When the level of relationship between neighborhood population density and the independent variables of income, level of education and occupation were examined, it was also observed that there is indeed a bivariate relationship between them. The R<sup>2</sup> value of 0.693 was obtained implying that 69% variation in the dependent variable is explained by the independent variables. Since neighborhood livability and QOL focuses on the manner in which urban spaces work, the interface between public and private realms and their relationships with the natural environment, including built and social heritage, planning must strive to produce livability cities by crating governance model that supports the civic ecology through participatory democracy.

**Index Terms-** Livability; Quality of life; planning; livable cities; public space; sustainability

## I. INTRODUCTION

One of the challenges that modern planning has to grapple with deals with the ability of planning prescriptions to precipitate livable and yet sustainable cities and communities. This challenge has become even more imperative as the rate of world's urbanization is now on the increase especially among the less developing nations. Urban quality of life and livability are planning concepts aimed at restoring existing urban areas and control the development of new communities. The renewed interests on quality of life and livability of urban dwellers among planners hinge on the concern that improving the quality of life in cities is no longer a simple matter of 'bricks and mortar', but the human satisfaction with different urban attributes such as transportation, quality of public spaces, recreational opportunities, land use patterns, and ease of access for all to basic goods, services and public amenities.(HamamSerag, et.al,2013)

It is in the light of the above that goal 3 of the Sustainable Development Goal (SDGs) seeks to ensure healthy lives and promote well-being for people at all ages. Recognizing that sustainable urban development and management are crucial to the quality of life, the goal advocates for city planning that enhances human settlements that fosters community cohesion; personal security and stimulate innovation and employment.(UNDP,2017). Building livable cities and neighborhoods have become imperative in view of the fact that urban designs and structure can be very influential in the life of a town or city, its dwellers and indeed to the building of community in and of itself. (Chris et. al, 2006). Related to the above is the concern that the quality of urban space affects and is in turn affected by the quality of life of residents of such space. It is for this reason that building livable and sustainable cities has become of prime human imperative in the 21<sup>st</sup> Century that need to be addressed early within planning processes so as to reconcile the imperatives of sustainable development. (Dale, 2001). Port Harcourt is facing rapid growth occasioned by very high rural-urban migration. Also important is the very haphazard nature of growth in Port Harcourt (Weje and Bright, 2018). The uncoordinated growth of the city, manifest in steady decline in the vibrancy and vitality of the city with negative implications on the quality of life and livability. This study, therefore seeks to examine the perception of residents on quality of life and urban livability in selected neighborhoods using selected socio-economic indicators as predictive factors.

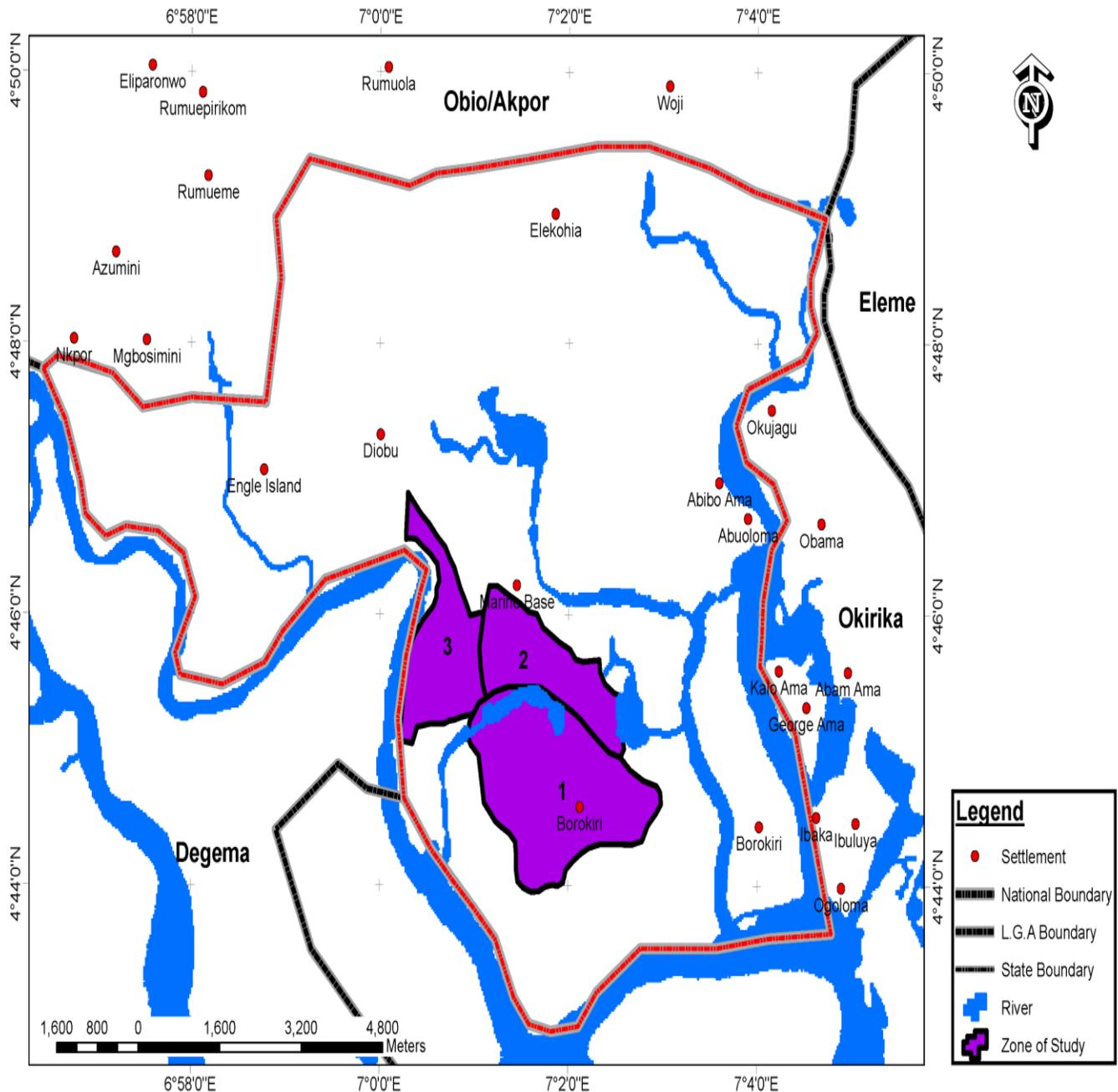
II. 2. STUDY LOCATION

Port Harcourt is one of the biggest cities and is financially viable as the focal point of Nigeria's oil and gas industry. It is the headquarters of Rivers State and the administrative seat of Port Harcourt City Local Government Area (PHALGA). Port Harcourt Situates on coordinate 4°49'27"N 7°2'1"E / 4.82417°N. It is located 52 kilometers (32 mi) southeast of Ahoada and around 40 kilometers (25 mi) northwest of Bori. It is boarded on the south by Okrika Local Government Area (LGA), on the east, by Eleme LGA, north by Obio-Akpor LGA and on the west

by Degema LGA. Port Harcourt has a moderately level geography of around 3.3m above sea level. It is blessed with oil and gas resources, sea ports and houses both local and multinational corporations. The presence of these resources is all contributory to the rapid growth of the city but not without some consequences such as uncoordinated growth with attendant implications on the city's quality of life.

The study covers three neighborhood s in Port Harcourt City Local Government Area namely: Main Town, Borokiri, and Dockyard Layout (see figure 1).

Figure 1: Study Neighborhood



Source: Rivers State Master plan of 1975

### III. CONCEPTUAL FRAMEWORK/LITERATURE REVIEW

#### 3.1 The Neighborhood Concept

The neighborhood concept was developed by Perry (1872 – 1944) and used to describe a populated area that supports a primary school with pupils' enrolment of between 1000 and 1200. A neighborhood was bounded by arterial road and other boundaries with an open space, school, community centre and local shops. In addition, there should be no thorough traffic within the neighborhood centre. This concept dominated scholar discourse during the industrial revolution. The neighborhood concept was developed as a response to degradation of the city surroundings because of excessive and heavy traffic movement through the city, insecurity to school – going children, distance of shopping and recreational facilities among others (Shambharkar, 2008). The idea of the concept was to create a safe and healthy physical environment in which children will have no traffic.

According to Perry,(1998) the neighborhood concept acts as a framework for urban planners attempting to design functional, self-contained and desirable neighbourhoods in the early 20th century in industrialising cities. The concept has however been adapted presently as a means of ordering and organising new residential communities in a way which satisfies contemporary "social, administrative and service requirements for satisfactory urban existence (Perry,1998)

#### 3.2 The Concept of Livability and Quality of Life (QOL)

A livable city is one that addresses the issues of its residents for clean air and water, adequate housing, Safe Street, secure open spaces, employments and economic opportunities, and essential amenities like education, health care and sanitation. (Clark,2013). Other aspect of city livability is the degree to which citizens' participation in decision-making on matters meeting their well-being. Livability describes the ability of a living space (neighborhood, settlement) to support quality living to the residents. From the professional point of view, a livable space is expected to exhibit but not limited to the following: have a secure or safe public space; ensure an healthy environment; guarantee good job opportunities; ensure an integrated public transport system; foster accessible facilities for all; ensure greater transparency and good governance (devoid of political interferes corruption).

On the other hand, Quality of Life (QOL) refers to the outcome of conditions that perceived to exist and the degree to which they meet the desire and expectations of individuals (Massam,2002). QOL of life describes a multi-faceted concept that links both the physical, social, psychological and environmental dimensions of a person. urban quality of life refers to the urban planning whose objective is to realize the sustainability of the development with respect to an individual's quality of life. It is in this context that Centre for Health Promotion (2001) describes QOL to cover three main areas: Being (connecting with physical, psychological and spiritual) Belonging (connections to one's physical, social and community environment) and Becoming which describes the day to day activities that a person carries out to achieve goals, hopes, and aspirations with practical, leisure, and growth aspects.

The phenomenon of QOL is multi-faceted and complex rather than linear. Understanding the concept therefore requires an analysis of particular quality of space, including the relationships, the dynamics, and the reticular relationships that exist between the various dimensions of space. This is because quality of life does not refer to the quality of life in urban areas only but describes the quality of built environment in both urban and rural areas.

The issue of quality of life and liveability have attracted the attention of so many scholars. Kamp et al, (2013) sees livability as parts of the individual condition that in their broadest sense makes a place satisfying to live in. for them, a livable place should be especially regulated and by and large without irritation, pressing, uproar, hazard, air tainting, earth, squander, and other unwelcome intrusions. However, Myers, (1987) considers livability as "the community's quality of life which is constructed of the shared characteristics the residents experience in places and the subjective evaluations residents make of those conditions". This share some tangible characteristics which comprises accessibility of transport, public amenities, social facilities, opportunities and the impalpable components, for example, sense of place, sense of safety access to amenities, comfort, health, mobility, air quality, social network (Howley et. al. 2009; ). These qualities cover the fundamentals of living and inclinations of the residents

McCrea et al (2005), examined different geographic levels of subjective urban quality of life and discovered that regional satisfaction was best predicted by evaluations of regional services (such as health and education) and the cost of living, while evaluations of environmental and urban growth problems were significant predictors of regional satisfaction for younger persons. Neighborhood satisfaction was best predicted by evaluations of social interactions, neighborhood crime and public facilities (parks, libraries), while housing satisfaction was predicted best by age of home and home ownership. Chor, and Wai (2006) also explored the relationship between the accessibility to prestigious schools and the value of housing properties in Singapore. The findings indicate that the accessibility to prestigious schools does affect residential property price, and it significantly explains the variation in housing prices in Singapore. However, these are not valued as highly as other attributes, such as neighborhood prestige and tenure of the property.

Song and Knaap (2004), analyzed the prices of single family houses when mixed land uses are included in neighborhoods in Washington County. They concluded that housing prices increase with their proximity to – or with increasing amount of – public parks or neighborhood commercial land uses.

### IV. METHODOLOGY

The study adopted the quasi-experimental (Cook and Campbell, 1979) research design since there was no manipulation of any subjects of the study. Port Harcourt has 22 existing neighborhoods, three (3) neighborhoods (Borokiri, Reclamation (Dock yard) and Main town layouts) were selected randomly for study. To determine the sample size, total census of number of households was carried out and ascertained to be

41,272. Furthermore, the Taro Yamane sample size determination method was there after applied to determine the appropriate number of households (sample size) that should be studied at the 5% level of precision. In order to determine the number of questionnaires to be distributed in each of the sampled neighborhoods, the Neyman proportional allocation method was adopted so as to ensure that sample size is representative of the household population. A total number of 396 questionnaires were distributed and was considered adequate for this study.

To determine if there is any statistically significant relationship between the dependent variable (livability) and independent variables (residents occupation, income and educational status), the Multiple Classification Analysis (MCA) was used. The MCA statistics shows eta, eta<sup>2</sup> coefficient indicating how each independent variable is related to the dependent variable and a beta coefficient for each independent variable indicating its relative importance in the total variance explained.

The MCA technique is given by the equation:

$$Y_{ij\dots n} = \hat{Y} + a_i + b_j + \dots + e_{ij\dots n} \quad \dots\dots\dots(1)$$

$Y_{ij\dots n}$  = The score (on the dependent variable (i.e. Housing Productivity (HP) of individual who falls in category i of predictor A (AC), category /of predictor B (LAV), etc.

$\hat{Y}$  = Grand mean on the dependent variable (HP)

$a_i$  = The “effect” of membership in the ith category of predictor A (AC).

$b_j$  = The “effect of membership in the jth category of predictor B (HP)

$e_{ij\dots n}$  = Error term

There exist diverse dimensions on which QOL can be measured the present study focused on three domains of QOL such as environmental dimension (measured in terms of conditions and availability of open space, youth friendliness, opportunity to play in the neighborhood and presence of parks); social dimension, (measured in terms crime rate); and physical dimension (measured in terms of affordability of housing, population density and nature of land use distribution)

## V. RESULTS AND DISCUSSION

This section presents the results of the MCA analysis between our dependent and independent variables. Table 1 is the result of our MCA showing the relationship between neighborhood safety (dependent) and residents’ occupation, income and level of education (independent variables). The Eta<sup>2</sup> factor shows that there is significant relationship between our dependent and independent variables. The result shows that occupation (.174), monthly income (0.320), and level of education (0.187) have large and significant predictive effect on neighborhood safety. The joint explanation (R<sup>2</sup>) of the three independent variables (occupation, monthly income and level of education) on neighborhood safety is (.537). This implies that the level of explanation provided by occupation, income and level of education to the dependent variable (neighborhood safety) in the study area is 53%.

**Table 1: Multivariate relationship between neighborhood safety and occupation, monthly income and educational status of residents**

			Eta	Eta <sup>2</sup>	Beta	R	R <sup>2</sup>
Neighborhood Crime rate (Safety)	Occupation		.417	.174	.801	733	.537
	Monthly income		.566	.320	.901		
	Level of education		.432	.187	.640		

Source: Field Survey,( 2018)

To ascertain if there is multivariate relation between neighborhood livability for housing and occupation, income and educational status of residents, a multiple classification analysis was also done as shown in table 2. The result (table 2) reveals that occupation, monthly income and education status collectively account for significant variation in perceived neighborhood livability for housing in the three (3) neighborhoods of Port Harcourt. The import of this development is that there is significant relationship between liveability for housing and the independent variables examined. The Eta<sup>2</sup> value shows that monthly income (1.220) and occupation of residents (1.02) correlates highly with affordability of accommodation respectively. Again, monthly income and occupation of residents also have large effect in terms of the level of explanation they provide for land use distribution in the

studied neighborhoods. The joint explanation (R<sup>2</sup>) provided by the independent variable (income, educational and occupational status of residents) to the dependent variable (land use distribution) shows that educational status, monthly income and occupation of residents is 0.829, indicating that 81% of the changes in the dependent variable is accounted for by the independent variables. For when the level of relationship between neighborhood population density and the independent variables income level of education and occupation was examined it is also revealed that there is bivariate relationship between them. The R<sup>2</sup> value of 0.693 was obtained implying that 69% variation in dependent variable is explained by the independent variable

**Table 2: Neighborhood Livability for Housing using Occupation, Monthly Income and Level of Education (MCA)**

		Eta	Eta <sup>2</sup>	Beta (Adjusted)	R <sup>2</sup>
Affordability of accommodation in the neighborhood	Level of education	.491	.241	.402	0.754
	Monthly income	.678	.460	1.220	
	Occupation	.699	.489	1.020	
Population density in the neighborhood	Level of education	.654	.428	.544	0.693
	Monthly income	.538	.289	.792	
	Occupation	.482	.232	.684	
Nature of landuse distribution in the neighborhood	Level of education	.122	.014	.264	0.810
	Monthly income	.829	.687	1.593	
	Occupation	.741	.549	1.079	

Source: Researcher’s Field Survey, (2018)

To further determine the relationship between neighborhoods liveability for open space and the resident’s socioeconomic characteristics, the MCA analysis was also carried out as shown in table 3. The result (table 3) shows that monthly income (eta<sup>2</sup> =1.334) and residents occupation (eta<sup>2</sup> =0.849) are the most important factors that correlate with open space in neighborhood . With respect to opportunities for families to play in neighborhood , monthly income (eta=1,449)

and occupation of residents (eta=1.381) also had a very high predictive powers. (See table 3). The joint explanation of income, occupation and educational status of residents to condition of open space in neighborhood is 0.628. For Level of youth friendliness in the neighbourhood, it is 0.839, Opportunities for families to play in neighborhood 0.826 and Parks that cater to youth in neighborhood 0.698 respectively.

**Table 3: Predicting Perceived Neighborhood Livability for Open Space using Occupation, Monthly Income and Level of Education (Multiple Classification Analysis)**

		Eta	Eta <sup>2</sup>	Beta (Adjusted)	R <sup>2</sup>
Rating the condition of the open space in neighborhood	Monthly income	.687	.472	1.334	0.628
	Occupation	.466	.217	.849	
	Level of education	.446	.199	.221	
Level of youth friendliness in neighborhood	Monthly income	.819	.671	.538	0.839
	Occupation	.789	.623	.678	
	Level of education	.620	.384	.411	
Opportunities for families to play in neighborhood	Monthly income	.606	.367	1.449	0.826
	Occupation	.532	.283	1.381	
	Level of education	.273	.075	.355	
Parks that cater for youth in neighborhood	Monthly income	.786	.618	1.242	0.698
	Occupation	.516	.266	.559	
	Education	.302	.091	.204	

Source: Researcher’s Field Survey, (2018)

VI. CONCLUSION AND RECOMMENDATION

Neighborhood livability is presented as a unique case of livability at large with strong ties to the notion of urbanity. Developed nations have managed to retain higher levels of livability by improving economic and health conditions and by adopting a more responsive approach to environmental issues. The livability concerns in most developing nations still revolve around the reduction of poverty, hunger, and disease. Such presence affects natural biodiversity and ecological stability by

modifying the natural landscape and emitting different kinds of wastes and pollutants to the environment. To improve the overall livability of the cities must minimize their impudence on the environment, which leads us to the reasonable assumption that the less cities we have, the more livability we can achieve. Such assumption may prevail if we ignore the social and psychological aspects of human life.

The advent of urbanity has prompted people to abandon their rural lives with established primary and secondary social circles and head to the cities to achieve greater economic and civic independence. Urbanity has offered humanity with another

kind of social and cultural affiliation that may have transcended the familial, clannish, and racial bonds. The economic and social opportunities offered by the city continue to entice people to move into urban areas and leave behind their pristine natural environments. Neighborhood livability and QOL focuses on the manner in which urban spaces work, the interface between public and private realms and their relationships with the natural environment, and the cultural values, including built and social heritage. Urban livability must consider urban morphology as an "incubator" of social and economic functions. Therefore, economic and physical development decisions must be coordinated to develop socially and culturally responsive environments.

This process provides a healthy environment that can emancipate the abilities of people and fulfill their need to become a part of sustainable social systems. Therefore, cities that strive to achieve livability and high QOL must create a governance model that supports the civic ecology of participatory democracy. Globalization has intensified economic competition among world cities in terms of attracting foreign investment as well as major sports and social events. The current ranking surveys have mobilized city governments to enhance the quality and scope of their public services with an emphasis on heightening the aesthetics of built environments and improving the lifestyle choices of their people. Although these measures can improve the standards of living, they do not necessarily result in long-term implications for the well-being of life-long residents.

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#### AUTHORS

**First Author** – Dr. Weje, Ikezam Innocent, Department of Urban and Regional Planning, Rivers State University, Nkpolu-Oroworokwu, Port Harcourt, innoweje@gmail.com; ikezam.weje@ust.edu.ng (+234(0) 7038853071)

**Second Author** – Worahu, Faithful Ndukeze, Department of Urban and Regional Planning, Rivers State University, Nkpolu-Oroworokwu, Port Harcourt