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Effect of Physical Characteristics on Resident Satisfaction in Medium Density Area of Kaduna Metropolis, Nigeria

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Abstract. This study aimed to determine ways to reveal the significant association in Kaduna between a resident's physical features and housing happiness. The study used a quantitative approach. A questionnaire was created and mailed to 126 Household Heads, and 94 replies were received. Households were questioned using systematic random sampling to obtain socioeconomic characteristics and housing satisfaction data. The data was examined with descriptive statistics and a linear regression model using SPSS to investigate the effect of factors. According to the findings of the study, physical features have a significant impact on home happiness in the studied area. Toilet facilities, rendered and painted walls, tiles, an efficient kitchen, no finishing wall, electricity, and a generator as a substitute option for lighting a kitchen without modern facilities, concrete and a pit toilet are several variables that influence residents' satisfaction, according to the study. It was also revealed that restroom facilities, rendered and painted walls, and tiles had the highest mean score. The government was advised to provide the deficient communal facilities and repair the decaying ones as soon as possible. Proper regular management of social facilities needs to be implemented to promote residents' satisfaction in the area under investigation region.

Keywords: Physical Characteristics; Housing; Housing Satisfaction; Kaduna; Nigeria.

INTRODUCTION

Housing is regarded as a basic need as well as a requirement for the survival of humans, making it among the most essential basic infrastructure elements in the growth of any society [1]. Housing affects both individual's and the nation's lives; as a result, nature and culture highly emphasise its role in maintaining human comfort [2]. According to [3], housing is one of human's most basic needs, and the entitlement to sufficient housing is an obligation acknowledged globally and in over 100 national laws around the globe. Notwithstanding this privilege, numerous individuals are 'homeless,' 'inadequately housed,' or 'evicted' in cities and rural places worldwide. Housing is integrally linked to one's happiness in life. It is affected by various elements such as money, employment, schooling, balance between work and life, fulfilment in life, and one's impression of society [4, 5]. Housing has been dubbed "the predictor of quality of life" given that it is the only means of one's fulfilment [6].

Residents' impressions of their community and living conditions affect their housing-related happiness. This suggests a low level of dissatisfaction and a high level of concurrence between anticipated and actual needs, as well as being satisfied with tenants' daily housing standards. On the other hand, inconsistency between their present and ideal home situations may result in discontent [7, 8]. Families with low incomes, on the contrary, are more inclined than those with middle incomes to be content with more deficient housing [9, 10, 11]. Low income is a big challenge

for have-not households because it hinders them from obtaining non-deficit accommodation [12].

Physical characteristics may impact resident pleasure [1, 13]. Biological factors may affect homeowner happiness, whether beneficial or detrimental; for example, when the state of social amenities or infrastructure amenities is considered good, satisfaction is significantly higher, and vice versa. Most people in developing countries remain without bare essentials such as shelter, health care, a robust road network, portable water, and consistent energy, to name a few. Many people cannot meet their fundamental necessities due to leaders' unqualified management of public funds, inadequate workforce to effectively use available resources, political upheaval, and local institutions' lack of planning [14, 15]. As a result, an area of need has been identified, and this study aims to provide solutions to concerns about the impact of physical attributes on resident satisfaction in Kaduna Metropolis.

This *study aims* to investigate the impact of physical qualities on satisfaction with residents in a high-density area of the Kaduna metropolis to uncover the effect of physical characteristics on residents' housing satisfaction.

1. To identify the physical features of the populace at Kaduna metropolis

2. To investigate the level of satisfaction amongst residents in the research region.

3. To determine the impact of physical attributes on residents' contentment in the research area.

METHODOLOGY

In this inquiry, quantitative research approaches were used. Respondents were provided with a survey to complete and return. One hundred twenty-six questionnaires were given out, with ninety-four valid copies completed and born out of 126. Other social sciences researchers in Nigeria have used sample size selection to determine sample size (for example, [16, 1, 9, 16]. Each of these residential communities had a total of 126 residences sampled. Unguwar Sarki and Unguwar Kanawa, two medium-density suburban districts, were chosen. The method employed was systematic random sampling, which is the most fundamental method and assures that every subject in the sample has an equal likelihood of being selected. After comprehensive data collection, descriptive, mean ranking, and multiple regression analyses were performed on the data collected in the field by using SPSS Version 22.

RESULTS AND DISCUSSIONS

Table 1 shows the socioeconomic characteristics of the respondents. Men made up the vast majority of responders in the study area. Similarly, the study revealed that people under 30 represented around half the population.

Table 1 – Demographic Data of the Respondents

Parameters	N	%
Gender		
Male	75.3	80.2
Female	18.7	19.8
Age		
Less than30 years	50	53.19
between 31-40 years	20	21.28
between 41-50 years	18	19.15
above 50 years	6	6.38
Marital status		
Single	31	32.98
Married	63	67.02
Education		
Primary school	14	14.90
O level	29	30.85
OND/NCE	32	34.04
HND	12	12.77
BSC	5	5.32
MSC	1	1.06
PHD	1	1.06
Occupation		
Farming	17	18.09
Civil Servant	29	30.85
Business	9	9.57
Retired	14	14.89
Artisan	25	26.60
Religion		
Islam	82	87.23
Christianity	12	12.77
Income		
Less than #30,000	27	28.72
#31,000- #60,0000	39	41.49
#61,0000-#91,000	18	19.15
#91,000 and above	10	10.64
Household Size		
6-10	51	54.26
11-15	23	24.47
16-20	14	14.89
21 persons and above	6	6.38
Tribe		
Yoruba	78	82.98
Hausa	10	10.64
Igbo	6	6.38

Furthermore, most people who replied to the survey (63 %) were married. According to the households' employment, around 30.85 % of the people who took part worked as civil servants. Retirees, students, craftspeople, and artisans account for 69.15 % of total respondents in the overall research region. This implies that the vast majority of respondents in the research area have a source of income. In addition, according to a household income analysis, most participants earn between N31,000 and N60,000. The bulk of the people in the area practice Islam.

Table 2 – Physical characteristics in Medium Density Area of Kaduna Metropolis (N=94)

Physical Characteristics	Mean	S Std. Deviation	Rank	Remark
WC Toilet	4.0851	1.02296	1	Good
Tiles	4.0213	1.00513	2	Good
Te Terrrazzo	3.8723	1.09970	3	Good
Rendered and Painted	3.8085	1.25532	4	Good
Well Equipped Kitchen	3.7553	1.19754	5	Good
Aluminum	3.7234	1.13027	6	Good
Well	3.7234	1.03076	7	Good
Cemented	3.7021	1.14375	8	Good
Generator	3.6915	1.98403	9	Good
Sand Crete	3.6702	1.19487	10	Good
Bore Hole	3.6383	1.04574	11	Good
Pipe Borne	3.4894	1.09490	12	Good
Pit Toilet	3.4787	1.04448	13	Good
Kerosene Lamp	3.4043	1.26422	14	Fair
Rendered without Paint	3.4043	1.11026	15	Fair
Corrugated Iron Sheet	3.3404	1.10281	16	Fair
Asbestos	3.2021	1.23201	17	Fair
Burnt Bricks	3.1915	.97580	18	Fair
Ele Electricity from Public main Source	3.0745	1.25501	19	Fair
Toi Toilet and Bathroom Facilities	3.0745	1.54669	20	Fair
W Waste Disposal Facilities	3.0213	1.31965	21	Fair
K Kitchen without modern Facilities	2.9681	1.22213	22	Fair
Clay Clay/Mud Block	2.8723	1.17532	23	Fair
No fi n No finishing at all	2.6809	1.27180	24	Fair

Table 2 represents the housing conditions in medium-density neighbourhoods of Kaduna. The homes in the study area agreed that the WC toilet was in good functioning order (M=4.08 SD=1.02) and ranked first. Tiles under their floor finishes were also in good condition (M=4.02 SD=1.00), and terrazzo was ranked third (M=3.87 SD=1.00), rendered and painted walls ranked fourth (M=3.80 SD=1.25), and a well-equipped kitchen ranked fifth (M=3.75 SD=1.19). Toilet and bathroom facilities were ranked 20th (M=3.07 SD=1.54), and waste disposal facilities were ranked 21st (M=3.02 SD=1.31). A kitchen without contemporary facilities was ranked 22nd (M=2.96 SD=1.22). Clay/mud block was ranked 23rd (M=2.87 SD=1.17). Buildings with no finishing ranked 24th (M=2.68 SD=1.27), suggesting that most physical characteristics of housing conditions in the Kaduna metropolis's high-density districts were in excellent shape, with only a few in poor condition.

Table 3 – Ranking Residents Satisfaction (N=94)

Physical Characteristics	Mean	Std. Deviation	Ranking
Toilet and Bathroom Facilities	3.6809	1.88248	1
Rendered and Painted	3.5745	1.20473	2
Tiles	3.5426	1.48588	3
Well Equipped Kitchen	3.5000	1.41231	4
No finishing at all	3.3617	1.12500	5
Electricity from the public main	3.3404	1.21419	6
Generator	3.2872	1.20592	7
kitchen without modern Facilities	3.1596	1.24696	8
Sandcrete	3.1489	1.48075	9
Pit Toilet	3.0957	1.38400	10
Waste Disposal Facilities	3.0213	1.42918	11
Rendered without Paint	2.9787	1.42164	13
Burnt Bricks	2.9574	1.45849	14
Borehole	2.8723	1.45346	15
Aluminium	2.6809	1.71152	16
Cemented	2.6596	1.50664	17
Well	2.6170	1.52475	18
Terrazo	2.4681	1.47890	19
Clay/Mud Block	2.2979	1.48708	20
Corrugated Iron Sheet	2.2234	1.43050	21
kerosene Lamp	1.9894	1.30750	22
Security	1.8191	1.29484	23
Pipe Borne	1.6915	1.20952	24

Table 3 shows the contentment of households in Kaduna Metropolis's low-density area. According to them, the family's degree of contentment is modest. The Toilet and Bathroom Facilities came first with (M=3.68, S=1.88) points. Rendered and Painted came in second with (S=3.57, S=1.20). The Tiles came in third place with (M=3.54, S=1.48). Their rating for Well Equipped Kitchen was also reasonable (M=3.50, S=1.41), placing it fourth. They were dissatisfied with their Kerosene, which came in 22nd (M=1.98, S=1.30). Asbestos was classified 23rd with (S=1.81, 1.29) and Pipe-borne was ranked 24th with (M=1.69, S=1.20). As a consequence, the table demonstrates that the vast majority of household members are fairly satisfied with their physical attributes. They are, however, displeased with some of their physical features.

Table 4 – Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.723a	.623	.581	.47384

In the model summary table above, the R^2 value reflects how much variation in the dependent variable (resident happiness in the study region) has been explained by the model (which includes physical features variables). The model explains 62.3 % of the variation in resident contentment in the study area.

Table 5 – ANOVA

Df	Mean Square	F	Sig.
10	1.744	12.476	.000b
114	.140		
124			

The table above shows the statistical significance of the analysis. The table shows that the highly significant value is ".000," less than 05 (p.0005). It demonstrates that the regression model is correct and appropriate for the analysis.

According to the correlation table earlier, physical factors significantly impact resident happiness.

Table 6 – Coefficient Table

Model	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	.943	.228		4.130	.000
Ranking Toilet and Bathroom Facilities in the area	.116	.050	.170	2.295	.024
Ranking Rendered and Painted walls in the area	.159	.040	.298	3.949	.000
Ranking Tile in the area	.073	.029	.179	2.483	.014
Ranking Well Equipped Kitchen facilities in the area	.115	.029	.303	4.024	.000
Rankin their no finishing wall	.059	.032	.139	1.860	.065
Ranking electricity from the public main	.056	.025	.149	2.188	.031
Ranking Generator as a source of Lightning in the area	.012	.036	.022	.327	.744
Ranking their kitchen without modern facilities in the area	.020	.035	.043	.585	.560
Ranking sandcrete in the area	-.056	.029	-.134	-1.943	.055
Ranking /Pit Toilet condition in the area	.042	.029	.100	1.443	.152

Toilet facilities, rendered and painted walls, tiles, a well-equipped kitchen, no finishing wall, electricity, and the generator as an alternative means of lighting were the physical characteristics that significantly influenced resident satisfaction, with Beta values of .298, .303, .179, .170, .149, .134 and .139, respectively, and p-values of .000, .014, .024, .031, .055 and .065 While kitchens without contemporary facilities, concrete, and pit

toilets have Beta values of .100, .043, .022, with p values of .152, .560, and .744, they were proven to have less influence. As a result, it is reasonable to infer that the physical qualities that adversely affected residents' satisfaction with sanitary services were rendered with painted walls, a well-equipped kitchen, and access to power.

CONCLUSIONS

As was noted in the preceding study and discussion (SPSS), physical attributes and resident satisfaction were examined using the Statistical Package for Social Science. According to the survey, toilet facilities with plastered and painted walls and tiles, a well-equipped kitchen, no finishing wall, power and generator, a kitchen lacking modern amenities, concrete, and a pit latrine have all affected house happiness. It also illustrates that physical features significantly impact resident satisfaction in the researched location.

Because a neighbourhood's physical qualities impact resident contentment, the government must provide more and better social amenities to improve resident satisfaction. Because most households in the community think that their security is terrible, the government or policymakers must develop better measures to help the area become more secure. Proper routine management of social amenities should be implemented to ensure acceptable neighbourhood conditions and resident satisfaction in the research area.

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