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AIM AND SCOPE

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Editorial

With great pleasure, I welcome you to the first and second issues of the tenth volume of the Journal of Environmental Design and Management. These issues, in line with the scope of the journal and previous volumes, present multi-disciplinary views on current issues in the built environment. The papers in these issues cover the discipline of Architecture, Building, Estate Management, Quantity Surveying and Urban and Regional Planning disciplines.

The first paper by Oyelele and Uwaezuoke dealt with the participation of communities in real estate and infrastructure financing. The study examined the socio-economic characteristics of residents of Omu-Aran, Oke-Oye and Anni communities in Kwara state. A systematic sampling of 274 buildings was done, and data obtained through a survey were analysed using descriptive and inferential statistics. Findings show that factors influencing the choice of projects financed by the communities include government stake, level of public service support, instability in government policies and standard of living. The study concluded that aside from government support, donations and levying are other sources of financing infrastructure projects.

The second paper written by Olu, Wahab, Sule, Durosini, Dodo and Onyekere examined the contribution of green spaces on the rental decision of residential property in Lagos. The survey instrument was used in collecting data from 143 estate surveyors and valuers who were randomly selected in the study area. Data collected were analysed using mean score, relative importance index and chi-square test. The study reveals that provision of green space contributes significantly to the rental decision and recommends that policy to enforce the inclusion of green space by housing developers and individual landowners should be put in place, and residents should be sensitized on the importance of green space in buildings.

The third paper by Olaniyan, Aluko and Oladokun investigated the perception of claimants on problems associated with compensation for an East bypass road project in Osogbo. With primary data obtained from 201 affected claimants through a well-structured survey instrument and analysed using descriptive and inferential statistics, the study found that the absence of Land Use and Allocation Committee (LUAC) and delay in payment of compensation were major problems in compensation for the road project. The study identified the need for the constitution of the LUAC and recommended prompt payment of compensation and proper enumeration of affected properties as efficient solutions.

Obayomi and Aluko wrote the fourth paper. The study examined factors influencing the adequacy of private housing estates in the Federal Capital Territory, Abuja. Questionnaires survey was employed in collecting data from 280 household heads of three different private housing estates. Descriptive and inferential statistical tools were used in analysing the data obtained. The study reveals that fire safety measures, natural lighting in the kitchen and bedrooms, perimeter fencing of the unit, security measures in the house, level of privacy, circulation of fresh air in living/dining rooms, and level of thermal comfort were not adequate. The significant factors influencing the adequacy of housing estates include managerial (39.58%), utility adequacy (7.17%), infrastructural factor (4.93%), facilities maintenance (3.95%), accessibility to facilities (6.47%) and provision of facilities (2.72%).

In the fifth paper, Ayodele demonstrates the application of real options analysis (ROA) in the appraisal of commercial real estate development using a case study project. The study compared the outputs of the traditional DCF (NPV) under three scenarios of most optimistic, most likely and most pessimistic, against the results obtained from the ROA, using the Samuelson McKean formula. The findings reveal that uncertainties and risks are better predicted and analysed in development projects with the use of real options analysis, as opposed to relying solely on traditional DCF (NPV) appraisal method. Also, the ROA provides investors with a better context in which to make informed decisions about the development project. The paper emphasised the relevance of real options analysis and the analysis of investment risk in project decisions to enhance investment decision making.

The sixth paper, written by Onwuanyi, investigated the effectiveness and efficiency of the land market in Benin City as an industrialising and modernising metropolis in Southern part of Nigeria. The land markets were assessed using features and conditions of international land markets through a survey of the city-based estate surveying and valuation firms. Using percentage and weighted mean scores, knowledge, perceptions and activities in the market were analysed. The study finds that the market is effective in allowing buyers and sellers to obtain value but not rated as efficient. The land market demonstrates effectiveness more than efficiency and the latter is found to be vital in the realisation of the potential of the market. Efficiency requires a reformation of the land administration system and ensuring that the statutory title is affordable, easily accessible, widely acceptable, and preferable.

The seventh paper written by Adegboyega, Fakpor, Ogunsola and Olajuyigbe assessed urban land-use change and water quality in Ado-Ekiti Local Government Area in Ekiti State between 1991 and 2015 using *Escherichia coli* (E. coli), pH and Lead (Pb) present in different natural water sources. The water samples were collected from open well water, borehole water and surface water sources that were randomly selected from areas of observed land use and cover changes. The study revealed that between 1991 and 2015, bare surfaces decreased by 43.06%, thick vegetation by 13.52%, and water bodies by 0.02%. Also, settlement increased by 47.07%, farmland by 22.18%, light vegetation by 4.65% and outcrop by 17.29%. Water collected from boreholes, open wells and surface water in parts of the study area with positive significant land use and cover changes were found to be contaminated by E. coli and lead (Pb) and unsafe for human consumption.

In the next article by Jiburum and Nwachukwu, the study investigated the pattern of crime occurrence across 14 residential neighbourhoods of Enugu, Nigeria. Through the information obtained from the Criminal Investigation Department (CID), there were occurrences of 17 types of crimes over 12 years (2000-2011). The study reveals that a significant difference exists in term of the volume of crime that occurred across individual neighbourhoods, but there was no significant difference in the yearly volume of crime. The highest crime is violent crime (47%), while assault is the most frequent crime. The medium-density neighbourhoods had the highest crime rates (44.27%) while unplanned high-density neighbourhoods had higher crime volumes when compared to planned high-density neighbourhoods.

The ninth paper written by Oluwadare examined the general and fixed boundary approaches of boundary demarcation in Ondo State, Nigeria. Boundary coordinates of twenty-six (26) parcels were obtained using Global Positioning System (GPS) in conjunction with ortho-rectified imagery of the scene. Data collected were analysed using GIS overlay tool to view the discrepancies in boundary points due to the different approaches. The result reveals that the shift in boundary lines affected individual parcel area in the 26 parcels sampled. Fixed boundary approach is more reliable at solving boundary conflicts while general

boundary approach is only efficient in terms of time. The study recommends that fixed boundary demarcation should be integrated into general boundary method of land titling and registration as a permanent way of solving parcel boundary conflicts.

The tenth paper written by Otali and Ikediashi assessed the level at which sustainability practices were adopted by construction firms in Niger-Delta and used the age of firms as moderator of such practices. A survey approach was employed in obtaining data, and a total of 1179 copies of a well-structured questionnaire were administered. Data collected were analysed with the use of statistical tools such as percentage, mean score, Kruskal – Wallis and Bonferroni- Dunnett test. The study reports a moderate level of adoption of sustainable practice among construction firms in Niger-Delta, Nigeria, using the age distribution of the firms surveyed as moderator. The study recommends a need for all classes of firms to embrace and sustain sustainability practices.

The eleventh paper by Olusola, Tyagher and Ata determined the performance and structural effectiveness of Gboko sand as a material to produce concrete. The effects of water-cement ratio, curing age and elevated temperature on the compressive strength and density of concrete were determined. The results show that the density and compressive strength of concrete made from Gboko sand is higher at all water-cement ratios and temperatures up to 500 °C when compared with the corresponding values of River Benue sand concrete. It is concluded that Gboko sand is suitable to produce structural concrete at mix 1:2:3 at a water-cement ratio of not more than 0.65.

Wilson and Odesola wrote the twelfth paper. The study examined the influence of client-related causes of reworks on the performance of oil and gas projects. A survey research approach was employed to collect relevant data from a total of 510 contractors and 392 consultants who were randomly selected. A significant level of agreement is reported on the views of contractors and consultants on the frequency of occurrence of client-related causes of rework. The study concluded that client-related causes of rework have a significant influence on the performance of oil and gas projects. The study recommends the early engagement of stakeholders to minimise the occurrences of rework.

The thirteenth paper was written by Alao, Jagboro and Olatunde, which investigated factors that are influencing the choice of strategies for resuscitating abandoned building projects in public tertiary education institutions in Osun State. Primary data were collected through a well-structured questionnaire that was administered on 45 construction professionals who were involved in the development of construction projects. Interviews were also conducted on representatives of the selected institutions. Data collected were analysed using relative importance index, Kruskal-Wallis test and ATLAS.ti7. The most significant factors influencing the choice of strategies for the resuscitation of the abandoned project is available finance.

The fourteenth paper written by Olanipekun and Adesanya examined the sources of energy waste and applicable energy-efficient practices in selected private hostel buildings in Ile-Ife, Nigeria. Data were collected using a questionnaire survey and analysed using energy consumption equation, regression model, analysis of variance and factor analysis. The study reports that the sources of energy waste are the use of inefficient (old and second-hand) electrical appliances, uncontrolled electricity demand in private hostels, poor energy management, supply-demand gap, unsustainable use of energy and poverty mentality. However, electrical use in hostel buildings would be improved through energy management policies, energy audit, use of energy-efficient appliances and staff training.

The fifteen paper written by Gwary, Zaria, Galadima and Diya'uddeen examined the impacts of land pollution due to illegal artisanal refineries on the soils around the mangrove areas of Okarki and Degema communities, Niger Delta Area, Nigeria. The study determined the Total Hydrocarbon Content (THC) and the heavy metals concentration in collected soil samples. Data were collected through visits to the fields and laboratory experiments. The results obtained were compared with standard values set by the Department of Petroleum Resources. The THC levels in Degema were found to be well above intervention levels, and those recorded at Okarki community were below intervention levels. Okarki area recorded heavy metals pollution while pollution at Degema is insignificant.

Effect of Green Spaces on Rental Decision in Ikeja Metropolis, Lagos State

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Abstract

Green space is an important environmental amenity in urban areas. Its presence can make the environment a more pleasant place to live, work, spend leisure time, and thus make substantial improvements in individual well-being. This survey-based study investigates the relative contribution of green space to rental decision of residential property in Lagos. The survey was conducted among resident estate surveyors and valuers in Ikeja, Lagos metropolis, using a random sampling technique with a well-structured questionnaire to gather data from 143 respondents conversant with the terrain. The data was subjected to Cronbach's alpha reliability test to measure internal consistency, the result revealed a high level of internal consistency among the respondents at 0.80(80% reliability). The data was further analyzed using mean analysis, relative importance index (RII) and chi-square test. The outcome of the survey revealed that provision of green space contributes significantly to rental decision. It is therefore recommended that a policy to enforce the inclusion of green space by housing developers and individual landowners should be put in place, while sensitizing the residents on the importance of green space in life sustainability.

Keywords: Green space, rental value, environmental sustainability, attributes

Introduction

Property is a multi-dimensional investment which can be considered a bundle of attributes that tenants value differently because of their different utility functions. These attributes include physical, locational and neighborhood attributes (Sirmans, Sirmans and Benjamin, 1989). Neighborhood attributes like nearness to open green spaces is solely considered among other attributes due to its uniqueness in terms health benefits, serenity, aesthetics and environmental balance. In some studies, it is considered an important factor which significantly influences rental decision and tenants' willingness to pay for a property (Woodruff and Flint, 2006). Green spaces are predominantly soft surfaced space within the urban environment. They may be accessible to all, have partially restricted access or be private e.g. private gardens attached to dwellings. Currently, several studies have confirmed that urban green spaces improve

the environmental quality of life, promoting public health and providing valuable ecosystem services, such as urban tourism and active or passive recreations to urban dwellers (Beauchamp and Adamowski, 2013; John, 2011; and Forest Research, 2010). Green open spaces also improve social inclusion, provide employment opportunities, security situation. They also forestall urban congestion and sprawl, and cause general improvement in the standard of living of urban dwellers (Dunnett and Swanwick, 2002).

Previous studies of Sirmans, MacDonald, Macpherson and Zietz (2006) on the value of housing characteristics; Bolitzer and Netusil (2000) on the impact of open spaces on property values in Portland; Ready and Abdalla (2003) on the impact of open space and potential disamenities on residential property in Pennsylvania; Nicholls and Crompton (2005) on the impact of greenway on property values in Austin, Texas, and

McCord *et al.* (2010) on the effect of public green space on residential property values in Belfast metropolitan area, all indicate that green spaces generate positive externalities which have positive impact on the value of property in developed countries. This study however examines the relationship between green spaces and rental decision, thus bridging this gap in the literature.

A study of this nature would not only help estate developers to know how to maximize profit from their estates through the incorporation of green space, but also awaken the conscience of investors or owners of properties about the need for sustainability of the environment. It would also serve as a way of evaluating the contributions of green infrastructure to either the improvement or decrease in investment within the states. It would equally better inform the public on the sensibility or insensibility of the green agenda being propagated by Lagos state government.

This study contributes to existing body of knowledge through the comparative assessment of the effect of green neighbourhood space on the effect of green neighbourhood space on residential rental decision in the Ikeja area of Lagos metropolis. The objectives of the survey are to assess the influence of green space attributes on rental decision in the study area, and to determine the specific influence of urban green space on rentals decision within the study area. The paper is structured into five sections. The next section contains the literature review followed by the description of the study area. The fourth section describes the research method while the last section covers the conclusion and recommendation.

Literature review

Green spaces are the 'green lungs' of our towns and cities, contributing to improving people's physical and mental health. This is achieved by providing spaces for informal recreation walking, cycling, sitting, socializing and children's play and 'breathing spaces' to take time out from the stress of modern life (Dunnett and Swanwick, 2002). Urban Green space is an evolving concept to provide abiotic, biotic and cultural functions in support of

sustainability (Ahern, 2007). The idea of green space is not entirely new. Its ideology stems from garden city movement. One of the earliest proponents was Ebenezer Howard (Cofie, 2010). It has roots in planning and conservation efforts that started a hundred and fifty years ago (Mark, *et al.*, 2012). It has emerged as an active term of reference in project development planning (Beauchamp and Adamowski, 2013). Hence, green space has become an important policy initiative in many cities internationally, and has been used to address a variety of environmental and social concerns in the developed world (Kathleen and Richard, 2012). Green spaces such as parks contribute significantly to social inclusion because they are free and accessible to all (Dunnett and Swanwick, 2002). One of its most significant social benefits according to Nicholls and Crompton, (2005) is the provision of recreational opportunities such as children's play areas, walking paths etc. Well-maintained parks promote community engagement and civic pride, it attracts and connects individuals of all ages and ethnic backgrounds who share a vision for the betterment of their surroundings (Okunlola, 2013). They are places to relax and they reduce stress levels in the body and calm the mind. They also have numerous public psychological and physiological health benefits. The existence of green spaces also offers outdoor educational opportunities for children and field laboratories for scientists researching environmental issues (Dunnett and Swanwick, 2002; Nicholls and Crompton, 2005).

Green spaces also maintain a certain degree of humidity in the atmosphere, they regulate rainfall, and tend to stabilize temperatures and reduce the extremes by sheltering from wind and the sun, and providing ventilation channels. Thomas (2013) indicates that plants act as an absorbent material in green spaces, blotting up heat and light, and therefore open-green areas with organic surfaces radiate less heat than places having inorganic surfaces such as concrete. Green space help in filtering pollutants and cleaning the air, controlling storm water runoff and protecting against natural hazards such as fire and flood in natural and man-made urban environment. It also

helps in protecting ground water, screening obtrusive views and improving the aesthetic quality of a place (Nicholls and Crompton, 2005). Green space provides direct benefits like direct employment to those who take care of them.

Evidences exist that demonstrate the restorative value of green space. It is believed that mere access to views of green space can have beneficial impact on mental well-being and cognitive function (Forest Research, 2010 and RICS, 2011). Quality green spaces have positive benefits for people living in deprived urban communities (SDC, 2010). Similarly, access to green space according to John (2011) increases physical activity and active living, thereby reducing risk of obesity. There are indications that urban housing developments that are adjacent to natural amenities such as woodland, parks, waterways and the coastline are more attractive to buyers and this is often reflected in market prices (Ulaga and Chacour, 2001). Likewise, SDC (2011) observes that attractive settings add to the value of land and property. Green space can also play an important role in reducing some of the impact of climate change in urban environments. It supports the people who live in towns and cities to adapt to the changing climate. Depending on location, type and extent, green infrastructure provides shade, cooling and wind interception as well as insulation in winter (Forest Research, 2010, RICS, 2011). Green spaces alleviate the impact of climate change, such as flooding and the heat-island effect and provides effective ecosystem services that are expensive and difficult to replace with man-made solutions (SDC, 2010). Incorporating green space into the urban built-space is gaining popularity as a cost-effective and long-term measure for mitigating climate change impacts associated with proliferation of grey infrastructure globally (Schäffler et al., 2013).

The nature of locational attributes such as distance to work, distance to children's school as well as physical attributes such as number of bedrooms, bathrooms, age, and neighborhood attributes like nearness to open green spaces do significantly influence tenants' rental decision and amount they are willing to pay for a property (Choy et al., 2007).

The above analysis reveals that different sets of attributes influence rental decisions and in turn property value in Lagos and advanced countries of the world. This is corroborated by Freeman (2003), who asserts that attributes influencing rental decision and property value are property specific, contextual neighborhood specific, and environment specific. But no local studies have made mention of green space in the literature in Nigeria, but some of the international studies have made attempt to address the issue of green space attributes as one of the major determinants of renter's decision. Therefore, the need to find out the overall effect of green spaces on rental decision in Lagos, Nigeria is a major pursue of this study. A number of researchers in Nigeria have equally looked at the impact of various attributes on the value of property. Babawale and Adewumi, (2011) studied the impact of neighbourhood churches on house prices; Afolayan (2004) examined an assessment of water body on property value. The effect of location and neighbourhood attributes on housing values was studied by Aluko (2011), and the study of the impact of urban crime on property values was carried out by Bello and Bello (2019). But none of these studies explored the relative contributions of green spaces on property rental decision in Nigeria. It is on this basis that the current research looks into how the benefits of green spaces influence rental decision, and the other factors related to the environment that influence rental decision.

Study area

The study area is Ikeja which is the capital of Lagos State, South West Nigeria. Though the seat of the Federal Government has since moved from Lagos to Abuja, Lagos Metropolis still remains the nerve centre of Nigeria's commercial, industrial and property investment activities. Lagos metropolis has the most active property market in Nigeria with the highest average property value and stock of investment (Babawale, Koleoso and Otegbulu, 2012). The area comprises green spaces with abundant green area which include trees and shrubs, flowers and natural aesthetics.

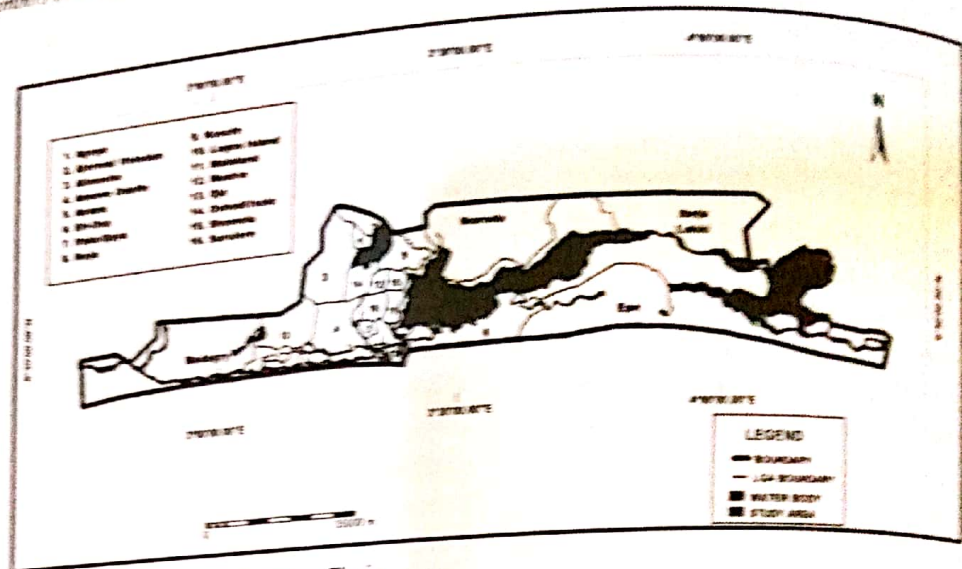


Figure 1: Lagos State showing Ikeja

Source: Ministry of Economic Planning and Land Matters, Lagos, 2018

Ikeja was chosen because of its highly strategic location. More importantly is its proximity to a number of important institutional, commercial and industrial landmarks. One of such is the Lagos-Ibadan expressway, one of the main highways in the city leading to the Third mainland bridge. Murtala Mohammed International and Local airports, Lagos state government main secretariat, police barracks, Ikeja Army Cantonment (one of Nigeria's biggest military Barracks) Nigerian Air force base, banks, shops, Ikeja city mall, cinemas, clubs and other popular streets of Ikeja. The study area also has one of the largest industrial concentration in Nigeria and it is home to some leading hotels in the country such as Sheraton Hotel and Towers, Airport Hotel and Protea Hotel.

Methodology

The study population were registered estate surveyors and valuers in Lagos, who reside in Ikeja and were therefore conversant with the area and its property market system. The Simple random technique was adopted to sample registered surveyors and valuers. Structured questionnaire method was used because it offers the advantage of collecting information from a large sample in a relatively cost-effective way. The data was obtained by structured questionnaires designed using the list

of attributes of green space that influence your decision. It was administered to in-resident surveyors through a simple random technique. Based on Niesv Directory, there were a total of 400 estate surveyors, with 95% confidence level, the researcher administered 400 questionnaires ($n=1/k^2$, where k is the level of precision at 0.05). Out of 400 administered, 90 were not returned, 10 were wrongly filled and 143 were retrieved for analysis. Test for reliability and internal consistency was carried out, with values range between 0 and 1, where measures closer to 1 showed strong reliability for items in the research instrument. Likert scale technique was used to determine the mean response and relative importance index. Chi-square technique was employed to determine respondents' level of agreement with variables in the structured questionnaires.

Data analysis and discussions

Table 1 summarizes certain characteristics of the respondents in the study area. Majority of the surveyors were male (78.3%), and university or polytechnic graduates (69.9%). A large number of them (79.7%) earned less than N300,000 per month which is far above the national minimum wage of N18,000 per month.

Table 1(a). Major characteristics of respondents

| Variable | Frequency | Percentage |
|--|-----------|------------|
| <i>Gender distribution of respondents</i> | | |
| Male | 112 | 78.3 |
| Female | 31 | 21.6 |
| Total | 143 | 100.0 |
| <i>b) Distribution of respondent by educational</i> | | |
| OND/NCE | 10 | 7.0 |
| HND/ B.Sc | 100 | 69.9 |
| M.Sc/HND | 19 | 13.3 |
| Others | 14 | 9.8 |
| Total | 143 | 100.0 |
| <i>c) Distribution of respondent by average monthly income</i> | | |
| Less than 300000 | 114 | 79.7 |
| 300000-500000 | 28 | 19.6 |
| 500001-700000 | 1 | 0.7 |
| Total | 143 | 100 |

Source: Field Survey, 2016

Table 2. Distributions of respondent's opinion of importance of greenspace.

| | | |
|---------|-----|-------|
| Yes | 114 | 79.7 |
| No | 18 | 12.6 |
| No idea | 11 | 7.7 |
| Total | 143 | 100.0 |

Source: Field Survey, 2016

Table 3: Do you think proximity to green space has effect on your rental decision in Estate

| | | |
|---------|-----|-------|
| Yes | 114 | 72.7 |
| No | 18 | 19.6 |
| No idea | 11 | 7.7 |
| Total | 143 | 100.0 |

Source: Field Survey, 2016

Table 2 shows the opinions of respondents on green space as an important environmental amenity in the study area respectively. Despite the fact that there is no noticeable green space in most of Ikeja, 79.7% of surveyors were of the view that it is an important environmental amenity. Based on this finding, it can be reasonably concluded that surveyors in the study area consider the presence of green space as important environmental amenity.

The results in table 3 presents respondents' views where appreciable green space exists. About 72.7% majority of the surveyors were of the opinion that

availability of green spaces influences rental decision and hence, one of the major environmental amenity considered by surveyors in rental analysis. This result is particularly important because people are beginning to appreciate the impact of green space and its effects on rental decision. This in turn may have positive impact on the value of property as a whole. It is therefore advisable for developers and property owners to consider including this special amenity when developing new structures.

Table 4: What percent increment to market rent could be considered for maintenance of green space

| | | |
|-----------------------|------------|-------|
| Less than 10% | 84 | 58.7 |
| Between 11%-20% | 25 | 17.5 |
| Between 21%-30% | 18 | 12.6 |
| Between 31%-40% | 8.4 | 2.8 |
| Between 41% and above | 4 | 100.0 |
| Total | 143 | |

Source: Field Survey, 2018

Table 5: Perceived benefits of green space in residential estates among Estate Surveyors

| | Mean | RII | Rk | \bar{X}^2 | P-value |
|---|------|------|----|-------------|---------|
| Perceived benefit of green space (Cronbach's alpha (α) 0.82) | 4.13 | 0.83 | 1 | 25.02 | 0.00 |
| Presence of vegetation and water body to give fresh air and recreation | 3.90 | 0.78 | 4 | | |
| Provide abiotic, biotic and cultural functions in support of sustainability | 4.02 | 0.80 | 3 | | |
| Physiological health benefits | 3.81 | 0.70 | 5 | | |
| It provides a certain degree of humidity in the atmosphere by regulating rainfall; it tends to stabilize temperatures and reduce the extremes by sheltering wind and sun; and it provides ventilation channel | 3.73 | 0.69 | 6 | | |
| It helps in filtering pollutants and cleaning the air, controlling storm water runoff | 3.81 | 0.70 | 5 | | |
| It protects against natural hazards such as fire and flood in natural and man-made urban environment | 4.12 | 0.82 | 2 | | |
| It helps in protecting ground water, screening obtrusive views and improving the aesthetic quality of a place | 3.60 | 0.62 | 9 | | |
| Increases physical activity and active living, thereby reducing the risk of obesity | 3.59 | 0.64 | 7 | | |
| Reduces some of the impact of climate change on our urban environments | 3.55 | 0.6 | 10 | | |
| Provides effective ecosystem services that are expensive and difficult to replace with man-made solutions | 3.58 | 0.64 | 8 | | |

Source: Field Survey, 2018

Table 4 presents the views of estate surveyors in the study area. Majority of them considered 10% and below a reasonable amount to maintain the green space. Followed by 17.5% who chose 11%-20% as appropriate and 12.6% who considered between 21%-40% adequate for the maintenance of green space. Only a few (8.4%) surveyors considered an increment of 31%-40% on the rent appropriate for maintaining the green space provided. This suggests that maximum of 10% rent increase is generally considered appropriate for the maintenance of green space.

Perceived benefits of green space are measured on a five point likert scale. The result of reliability of

respondent's opinions was tested with Cronbach's alpha to determine the level of internal consistency. The result of reliability showed a high level of internal consistency among the responses at 0.82 (82%). All the perceived benefits of green space received affirmation by the respondents. Vegetation and water body, which supply fresh air and helps recreation was ranked the most perceived benefit of green space. Green space as a protective tool against natural hazards such as fire and flood, was ranked second. The mean ranking of all the benefits was above 3.5, indicating that surveyors widely appraised the benefits of green space in buildings.

Table 6 presents the opinion of estate surveyors on perceived effects of green space on rental decision. The opinions were measured on five-point scale and Cronbach's alpha test was carried out to ascertain the level internal consistency of the respondents towards the items. The Cronbach's alpha coefficient at 0.8 (80%) indicating that there is high level of consistent in the respondents' responses. The study revealed that all the means are higher than 3.5 showing that there is high level of agreement to the effect of green space on rental decision. The result of chi-square test revealed

there is statistically significant relationship among respondents to the effect of green space on rental decision.

The results of comparative analysis of the survey of important attributes influencing respondents' decisions in renting their apartments in the study area is presented in Table 5 above. Results revealed that noticeable green spaces, adequacy of property's individual features (number of bedrooms, plot size, garage, number of toilets etc) was ranked 1st with relative importance index of 0.82.

Table 6: Effect of perceived benefits of green space on rental decision

| Perceived effect of green space on rental decision (Cronbach's alpha @0.80) | Mean | RII | Rk | X ² | P-value |
|---|------|------|----|----------------|---------|
| Presence of vegetation and water body lead to high rental decision | 4.02 | 0.80 | 4 | 22.5 | 0.00 |
| Sustainability provided by green space through cultural functions and biotic relationship help in rental decision. | 3.62 | 0.62 | 8 | | |
| Physiological health benefits by green space offers better rental decision | 4.13 | 0.83 | 1 | | |
| Provides certain degree of humidity in the atmosphere, regulate rainfall, and tend to stabilize temperatures and reduce the extremes sheltering wind and sun, and providing ventilation channel in the property | 4.01 | 0.61 | 5 | | |
| Helps in filtering pollutants and cleaning the air, controlling storm water runoff by green space influence rental decision | 3.54 | 0.62 | 7 | | |
| Protection against natural hazards such as fire and flood in man-made urban environment by green space influence rental decision | 3.57 | 0.60 | 9 | | |
| Protection and improving the aesthetic quality of a place by green space influence rental decision | 4.04 | 0.81 | 3 | | |
| Cooling and high oxygen intake for human sustainability by green space influence rental decision. | 4.09 | 0.82 | 2 | | |
| Reduces some of the impacts of climate change on building structure that help in rental decision. | 3.78 | 0.76 | 6 | | |
| Provides effective ecosystem services that are expensive and difficult to replace with man-made solutions | 4.00 | 0.82 | 5 | | |

Source: Field Survey, 2018

Table 7: Other factors influencing rental decision in the study area

| Factors (Cronbach's alpha @ 0.89) | RII | Rank | X ² | P-value |
|--|------|------|-----------------|---------|
| Adequacy of property individual features | 4.10 | 0.82 | 1 st | 18.50 |
| Good waste disposal and management | 3.75 | 0.75 | 2 nd | |
| Nearness to work | 3.30 | 0.66 | 4 th | |
| Nearness to shopping centre | 3.25 | 0.65 | 5 th | |
| Nearness to security facilities | 3.00 | 0.60 | 6 th | |
| Good road condition | 3.00 | 0.53 | 7 th | |
| Nearness to recreational facilities | 3.5 | 0.70 | 3 rd | |
| Proximity to children school | 1.9 | 0.38 | 8 th | |

Source: Field Survey, 2018

This implies that renters in the study area place more importance on the aforementioned attributes in renting their apartments in the study area. This result is in agreement with previous researchers (Babawale *et al.*, 2012). Also in the study area, the attributes of interest in this study such as, nearness to good waste disposal management and recreational were ranked 2nd and 3rd with relative importance index of 0.75 and 0.70 respectively. This implies that the presence of these sustainable features in the estate contributes significantly to renter's decisions. Other important attributes that influence renter's decisions in the study area are nearness to work, ranked 4th with relative importance index of 0.66; nearness to shopping centre ranked 5th, with relative importance index of 0.65 and nearness to security facilities with relative importance index of 0.60 and ranked 6th. The least ranked attributes that influences rental decision in the estate are, availability of good road conditions and proximity to children's school with relative importance index of 0.53 and 0.38 respectively and ranked 7th and 8th respectively. This is understandable considering the fact that the residents have little or no control over the condition of the roads. More importantly, they belong to the middle upper class of the society who can afford to transport their wards to school no matter the distance from their place of residence.

Conclusion and recommendation

The study attempted to situate availability of green neighbourhood space as one of the many attributes that determine choice of apartment in Ikeja, the study area. A list of applicable attributes that influence rental decision, and property value, alongside green space, was generated from

literature to prepare the questionnaire administered to residents in the study area. Relative Importance index of the attributes revealed that all the attributes of green space positively affected rental decision in Ikeja. Factors such as adequacy of property, security features, waste disposal management, availability of security were ranked highest factors that influence rental decision, and property value. The findings further revealed that residents show some measure of appreciation for the availability of green space, trees and water as an important environmental amenity that contributes significantly to their decision on property rental and invariably property value. Arising from the findings of research, there is need to create awareness among house owners and developers that green space is equally an important attribute that environmentally conscious tenants take into consideration before renting apartments. Also, a policy to enforce the inclusion of green space by housing developers and individual owners should be put in place, while sensitizing residents about its importance and the need to attach a premium for its sustainability. Provision of green space within the environment therefore has been seen as a worthy cause to preserve the future and also improve the present through a better conservation of our eco system.

The findings of the data analysis from the relative importance index shows that green neighbourhood space has positive influence on rental decision where it is provided and in turn increases property value, hence, planning authorities should be restrained by law from converting neighbourhood green space to other land use. This would be in sustaining our environment and keeping it for future generations.

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