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Urbanization, Pubs and the Quality of Low Density Residential Neighbourhoods in Benin City, Nigeria

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Abstract One of the most challenging phenomena confronting urban design professionals is the increasing rate of urbanization in the world especially in the developing countries. The impact of urbanization has been both positive and negative on the built environment. Evidence of the impact of urbanization process could be seen in the location of pubs within residential neighbourhoods in Benin City. This study assesses this development in terms of the physical, social, and environmental development of the study area. The study relied on quantitative and qualitative data collected from 23 pubs through administration of structured questionnaires, observations and interviews in the research area. Data were analysed using the structured equation modelling (SEM) and content analysis techniques respectively. The Path analysis shows that urbanization has a positive impact on pubs and this relationship is significant at 5%. The result implies that the increases in the number of pubs in the study area have been facilitated by the magnitude of urbanization. However, the path analysis from Pubs on residential satisfaction reflected a negative coefficient which suggests that, the effect of pubs on residential neighbourhoods is negative and this is significant at 5%. The study concludes that indiscriminate location of pubs within low density residential neighbourhoods has negative effect on easement. Recommendations that may enhance sustainable living built environment are suggested.

Keywords Built Environment, Pubs, Residential Neighbourhood, Spatial Location, Urbanization

1. Introduction

Every human activity on the physical environment has been associated with positive or negative impacts. These impacts are often on the immediate built environment. The impacts of such activity depend largely on its scale. Most of such activities have been attributed to the urbanization process. Urbanization essentially involves those processes by which towns and cities are formed and developed into larger settlements as more people migrate to live and work in such settlements [1]. Gallion et al. [2] noted that urbanization began when the Palaeolithic man took the step of moving from his cave into the shelters he constructed of boughs and leaves. The process continued when the Neolithic man introduced agriculture [2]. Over the millennia, urbanization has persisted and grown with man's improvement in technology and level of sophistication in tastes and needs.

One of the off-shoots of urbanization in recent times has been the development of pubs. A pub is that place where alcoholic drinks are sold and drunk and as well where other food can be available [3]. Oldenburg [4] described pubs as places or locations other than homes and work places

where people gather and spend some amount of free time. Hughes et al. [5] observed that Pubs can form a major part of individuals' social and recreational life as it provides places for fun, socialization and relaxation. Hough et al. [6] posited that Pubs have become an integral element of most urban areas. It is even logical to opine that pubs may perhaps increase proportionally with the process and growth of urbanization. Pub economy also referred as "night time economy" is therefore a part of urban economy. Negasan et al. [7] described Night time activity as an economic activity that operates during the late evenings or at night such as pubs, bars, night clubs, night market and restaurants.

Among the group leisure activities that have developed in Benin City in recent times are the pubs. In common parlance, they are called (drinking parlours/joints). Andrews et al. [8] opined that Pubis of economic value to some urban dwellers because it provides employment opportunities for some families. It also provides places for relaxation and social interactions for the other spectrum of urban residents. However, the uncontrolled and uncoordinated rising growth rates of pubs in urban areas have led to unsavoury consequences for residential dwellers, city dwellers, urban planners, and related professionals in the built environment as well as urban security network. Osuide, et *al.* [9] noted that urbanization process in Nigeria has been fraught with inadequate corresponding improvement or development of infrastructural, housing or other social services. Coupled with the lack of facilities, absence of appropriate master plan for most urban centres, translates to no properly designated places for these types of activities. The result therefore, is the uncoordinated, haphazard, improvised individually developed facilities within the built environment at the whims of the developer to the detriment of environmental values and attendant social problems. Researches [10, 11, 12, 13] revealed that provisions of adequate urban infrastructural, social and economic facilities in Nigerian urban areas have not been met by the rate of urbanization. Consequently, this has led to the over use of available amenities.

The need for adequate infrastructural amenities in a neighbourhood cannot be overemphasised; because as noted by the World Health Organisation [14], housing and built environment have profound impact on health of humans. Housing affects health with respect to orientation of buildings and land-use patterns. However, siting of any facility for use of humans should necessarily be in conformity with planning rules and regulations. Dimuna, et *al*. [15] posited that the quality of the built environment is essential for the emotional, psychological well-being and quality of life of residents. This enhances residents' residential satisfaction levels [16]. Bello, et al. [17] noted that infrastructural facilities enhance the quality of neighbourhood, and also increase the value of landed properties in the neighbourhood. Corroborating this, Shuaibu, *et al*. [18] acknowledged the importance of basic facilities such as shopping centres, recreation centres, most importantly security and serenity and others as hallmark of ideal neighbourhood.

In Benin City, many new building developments particularly of pubs and those related to commercial and social activities such as: club houses, car wash centres, social event centres, informal markets are going on in areas originally delineated as low density residential zones. The congregation of many patrons in these public drinking venues means the areas are prone to people with high levels of intoxication and alcoholism. Thus, social misdemeanour like violence, road traffic crashes, public disorders and unintentional injury dominate the vicinities where these are located [19, 20, 21, 22]. These give much concern to city dwellers because; most of these activities have consequences on the wellbeing, residential satisfaction levels and health of city dwellers; especially those in the immediate neighbourhoods. These developments are going on in areas strictly zoned for low density residential neighbourhoods. Such developments are commonly found in the Government Residential Area (G.R.A.) and its environs as identified in the study area and shown in Figure 1. The development of pubs within these low density residential neighbourhoods in Benin City; therefore, is of particular interest to the researchers and the implication of this forms the basis of this study.

The overall aim of this study is therefore to assess how urbanization impacts on the location of pubs, within the low density residential neighbourhoods in Benin City, Nigeria. In carrying out this study, it is vital to ask the following questions (i) what is the effect of urbanisation on the growth of pubs in low density residential neighbourhood in the study area? (ii) What is the relationship between pubs and indicators of residential satisfaction in low density neighbourhood in Benin City? The above questions are summarized in the following research objectives: (i). Examine the relationship between pubs and urbanization; (ii). Investigate residential satisfaction with physical, social, environmental and easements dimensions of these neighbourhoods (iii) identify the effect of pubs on residential neighbourhoods; and (iv) make recommendations that would help to resolve any observed or identified problems.

2. Literature Review

The United Nations Habitat [1], described the concept of Urbanization as the process which leads to a higher proportion of the total population of an area to live in cities and towns. Rilwani [23] posited that if well-handled urbanization is usually an engine of growth. Hatcher [24] opined that urbanization under the right circumstances is the future driver of growth and development in emerging economies. The UN-Habitat [1] emphasizes that urbanization and growth go hand in hand.

Rapid urbanization in Africa has been attributed to the huge rural-urban migration due to the belief of the rural population that the standards of livelihood in urban areas are to a great extent better than in rural areas. Omofonmwan, et *al.* [25] reasoned that people also expect to have well paid employments, greater opportunities for better health care and education facilities. It is generally assumed that urbanization is taking place more rapidly in sub-Sahara Africa than elsewhere in the world, as migrants move from rural to urban settlements. However, Polts [26] disputed this view, and argued that while the population of several urban areas is growing rapidly, the urbanization levels of numerous countries are increasingly slow if at all. Polts [26] posited that natural increase rather than net in-migration is the predominant growth factor in most urban populations in African; and advised that African governments, policymakers and international bodies should recognize this transformation in urbanization trends, and act in response to the changes these impart on urban employment, incomes and economic development. Whatever, the primary causative factor of urbanization is, the important thing is that the cities including Benin City are growing on a steady level.

Omatsone [27] observed that the consequences of urbanization in Nigerian urban centres are noticeable in the level of commercial activities, problems associated with the management of solid waste, transportation activities, health, water supply, air pollution and other negative activities that have emerged as threat to health and wellbeing of the ordinary peaceful and simple minded urban dwellers. Similarly, Egunjobi, *et al.* [28] pointed out that urbanization in developing countries, inclusive of Nigeria, has generated neighbourhood problems, because towns and cities in developing countries emerged without conscious physical developed planning, which in most cases developed without adequate basic amenities and infrastructure.

Osuide, *et al*. [9] identified non-adherence to building laws and regulations especially those regarding easements and public interests as part of the problems of the urban environment in Nigeria. The authors opined that this is harmful to health; and advocated the need to control development by the various levels of governments to enhance the quality of urban built environment. Erayamen, *et al.* [29] espoused that planning and land development laws are promulgated to control the excesses of developers concerning use of land and the general environment.

In particular, with regards to physical development of urban built environment, the objective is to ensure orderly and controlled development of the built environment. Okah-Avae [30] reasoned that every building owner or developer has certain responsibilities for the good of other citizens and orderly development. Building owners also enjoy similar rights over adjourning owners and vice versa. These rights include accessing to one's property, sunlight, air, drainage, public utilities in the neighbourhood, enjoying peaceful environment, and free from noise pollution. Building owners also should not lower the quality and standard of the neighbourhood [30].

In his study, Ilesanmi [31] revealed that housing quality, neighbourhood quality and quality of life are vital for achieving sustainable neighbourhood quality. Similar studies by Dimuna [32 -33] revealed that poor housing and poor environmental quality have strong correlation to health of residents, their quality of life, emotional and psychological well-being; and that the quality of building environment correlates significantly to residents' housing satisfaction.

Previous research [5] identified pubs, bars and night clubs as key spots for the consumption of alcohol and related night activities. Negasan, *et al*. [7] study which investigated commercial night activities in Bangur, Malaysia associated such environments with noise, traffic jam and disorderliness. The research concluded that these activities have potential to endanger lives of urban dwellers and negatively affected the quality of urban life of the residents living in the vicinity. Such environment share similarities with that of pubs. Related research [22] revealed that a small number of pubs in an area often account for a huge percentage of alcohol-related harm, suggestive of the fact that certain features of these places are capable of exacerbating anti-social and behavioural problem. Another study by Goodchild [34] showed that the physical attributes of urban centres such as the location of pubs have a major impact on residents' quality of life.

Inferences from the literatures reviewed point to the fact that pubs have positive and negative impacts on residential neighbourhoods and quality of urban centres. The positives are seen in the economic and social benefits. While, the negative impacts, are in the aspect of infringement on easement of residents of the neighbourhood, high level of noise pollution, increase nuisance level, traffic congestions and increase level of social disorders that are not desirable in low density residential neighbourhoods. Furthermore, it could be inferred from these studies that these activities give much concern to city dwellers because most of these activities have consequences on the wellbeing, residential satisfaction levels and health of city dwellers.

Examining the impacts of urbanization on pubs and quality of urban life is an area that has not attracted significant attention from researchers in Nigeria in particular. It is for this reason that this study is justified and significant. The review has demonstrated that there is the need to address this rising trend of urban problems because of its negative impact on quality of life of city dwellers, their health and wellbeing and on the urban built environment.

3. Materials and Methods

3.1. The Study Area

Benin City, the capital of Edo State of Nigeria, and also the administrative headquarter of Oredo Local

Government Area is the study area. The Columbia Encyclopedia [35] described Benin City as a pre-colonial city with urban history that dates back to the 7th century B.C. It lies within the latitude 6°20[1] and 6°31[1] North and longitude 5°32[1] and 5°41[1] East of the Greenwich meridian. The City has grown in landmass from an area size of 949 hectares in 1952, to 19,794 hectares in 2006 according to the National Population Census [36].

Source: GIS Lab., Dept. Of Geography & Environmental Mgt., A.A.U., Ekpoma, 2020.

Figure 1. Roads Network and Residential Neighbourhood within the Government Residential Area (GRA) and its Environs in Benin City

Table 1. Low Density Residential Neighbourhoods' Indicators Variables

VARIABLE	FEATURES
Physical Dimension (Phyd)	Location of pubs, proximity of pubs to one another, traffic congestions, availability of parking lots, aesthetic quality of pubs
Environmental Dimension (Envd)	Cleanliness of the environment, level of noise pollution from live band (music) problems associated with solid waste, dirtiness of built environment.
Easement Dimension (Easd)	Comfort, enjoyment of peace and serenity of urban environment, blocking of access routes, rowdiness of urban environment
Social Dimension (Socd)	Opportunity for social interaction, economic opportunities, public disorders, criminal activities

Source: Authors' Compilation, 2021

This study is concerned with assessing the impact of urbanization on the location of pubs within the low density residential neighbourhoods in the Government Residential Area (G.R.A.) and its environs as shown in Figure 1. Such areas and the associated pubs include:

(a) Boundary Road- [Midfield Bar(1), Fej Sports(2), Bar and Car Wash(3),];
(b) Ikpokpan Road-[Consulate Lounge and Bar(4), Police Officers' Mess(5), and Benin Recreation Club(6)];
(c) Ihama Road- [Lacabana (7), Cube (8), Access Code (9) and Smart Bar (10)];
(d) Aideyan Avenue-[Sound Bar Café (11)];
(e) Adesuwa Road-[Triple J Lounge and Bar (12), Rogue DeVaju (13)]
(f) First Ugbor Road-[Fidcel Real Lounge and Bar (14), Miki Wine Bar (15), Prime Touch (16), De Palm Hut (17)];
(g) Second Ugbor Road [Rehab Bar and Car Wash (18), Owenisiki Bar and More (19)]
(h) Trinity Road / BIU Road and Abuja Quarter- [The Parliament (20) and DS Bar/ Car Wash (21)]
(i) Etete Road [Traffic Bar (22), Ik's Grill and wash (23)]

With a continuous growth from 53,753 in 1952; 100,693 in 1963; to 780,976 in 1991 respectively [37]; the city in 2006 census recorded a population of 1,346,703 according to the National Population Commission [36]. Projecting this figure at 3.0 percent annual growth rate, the 2020 population of Benin City will be 2,018,462. The trend in population growth reflects that Benin City is a dynamic urban centre with the need for relaxations places. In absence of purpose planned and built pubs, individuals have resorted to develop some make-shift pubs.

The economic activities of the city are enhanced by the dual role of the city as a state capital as well as the headquarter of Oredo Local Government. Other activities in the city include industries, commerce, educational, hospitability and recreational.

3.2. Methods

The survey research design was utilized in carrying out this study with the aid of purposive sampling technique. The technique was useful for the identification and selection of information-rich cases related to the phenomenon of interest. This research was carried out between January, 2020 and March, 2021.

Data were collected by the researchers through administration of structured questionnaires, oral interviews and observations carried out in the twenty-three (23) selected pubs within the study area. Data collected were on the physical, social, environmental and easement dimensions. Variables as shown in Table1 were developed using structured questionnaires as interview guide to elicit information from various respondents (customers and residents in these neighbourhoods). A customer was defined as a person who patronized these pubs for relaxation on the day of questioning. While, a resident was defined as a person who resides within the neighborhoods either as a home owner or a tenant.

The surveys were conducted between 6.00pm to 10.00pm on the days of questioning. The questionnaires were measured on a 5-point likert scale (1 very dissatisfied to 5 very satisfied). A total of 144questionnaires were distributed across the 23 selected pubs that were dependent on the level of activity in each pub. However, 126 respondents completed the questionnaires. This gives a completion rate of (87.5percent). Respondents were given at least30 minutes to fill the survey anonymously. The discussion interviews were recorded by note-taking.

The cronbach alpha test for reliability of the questionnaire was also conducted. While the secondary data, which includes maps and population figures, were from governmental and international agencies. The method of the data analysis used in the study is the structural equation modelling (SEM) technique. This statistical analysis technique was preferred because of its potential to analyse structural relationships between measured variables and latent constructs.

To assess the validity of the constructs in the proposed research model preliminary analysis was conducted with the aid of confirmatory factor analysis. The cronbach Alpha test statistic was used to test for the consistency and reliability of the questionnaire. The use of structural equation modelling (SEM) approach as the test technique provided the final overall model fit result. The following five indices were used to assess construct validity. These

were $\chi 2$ /degree of freedom ($\chi 2$ /df), goodness-of-fit index (GFI), comparative fit index (CFI), Tucker–Lewis index (TLI) and root mean square residual (RMR). The study made use of the Structural equations model (SEM) estimation technique using Stata 13.

In computing the resident Relative Satisfaction Index (RSI) scores from the data, the study, adopts the formula used in Dimuna [32] below:

$$\text{RSI} = \frac{(5n5 + 4n4 + 3n3 + 2n2 + 1n1)}{N}$$

The RSI is determined as the sum of the residents' actual score which can be termed as the mean average score. Where;

- RSI represent the Relative Satisfaction Index of a respondent.
- n_1 is the number of criteria with very dissatisfied
- n_2 is the number of criteria with dissatisfied
- n_3 is the number with neither satisfied nor dissatisfied
- n_4 is the number with satisfied
- n_5 is the number of criteria with very satisfied
- N is the number of questionnaires filled and collected in the area.

4. Results and Discussion

4.1. Results

From Table 2, the analysis of the demographic statistics of the respondents shows that for the age distribution, 10 (6.94%) of the respondents are in the age bracket of 26-35, 53 (36.81%) are in the age range of 36-45yrs, 67 (46.53%) are in the age range of 46-55yrs and 14 (9.72%) are in the age range of 56 above. From the breakdown, most of the respondents are between the ages of 46-55 yrs. In terms of gender, 84 (58.33%) of the respondents are males while the remaining 60 (41.67%) are females. The analysis of the marital status of the respondents' reveals that most of them (n=80) are married which represent about 55.56% of the sample. 24 (16.67%) of the respondents are single while 13 (9.027%) and 27 (18.75%) are divorced and widow/widower respectively. With regards to educational qualification, we find that none possess SSCE, 12 (8.33%) possess OND/NCE/Diploma, 60 (41.67%) of the respondents have HND/BSC degrees. In addition, 44 (30.56%) have post graduate degrees while about 28 (19.44%) have professional qualifications. From the breakdown, most of the respondents possess HND/BSC qualification. From the analysis, 15 (10.42%) of the respondents have been using pubs ranging from 0-5yrs, 25(17.36%) have for between 6-11yrs, 65(45.19%) have for between 12-16yrs while 39(27.08%) have for 17yrs and above.

Table 2. Demographic Statistics

Section A: Demographic Variables			Nu	%
Q1: Age	1)	26-35	{10}	{6.94}
	2)	36-45	{53}	{36.81}
	3)	46-55	{67}	{46.53}
	4)	56-Above	{14}	{9.72}
Q2: Gender	1)	Male	{84}	{58.33}
	2)	Female	{60}	{41.67}
Q4: Marital Status	1)	Single	{24}	{16.67}
	2)	Married	{80}	{55.56}
	3)	Divorcee	{13}	{9.027}
	4)	Widow/widower	{27}	{18.75}
Q5: Highest Educational Level	1)	SSCE	{0}	{0}
	2)	OND/NCE/Diploma	{12}	{8.33}
	3)	B.sc/HND	{60}	{41.67}
	4)	Post graduate	{44}	{30.56}
	5)	Professional qualification	{ 28}	{19.44}
Q7: How long have you been using pubs?	1)	0 to 5years	{15}	{10.42}
	2)	6 to 11 years	{25}	{17.36}
	3)	12 to 16 years	{65}	{45.19}
	4)	17 years and above	{39}	{27.08}

Source: STATA 13

The Table 3 shows the descriptive statistics for the items. As observed, the RSI for location of pubs =1.61, availability of parking space = 2.782, aesthetic quality layout =2.713, traffic congestion = 1.674, proximity of pubs to one another =2.774, From the statistics, the RSI index for the variables under PHYD revealed that residents are very unsatisfied with location of pubs and traffic congestion as the mean values fall within the very unsatisfied region [1-1.99] while availability of parking space, aesthetic quality layout, proximity of pubs to one another are on the unsatisfied region [2-2.99].

The relative satisfaction index (RSI) for Environmental Dimension [ENVD] indicates the following; Cleanliness of the environment =2.273, Level of noise pollution =2.559, Problem associated with solid waste =2.854 and Dirtiness of built environment = 2.079. From the statistics, the RSI index for the variables all fall between the unsatisfied regions [2-2.99]. Thus RSI average suggests that neighborhood residents they are unsatisfied with the Environmental Dimension of pubs in the neighborhood.

Table 3. Low Density Residential Neighbourhoods' Indicators Variables

	RSI	Standard Error	Standard deviation	Normality Test	Cronbach Alpha
Physical dimension (PHYD)					0.986
Location of pubs	1.61	0.02232	0.70597	33.77	
Availability of parking space	1.782	0.03267	1.03322	53.07	
Aesthetic quality of pubs	1.713	0.03098	0.97959	69.28	
Traffic congestion	1.674	0.03047	0.96367	83.63	
Proximity of pubs to one other	1.774	0.03697	1.16919	93.47	
Environmental Dimension [ENVD]					0.963
Cleanliness of the environment	2.273	0.03073	0.97188	33.77	
Level of noise pollution	2.559	0.03859	1.22024	53.07	
Problem associated with solid waste	2.854	0.03402	1.07568	69.28	
Dirtiness of built environment	2.079	0.01969	0.62281	83.63	
Easement Dimension (EASD)					0.970
Rowdiness of urban environment	2.8621	0.03116	0.98526	36.63	
Blocking of access routes	1.8355	0.03073	0.97188	57.564	
Air pollution	2.4164	0.03859	1.22024	73.324	
Social dimension (SOCD)					0.943
Opportunity for social interaction	3.87	0.03347	1.05853	73.906	
Economic opportunities	3.6472	0.02688	0.85013	81.417	
Public disorders	2.8037	0.02762	0.87333	87.925	
Criminal activities	2.8037	0.01969	0.62281	94.384	

Source: Field survey (2021)

The relative satisfaction index (RSI) for Easement Dimension (EASD) indicates the following: Rowdiness of urban environment =2.8621, blocking of access roads =1.835, air pollution =2.4164 and noise pollution =2.657. Again from the statistics, the RSI index for the variables under estate design all fall between the unsatisfied regions [2-2.99] except for blocking of access roads which falls under the very unsatisfied region. The relative satisfaction index (RSI) for Social Dimension (SOCD) indicates the following; Opportunity for social interaction= {3.87}, economic opportunities = {3.6472}, public disorders= {2.8037} and criminal activities= {2.8037}. Again from the statistics, the RSI index for the variables under social indicators shows that residents are satisfied with the Opportunity for social interaction and economic opportunities that pubs may present but are then unsatisfied [2-2.99] with public disorders and criminal activities.

From Table 4, the mean and standard deviations show that URBAN (Mean=1.716, S.D= 0.583) and indicate that on the average respondents are dissatisfied with the quality of urban environment.

In addition, Residential Neighbourhood (RESN) dimensions are examined in this study covering the following; physical dimensions (phyd), environmental dimension (envd), social dimension (socd) and easement dimension (easd). From Table 4, it is observed that Phyd (Mean=2.830, S.D= 0.442) and indicates that on the average respondents are fairly satisfied with the physical dimension of the residential neighbourhood. Envd (Mean=2.899, S.D= 0.4077) and indicates that on the average respondents are fairly satisfied with the environmental dimension of the residential neighbourhood, Socd (Mean=2.716, S.D= 0.5017) and indicates that on the average respondents are fairly satisfied with the social dimension of the residential neighbourhood and finally, easd (Mean=2.981, S.D= 0.663) and indicates that on the average respondents are fairly satisfied with the easement dimension of the residential neighbourhood. However, despite the moderate satisfaction of respondents with these residential neighbourhood dimensions, there are several issues that appear to be on a rising trend that if not addressed quickly can pose significant discomfort to the residents. For example noise pollution, traffic congestion, blocking of access routes, a growing number of commercial sex workers plying their trade in these low density residential layouts.

Results from Table 4, showed that assessed levels of goodness of fit index (GFI), comparative fit index (CFI), and root mean square (RMR) that should be more than 0.9 for GFI and CFI, and less than 0.05 for RMR were in an acceptable range. Sekaran [38] and Hair et al. [39] opined that an alpha value of less than 0.6 is seen as a weak reliability while an alpha value of more than 0.7 is viewed as strong and better. It can be observed that the GFI and CFI are all very adequate and hence these confirm the fit of the measurement models. The Cronbach's alpha value also indicates the reliability of the constructs. Thus, enough reliability was established for all constructs, as all were greater than the benchmark of 0.70.

Table 5 shows the correlation coefficients of the variables examined. However of particular interest to the study is the correlation between Urbanization (Urban), Pub and Residential Neighbourhood (RESN) dimensions. These are examined in this study covering the following; physical dimensions (phyd), environmental dimension (envd), social dimension (socd) and easement dimension (easd). As observed, Urban is positively correlated with Pub (r=0.1259) which suggest that urbanization is associated with increase in Pubs. This may be ascribed to the fact that urban dwellers need recreational facilities for relaxation and social interactions after a day's work. This is in tandem with the research work of Okolo et al. [40] which advocated for the need of community centres for purpose of recreation. The results also reveal that the presence of Pubs is negatively correlated with easd (r=-0.2401) and positively correlated with phyd (r=0.1203) and envd (r=0.0743). Furthermore, Urban is associated with improvements in phyd (r=0.0563), envd (r=0.3377), socd (r=0.2018) but negatively correlated with easd (r=-0.0807).

Table 4. Confirmatory Factor Analysis

Variable	Mean	SD	Internal Consistency	Cronbach's Alpha	GFI	CFI	RMRA
URBAN	1.716	0.583	0.8372	0.842	0.94	0.92	0.003
PUB	1.722	0.883	0.8661	0.896	0.91	0.96	0.002
RESN			0.9121	0.915	0.92	0.90	0.019
Phyd	2.830	0.442	0.7903	0.88			
Envd	2.899	0.4077	0.8221	0.797			
Socd	2.791	0.5017	0.9072	0.912			
Easd	2.981	0.663	0.7621	0.851			

Source: Researchers' Compilation (2021)

Table 5. Correlation Result

	Urban	Pub	Phyd	Envd	Socd	Easd
Urban	1.000					
Pub	0.1259	1.000				
Phyd	0.0563	0.1203	1.000			
Envd	0.337	0.0743	0.0621	1.000		
Socd	0.2018	0.0985	0.1018	0.1166	1.000	
Easd	-0.0807	-0.2401	-0.1400	0.0197	-0.0339	1.000

Source: Researchers' Compilation (2021)

Table 6. SEM Results

Standardized Interval]	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf. interval	
Structural PUB URBAN	1	6.81e-16	1.5e+15	0.000	1	1
RESN PUB .0673619	-.0130943	.0410498	-0.32	0.00	-.0935505	.673619

Source: Researchers' Compilation (2021)

The Path analysis and the SEM estimates in Table 6 showed that URBAN has a positive impact on pubs and this relationship is significant at 5%. The result implies that increases in the number of pubs in the areas under study have been facilitated by the magnitude of urbanization. This result might be linked to the fact that urban centres attract many people of different personalities (extroverts and introverts). Some of the respondents admitted to enjoy having their drinks in company of their friends, business partners and clients in pubs rather than in their residences. Some of them argued that by doing so, they free themselves from home stresses, family pressures and also help to discourage their children and wards from indulging in to drinking habits. However, the path analysis (Figure 2) from PUB to RESN shows a negative coefficient of -0.013 which suggest that on the whole, the effect of pubs on Residential neighbourhoods is negative and this is significant at 5%. This could be ascribed to the fact that most residents especially the property owners who hitherto enjoyed peaceful, serene, residential environment that was free from unpolluted noise no longer enjoy such luxury due to presence of these pubs. It is important to note that most of these residents had lived in these neighbourhoods for many years before these pubs were built.

Table 7 shows the model fit statistics and as observed, the structural model has an overall coefficient of determination (CD) of 0.621 which implies that the structural equations model explains about 92.1% of the systematic variations in the dependent variable. The full structural model was then tested and again to assess the fitness. The chi-square goodness-of-fit statistic for the baseline vs saturated and model vs saturated and indicate a reasonable model fit which is statistically significant at 5%. This is further supported by the RMSEA which is 0.105. The comparative fit index (CFI) and tucker-Lewis index (TLI) stood at 94% and 90.4% respectively and hence confirm the primary hypothesis that the overall model is valid.

Table 7. fit Statistics

Fit statistic		Value	Description
Likelihood ratio			
	chi2_ms(28)	125.150	model vs. Saturated
	p > chi2	0.000	
	chi2_bs(45)	1675.834	baseline vs. Saturated
	p > chi2	0.000	
Population error			
	RMSEA	0.105	Root mean squared error of approximation
	90% CI, lower bound	0.087	
	upper bound	0.124	
	pclose	0.000	Probability RMSEA <= 0.05
Information criteria			
	AIC	7616.005	Akaike's information criterion
	BIC	7754.733	Bayesian information criterion
Baseline comparison			
	CFI	0.940	Comparative fit index
	TLI	0.940	Tucker-Lewis index
Size of residuals			
	SRMR	0.060	Standardized root mean squared residual
	CD	0.621	Coefficient of determination

Source: STATA 15.0

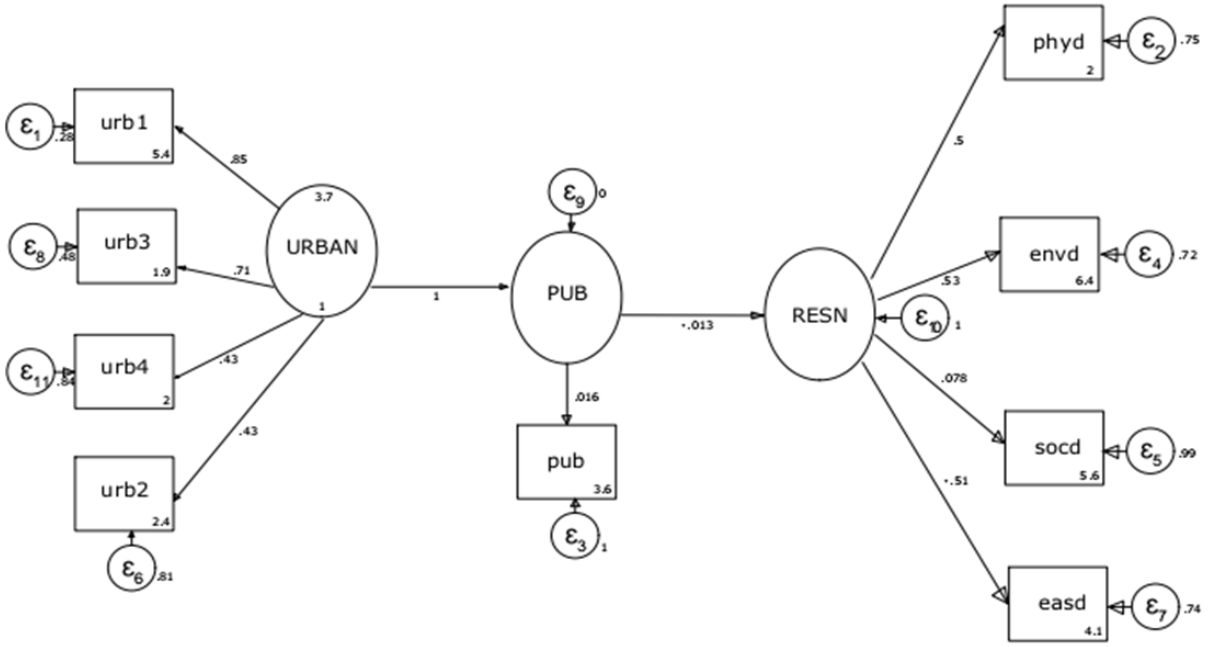

Figure 2. Structural Equation Path Analysis

Plate 1. Physical Quality of a Typical Pub in the Study Area

Plate 2. Physical Quality (poor drainage) of DS Pub/ Car Wash along Trinity Road

Plate 3. Physical Quality of De Palm Hut Pub / Car Wash along First Ugbor Road

Plate 4. Typical Traffic Congestion and Disorderliness at the Junction of Second Ugbor Road/ Trinity Road due to proximity of three pubs

Plate 5. Typical Traffic Build-up/Congestion and Disorderliness at the Rehab Pub, Second Ugbor Road

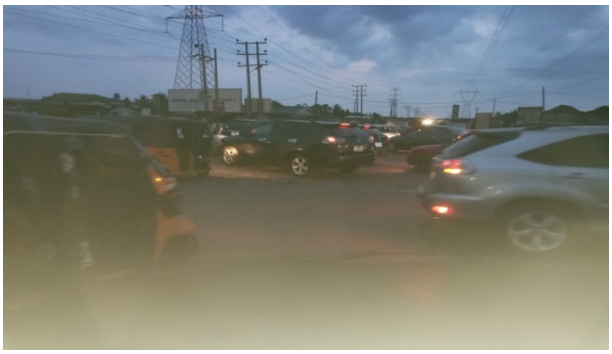

Plate 6. Typical Traffic Congestion and Disorderliness at the Junction of Trinity Road and Benson Idahosa University Road

Plate 7. Indiscriminate Parking and Disorderliness at the Junction of Second Ugbor Road and Trinity Road (33Kva Power line)

4.2. Discussion

This study assessed how urbanization impacts on the location of pubs within the low density residential neighbourhood in Benin City, Nigeria. The study was based on the assumption that low density residential neighbourhood is noted as congenial, serene, and quiet. Such neighbourhood should provide a satisfactory living environment for its dwellers. The underlying questions sought for statistically significance are: (i) the effect of urbanization on the growth of pubs in low density residential neighbourhood in the study area and (ii) the relationship between pubs and indicators of residential satisfaction in low density neighbourhood in the study area. The independent variables listed in Table 1were investigated to determine statistically their correlation significance with Residential Satisfaction Index (RSI).

The findings of this study are that first, urbanization is a significant factor influencing the development of pubs. The relative satisfaction index (RSI) results (Table 3) showed all the indicator variables and the degree of significance of their contributions to explain the dependent variable RSI. Similarly, the correlation coefficients of the variables were established as shown in table 5. The results of the residential satisfaction index (RSI) for the variables under PHYD showed that the residents are very unsatisfied. This is reflected in the results in table 3 which fall within the unsatisfactory region (1 – 1.99) and (2 – 2.99) for location of pubs and resulting traffic congestion within the neighbourhood. These results could be attributed to lacking of planning, poor attitude of developers towards the common good and non-adherence to building laws and regulations. For instance, the pub at Abuja Quarters neighbourhood known as (Abuja Quarter Parliament) is located along 33KVA power transmission line as shown in (Plates 1-3). Finding further revealed that the mean and standard deviations for PUB is (Mean=1.722, S.D= 0.883). This indicates that on the average respondents are also dissatisfied with the quality of Pubs particularly; the indicators covered in this regard include such as parking space for pubs amongst others.

These results can be attributed to the fact that most of the pubs were not purposely designed structures. Adequate parking lots were also not provided in many of the pubs. Consequently, Vehicles are parked along the roads and adjoining streets. These inevitably result in traffic congestions especially in the evenings as shown in (Plates 4-7). However, the correlation result between urbanization and residential neighbourhood (RESN) revealed a positive correlation with pubs which indicates that urbanization is associated with increase in pub (r = 0.1259). This result revealed that there is a statistically significant association between urbanization and development of pubs. The significance of this result is that the increase in urbanization will also lead to development of more pubs. Therefore, it could be inferred that urbanization is associated with increase in pubs.

Therefore, it is important that efforts should be made to address the rising trend of urban decay of neighborhood built environment posed by these development of pubs. These are with a view to preserve property value and ensure sustainable built environment. Abe & Kata [41] study has shown that the conditions of neighborhood built environment have significant impact on residential satisfaction.

Again, the structural equation modelling technique was used and the result is shown in Table 6. The results from the Structural Equation Modelling (SEM) estimates also showed a positive significant relationship between urbanization and pubs at 5%. The significance of these findings is that if unchecked, the development could lead to

undervalue of neighbourhood quality of these residential areas. The implications are that these findings should be attended to urgently arrest this development. This trend if allowed to continue would negatively affect the quality of the neighbourhood and invariably led to decrease in land and property value.

Second, the result of Environmental dimension shows that this aspect plays a significant role in influencing the dwellers residential dissatisfaction. The RSI average results for the (ENVD) suggest that the residents in these neighbourhoods were dissatisfied with the indicator variables. The estimated RSI scores showed that it was an important variable affecting pubs and residential satisfaction in the neighbourhood. The RSI average in table 3 suggests that residents in the study area were dissatisfied with the environmental dimension of pubs in the neighbourhood. Again the correlation coefficient between urbanization and residential neighbourhood (RESN) which covers environmental dimension (ENVD) revealed that urban is positively correlated with pubs. The results showed that presence of pubs is positively correlated with ENVD (r = 00743). Meaning that increase or decrease in the growth of urbanization would lead to increase or decrease on the quality of residential neighbourhood environment. The inferences from these results are that residents were dissatisfied with the quality of urban environment. The significance of this finding is that the well-being of the inhabitants of an urban area depends on its environmental quality. The implication therefore, is that government policy should ensure that extant planning laws and regulations are complied with. It has been acknowledged that the quality of housing environment has a significant impact on the well-being of residents, their standards of living and productivity as well as environmental sustainability [42, 43].

Third, the results of the correlation coefficient showed that (EASD) was found to be very significant factor components that influence residents' satisfaction levels. The RSI results suggest that residents are very unsatisfied with the variables of easement dimension (EASD). The result of the correlation coefficient also revealed that the presence of pubs is negatively correlated with easement (r = - 0.2401). The result further revealed that urbanization is negatively correlated with easement (r = 0.0807). Loitering of youths around the neighbourhood, noise pollution from blaring music sets and blocking of access routes, which is an infringement on right residents have become a great concern to the residents. The significance of this variable is particularly noteworthy. These variables are very important components; as dissatisfaction among urban dwellers may result in stress, poor health, delinquency and pathological conditions.

Fourth, the social dimension was also very significant in determining residential satisfaction index. The correlation results further established that presence of pubs is positively correlated with social dimensions (SOCD) at (0. 0985). The result of RSI for the social dimension (SOCD) variables also revealed that residents were satisfied with the opportunity for social interaction and economic value of the pubs. However, they were dissatisfied with social disorders that accompanied the presence of pubs within the neighbourhood. The study further revealed that the residents in the neighbourhood expressed dissatisfaction with these variables namely traffic congestions, public disorders and criminal activities. The inferences from this are that while it is important to harness the positive accepts of pubs, the negative bye products cannot be ignored. This is because the well-being of the inhabitants of an urban area depends on its environmental quality. Improvement of the living environment is a hallmark of good urban housekeeping.

The study highlighted the relationship between urbanization and residential satisfaction and effects of urbanization and growth of pubs. However, the study has some limitations. Among these limitations, first is the period of research. The questionnaires were administered between 6pm to 10pm. It excluded those who patronize the pubs till late evenings. A study from those that stay in the pubs up to 1am or 2am could yield different results aspatrons' characteristics are not exhaustive. Second, the study is limited to only pubs within the study area and excludes stores, hotels, and other places were where drinks are sold but do not fit into the proper definition of pubs. The inclusion of other variables might affect the results if more drinking places were covered. Future studies should consider investigating these and similar urban problems such as emerging informal markets and religion centres within the study area.

5. Conclusions and Policy Recommendations

The focus of this study was to assess the impact of urbanization on the location of pubs within the residential neighbourhoods in the Government Residential Area (GRA) and the environs of Benin City, Edo State, Nigeria. Overall, the study concludes that urbanization had positive impact on pubs but there was significantly low satisfaction with the sitting of the pubs in the neighbourhoods. The findings of the study showed that the overall effects of pubs on residential neighbourhood are negative. The findings further revealed that urbanization is a significant factor influencing the development of pubs. Therefore, it could be inferred that indiscriminate location of pubs has negative correlation with easement.

The practical implications of the findings generally were that there are several issues that appear to be on a rising trend that if not addressed quickly can pose significant discomfort to the residents. For example, noise pollution, traffic congestion, blocking of access routes, growing number of commercial sex workers plying their trade in these residential layouts. These activities, if unchecked will give rise to continuous infringement on easement,

particularly, on vehicular movements, loitering, that would eventually lead to the devaluing of environmental quality of these neighbourhoods. This is despite fact that the findings revealed some respondents within these residential neighbourhoods expressed moderate satisfaction with some dimensions under consideration. Based on the findings of this study, the following recommendations are suggested:

First, the government should encourage a decent living environment in these neighbourhoods by providing designated communal facilities within these residential neighbourhoods purposely designated for recreation and communal activities. This would help to checkmate the alarming incidences of make-shift pubs that lack adequate parking lots.

Second, there is the need for effective enforcement of urban planning rules and regulations. Consequently, the Edo State Ministry of Housing and Physical Development should do the needful by identifying developments that do not meet with planning regulations and those developed without building permits. This is with the view to demolishing such illegal structures.

Third, is the need for building owners and property developers to be educated on building laws, regulations and responsibilities of building owners and the rights of owners of adjoining properties. Building owners should be educated on the need to: (i) Secure building permit before the commencement of building; (ii) Ensure that the development does not conflict with existing development in the neighbourhood and it should as well not conflict with the development for which the area is zoned; (iii) Ensure that the development does not constitute a nuisance to adjourning owners and passers-by during construction and post occupancy;(iv) protect the rights of adjourning owners from health hazards and other forms of nuisance, right to unpolluted air and unhindered access; and (vi) ensure the development does not lower the general quality of the existing environment.

The policy recommendations made when implemented and appreciated by various stakeholders would ameliorate the identified challenges and ensure sustainable living built environment.

Appendix 1

Structural equation model Number of obs = 144
Estimation method = ml
Log pseudolikelihood = -6249.3158

(1) [pub]PUB = 1
(2) [phyd]RESN = 1
(3) [urb1]URBAN = 1

Standardized		Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
Structural PUB	URBAN	1	6.81e-16	1.5e+15	0.000	1	
RESN	PUB	-.0130943	.0410498	-0.32	0.00	-.0935505	.0673619
Measurement pub	PUB_cons	.0157861 3.572066	.0502559 .4626428	0.31 7.72	0.753 0.000	-.0827137 2.6653	.1142858 4.47883
phyd	RESN _cons	.5019877 2.045714	.0771468 .0896801	6.51 22.81	0.000 0.000	.3507828 1.869944	.6531926 2.221483
envd	RESN _cons	.5336074 6.407168	.0687687 .4122523	7.76 15.54	0.000 0.000	.3988233 5.599168	.6683916 7.215168
socd	RESN _cons	.0775625 6.407168	.0687687 .4122523	7.76 15.54	0.000 0.000	.3988233 5.599168	.6683916 7.215168
easd	RESN _cons	-.5072114 4.095443	.0776527 .1999882	-6.53 20.48	0.000 0.000	-.659408 3.703474	-.3550149 4.487413
urb1	URBAN_cons	.8513229 5.396189	.4216763 4.414633	2.02 1.22	0.043 0.000	.0248526 3.703474	1.677793 4.487413
urb2	URBAN _cons	.4318653 2.428671	.7421666 .5705005	0.58 4.26	0.561 0.000	-1.022754 1.310511	1.886485 3.546832
urb3	URBAN _cons	.7109796 1.857977	.1601687 1.627759	4.44 1.14	0.000 0.254	.3970548 -1.332371	1.024904 5.048325
urb4	URBAN _cons	.4334986 1.968758	.6585886 .3059161	0.66 6.44	0.510 0.000	-.8573113 1.369174	1.724308 2.568343
mean	(URBAN)	3.655541	4.059956	0.90	0.368	-4.301826	11.61291

Appendix 1 Continued

var(e.pub)	.9997508	.0015867	.9966458	1.002865
var(e.phyd)	.7480083	.0774535	.6106153	.9163158
var(e.envd)	.7152631	.0733909	.5849606	.874591
var(e.socd)	.9939841	.0139579	.9670002	1.021721
var(e.easd)	.7427365	.0787727	.6033351	.9143469
var(e.urb1)	.2752493	.7179654	.0016574	45.71051
var(e.urb2)	.8134923	.641032	.1736227	3.811539
var(e.urb3)	.494508	.2277533	.2005115	1.219572
var(e.urb4)	.812079	.5709945	.2046895	3.221817
var(e.PUB)	0	(constrained)		
var(e.RESN)	.9998285	.001075	.9977237	1.001938
var(URBAN)	1			

Warning: convergence not achieved

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