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A Survey of User's Perception of Urban Parks in Ibeju-Lekki, Lagos State

P. O. Okunlola, B. E. Aduwo*, O. T. Omotoye and T. O. Anjorin

Department of Architecture, Covenant University, Ota, Ogun State, Nigeria.

*Corresponding author's email: egidario.aduwo@covenantuniversity.edu.ng

Abstract. Urban green spaces in cities have been attributed to both an ecologically sustainable environment and the well-being of urban residents, thereby improving their quality of life. The positive effects of urban green spaces on individuals, on the other hand, is usually dependent on the extent of these green spaces and their uses. The level of satisfaction with existing urban parks can be assessed based on parameters such as accessibility, safety, and relevant available facilities. The aim of this study is to examine user's perception of urban parks in Ibeju-Lekki, Lagos state. The key objective of the study is to determine the design strategies implemented in the design of an urban park; access users' perception based on the determined design strategies implemented in the selected urban parks. In this research, users of selected urban parks within Ibeju-Lekki were surveyed to properly investigate their perception of these urban parks in respect to already established survey criteria. Data was gathered through questionnaires, and users were randomly selected across the selected urban parks. The data gathered was analyzed using SPSS and content analysis, and the analyzed data was presented using tables and charts. From the study, it was found that users' perception of urban parks usually affects their continual use, this is referring to the urban resident rate of patronage of the urban parks. Therefore, to improve resident rate of usage of urban parks, it is important to improve on the design strategies adopted in urban parks.

Key words: Urban, parks, perception, users, urban green spaces, Lagos State and Nigeria.

1. Introduction

Rapid urbanization is clearly changing the spatial structure of urban land use around the world, and it is one of the most serious environmental issues confronting many cities. (Gerstenberg and Hofmann, 2016). By 2030, it is expected that 65 percent of the world's population will be living in cities (Zlotnik, 2017). As a result, the consequent losses of urban green space at the local, regional, and global levels are continuously modifying urban ecosystems, resulting in a constant change in city outlooks. The human, physical, and natural components all contribute to the composition of an urban environment. The view and appearance of a city are defined by the changing structure and dynamic nature of various urban components. The emergence of the dynamics of these urban regions necessitates adequate urban designs and city planning. According to Gerstenberg (2017), it is now plainly obvious that increasing urbanization is dramatically altering the spatial pattern of urban land-use worldwide and is one of the most serious environmental issues confronting many cities across the world. A sustainable and eventually self-sufficient city is feasible, and a brighter future for the world's developing cities is both necessary and feasible.

The ability of a city to serve as a location of relaxation and opportunity is frequently affected by a number of factors, including the state of the environment. Green environment is an important aspect of a functional, sustainable, clean, and healthy city, according to designers and urban planners in the twenty-first century. As a result, the challenges facing fast-growing cities will be to steer urbanization away from its current, unsustainable path and toward sustainable, greener cities that provide residents with choice, opportunity, and hope (Lee, 2021). As a result, the concept of green city planning becomes a sustainable city planning. According to (Lee, 2021) "green cities" are usually connected with urban planning in more developed countries and are intended for resilience, self-reliance, and social, economic, and environmental sustainability.

As defined by Kraemer (2021), a green area is an area in a city design that has green surfaces, trees, and other vegetation elements. There is no doubt about it, the urban garden is an important part of a green



space. There are many different types of green space in cities, and they are all considered urban green space. This study will define an urban park as a structurally and physically planned area or environment, with various facilities such as sit-outs, indoor and outdoor relaxation facilities that help supplement the users' social and psychological comfort in such a way that they promote relaxation and promote an atmosphere of relationship with natural landscape, in which greens are dominant and cultivated. Urban greening is a strategy for mitigating many of the environmental challenges linked with urbanization (Dutta, 2021). Urban forests have been proven in studies (McKenzie, 2020; Robbins, 2021) to help minimize storm water runoff, enhance air quality, reduce noise pollution, provide habitat for wildlife, and give shade in cities, so saving energy. The benefits of urban forestry to human health, psychological well-being, and economic well-being cannot be overstated (Wolf, Lam, McKeen, Richardson, 2020; Hakala, 2021). Doimo (2020) noted that forests have significant medical and spiritual values, but (Waheed and Chang, 2018) stated that forestry contributes to energy cost savings.

According to Halkos (2021), the current sustainable indicator for urban development, which is closely related to the work of the majority of city planners and urban designers, should consider the availability of public spaces (including urban gardens) and green open spaces, as they have been shown to meet the needs and expectations of residents regarding their living environment.

The aim of this study is to examine user's perception of urban parks in Ibeju-Lekki, Lagos state. The key objective of the study is to determine the design strategies implemented in the design of an urban park; access users' perception based on the determined design strategies implemented in the selected urban parks. The scope of the study was restricted to urban green spaces, specifically looking into urban parks, cause urban parks usually encompasses majority of the various characteristics of an urban green space. The study investigation was also restricted to urban parks within Ibeju-Lekki, Lagos state because Lagos state is currently aiming to address the issue of limited green spaces, and are looking towards providing recreational and aesthetic satisfactory green spaces within Lagos state and enlighten the general public about the ambiguity of climate change through practical learning. The research aids stakeholders such as construction professionals, students, researchers, educators, and legislators in identifying and resolving difficulties in addressing issues related to urban park usage and designs strategies.

2. Literature Review

While cities have grown in prominence throughout the ages, the move from rural to urban culture has resulted in both social and environmental changes (Atikur Rahman and Dunfu Zhang, 2018). As a result of the changes, urban green areas are constantly changing and transforming. Three variables were used to define the critical elements affecting urban landscape development (Supatra Sen, 2020): The conceptual revolution, with a strong emphasis on technology and a shift away from global to local people-to-people connectivity; Environmental threat, with implications for the value of sustainable development; Social transition, with changing life patterns reflecting increased life expectancy and new lifestyle options. Numerous adverse and frequently catastrophic consequences for mankind have resulted from the rise of urban populations and related industrialization. The environmental issues produced by urban landscape change may be described as air and water pollution, waste materials, noise, urban consumption of natural areas, development, degradation of urban quality of life, and decline in urban quality of life (Davies et al., 2015). Urban green spaces are highly regarded by urban and landscape planners for their contribution to the quality of life in towns. Nature has a significant impact on people's daily life in a variety of ways. Natural settings fascinate humans (Cveji *et al.*, 2015). Urban green areas are often beneficial for personal and social relationships because they provide as physical recollections of childhood and communal experiences, as well as providing chances for individuals to escape the stress of urban life for a while (Akresh *et al.*, 2016; Boylan and Robert, 2017; Hoffmann *et al.*, 2018). Urban green areas enable city residents to reconnect with nature and come into contact with the natural environment. Urban green areas are therefore a critical component of urban planning, influencing urban inhabitants' psychological well-being.

Industrialization and widespread urbanization in the nineteenth century resulted in the loss of natural spaces within cities and the erosion of nature's place in daily life. This shift has begun to bolster the

case for allocating additional space in cities for natural areas, and the notion of "urban green spaces" has developed as a critical component of cities (Zgüner, 2003). The original notion of urban green spaces was developed by American landscape architect Frederick Law Olmsted, who was influenced by the urban landscape movement in England during the nineteenth century. Olmsted referred to the notion of creating a natural environment as the "lungs of the city," which begins with New York City's Metropolitan and Prospect green parks. (Wolch *et al.*, 2014; Wang and Zhang, 2017; You, 2016). Today, urban green spaces appear to be places that add value to people both physically and mentally; they are also locations where outdoor recreation needs can be met; and they serve as a means of enhancing and establishing the society's identity by taking into account the general populace's structure. A key part of a city's quality of life is influenced by the availability of green spaces, and the green spaces planned in the design of an urban environment defined by physical and geographic variations have a substantial equalizer effect (Gerstenberg and Hofmann, 2016). Green spaces are critical components of the urban environment as a whole, since they contribute to the city's overall quality of life and environmental and social sustainability. Because the design of green spaces has an effect on people's welfare while also providing benefits to the immediate environment, such as (global temperature regulation, pollution protection, influence on the flow of water), the creation of suitable places for a healthy life where neighbors can always gather to reinforce the spirit of community, as well as the promotion of (Akpınar, 2016).

Amoako (2018) defined urban green spaces as places that are vegetated naturally or artificially. Urban green spaces encompass a range of different types of greenery in cities, including green open spaces, parks, green roofs, woods, and community gardens, all of which are widely recognized as critical for the development of livable cities (Zhang, 2017). Despite small discrepancies in perceptions of green spaces, it may be argued that there is still a shared understanding of what urban green spaces imply. Green vegetation availability was the key criterion for identifying green spaces in all situations, making urban green spaces a wide word that covers any urban areas or lands that have some type of vegetation, natural or artificial, but are nevertheless open for human use. Mensah (2015) created the following description to help people better grasp what urban green areas are. According to his conclusions, urban areas are comprised of the constructed environment and the outdoor environment between buildings. External space is divided into two categories: "green space" and "grey space." Green space is a term that refers to valuable property that has flora, bushes, trees, and marsh. The following figure 2.1 illustrates the above notion of urban green areas graphically:

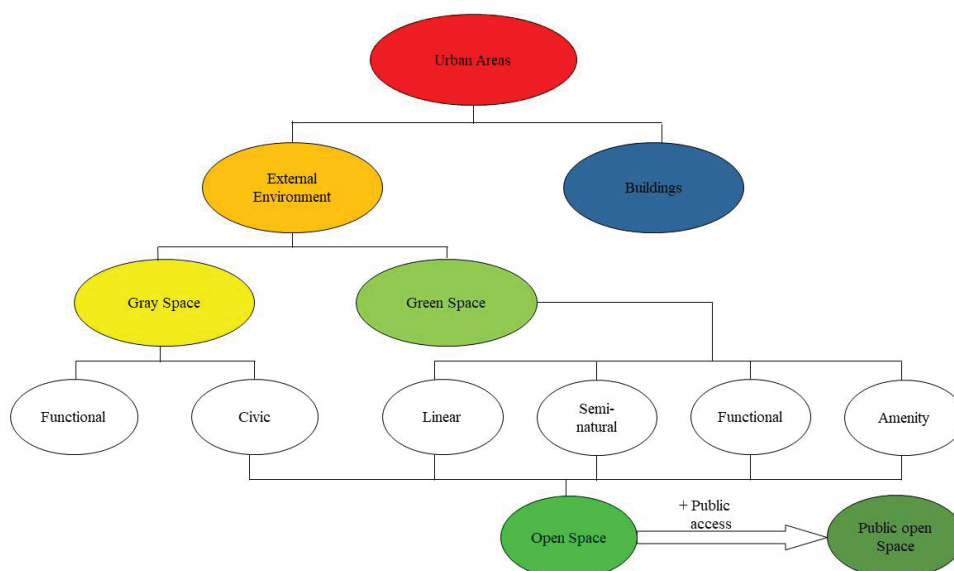


Figure 2.1. The concept of urban green spaces
Source: Mensah (2015).

Urban green spaces can be classified according to their use patterns (active and passive green spaces), environmental functions (cultural lawns, urban forest areas, agriculture sector buffer zones), and outdoor recreation functions (parks and open spaces, fields, play areas, and sports and recreational activities) (Santana *et al.*, 2015).

Table 2.1. A typology of urban green spaces

MAIN TYPES OF GREEN AREAS		
ALL URBAN GREEN AREAS	Amenity Green Areas	Recreation Green Area Parks and Gardens Informal Recreation Areas Outdoor Sports Area Play Areas
		Incidental Green Area Space Housing Green Space Other Incidental Space
		Private Green Area Domestic Gardens
	Functional Green Areas	Productive Green Area Remnant Farmlands City Farms Allotments
		Burial Grounds Cemeteries Churchyards
		Institutional Grounds School Grounds Other Institutional Grounds
	Semi-natural Habitats	Wetland Open/Running Water Mash, Fen
		Woodland Deciduous woodland Coniferous woodland Mixed woodland
		Other Habitats Moor/Health Grassland Disturbed Ground
	Linear Green Areas	Rivers and Canal Banks Transport Corridors (road, rail, eyeleways and walking routes) Other linear features (e.g. cliffs)

There are several types of urban green areas. Urban regions are developing in lockstep with the continuous urbanization drive, with little regard for green space development, and rural lands are rapidly being turned into built-up areas (Douglas, Lennon, and Scott, 2017). As a result, whereas urban green spaces were formerly viewed as recreational and symbolic locations where people got food, they are now viewed as a means of preserving an individual's link with nature, bringing natural life into cities, and making cities more habitable. As a result of this scenario, the advantages of urban green spaces to urban inhabitants have been a matter of discussion, and the benefits provided by green spaces have been categorized into several categories (Girma, 2019).

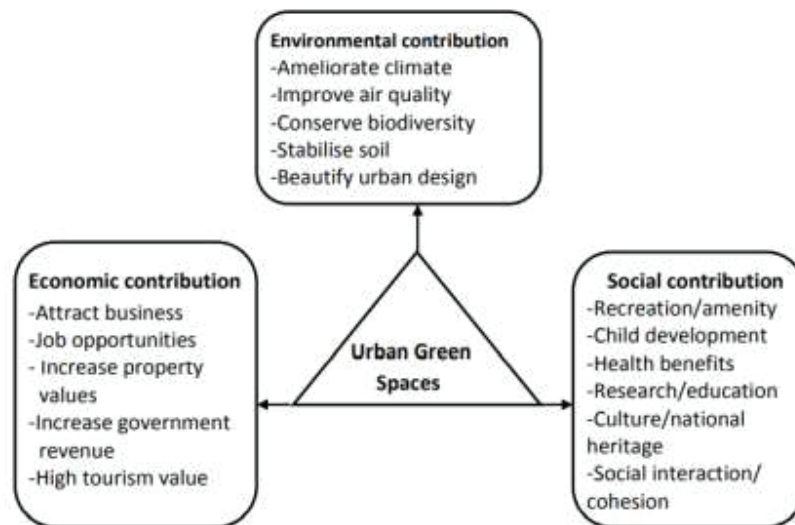


Figure 2.2. Summary of the benefits of urban green spaces

2.1. Urban green spaces design strategies

Recently, urban green space planning has developed into a critical subfield of urban planning, focusing on the creation and maintenance of green space networks in urban areas via the use of specialized development methods, techniques, and regulations (Girma, 2019). There is emerging consensus on certain fundamental concepts, such as the idea that urban green spaces should be planned as a network and executed to ensure their multi-functionality and supply of diverse ecosystem services (Pauleit, 2019). A common set of concepts has emerged as critical to the success of several urban green space design efforts worldwide. These principles provide a strategy framework for promoting sustainable land use while also benefiting people and the environment and establishing an integrated network of green areas that benefits people, biodiversity, and the economy. The principles can serve as a guide for incorporating urban green spaces into current plans, laws, and land management and conservation programs (Girma, 2019).

Table 2.2. Principles of urban green space planning

S/N	Principles
1	Connectivity
2	Green-grey integration
3	Social inclusion
4	Multi-functionality
5	Multi-scale approach
6	Strategic approach
7	Multi-object approach
8	An interdisciplinary and trans-disciplinary approach

From the above-listed principles, this study further explored only the first four listed principles: connectivity, green-grey integration, social inclusion, and multi-functionality.

2.2. Connectivity

The first planning element to examine is connectedness, which has been defined as a basic principle in urban green space design according to (Girma, 2019). Each of these distinct components, namely geographical, scalar, and institutional, contributes to the explanation of connectedness (Hansen *et al.*, 2016). Spatial connectedness is defined as the physical interaction of urban green space elements across their

surroundings. Scalar connection highlights the need of synchronization and coherence of urban green components across geographical and administrative scales, rather than fragmented methods at the local level. Finally, because integrated methods and governance are viewed as critical components of urban green space planning, institutional connection entails collaboration and coordination across various administrative bodies (Hansen *et al.*, 2016).

2.3. Green- grey integration

Green-grey integration is the second essential concept; it relates to the integration of urban green spaces with other infrastructure facilities. Urban green space advocates say that green areas should be considered alongside other urban constructions (Armann *et al.*, 2017). Girma (2019) asserts that urban green space development must be integrated and coordinated with other infrastructure and services, resulting in functional and physical linkages (e.g., connected to existing built-up structure, transportation amenities, and water management system). Green-grey integration primarily leads in an enhanced expression of the varied functions of each structure (Deipietri, 2017). The widespread recognition of the need for a more effective and integrated system that integrates urban green space has resulted in legislation in certain countries (For example, the Clean Water Act of the United States Environmental Protection Agency or the EU Water Directive). The task is to bring these lofty ideals down to earth and turn them into effective local activity. In many cities, implementation is hampered by a lack of resources, land scarcity, low levels of public engagement, and administrative fragmentation (Hansen *et al.*, 2017).

2.4. Social inclusiveness

The third basic concept is social inclusion; social inclusion is defined as a society in which all individuals, regardless of culture, have equal chances in life to realize their full potential. It is a multifaceted strategy aimed at ensuring that every member of society has equal and inclusive participation in all spheres of life, including civic, educational, economic, and political activities and decision-making processes (Girma, 2019). Due to a lack of socially inclusive planning, urban green space may fail to satisfy the requirements of diverse segments of urban society, therefore exacerbating rather than resolving socioeconomic disparities (Pauleit *et al.*, 2017). Socially inclusive urban green space design contributes to social cohesion by addressing concerns such as equitable access to urban green spaces and user demands (Hansen *et al.*, 2016).

2.5. Multi-functionality

The fourth critical principle is multi-functionality. According to Hansen (2016), urban green space planning takes into account and strives to integrate the social, economic/abiotic, biotic, ecological, and sociological characteristics of green spaces. Multi-functionality refers to an urban green space's capacity to serve various functions and deliver numerous advantages within a given physical area (Pauleit *et al.*, 2017). These objectives may be ecological in nature, such as environmental sustainability, climate change adaptation, and carbon emission reduction and sequestration, social in nature, such as mobility and access to green spaces, healthy living, enhanced aesthetics, increased recreational space, and connectivity to the surrounding environment, or economic in nature, such as job creation, energy conservation, and property value (Girma, 2019). Individuals and groups will have varying preferences, and multi-functionality is one approach to ensure that their demands are met. Planning for multi-functionality should begin with a deep grasp of core human needs. It should aim to ensure that all residents, regardless of financial level, have access to a range of green-space amenities (Pauleit *et al.*, 2017). On the other hand, enhancing multi-functionality has received little attention thus far. There appears to be considerable uncertainty regarding how to plan and build multifunctional urban green areas efficiently in various parts of the world (Girma, 2019).

3. Methodology

This study was conducted to investigate and examine user's perception of urban parks in Ibeju-Lekki, Lagos state. This necessitated identifying and examining various architectural design strategies implemented in the design of urban parks in ensuring users are satisfied with the urban parks available to them. Hence the

data for this study were gathered using a mixed technique approach. The mixed method research design incorporates elements of both quantitative and qualitative research. As such, it was then utilized to study how urban park users perceive their parks. Purposive sampling was used as a sampling technique in identifying the urban parks that was useful in carrying out this research. The urban parks chosen for this research are the Lekki conservation center, Lufasi Nature Park, and Omu resort.

Data for this study were collected using questionnaires and an observation guide, case studies and from related literature. Closed-ended questions were included in the surveys to elicit data from respondents. Closed-ended questions produced long responses, but open-ended questions were graded using a five-point Likert scale (1–5). The survey questions are related to this study's research aims. Additionally, an observation guide was utilized to collect qualitative data, firstly relevant literature was reviewed through to extract data for use in developing an observation guide. Which was then used to identify the essential facts about the urban parks that were chosen. As this facilitated the collecting of data, photos, and statistics for the investigation. Field data was gathered between June 2021 and August 2021. To analyse the data, the architectural design strategies implemented in an urban park was first identified, then the existing selected case studies were then accessed based on the identified design strategies. The IBM SPSS21 software was used to evaluate the data collected via administered questionnaires. The qualitative data collected from the observation guide and paper analysis were examined using a content review. The overall results from maps, figures, and pictures were described in a descriptive manner. 399 questionnaires were randomly distributed across the selected parks, of which 310 were found fully completed and were analyzed. The 399 questionnaires' were divided across the three parks, with each park having a total of 133 each. Lekki conservation center, 110 were fully completed, Omu resort, 100 were fully completed and analyzed while Lufasi nature park 100 was also completed and analyzed.

4. Results

The first objective of this study was to determine the design strategies implemented in the design of an urban park. From the information gathered through literature reviews some of the design strategies implemented in the design of an urban park as earlier discussed in the literature review are connectivity, green-grey integration, social inclusion, and multi-functionality. The second objective which was to access users' perception based on the determined design strategies implemented in the selected urban parks. As earlier mentioned three parks were investigated within Ibeju-Lekki. The first is Lekki conservation center. The Lekki Conservation Center (LCC) is a famous tourist site in Lagos, Nigeria. It is a 78-hectare nature reserve located in the Lekki Peninsula's central region (approximately 1170 plots or 195 acres). The Centre was established in 1990 as a symbol of biodiversity conservation and an environmental teaching center. Chevron Corporation developed the facility for the Nigerian Conservation Foundation (NCF) as a protected environment for the Lekki Peninsula's rich flora and fauna. Since that time, the chevron business has provided annual financing for the operation of the Center. The Lekki area was chosen as the test site for the conservation initiative. The name of the project was derived from its location on the Lekki Peninsula. The Centre was established by the Nigerian Conservation Foundation to protect wildlife and mangrove habitats along Nigeria's southwest coast from urban growth.

The second park investigated is Omu resort. Omu resort is a famous recreational location located in Ibeju, Lekki, and the facility, which is situated on 22 hectares of land and is bordered on the north by Omu Creek, features one of the most diversified recreational offerings in the country. A short distance from the majority of the city's other recreational facilities. It was built in 2014 by farm field ltd as a destination for urban inhabitants and tourists, offering natural experiences through its waterscapes, play spaces, and exhibits of terrestrial and aquatic creatures. The facility was created to reinvent recreation for urban inhabitants, particularly those in Lagos; in addition to amusement and enjoyment, the facility was meant to educate its users. The resort was constructed not just to provide a family vacation, but also to educate its guests. However, the resort does include a residential component that extends the resort experience.

The third park investigated is Lufasi Nature Park. The Lufasi natural park, situated on 20 hectares of land, is one of the most diversified recreational facilities in the country. Its protection was largely motivated by the conservation of endangered species and the need to address the issue of little green space

in metropolitan areas such as Lagos. As you approach the park, a succession of trees leads to a well-maintained automobile and tourist parking area. There is an abundance of plant and animal life. Upon entering the park, visitors are greeted with a variety of timber-constructed facilities; each structure has a unique purpose, ranging from reception to seminar space to sit-outs. There are several signs when the user enters the park; this assists the user in navigating the nature park simply.

The architectural design strategies implemented in the design of an urban park were examined across the selected case studies. The strategies were examined in the following sections:

4.1. User's social economic characteristics

Out of the 310 questionnaires that were distributed between the selected parks, women made up majority of the respondent (51.6%). 9.7% were within the age bracket of 15-18, 19.4% were within the age bracket of 19-22, 32.5% were within the age bracket of 23-26 while 37.4% were within the age bracket of 27 and above. In terms of educational level about 11.2% were SSCE certified, another 11.2% were also OND certified, 22.6% were HND certified, about 33.9% were BSc certified, 19.4% were MSc certified and 1.7% owned PhD. This means majority of the respondent were quite knowledgeable to be able to understand the questionnaires been filled by them.

Most of the respondents were single (75.8%), while the married respondent constituted 22.6%. in terms of respondent monthly income 16.1% earned below 50,000, 51.6% earned between 51,000-150,000, another 16.1% earned 151,000-300,000, 4.8% earned between 301,000-450,000 while 11.4% earned between 451,000 and above.

Table 4.1. Respondents' socio-economic characteristics

Socio-economic factors	Percentage of respondents(310)
Gender	
<i>Male</i>	48.4%
<i>Female</i>	51.6%
Age range distribution	
<i>15-18</i>	9.7%
<i>19-22</i>	19.4%
<i>23-26</i>	32.5%
<i>27 and above</i>	37.4%
Educational level	
<i>SSCE</i>	11.2%
<i>OND</i>	11.2%
<i>HND</i>	22.6%
<i>BSc</i>	33.9%
<i>MSc</i>	19.4%
<i>PhD</i>	1.7%
Marital status	
<i>Single</i>	75.8%
<i>Married</i>	22.6%
Monthly income	
<i>Below 50,000</i>	16.1%
<i>51,000-150,000</i>	51.6%
<i>151,000-300,000</i>	16.1%
<i>301,000-450,000</i>	4.8%
<i>451,000 and above</i>	11.4%

4.2. User's perception as regards urban park connectivity design strategies

CS- completely satisfied, S- satisfied, U- uncertain, US- unsatisfied, CUS- completely unsatisfied

Table 4.2. Respondents' level of satisfaction with Lekki center connectivity design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Lekki conservation center	user's level of satisfaction with parks available walkways and paths	46.4	22.7	9.7	13.6	8.2
	Users level of satisfaction with parks existing green spaces	22.0	55.5	2.5	13.6	6.4
	Users level of satisfaction with the parks surrounding building amenities(sit-outs)	13.6	27.2	13.6	37.3	8.3
	Users level of satisfaction as regard the interrelationship of the walkways, green spaces and available amenities(sit-outs)	32.0	50.0	4.5	6.2	7.3

Table 4.3. Respondents' level of satisfaction with Omu resort connectivity design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Omu resort	user's level of satisfaction with parks available walkways and paths	25.0	51.0	15.0	9.0	-
	Users level of satisfaction with parks existing green spaces	15.0	35.0	10.0	39.0	1.0
	Users level of satisfaction with the parks surrounding building amenities(sit-outs)	17.0	47.0	10.0	8.0	8.0
	Users level of satisfaction as regard the interrelationship of the walkways, green spaces and available amenities(sit-outs)	27.0	49.0	7.0	10.0	7.0

Table 4.4. Respondents' level of satisfaction with Lufasi Nature Park connectivity design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Lufasi Nature Park	user's level of satisfaction with parks available walkways and paths	12.0	42.0	6.0	27.0	13.0
	Users level of satisfaction with parks existing green spaces	15.0	37.0	11.0	25.0	12.0
	Users level of satisfaction with the parks surrounding building amenities(sit-outs)	7.0	29.0	10.0	47.0	7.0

Users level of satisfaction as regard the interrelationship of the walkways, green spaces and available amenities(sit-outs)	27.0	51.0	7.0	10.0	5.0
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4.3. User's perception as regards urban park green-grey integration design strategies

CS- completely satisfied, S- satisfied, U- uncertain, US- unsatisfied, CUS- completely unsatisfied

Table 4.5. Respondents' level of satisfaction with Lekki center green-grey design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Lekki conservation center	Users level of satisfaction with proximity of park to their resident					
	Users level of satisfaction of park proximity to available infrastructural facilities within the environment such as transportation, communication and other built-up structures					

Table 4.6. Respondents' level of satisfaction with Omu resort green-grey design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Omu resort	Users level of satisfaction with proximity of park to their resident					
	Users level of satisfaction of park proximity to available infrastructural facilities within the environment such as transportation, communication and other built-up structures					

Table 4.7. Respondents' level of satisfaction with Lufasi Nature Park green-grey design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Lufasi Nature Park	Users level of satisfaction with proximity of park to their resident					
	Users level of satisfaction of park proximity to available infrastructural facilities within the environment such as transportation, communication and other built-up structures					

4.4. User's perception as regards urban park multi-functionality design strategies

CS- completely satisfied, S- satisfied, U- uncertain, US- unsatisfied, CUS- completely unsatisfied

Table 4.8. Respondents' level of satisfaction with Lekki center multi-functionality design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Lekki conservation center	User's satisfaction of urban park having a positive impact on the overall quality of user's life.	46.4	22.7	9.7	13.6	8.2
	User's satisfaction of urban park in improving user's health.	22.0	55.5	2.5	13.6	6.4
	Users satisfaction of urban park in promoting recreational activities	27.7	46.2	9.7	10.4	6.0
	User's satisfaction of urban park in promoting social interactions.	46.4	22.7	9.7	13.6	8.2
	User's satisfaction of urban park amenities for sitting, picnic, litter bins, signs and proper lighting.	13.6	27.2	13.6	37.3	8.3
	User's satisfaction of urban park cooling effect on the environment.	30.3	53.2	6.5	5.6	4.4
	User's satisfaction of urban park level of maintenance	13.0	19.3	32.3	30.6	4.8

Table 4.9. Respondents' level of satisfaction with Omu resort multi-functionality design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Omu resort	User's satisfaction of urban park having a positive impact on the overall quality of user's life.	25.0	55.0	5.0	10.0	5.0
	User's satisfaction of urban park in improving user's health.	18.0	58.0	9.0	13.0	2.0
	Users satisfaction of urban park in promoting recreational activities	29.0	47.0	10.0	8.0	6.0
	User's satisfaction of urban park in promoting social interactions.	23.0	47.0	9.0	14.0	7.0
	User's satisfaction of urban park amenities for sitting, picnic, litter bins, signs and proper lighting.	14.0	27.0	14.0	37.0	8.0
	User's satisfaction of urban park cooling effect on the environment.	30.0	53.0	7.0	6.0	4.0
	User's satisfaction of urban park level of maintenance	13.0	20.0	31.0	31.0	5.0

Table 4.10. Respondents' level of satisfaction with Lufasi park multi-functionality design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Lufasi Nature Park	User's satisfaction of urban park having a positive impact on the overall quality of user's life.	27.0	49.0	12.0	10.0	2.0
	User's satisfaction of urban park in improving user's health.	15.0	63.0	9.0	9.0	4.0
	Users satisfaction of urban park in promoting recreational activities	10.0	42.0	10.0	32.0	6.0
	User's satisfaction of urban park in promoting social interactions.	15	47.0	9.0	22.0	7.0
	User's satisfaction of urban park amenities for sitting, picnic, litter bins, signs and proper lighting.	9.0	27.0	14.0	37.0	13.0
	User's satisfaction of urban park cooling effect on the environment.	30.0	53.0	7.0	6.0	4.0
	User's satisfaction of urban park level of maintenance	13.0	19.0	32.0	33.0	3.0

4.5. User's perception as regards urban park social inclusiveness design strategies

CS- completely satisfied, S- satisfied, U- uncertain, US- unsatisfied, CUS- completely unsatisfied

Table 4.11. Respondents' level of satisfaction with Lekki center social inclusiveness design strategies

Parks	Connectivity factors	CS (%)	S (%)	U (%)	US (%)	CUS
Lekki conservation center	User's satisfaction with cost and process of accessing urban park.	8.2	13.6	9.7	46.4	22.7
	Users' satisfaction with the parks' cultural appropriateness, i.e. how well they respect and reinforce cultural norms.	2.5	55.5	-	28.4	13.6
	Satisfaction of users with the personalization of parks through the inclusion of options for choice and expression of individual preference.	8.3	37.3	13.6	27.2	13.6
	Satisfaction of users with parks' attentiveness in ensuring important information is easily seen, e.g., through the use of signs.	6.4	55.5	13.6	24.5	-
	Users' satisfaction with the park's amenities for accommodating a variety of body shapes and abilities.	32.0	50.0	4.5	6.2	7.3

Table 4.12. Respondents' level of satisfaction with Omu resort social inclusiveness design strategies

Parks	Connectivity factors	CS	S	U	US	CUS
		(%)	(%)	(%)	(%)	
Omu resort	User's satisfaction with cost and process of accessing urban park.	8.0	23.0	-	49	20.0
	Users' satisfaction with the parks' cultural appropriateness, i.e. how well they respect and reinforce cultural norms.	13.0	57.0	19.0	9.0	2.0
	Satisfaction of users with the personalization of parks through the inclusion of options for choice and expression of individual preference.	17.0	63.0	12.0	8.0	-
	Satisfaction of users with parks' attentiveness in ensuring important information is easily seen, e.g., through the use of signs.	15.0	49.0	13.0	15.0	8.0
	Users' satisfaction with the park's amenities for accommodating a variety of body shapes and abilities.	32.0	50.0	5.0	6.0	7.0

Table 4.13. Respondents' level of satisfaction with Lufasi Nature Park social inclusiveness design strategies

Parks	Connectivity factors	CS	S	U	US	CUS
		(%)	(%)	(%)	(%)	
Omu resort	User's satisfaction with cost and process of accessing urban park.	20.0	56.0	-	24.0	-
	Users' satisfaction with the parks' cultural appropriateness, i.e. how well they respect and reinforce cultural norms.	15.0	59.0	17.0	9.0	-
	Satisfaction of users with the personalization of parks through the inclusion of options for choice and expression of individual preference.	11.0	47.0	15.0	21.0	8.0
	Satisfaction of users with parks' attentiveness in ensuring important information is easily seen, e.g., through the use of signs.	15.0	60.0	2.0	15.0	8.0
	Users' satisfaction with the park's amenities for accommodating a variety of body shapes and abilities.	18.0	52.0	5.0	22.0	7.0

5. Discussion

The tables above show the percentage of respondents' level of satisfaction as regard the various identified design strategies implemented in the design of an urban park. In investigating user's perception of the identified design strategies across the selected parks, three parks were investigated in Ibeju-Lekki, Lagos state. The result showed that park design strategies that did not meet most users level of satisfaction was the social inclusiveness that is referring to cost and processes involved in accessing the park particularly the Lekki conservation center, also users were not also satisfied with the personalization of the parks in providing various options in terms of amenities and individual preferences, aside for Omu resort which was identified as the only park from the investigated parks that was able to meet user's needs. The result also showed that users of the park were not also satisfied with the green-grey integration of the park in terms of

the time required for them to get to the park from their place of residence, and this can be attributed to the problem of lack of adequate urban green spaces (urban parks) around the Ibeju-Lekki area. The study also revealed that users were not satisfied with the level of maintenance of the urban parks. The lack of focus on landscape management issues resulted in poor scenery and dissatisfied users. The implication of this result is that user of this urban parks would find it difficult to continually patronize or come back to utilize the park amenities cause the design strategies don't meet their needs.

6. Conclusion and Recommendations

Based on the study's findings, it can be inferred that natural components in a park can determine visitor satisfaction in several ways. As mentioned in the previous findings, the components that appear to be attractive, cooling, well maintained, and ordered are linked with the reasons that encouraged and drive users to visit the location. Aside from the physical characteristics, the values and advantages of the regions, such as peace and quiet, stress relief, and the ability to be near to nature, are also linked to a sense of pleasure to users. The parks upkeep and maintenance are additional attracting features that have an impact on visitors' satisfaction with the natural components. Undoubtedly, user's satisfaction is harmed by hazardous and poorly kept surroundings. It is intended that the unsatisfactory natural features in this research area would be enhanced in the future, allowing it to ultimately address user's satisfaction in a favorable way.

Two significant planning issues that have dominated worldwide debate are eco-city and green city. How much of the natural environment can be saved, maintained, and appreciated is critical to the long-term viability of the environment. The core of the urban green spaces must be understood beyond the aesthetic function that it serves, but as a wonderful model from industrialized nations such as Singapore, Sweden, and the Netherlands, who have transformed green networks into social functioning mechanisms. Park design, construction, and renovation should be a priority in our communities, with proper attention provided. Additionally, public awareness should be raised on climate change, global warming, and Green House Gas emissions, with a particular emphasis on how they may be reduced via the easy usage of urban green spaces. Adopting these practices would not only protect our communities from environmental degradation, but will also benefit our health and financial well-being.

Accessibility in terms of time and cost are critical considerations when it comes to urban park use in cities. Patronage of these urban parks is very subjective and should be taken into account when setting the fee for admission to the amenities. Urban planners employed by regional planning agencies continue to be the primary administrators of green networks. To make realistic investment possible, the government must be willing to implement an eco-friendly planning framework and master plan that includes urban gardens, ensuring that both public and private development plans include urban parks in their designs and those that lack green infrastructure are provided with them, as this will help complement the already available green infrastructure.

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