



NIEGHOORHOOD CHARACTERISTICS AND I'TS IMPACT ON RENTAL VALUES OF RESIDENTIAL PROPERTIES IN MINNA, NIGERIA.

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ABSTRACT

The study examines the impact of neighbourhood characteristics on rental values of residential properties; this has over the decade been a major topic of discussion in the global housing market. This situation emanated as a result of the multi –dimensional bundle of services and a bundle of contradictions and paradoxes that housing is known for. The study aimed at examining the impact of neighbourhood characteristics on rental values of residential properties in Minna, Nigeria and the objectives were (i) to assess the adequacy of the identified neighbourhood characteristics in the study area,(ii) To examine the current rental values of the class of residential property in the study area. and (iii) to examine the relationship between neighbourhood characteristics and rental values of residential properties. However, the methodology adopted was the use of a structured questionnaire with closed ended questions to extract data from 621 randomly administered questionnaire across the three categories of residential properties. The data were subjected to the use of both descriptive (frequency table, and a 5 point likert scale) and inferential (chi-square) statistical analysis. Results from the analysis revealed that rental values of residential properties in F-lay out are higher than that of the residential properties in Tunga low cost, and the rent in Bosso neighbourhood is relatively higher than that of Tunga low cost respectively, this is in relation to the variation in the quality of neighbourhood characteristics in these areas

respectively. In order not to have a wide disparity of rental values that emerges among similar categories of residential properties within the same market, it is therefore recommended that the government should undertake an aggressive infrastructural facilities development, particularly in the high density areas and to also improve the number and quality of the existing amenities in the low and medium density areas.

Keywords: Effect, Nieghbourhood, Residential, Property and values.

INTRODUCTION

Housing forms one of the most basic needs of mankind (Aluko,2011).It is a fundamental element of human settlement that meet the basic needs in which people live, it connote an essential and vital component in both social and economic framework of a nation, and the performance of the housing sector is frequently seen as a determinant of the stability or instability of a nation, It is a social unit of space and the significance of living conditions which is recognized for centuries as a primary prerequisite for health, work efficiency, social-economic standards, productivity, general welfare, growth of the individuals and neighborhood (Ibem and Amole, 2010). In another related development, Agbola (2005) looked at housing as both a product and process. The product perception of it sees it as a residential environment where man seeks shelter, safety, comfort and dignity. While the process perspective which appears very multifaceted manifest to issues such as dwelling design, provision, maintenance and neighborhood infrastructural services and regeneration.

According to Agbola and Agunbiade, (2007) Housing include the totality of the surroundings and infrastructural facilities that offer human comfort, improve the quality of human health and productivity as well as enable them sustain their psycho-pathological balance in the environment where they find themselves. He considered Housing as a multi –dimensional bundle of services and a bundle of contradictions and paradoxes. Indeed it has been universally acknowledged as one of the most essential necessities of human life and is a major economic asset in every nation. Adequate housing provides the foundation for stable communities and social inclusion (Oladapo, 2006).

Therefore, the significance of adequate housing to the social well-being of the people in any society cannot be overemphasized. However, housing and

neighborhood are inseparable, because it's not just about the floor space or the heating: It's about the vibe of the area, the neighbors, the amenities, schools, friends, shops and parks, transit or traffic. (Suttor, 2016). Neighborhoods are also known to have a complicated interplay between the residential choices of housing supply and the influences of the larger metropolitan system on its constituent part. This is to say that the characteristics of a particular neighborhood have a significant impact on the individuals choices of resident and these characteristics of neighborhood differ from one place to the other. (Krupta and Noonan,2009).

Although, a lot of studies on the effect of neighborhood characteristics on rental values of residential properties have been conducted globally but only little of the studies was conducted in Nigeria and particularly in the study area. Thus, in a bid to contribute knowledge to this field of the study, the researcher examines the adequacy of the identified neighborhood characteristics in the study area and to determine the level of impact of neighborhood characteristics on residential rental values in the study area.

LITERATURE REVIEW

Meaning and Concept of Neighborhood

The term "Neighborhood" is the bundle of spatially based attributes associated with clusters of residences, sometimes in conjunction with other land uses.(Lancaster, 1966).

Neighbourhood" is frequently used to express the sub-segment of urban or rural locations such as cities, villages, and towns. In its purest definition, a neighborhood is basically known as the environment in which people live next to or near one another in sections of an area and create shape communities. It has some particular physical or social characteristics that distinguish them from the rest of the settlements in those sections. (Suttor, 2016). A fundamental physical attributes of the vicinity with multiple unit of housing together with the supporting amenities (Duany *et al* ,2003) Accordingly, the term neighborhood is seen as a comprehensive planning increment. Here, the clustering of neighborhoods lead to the formulation of towns, villages, and cities. The neighborhood differs in population and density to accommodate indigenous peculiar conditions, the size of every neighborhood is limited so that a majority of the population is within walking distance of its centre where the

basic needs for man daily life are reachable. The central zone of the neighborhood provides transport facilities, shopping centers, work places, retail, community events, and leisure activities. On the other hand, the streets make available for alternative routes to most destinations at a reasonable approach for vehicles, motor bikes and pedestrians. When there is incremental development in a particular neighborhood, it will form a mixture of large and small houses, shops, restaurants, offices etc. Civic buildings (schools, theatres, worship areas, clubs, museums, and e.t.c). Very Often, placed in the centre. At that point in time, open spaces, playgrounds, and parks are also provided (Duany, *et al.* 2003). Generally, neighborhood refer to a geographic unit which is constituting the physical attributes such as roads, parks, rivers and rail ways and with a homogeneity of housing and structures within an area (Adama and Jinadu,2015).

It has been demonstrated that the physical layout of a particular neighborhood may help the democratic initiatives to be positive and make a balanced advancement of society to be facilitated which is achieved through the provision of a full range of housing types, civic buildings and workplaces, age and socio-economic classes are incorporated and the bonds of an authentic community together with the physical environment. In another perspective, Forrest and Kearns (2001) defined a neighborhood simply as “overlapping social networks with particular and variable time-geographies.” In their assertion, they stressed on the variability, a critical social element, and contingency of time and space. In another discussion of neighborhood, Galster (2001) suggested that neighborhood is considered to be bundles of spatially based attributes in association with clusters of residences, at times in conjunction with other land uses.” Galster’s (abid) objective was to suggest some set of attributes such as the demographic, institutional, topographic, and social neighborhoods that can be measured and known evidently. However, if a particular area is missing some attributes identified, a neighborhood may not exist there. There is relationship between the attributes and facilitate prediction about residents’ decisions in investment of an area (such as purchasing of a house, maintenance of house or property, neighborhood associations participations, and so on). The neighborhood characteristics that affect a resident’s perception of varies spatially, therefore neighborhoods can be delineated each according to the presence of attributes for the purposes of research on neighborhood change, but

those delineations are reliant on that purpose. Despite acknowledging a role for institutional or social attributes in defining a particular area as neighborhood, Galster's (1986; 2001) approach paid more attention primarily on individual factors and behaviors in determining the character of a particular neighborhood. For the scholars examining neighborhoods, therefore, the meaning and significance of such spaces cannot be evaluated solely through individual action: social structures that create and preserve a particular neighborhood circumstances and character are also constitute individual behavior and the meaning of neighborhood. Given definitions of neighborhoods as sites of daily life and social interface (Hunter, 1979; Galster 1986, 2001; Forrest and Kearns, 2001). Martin (2003) also suggested that neighborhoods are basically known as a particular type of place or locations where human activity is centered upon social reproduction or daily household activities, social interface, and meeting with political and economic structures. The meaning of neighborhoods is drive from the salience of individual and group values together with attachments, which is developed through daily life habits and interactions. It is like a place where every day's life is situated" (Merrifield, 1993).

Determinant of Residential Property Value

Without standardization, each property is considered to be unique and thus is priced differently (Ruvio,2010). Because each piece of property is unique, it is often difficult to identify the appropriate variables that will explain the rental prices. According to Kim and Nelson (1996), assessing the rental value of residential properties is a complex and challenging process to both practitioners and academicians because it involves analyzing the rental property, neighborhood characteristics and market conditions. McKenzie and Betts (2006) explained these attributes include physical features such as space, age, condition and apartments. Some features can be measured by objective scale or techniques. Other amenities however are not so objective. Furthermore, Odame (2010) clearly mentioned that real estate asset consists of a bundle of attributes which includes number of bedrooms, gross and lettable floor areas, number of storey's, type of tenure or ownership rights, plot size, quality of aesthetics and accessibility, all of which may affect its rent and price. However, Zainudeen, Senarathne, Jayasena, & Rameezdeen (2006) see the location as a key factor from customer's point of view. Chris and Somefun (2007) and Nakamura and

Crone (2004) explained the attributes includes bedroom, toilet, bathroom, kitchen, open space, drainage, water supply, refuse disposal, good road net work, recreational parks, hospital and many more. Raymond (2000) further discussed that a residential property is a multi-dimensional commodity, characterized by durability, structural inflexibility as well as spatial fixity. Based on the above justifications on rental values recent empirical work has investigated substantial lists of factors that have been employed to explain market rents for residential income property. These factors range from physical attributes to property management quality characteristics. In addition, the literature shows that market rent is affected by deviations of observed vacancy rates from natural vacancy rates and by such factors as rental concessions and length of residency discounts.

Impact of neighbourhood characteristics on rental values

The availability of services and opportunities in neighborhood is a pathway through which neighborhood can influence people well being. Access to employment opportunities and public services including efficient transportation system, effective security, and good schools directly affects peoples well being. (Balesta and Sultan, 2015). Thus, since housing represent the most basic of human want which has a profound impact on the health, welfare and productivity of individuals (Olujimi, 2010). And the rental housing market is characterized as imperfect and inefficient because of the complexity and most importantly the heterogeneity of the product which makes each rental housing market to be confined to a given neighborhood. This technically means that housing marketing in one area or neighborhood may not necessarily be a true representation of the other market in a different neighborhood (Wichramaarachchi, 2016). However, it is base on the fact above that the following literatures are reviewed:

Theriant *et al.* (2005) appraised the significance of accessibility on house prices from the perspective of households in the city of Quebec based on travel time from resident to service areas. The findings of the study revealed that residential property values increases with good accessibility.

Yan and Zhang, (2006) conducted a study on the neighborhood characteristics and housing price in Hanzhou, China, they adopted the hedonic price model to determine the impact of neighborhood characteristics on housing price.

However, the study revealed that neighborhood characteristics do affect housing prices. Although, area and locations are still the key factors affecting rental values of residential properties. They claimed that other variables such as the nature of environment, community environment, proximity to good schools, and physical and cultural facilities are as similar as other means of making estimation.

In another related study, Krupka and Noonan, (2009) carries out a study on “neighborhood dynamics and the housing price. Effect of spatial targeted economic development policy in USA. In the study, they used simultaneous equation to examine the effect. However, the result shows that there is a relationship between housing price and neighborhood characteristics and it lays bare simultaneous effect of these characteristics on one another. Chiodo, *et’ all*, (2010) examines the relationship between the housing quality, public schools and price of a house. They used the nonlinear boundary fixed models to examine the relationship between the housing quality, public schools with residential prices in St Louis metropolitan area of USA. The finding revealed that the prices of houses located in the neighborhood with presence of a high quality school the house price. This is to say that there is a relationship between accessibility to high quality school with housing price. Also, Furthermore, Islam, (2012) studied the impact of neighborhood characteristics on house prices in Alberta, Canada. He employed the use of multiple regression models to examine the effect of neighborhood characteristics such as the crime level on house price. The study revealed that household’s income and adjacency to ravines positively influence house prices. Although, adjacent to crime generally affect the house price negatively but the impact in a negligible one.

Wang, *et’ all*, (2012) carried out an investigation on neighborhood quality and housing price: Evidence from urban micro data and using the hedonic price model, they aimed at examining the impact of neighborhood quality on housing value in China. The result of the study however suggests that house price is significantly affected positively by human capital while cultural capital such as the cultural diversity has significant negative effect on house price. Also, the study also revealed that having kindergarten and hospital near neighborhood positively affect housing value while the presence of internet café and the transportation service is negative attributes.

In Nigeria, Oloke, *et al*, (2013) examines the factors affecting residential property values in Mogodo Neighborhood Lagos state. The study which was conducted to examine the relative impact of variables such as: the structural, neighborhood, location and travel distance cost. In the study, they adopted the percentage and relative importance index. However, the result of the study suggests that travel distance and cost does not affect residential property value as other factors do. In another research, Ankeli and Dabara, (2015) conducted a research on housing condition and residential property rental values in Ede, Nigeria. They used the descriptive statistics to examine the relative impact of housing conditions on rental values of residential properties. However, the study revealed that properties with better conditions in terms of infrastructure and physical soundness command higher rental values compared to properties with less. Adama and Jinadu (2015) in a research titled an evaluation of the relationship between the neighborhood quality and property value in Minna metropolis, Niger state using correlation and ANOVA. This assessment was done to describe and compare neighborhoods in terms of physical condition of the built and natural environments as well as provision of infrastructure and services. To standardize the comparison of neighborhoods, a neighborhood quality index (N.Q.I) was derived from twenty-two (22) aspects of the neighborhood condition. The neighborhood variables for measuring quality include power supply, drainage system, and security; refuse disposal facilities, water supply, road condition, condition of houses and noise level. The study revealed that there is a direct relationship between neighborhood quality and property values. GRA and Tunga command higher rent and have higher property value while Maiturnbi commanded lowest rent and have lowest property value etc.

Hillsdon, (2015) carried out a study on “an assessment of the relevance of the home neighborhood for understanding environmental influence on physical activity; How far from home do people roam. The study revealed that neighborhood characteristics do influence the people choice of residence and this also affect the value of house in a neighborhood . Huang *et al*, (2015) conducted a study on the geospatial impact of crime on neighborhood property values. The study aimed at examining the impact of crime on housing values with the aid of hedonic price models analytical tool. The study indicated that crime has a negative impact on housing values and the price of housing

increases with increase in distance between the housing locations with the crime location regardless of the crime category. In a related study, Usman, (2016) undertook a study on the impact of housing attributes on rental values of residential properties in Minna, Nigeria. The purpose of the study was to examine the relative impact of housing attributes on rental values of residential properties. In his study, he combined the location, neighborhood and structural attributes to determine the impact using the standard multiple regression analysis. He selected the Kpakungu, Tudun Fulani and London Street neighborhoods for his analysis. However, the findings revealed that condition of the building component is the main determinant factor of rental value and other factors such as the location and neighborhood attributes and adequacy of building facilities follows suit. Similarly, Olajide and Lizham, (2016) carried out a study on the impact of residential neighborhood crime on housing investment in Nigeria. They adopted a logistic regression to examine the relative impact of neighborhood crime on housing investment. However, the study indicated that residential neighborhood crime is capable of impacting on residential property values. Furthermore,

Wokekoro, (2017) carried out a study on the neighborhood quality attributes and their implications on real estate market in Port Harcourt, Nigeria. The study covers the Old GRA and D-line neighborhood and the researcher uses the unvaried analytical tool to examine the impact of neighborhood quality attributes on real estate values. However, the result of the investigation revealed that availability and adequacy of neighborhood attributes are key in enhancing property values and it reduces the rate of void in residential buildings. In the same year, Collinson and Ganong, (2017) undertook a study on the effect of housing voucher design policy on rent and neighborhood quality. The study reveals that a more generous voucher across a metro area increases rent with minimal impact on the neighborhood quality.

In a related study, Ting, (2019) conducted a research on the heterogeneity in housing attributes prices. An interaction approach between housing attributes absolute location and household characteristics in Shenzhen, China. The study revealed that marginal prices of key housing attributes are not constant but varies with household profile and absolute location context.

METHODOLOGY

The methodology adopted was the use of textbooks, journals, conference papers, seminars, internet sources among others to extract secondary data. Also, a structured questionnaire with closed ended questions was used to extract data from 621 randomly administered questionnaire to residents across the three neighbourhoods on three bedroom category of residential properties (220,200 and 201 for Bosso, Tunga low cost and F-layout areas respectively with the help of kothari formular, (2004).

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2(N - 1) + z^2 \cdot p \cdot q}$$

However, the data were subjected to the use of both descriptive (frequency table, and a 5 point likert scale) and inferential (chi-square) statistical analysis to determine the elative impact of the neighbourhood characteristics variables on rental values of residential properties in the study areas. The data was analysed from the professional opinion of the 12 registered Estate firms out of the 19 in the study area.

RESULT AND DISCUSSION

This section of the paper represents results of analysis carried out in the course of the study. Eight hundred and eighty six questionnaires were administered and 621 retrieved i.e a response rate of 70%. Analysis was therefore based on the 621 households in the three neighbourhoods.

Table 1 Showing The Mean Score Of The Level Of Adequacy Of Services In The Neighborhoods

Nieghbourhood characteristics	Bosso Environ	Tunga lowcost	F-layout
	Mean score	Mean score	Mean score
Security of the neighbourhood	2.83	2.89	2.56
Provision of drainage facilities	2.83	2.89	2.56
Health care facilities	3.74	3.38	2.42
Recreational facilities	3.68	3.15	2.80

Sporting facilities	3.27	3.57	3.29
Waste disposal system	3.16	2.11	2.32
Electricity supply	3.51	3.14	2.64
Water supply	3.00	2.53	2.80

Source: Field Survey, (2021)

Bench Mark For Decision Making

S/N	Bench mark	Decision
1.	4.51- Above	Grossly inadequate/V. rarely
2.	3.51-4.40	Inadequate/Rarely
3.	2.51-3.50	Moderate/Occasionally
4.	1.51-2.50	Adequate/V. frequent
5	1-1.50	Very adequate/Always

Table 2: Respondent Rent Paid Per Annum (Three Bedroom)

Rent Paid per annum (₦)	Bosso Environ		Tunga lowcost		F-layout	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
₦50,000- ₦100,000	00	00%	00	00%	00	00%
₦100,000- ₦150,000	00	00%	04	3.3%	01	0.7%
₦150,000- ₦200,000	01	02%	06	05%	01	0.7%
₦200,000- ₦250,000	42	84%	96	79.3%	40	28.2%
₦250,00 above	07	00%	15	12.3%	100	70.4%
Total	50	100%	121	100%	142	100%

Source: Field survey, (2021)

Table 3 Chi-Square Analysis On The Neighbourhood Characteristics Affecting Rental Values Of Residential Properties In The Neighborhoods.

Neighborhood	BOSSO	TUNGA	FLAY OUT	ROW TOTAL
Planned neighbourhood	26 (35.63)	44 (41.12)	42 (37.49)	112
Proximity to social services	32 (37.15)	46 (42.34)	43 (40.50)	121
Proximity to economic activities	44 (38.07)	50 (38.07)	30 (41.50)	124
Sociocultural belief of the neighbourhood	47 (37.15)	38 (43.34)	36 (40.50)	121
Nture of environment	37 (36.23)	42 (42.27)	39 (38.49)	118
Proximity and adequacy of utilities	36 (38.07)	39 (44.42)	47 (41.50)	124
COLUMN TOTAL	222	259	237	723

Source: Field survey, (2021)

$$\text{Test statistic: } \chi^2 = \frac{\sum(O-E)^2}{E}$$

Where χ^2 = chi-square

\sum = summation

O = Observed frequency

E = Expected frequency

Level of significance = 0.05

Degree of freedom = (r-1)(c-1) = (6-1)(3-1) = (5)(2) = 10

Expected frequency (E_{ij}) = $\frac{\text{row total} \times \text{column total}}{\text{grand total}}$

$$E_{11} = \frac{115 \times 222}{723} =$$

$$\chi^2 = \frac{\sum(o-e)^2}{e} = \frac{(26-35.65)^2}{35.65} + \frac{(44-41.12)^2}{41.12} + \frac{(45-37.49)^2}{37.49} + \dots + \frac{(47-41.50)^2}{41.50}$$

$$\begin{aligned} &= 2.61 + 0.20 + 1.50 + \dots + 0.73 \\ &= 17.988 \end{aligned}$$

Decision rule: reject H_0 if $\chi^2_{\text{calculate}}$ greater than $\chi^2_{\text{tabulated}}$ otherwise accept

Therefore $\chi^2 = 17.988$

While the tabulated value = **3.940**

From the hypothesis

H_0 : There is no significant relationship between neighborhood characteristics and rental values of residential properties in Minna

H_1 : There is significant relationship between neighborhood characteristics and rental values of residential properties in Minna

Conclusion: Since the $\chi^2 = 17.988$ is greater than the table value = **3.940** we reject the null hypothesis and conclude that There is significant relationship between neighborhood characteristics and rental values of residential properties in Minna.

CONCLUSION AND RECOMMENDATION

From the foregoing result, it is laudable to draw up a conclusion with the assertion that the impact of the neighborhood characteristics on rental values of residential properties in the study area cannot be over emphasized. In order words, the neighborhood characteristics are significantly vital to rental value determination of residential properties in Minna metropolis, Nigeria. Evidently, the (Bosso environment) was found to be characterized with lower quality of neighborhood's amenities with a poor environment quality and (Tunga lowcost) of the metropolis have fairly improved quality while the F-lay out neighbourhood have more adequacy of neighbourhood characteristics compared to both Bosso and Tunga low cost respectively. Thus, the residential neighborhood with more adequate utilities and close proximity to social services with complementarities with housing tend to command a higher rental value compared to the neighborhoods with less.

RECOMMENDATION

Government and other agencies saddled with the responsibility of infrastructural development should undertake a massive infrastructural facilities development particularly in the high density residential areas and improve on the number and quality of the existing amenities in the medium density areas of

the metropolis. This action will attract investors in the housing sector to develop quality housing in the neighborhood and by so doing, the wide variations in the rental values can be closed drastically.

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