

**APPROVAL PAGE**

**IMPACT OF NEIGHBOURHOOD PUBLIC SPACES ON CITY  
IMAGE IN AKURE, NIGERIA.**

**BY**

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**ARC/01/0418**

**A THESIS IN THE DEPARTMENT OF ARCHITECTURE SUBMITTED TO  
THE SCHOOL OF POSTGRADUATE STUDIES IN FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF DOCTOR OF PHILOSOPHY (Ph.D.)  
OF THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE, NIGERIA.**

**DECEMBER, 2021**

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This is to certify that this work has not been presented elsewhere for the award of a degree, or any other purpose.

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## ACKNOWLEDGEMENTS

I appreciate God Almighty, the beginning and the ending, for the successful completion of my Doctor of Philosophy program in Architecture.

My greatest appreciation goes to my supervisors: Prof. A.A. Taiwo, Dr.V.O. Adegbehingbe and Dr C.O. Folorunso for their strategic guidance and support for the completion of this research journey. I also wish to appreciate the efforts of Prof. J.A. Fadamiro, Prof O. Arayela, Late. Prof. A.O. Olotuah and Prof Y.M.D Adedeji, Drs: B.O Adegun, H.A Ayoola, O.O Aluko, R.P Omale, J.A Adedeji, A.A Fakere, O.O Owoeye, O. O Rotowa, I.O Olamiju, B.A. Jolaoso, O.S. Adelabu and L.E Etsename for the special assistance on this research work. I appreciate Arcs: S.D. Olarenwaju, O.O Olusoga, O. Howells, O. Popoola, Ronke Adelowo, Bimbo Adeleye, Seyi Awosika, A. Ikudayisi and some Postgraduate students of the Department of Urban and Regional Planning, Federal University of Technology, Akure for their assistance during the design charrette participatory workshop.

My special thanks go to Prof. G. Fadairo, Head of Department of Architecture and Dr D.A Ayeni, the departmental Post Graduate coordinator, for their administrative supports and encouragement. I also thank other stakeholders, Prof D.O. Olanrewaju, Prof J.A.B. Olujimi, Prof. Ayo Olajuyigbe, Prof. F.K Omole, Dr Alake, Builder Shina Makanjuola, Tpl. M.C. Ola-Omole, Arc Boluwatitofunminiyi Adebisi and Arc Kenny Ololade for their supports.

I am grateful to all members of staff of the School of Environmental Technology, Federal University of Technology, Akure, my colleagues in the Technical unit of the Department of Architecture, Ondo State Chapter of Female Architects of Nigeria (FAN) and Masters Students of 2019/2020 session, for their supports towards the success

of this programme, I am grateful to Mrs Dawodu Oluwafunmilayo who handled the computer analysis of this study.

My wholehearted appreciation goes to my immediate family, my wonderful husband, Otunba Adedotun and Oluwatobiloba for their love, support, understanding and encouragement during this study. I appreciate my extended family, especially my mother, Lady, Evang. F.F. Aderibigbe for being a pillar after the demised of my father, Late. C.O Aderibigbe (alias Emagbadun) in 1983, my siblings and their families just to mention a few, Mr. Tunde and Mrs. Olabisi Moyosore, Mr. Ayokunle and Mrs. Adenike Dare, Pastor Daisi and Pastor (Mrs) Gbemisola Onabanjo, Pastor. Oluwole and Deaconess Moyosore Oluwayomi, Mr. Akintunde Aderibigbe, Mr. Wale Aderibigbe and my nieces and nephews for their support.

I also appreciate my in-laws for their support, the Michael Adegunloye's family of Ode-Aye in Okitipupa Local Government of Ondo State most especially Mrs. Agnes Adegunloye, Mrs. Helen Obasemo and Mrs. Bukola Orimoloye for their support. I also remember my very good friends, Dr. Olabisi Igbalajobi, Arc. Taiwo Ogundipe, Arc. Deji Adhlakun, Arc. Adewole Adebuseye, Engr. Omoniyi Olukanni, Mrs. Taiwo Abiodun-Adewunmi, Mr. and Mrs. Wole Adedara. Thank you all.

## **DEDICATION**

This study is dedicated to the Almighty God who made it possible and also to the memory of two special people who are now with the Lord, my father, Late. C.O Aderibigbe (alias Emagbadun) and,my immediate senior sister Mrs Funmilola Olumoroti. May their gentle souls continue to rest in peace, Amen.

## ABSTRACT

Cities all over the world are facing diverse physical spatial challenges which affect the image of the city. Public spaces in the neighbourhood are to shape the physical image of the city by connecting one part of the city with the other. The assessment of the uses and image of public spaces by users is important in the overall perception of the city image. The image of the city in this study refers to the image of its public spaces. A rapid decline in neighbourhood public spaces, conversion in use and management are some of the major challenges in most developing countries. This research examined the impact of neighbourhood public spaces on city image in Akure, Nigeria. A mixed-method of research approach was used, 384 copies of the questionnaire were administered to users of neighbourhood public spaces in the core, transition and peripheral zones of Akure. Data collection was through survey, interview and design charrette participatory workshop. The questionnaire data were analysed using simple-factor descriptive analysis and Spearman Rank correlation, Kendall tau B and Kruskal Wallis for hypotheses testing. The interview was analysed using content analysis and design charrette using thematic analysis and the architectural redesign of two neighbourhood public spaces in the study area. The study found a significant relationship in the environment of neighbourhood public spaces, their management and city image. It concluded by developing a model for public space management and regulation to improve city image. It recommended integration, inclusiveness in public spaces, a holistic redesign and re-planning of the existing public spaces to improve the image of Akure by adopting the framework proposed in this research.

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## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background to the study

Urban planning, design guidelines and new management practices can change the public spaces of the cities in many countries to improve their image (Mandeli 2019). Cities all over the world cannot cope with the rapid growth rates, and the preservation of public spaces has become a public problem affecting urban life (Gehl and Svarre, 2013). City appearance can be best defined by its physical spatial elements; Lynch (1960) identified five elements by which cities are described are: path, edges, districts, nodes and landmarks. The Spatial pattern and usage of public spaces worldwide are some of the biggest environmental problems facing cities.

Public spaces are the spaces that are open to people and accessible by all categories of people, (Madanipor 2010). Public spaces include streets, squares, plazas and urban green spaces, which are open and accessible to everyone for assembly and to socialize (Ravazzoli and Torricalli, 2017). Public spaces are living spaces where activities are carried out, a place where people come together to socialize, exchange ideas and make contact with each other. Arrangements of spaces and facilities affect usage and it plays a major role in the image of the city. Public spaces over the years have been linked with many challenges such as a change in use, inadequate space and sometimes lack of effective management (Morakinyo, Okunola, Musibau, Odewale and Dada 2014). For the purpose of this study, public space is defined as the physically planned area or environment, made up of various facilities such as sit-outs, indoor and outdoor relaxation facilities to enhance and promote social satisfaction for users.

These public spaces in the urban environment are threatened daily by many factors which subsequently affect the city neighbourhood. A rapid decline in neighbourhood public spaces, conversion and management is a major challenge in most developing

countries with a lack of adequate public spaces for leisure (Esbah and Deniz, 2007). Public spaces in neighbourhoods are to shape the physical image of the city by connecting one part of the city to another (Kostrzewska, 2017). Public spaces such as streets, parks and gardens are significant components of urban form that can be seen physically in the neighbourhoods (Larson, Jennings and Cloutier, 2016). A neighbourhood is a living area, a place of work and a family environment (Lebel, Pampalin and Villeneuve, 2007). Infrastructural facilities and buildings are the essential components of a neighbourhood, (Morakinyo, et al 2014).

Considering all the benefits that are associated with the availability and uses of public spaces in neighbourhoods, there is a need to investigate how they affect the image of the city. Varieties of interpretations are given to city image, and it means many things to individuals. The image of the city is a presentation of the city landscape, buildings and spaces. Cities are competing with each other to be attractive places for people to live and work. Pallasma (2005) noted from the architect's perspective that, the image of a city refers to the visual aesthetics of the city or how appealing the city is to the observers. The image of the city is mostly related to the visual quality. It plays an important role in how the city is appreciated. The city should be attractive and promote global and socio-economic growth hence the need to achieve a viable attractive city (Newton, 2009).

The image of the city relates also with the environmental image of the city which Lynch (1960) described as the exterior physical world that is held by an individual. The image perceived is between the observer and his/her environment which may also vary between observers. The image of a place is a two-way process and is the result of contact between the observer and the environment (Panah and Shankar, 2017). Image and identity are the understanding of a place in the city and the way people perceive its visual images. The quality of public spaces influences the quality of life of inhabitants and the city image as a whole. A public space located in the city centre is representative of its identity and

image (Wojnarowska, 2016). The imageability/imagery of public space is the quality in a place that gives it a high probability of evoking a strong image in any observer. The image of a space strengthens the unity of a neighbourhood (Chitrakar, 2016). It can be classified as a poor image or a good image depending on the mental construction of what the observers see (Lynch, 1960).

The importance of neighbourhood public spaces can be described best by the users and depends on the benefits they derive from visiting public spaces which gives a feeling of fulfilment and are aesthetically pleasing to them. Madanipor (2010) notes that public spaces are spaces open to people and accessible by all classes of people. They include streets, squares, plazas and urban green spaces, which are open and accessible to everyone for assembly and to socialize (Ravazzoli and Torricalli, 2017). Functional public spaces are important in creating appealing city images (Mehta, 2013). They describe the life of the community; these are places that bind city dwellers together, a medium for people to carry out daily activities (Chitrakar 2017). However, for too many neighbourhood dwellers, public spaces provide a hangout for them not only as a habitation of social integration but for tourists and visitors to the city and an advertisement of the city's image as opined by Ramoraka and Tsheola (2014). Neighbourhood public spaces provide recreational and aesthetic values to residents as well as tourists. The ownership of neighbourhood public spaces is by local or state government and is responsible for its management, lately individuals and corporate organizations can possess privately owned public spaces (Mitchell, 1996 and Javadi, 2016).

Public spaces have characteristics that they possess for constant patronage by residents and tourists to enhance maximum use of the spaces. Accessibility and comfortability are among the essential ingredients of functional public spaces (Ravazzoli and Torricalli, 2017). They should have free access with adequate facilities for users. As vital ingredients of successful cities; they help to form a sense of community, identity and

culture (Anderson, 2016). One of the characteristics of public spaces is to allow free and unhindered access to residents and tourists as much as they desire. Pojani and Stead (2015) opine that public spaces encourage ease of access to and from the city for ease of circulation flexibility. An effective circulation within the neighbourhood public spaces connects places, people and activities, providing areas for social interaction and facilitating the integration of communities (Madanipour, 2004). Good public spaces are required for the social and psychological health of communities' dwellers. For an attractive city image, it is of importance to have effective neighbourhood public spaces to improve city attractiveness, (Mehta 2013).

Neighbourhood public spaces in the city play vibrant roles in how the cities perform their functions in terms of quality and output (Polska, 2017). The quality of neighbourhood public spaces in any city does not only affect the city view and how it is perceived by an individual but also on the living standard and economic growth of the city dwellers. Madanipour (2010) argues that public spaces have lost their importance in most cities in developing countries, hence they need improvement. The image of the city as used in this study relate to the image of its public spaces. The study examined the image of Akure through the evaluation of neighbourhood public spaces and suggested strategies for improvement.

## **1.2 Statement of the Research Problem**

With the development of modern cities, many public spaces have disappeared, lost their functions or changed in their outlook. The World Health Organisation (WHO, 2006) posits that with the level of urbanization in the developing world, more people live and work in the cities than before; hence, cities are faced with many physical and environmental challenges noticeable in the urban areas thereby posing major planning problems in the urban settings. Rapid urbanization poses problems and challenges to urban

growth in Nigeria. Accordingly, the management of public spaces has now emerged as a key issue in the development of cities around the world. The issues appear to be more prevalent in developing cities, for example, Akure public spaces have been turned into mere event venues for weekend parties while unauthorized gatherings are intense within the neighbourhood.

Challenges of public spaces in Akure include construction of buildings close to public spaces which affect the overall view of the environment, unplanned development around Neighbourhood public spaces (NPS). For example, temporary structures like kiosks and shops affect the physical environment of public spaces. Challenges posed by public spaces are not only issues in the developed world but also in developing countries and the case of Akure in Nigeria is no exception to this.

Mostly the Government is the sole provider and manager of neighbourhood public spaces in urban centres and this give the impression that there is no major influence from stakeholders such as community development associations and the private sector in infrastructure development and management (Ibem, Adeboye and Alagbe, 2014).

Special events also play an important role in building the image of the cities; it is a usual occurrence to see littered and unclean environment after a function in public space and this has a significant effect on the image value of the neighbourhood in Akure.

Factors that can pose challenges to city image in developing countries include, unplanned and population growth, haphazard development, inadequate provision of public space, encroachment on NPS. If these are not properly managed can affect the city image (Ukoje, 2016). Neighbourhood public spaces such as parks and gardens for recreation purposes are lacking in Akure, improper disposal of waste, lack of street lighting, absence of greenery and street vitality that can add value to the image of the city are noticed in Akure (Fadamiro, 1998). Akure city lacks adequate public space for airflow because of

overcrowding and non-adherence to planning regulations hence the city vista is lost (Adegoke, 2014). Most neighbourhood public spaces have been converted or transformed to other uses, which affects the city image.

Also noted is a slow but rapid decline in the quality of neighbourhood public spaces in Akure due to poor management. Most neighbourhood public spaces have previously been converted to dump sites, unkempt and mismanaged which affect the city vistas (Owusu, 2010). Though Akure, like most cities, has witnessed a significant level of transformation in its urban environment, Chitrakar, (2017) posits that some public spaces remain underutilized and some have been put into inappropriate uses such as illegal encroachment of public space as a result of haphazard development due to lack of proper and adequate planning control, low quality of public spaces, and inadequate size of public spaces. Poor maintenance and conversion of public spaces to other uses are some of the features of most neighbourhoods in Akure. Little attention has been given to the maintenance, planning, development and management of neighbourhood public spaces in Akure. The challenges observed have an impact on the city image.

Lynch (1960) stated that the city has both physical and visual problems. An attractive city image is rare because of the complicated nature of the city. The city may have all the physical qualities but still may not be attractive. The visual perception of public space is an important fact that contributes to the experiences of the city's image. A thorough understanding of how to improve the NPS and reduce the adverse effect of deterioration while promoting the image of the city is vital to this research. The study seeks to investigate the image of the city through the image of its public spaces.

### **1.3 Research Questions**

The research questions are inquiries of what the researcher wishes to investigate (Bryman, 2012). The questions are to guide the researcher in getting answers for the research. The following research questions are aligned with the research objectives and are addressed in this study.

- i. What are the uses of the available public spaces in the study area?
- ii. To what extent are the users of NPS in the study area satisfied?
- iii. In what ways do NPS impact the city image of the study area?
- iv. How do the factors influencing the management of NPS in the study area affect the image of the city?

### **1.4 Aim and Objectives**

This study aims, to examine the image of Akure city through the evaluation of neighbourhood public spaces with a view to develop strategies to improve the image of Akure.

The specific objectives are to:

- i. assess the uses of existing NPS in the study area;
- ii. evaluate the satisfaction of users with neighbourhood public spaces in the zones;
- iii. examine the impacts of the environment of neighbourhood public spaces on Akure city image;
- iv. examine how the factors influencing the management of neighbourhood public spaces in the three zones of Akure affect the city image, and
- v. Propose management frameworks for NPS to enhance city image in the study area.

## **1.5 Research Hypotheses**

A Hypothesis is a tentative statement about the relationship between two or more variables. A hypothesis is an explicit, testable prediction about what to expect in research (Creswell, 2009). Towards the realization of the stated objectives, the following hypotheses have been formulated and tested with the use of appropriate statistical tools.  $H_0$  represents the null hypothesis while  $H_a$  represents the alternative hypothesis for each of the hypotheses.

### **Hypothesis 1**

$H_{01}$ : there is no significant relationship between the availability of neighbourhood public spaces and their usage in the study area.

$H_{a1}$ : there is a significant relationship between the availability of neighbourhood public spaces and their usage in the study area.

### **Hypothesis 2**

$H_{02}$ : there is no significant difference in user's satisfaction level of neighbourhood public spaces in the three zones of Akure.

$H_{a2}$ : there is a significant difference in user's satisfaction level of neighbourhood public spaces in the three zones of Akure

### **Hypothesis 3**

$H_{03}$ : there is no significant relationship between the physical environment of neighbourhood public spaces and the city image of Akure.

$H_{a3}$ : there is a significant relationship between the physical environment of neighbourhood public spaces and the city image of Akure

### **Hypothesis 4**

$H_{04}$ : the management of NPS in the zones does not significantly affect the city image

$H_{a4}$  the management of NPS in the zones significantly affect the city image

## **1.6 Justification for the Study**

In developing countries government struggles to provide spaces for recreation due to scarcity of land and capital investment in public spaces. Nigeria with a population of over 160million according to the 2006 Population census is faced with the challenges of providing safe and livable place to its citizens.

Previous studies have found that developing city image increases economic development, draw tourist and encourage investors (Tavakkoli, 2016). Authors on city image and its social impact include Nadia (2007) who studied the impact of tourism on city image as it affects the hosting of Barcelona Olympic in Spain. It is important to residents' how street network and circulation enhances the image of the city, Omer and Jiang (2008) studied the relationship between structural qualities of the street network and the image of the city. Public arts in public spaces can add, to the overall image of the city, Jie, (2010) studied the relevance of public art construction and city image, the study aims to promote the shaping of the city effectively. Al-ghamdi and Al-harigi (2015) discussed the image of the city in the light of new technology evolution and the impact of Information Technology on the image of the city, a framework was developed to study the image of the city in the information age. However, the study mentioned above on several dimensions of city image did not look at public space.

Nonetheless, studies on the social impact of public space on a wide range of dimensions have been carried out by scholars which include, housing, health, politics, gender, accessibility, availability, adequacy, crime and recreation at different scope but none on city image. Authors on public space include Alabi (2009) who studied the revitalizing of public space, with its unplanned and uncontrolled uses, which has resulted in its gradual loss. The study recommends the need for revitalization and enforcement of Town Planning law. Brown, Chikagbum, and Boyle (2015) studied the use and adequacy

of public space and discovered that some users were not satisfied with the recreational facilities because of the inadequacy and deteriorating conditions of public spaces. The study did not observe the effect of public spaces on city image. Chitrakar, Baker and Guaralds (2016) examined the transformation of public space, the changing provision of the use of public space. Transformation of the public space is a challenge in most cities and Akure for instance and this affects the physical assessment of public spaces. Chitrakar (2016) and Madanipour (2004) opined that the physical appearance of the urban environment is degrading daily as a result of poor and inadequate neighbourhood public spaces which affect the image of the city.

Similarly, Madanipour (2004), Adedeji, Fadamiro and Adeoye, (2014) noted the lack of poor integration of public spaces into the built environment which are needed in developing the mental image of the city. Other researchers on public spaces are with different scope, Alubo, (2011) studies public space in Nigeria politics and gender, Akinpelu & Sadri, (2017) studied accessibility in public space, Ceccata & Bamzar, (2016), studied elderly victimization and fear of crime in public spaces and Tangogan & Lihan. (2016) fear of crime in public spaces from point of women living in cities. The aesthetic of the city depends on the viewer's judgement of the city and the characteristics of the city environment help in developing a mental image of the city.

Work done in the area of recreational spaces design and planning in Akure includes Ijatuyi and Ajenifujah-Abubakar (2014) this study looked into the liveable and sustainable state of the recreational park in Akure, the paper recommends an in-depth study of users' needs, demands, satisfaction and preferences for recreational spaces. Oladejo and Adedapo (2004) studied the performance and visitor's satisfaction of recreational facilities in Akure, the study recommends visitor's satisfaction to meet the quest for economic and social needs of residents in Akure. Also, Aribigbola and Fatusin (2016) examined the availability

and management of parks in Akure Urban space. The study found low patronage and conversion of use, and mismanagement and recommends the establishment of an agency for development and maintenance, monitoring and enforcement of public spaces in Akure, Nigeria.

Many of the aforementioned studies in Akure emphasised the effect of public space on many factors, but no consideration was given to the city image. Likewise, many factors were used to investigate city image but little on public spaces. Works of the literature revealed that most African and particularly Nigerian scholars have focused more on housing needs and other urban-related issues but very little had investigated how neighbourhood public spaces can affect the city image. Studies carried out on the quality of public space on a wide range of elements including housing, health, employment, health, politics, gender, accessibility, crime and recreation.

The provision of public space within the neighbourhood has been noted to be important in the planning and designing of the neighbourhood (Chitrakar, Baker and Guaralda 2017). Lawhon (2009) recommended at least 10% of the neighbourhood area for the development of parks and open spaces for the use of the residents which are lacking in the study area. From the above review of works done on public space using different dimensions. The foregoing therefore suggests that there are limited and scanty studies on city image and public spaces as it affects Nigeria, available ones are in developed countries, thus, this study set out to investigate the gap in knowledge on the impact of neighbourhood public space on city image of Akure, Nigeria, by examining the image of the city through the image of its public spaces.

## **1.7 Scope of the Study**

The field of public space is wide and relevant to the built environment, Carmona (2010) classified public spaces into parks and gardens, Civil spaces, natural, streets and corridors, see table 1.1. This study focuses on the neighbourhood public spaces facilities in Akure, Nigeria. This study covers a detailed survey of the neighbourhood public spaces with an emphasis on the role they play in the improvement of city image. Public spaces as used in this study comprise open space, green area: and children's playground within the neighbourhood, spaces in the city core zone. Table 1.1, shows the classification of public spaces and the existing ones in Akure, according to Carmona (2010) This study covers five major existing neighbourhood public spaces out of twelve identified in Akure as shown in plates 1.1-1.12, which are Games reserve Amusement park (plate 6), Oyemekun Rocks (plate 1.5), Democracy park (plate 4), Ministry of Agriculture Botanical garden and House of assembly arcade (plate 1.2). The five neighbourhood public spaces are within the three zones of the Core, transition area and the peripheral which was chosen due to the rapid urbanization and expansion of the town and its growing commercial activities table 1.2.

**Table 1.1: Classification of public spaces**

S / N	Categories	Examples	Remark
i.	Parks and Gardens	<ul style="list-style-type: none"> <li>• Zoological</li> <li>• Botanical</li> <li>• Green spaces</li> </ul>	<ul style="list-style-type: none"> <li>• Ondo state ministry of Agriculture botanical garden and park</li> </ul>
ii.	Civil spaces	<ul style="list-style-type: none"> <li>• Plaza</li> <li>• Square</li> <li>• Courtyard</li> </ul>	<ul style="list-style-type: none"> <li>• Alagbaka biological park</li> <li>• Illula recreation ground</li> <li>• Wotts garden</li> <li>• Games reserve amusement park.</li> <li>• Democracy park</li> <li>• House of assembly arcade</li> <li>• The rock amusement park</li> </ul>
iii.	Natural	<ul style="list-style-type: none"> <li>• Conservation</li> <li>• Bush/forest</li> </ul>	<ul style="list-style-type: none"> <li>• Akure forest reserve</li> <li>• Oyemekun rocks and unity villagers</li> </ul>
iv.	Streets and corridors	<ul style="list-style-type: none"> <li>• Pedestrian sidewalk</li> <li>• Pavement</li> <li>• Bicycle path</li> </ul>	
v.	Water edges	<ul style="list-style-type: none"> <li>• Water and riverfronts</li> </ul>	
vi.	Sport facilities	<ul style="list-style-type: none"> <li>• School playing ground</li> <li>• Pitches</li> </ul>	
vii.	Incidental spaces	<ul style="list-style-type: none"> <li>• Vacant lot</li> <li>• Meeting place</li> </ul>	

Sources: Carmona (2010).

**Table 1.2: List of Public spaces in Akure**

S/N	Public Spaces	Owner	Location
1.	Illula recreation	Ondo state	Sijuade, Akure

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	ground	government	
2.	Ondo state ministry of Agriculture botanical garden and park	Ondo state government	Alagbaka
3.	Democracy park	Ondo state government	Oja-Oba (Adesida road)
4.	Wotts garden	Private	Igbatoro road
5.	Oyemekun rocks and unity villagers	Private	Oyemekun
6.	Green square	Private	Off Oba Adesida, Ijapo.
7.	House of assembly arcade	Ondo state government	Igbatoro road
8.	Games reserve amusement park.	Private	Ikota junction. Akure- Ijare road
9.	Akure forest reserve	Ondo state government	Off Ondo-Akure Rd
10.	The rock amusement park	Private	FUTA
11.	Alagbaka biological park	Ondo state government	Alagbaka
12.	Neighbourhood recreation park	Private	Oba Adesida road

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Source: Researcher's field work 2018.



Plate 1.1: Ondo state ministry of Agriculture, Biological park  
 Source: Researcher's fieldwork, 2019.



Plate 1.2: Ondo state ministry of Agriculture Biological park  
Source: Researcher's fieldwork, 2019.



Plate 1.3: Ondo state ministry of Agriculture Biological park  
Source: Researcher's fieldwork, 2019.



Plate 1.4: Oyemekun Rocks  
 Source: Researcher's fieldwork, 2019.



Plate 1.5: Ondo state ministry of Agriculture Biological park  
Source: Researcher's fieldwork, 2019.



Plate 1.6: Ondo state ministry of Agriculture Biological park  
Source: Researcher's fieldwork, 2019.



Plate 1.7: Oyemekun Rocks  
Source: Researcher's fieldwork, 2019.



Plate 1.8: Oyemekun Rocks  
Source: Researcher's fieldwork, 2019.



Plate 1.9: Games reserve amusement park  
Source: Researcher's fieldwork, 2019.



Plate 1.10: Games reserve amusement park  
Source: Researcher's fieldwork, 2019.



Plate 1.11: Democracy park  
Source: Researcher's fieldwork, 2019.



Plate 1.12: Democracy park  
Source: Researcher's fieldwork, 2019.

### 1.7.1 Study Area

Akure is a city in the South-Western region of Nigeria fig 1.1. It is the capital of Ondo State, Nigeria as shown in Fig 1.1 and 1.2, located on Latitude  $5^{\circ} 45^1$  and  $8^{\circ} 13^1$  North of the equator and Longitude  $45^{\circ} 15^1$  East and longitude 6 East of Greenwich Meriden. It has a provisional census figure of 484,798 people according to the 2006 census and a projection of 687,620 in 2020 using a 3% yearly increase as recommended by the National Population Commission (NPC). Akure is a traditional city and existed before colonial rule. According to Akinbamijo (2004), Akure is divided into four Zones classification which are the core area, the transition area, the peripheral area and the public housing district as shown in Figure 1.3. The core zone is predominantly made up of old structures, mostly of residential properties and mixed-use with a few commercial activities. The transitional zone is characterized by mixed land uses such as commercial, administrative and residential Olujimi (2010).

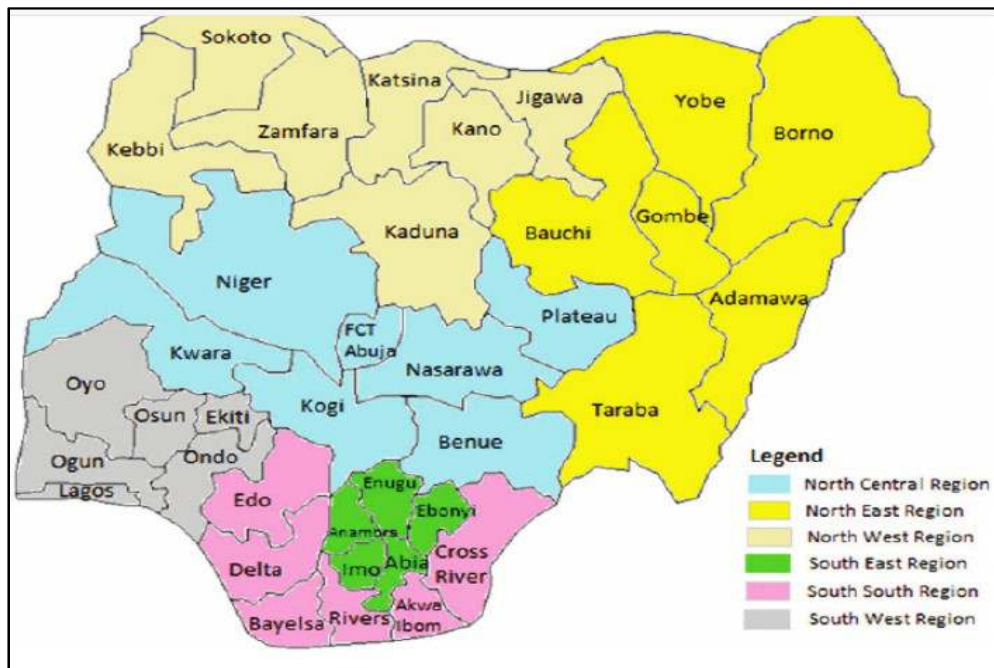


Figure 1.1: Map of Nigeria

*Source:* <http://www.nigerianmuse.com/20100527092749zg/sections/pictures-maps-cartoons/maps-of-various-states-in-nigeria>.

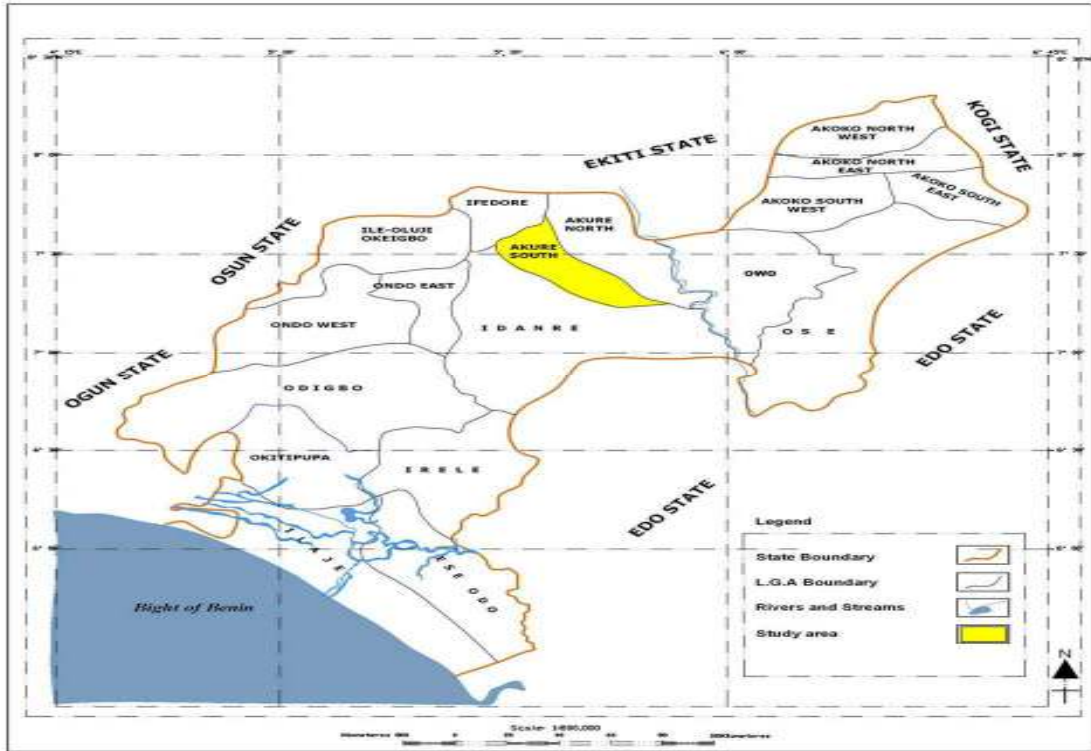


Figure 1.2: Map of Ondo State  
 Source: Ministry of Works and Housing, Akure, 2010

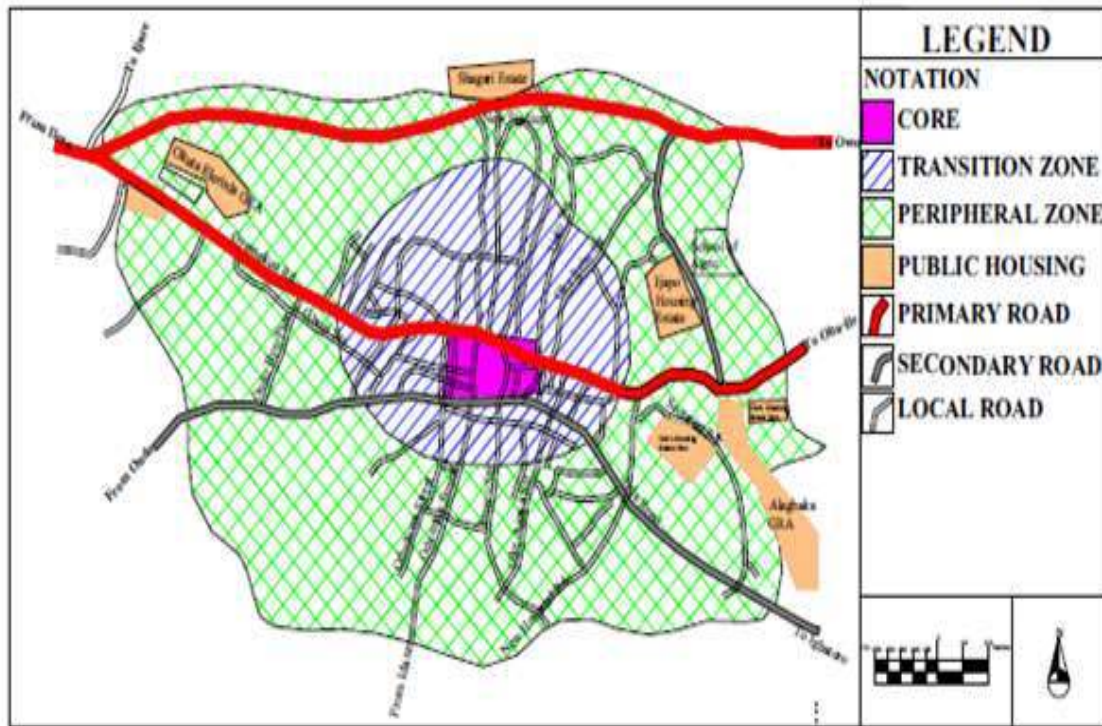


Figure 1.3: Map of Akure showing the Zones and major roads  
 Source: Ministry of Works and Housing, Akure, 2010

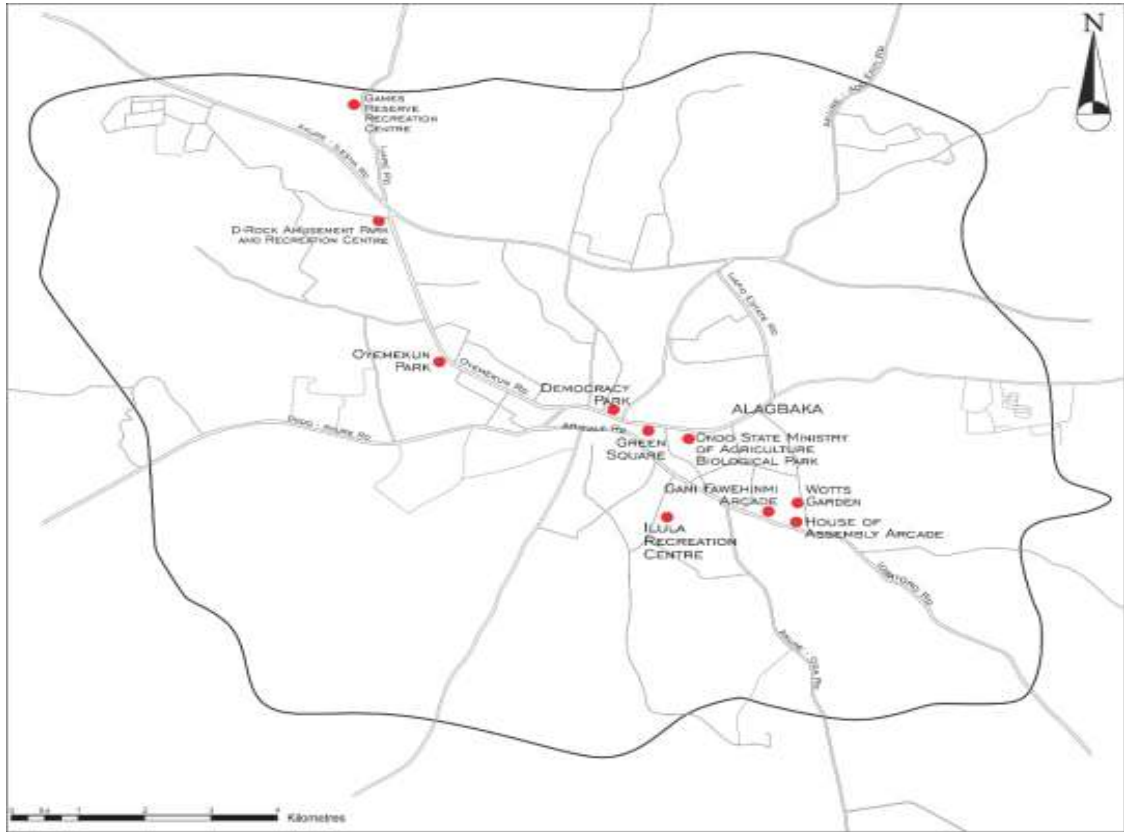


Figure 1.4: Map showing location of Public space in Akure  
 Source: Researcher's field work (2019).

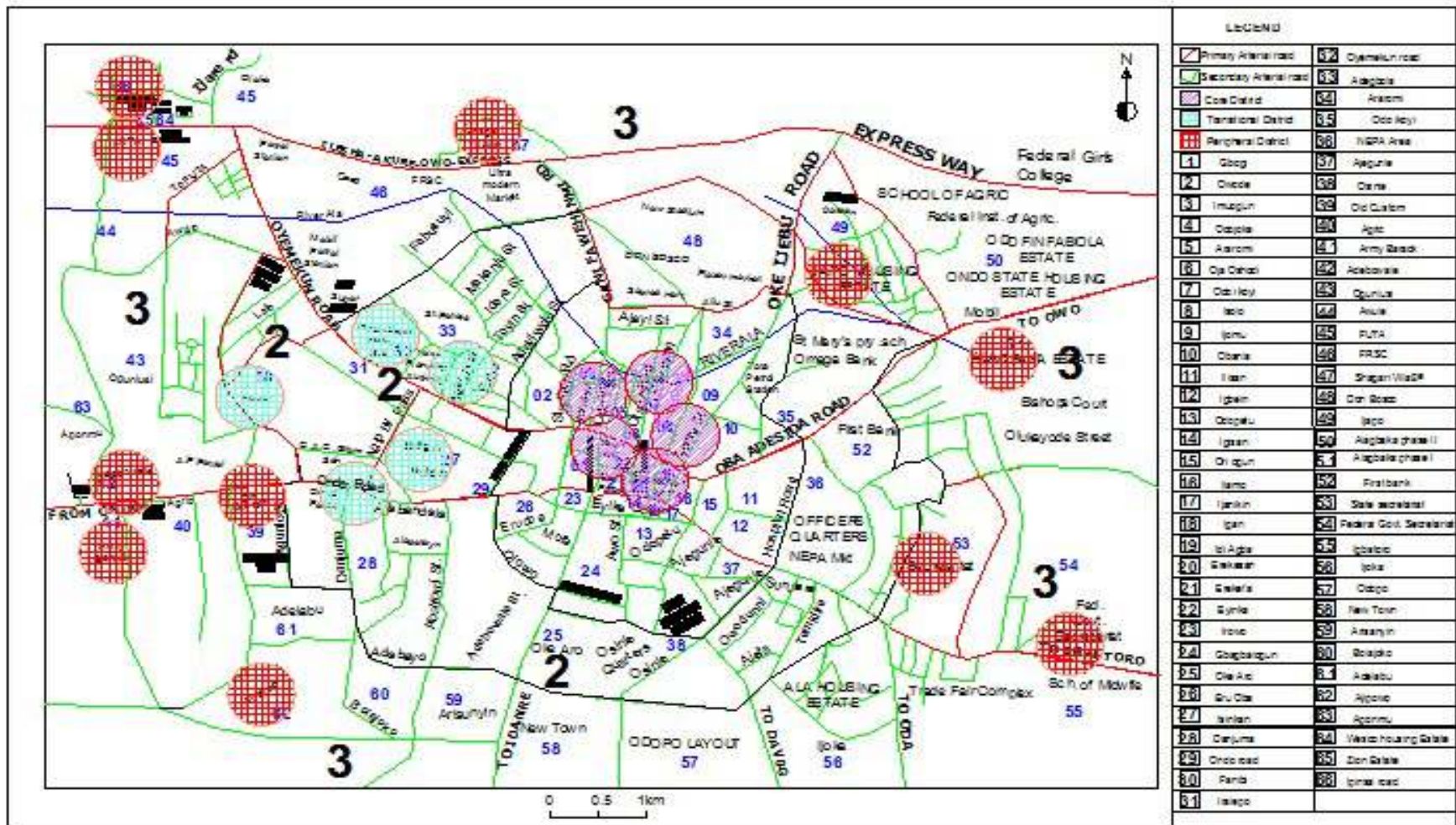


Figure 1.5: Map showing Akure study areas  
 Source: Researcher's fieldwork, 2019

## **1.8 Limitation of the study**

This study is confined to public spaces in the built-up area of Akure (the core, transition and peripheral zones). It excludes the new underdeveloped parts of Akure and the suburbs. The study focused on the most common public spaces of the following categories: parks and gardens, civil spaces and natural spaces.

Streets and corridors, water edges, sports facilities and incidental spaces as shown in table 1.1 are not investigated. Literature on public spaces abound but few recent ones are available on city image, most of the scholars work emanated from the work of Kevin Lynch (1960). Therefore, this study depended mostly on studies relating to city image conducted in foreign countries especially in the developed world. Studies that relate to city branding, image destination and place attachment were also review for broader knowledge for this study.

## **1.9 Definition of terms**

The technical terms used in this study are those that are related to the concept of public spaces and city image

**City:** A city is an area in which a large number of people live fairly close together.

Cities usually have separate governments and systems for maintaining and providing utilities and transportation.

**City image:** kelvin Lynch describes the city image as the way individuals perceive and recall features in urban spaces. The most distinctive element of the city are categorised into: paths, nodes, edges, districts, and landmarks

**City imageability/imagery:** A term coined by Lynch Kevin (1960) as the quality of a physical object, which gives an observer a strong and vivid image.

**Greenery:** refers to the plants that make a place look attractive and a space where people can sit for a full meal or grab a drink while watching a game outdoor.

**Greenspace:** any piece of land covered by vegetation, which could be public or private space.

**Imageability/imagery:** is the quality of the physical object that gives an observer a strong vibrant image, simplicity in which one can identify the patterns and significance of their environment and how pleasing it is.

**Land use:** the purpose for which the land has been or is being or may be developed. In order word the activity on the land

**Legibility:** the ease with which a person is able to see, understand and find their way around an area, building or development.

**Lighting:** lighting performs a number of functions, from supporting way-finding, orientation and safe movement at night to providing a decorative effect for building facades, landmarks and paths.

**Metropolis:** A large, densely populated urban area. Sometimes referred to as the capital or chief city or a country and which may have several independent administrative districts.

**Neighbourhood:** is a district or community within a town or city. Neighbourhoods have a specific geographic area and functionally as a set of social networks.

**Open space:** any land enclosed or not which is laid and reserved as a public garden, park, sport and recreation ground.

**Outlook:** a place from which a view is possible; a vantage point.

**Plaza:** a type of public open space connected to the street network that can range in size from a building forecourt to a large city square.

**Parks:** is an area of land, usually in a largely natural state, for the enjoyment of the public, having facilities for rest and recreation, often owned, set apart, and managed by a city, state, or nation.

**Pathway:** a pedestrian path, bicycle path or other area for use by people but not by motor vehicles

**Public space:** is a place that is generally open and accessible to people. They include public parks, squares and beaches.

**Sign:** signs give information about way-finding, directions, place and street names, cultural identity, buildings, uses and activities, or for advertising products.

**Street:** is a public thoroughfare in a built environment. It is a public parcel of land adjoining buildings in an urban context, where people move freely, assemble and interact. Streets are categorized into main streets and side streets. A curb is used to separate the vehicle traffic lanes from the sidewalk area. Street features include street signs, parking metres. Benches, and street lights. Street also defines the circulation pattern within the city

**Street and park furniture:** includes seats, waste bins, drinking fountains, café furniture etc. this element also includes public art, play and recreation equipment.

**Streetscape:** the visual character of a street space that results from the combination of street width, curvature, paving, street furniture, planting and the surrounding built form and detail.

**Trees and Planting:** planting trees, shrubs and ground covers in urban areas contributes to visual interest and microclimate. Trees provides shade, shelter, and cool air pockets, acts as a landmark, sense of enclosure with leafy walls and ceilings.

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

#### **2.1 Introduction**

This chapter focuses on the literature review and the major theoretical concepts that are useful to the study. These include literature on public space, city and natural environment, accessibility, management and concept on city image. Literature from urban design was also reviewed such as elements and principles of design as used by artists which were found useful for addressing this study.

The study is on the impact of neighbourhood public spaces on the city image of Akure. The city is complex because of different interpretations of the mental image the observers see which varies from person to person

#### **2.2 Conceptual Meaning of Public Space**

There are various definitions of public space. Madanipour (2004) defined public space as a space that is not organized by private individual or organisation, and it is open to the general public. Carr, Francis, Rivlin and Stone (1992) defined public space as the publicly available place where people go for group or individual activities. Furthermore, public spaces can also be defined in terms of their accessibility, activities and functions, their design as well as their management.

The word public refers to any entity that relates to people and is been shared and freely open to them. In describing the accessibility aspect of public spaces. Madanipour (2010) noted that public spaces are spaces open to people and accessible by all categories of people. Several functions and activities are accomplished in public space which varies from social, religious and political functions. Carr et al (1992) defined public space as the public ground where people carry out the functional and vital activities that bind a community, whether in the normal routine of daily life or periodic festivals. Public space

is an important part of the cities and towns where human contact and interaction takes place, the studies of Carr et al (1992) Worpole and Knox (2007) described public space as a place for exchanging ideas, goods and friendships and is a shared space without which community cannot survive.

Madanipour (2004) described public space as a space that allows all people to have access to it and the activities within it which is controlled by a public agency, and which is provided and managed in the public interest. Public space extends from the streets, parks and squares of a town or city into buildings that enclose and line them. Gehl, Gemzoe and Rogers (2008) described public space as streets, alleys, buildings, squares, everything that can be considered part of the built environment. Public spaces are not only places where activities take place, they are also places for mobility, for people to come to, leave from and pass through. Bonenberg (2015) described public space as the element of urban structure and physical entity of neighbourhood facilities that enhances the physical and social components for the residents

### **2.3 User's perception of Neighbourhood Public Spaces**

The visual perception of public space is important to the users' because they are the primary resources who have know the place (Perovic and Folic (2012). Perception of Public spaces are subjective and are based on users' experience which differs from one person to another. Carmona (2010) opined that public space is not just a physical scenery but it also has a lot of subjective sense for its users that can gather over time. The perception of the users of public space can only be expressed in terms of how the spaces are interpreted by them and the meaning giving to them. Chartakar (2006) opined that the meaning users of public spaces expressed aid to improve a sense of community which has a strong relationship with its physical and social dimensions.

The use of Public space has a direct impact on the social relationship of the users and can also be expressed in the quality of the public space they use. People's relationship with public space is diverse and based on some factors such as socio-economic, gender, type of activities and public space facilities. Soltanian & Mohammadi (2015), Lenberg (2010) described perception as how individuals, sense react to the information gathered within the environment surrounding them. it possesses both socio-cultural and biological aspects. Lenberg (2010) further stated that the theory of perception creates the cognitive process which is firmly characterized by the detection and interpretation of sensory information as seen by observers.

However, various factors influence the formation of the visual perception of a place which is, economic, social, industrial, cultural, historical and individual, (Perovic and Folic (2012). Meanwhile, for public space to satisfy users' needs and to also assess how they express their perception of the place so many factors must be considered, Nasution and Zahrah (2014) identified seven factors of public space perception such as accessibility, facility, natural environs, elements, activity, management and the intensity of usage.

Public spaces play a significant role in public social interaction among residents, however, they are either under-utilized to the benefit of users' and lack basic amenities. Public spaces are for social interaction within the neighbourhood for resident's utilization (Moulay and Ujang (2016). Many benefits can be derived from using public spaces, one of the importance of public spaces is to make a better place for people to develop the relationship between themselves and the environment (Carmona, De Magalhaes and Hammond 2008). However, despite the numerous advantages that are derived by user's, some factors must be considered in achieving effective management of public spaces some of which are:

- i. *Accessibility*: one of the factors in public space usage is accessibility. Public space should be well located in a site that has several access to traffic and transportation route (Javadi (2016). Successful public spaces are designed and developed in such a way that they are accessible and can appeal to a range of use and activities for users (Chitrakar, Baker and Guaralda 2017).
- ii. *Amenities*: are elements that increase effective usage of public spaces such as utilities, fountain, water spring, seating, benches, bins, lighting elements, monuments, sculpture and statues (Javadi 2016 and Firdevs 2013). Camona et al (2005) noted that street furniture significantly affects the spatial quality of public space and consequently improves the mental image, which people see from the environment.
- iii. The beauty and aesthetics of public spaces increase the visual quality of such places (Bonenberg2015). Natural and artificial elements are important in the beautification of public spaces (Javadi 2016). Visual comfort and a safe neighbourhood enhances better scenery and generate a better image (Ramlee, Omar, Yunus and Samadi 2015)
- iv. *Landscape*: is divided into soft and hard landscape (Javadi (2016). The landscape of public spaces has a lot of advantages, reduces air temperature and aids wind direction, the reduction of the effect of air and noise pollution and the reduction in health care bills (Arvanitids, Lalenis, Petrakos, & Psycharis. 2009).
- v. *Safety and security*: an important prerequisite that inspires people to stay and enjoy time spent in public space. One of the qualities of an attractive public space is the sense of safety (Aly, El-Ela & Elfiki 2018). Safety in public space boosts user's satisfaction. Fear of crime in public spaces stop its use (Tandogan and Iihan 2016, Ceccato and Bamzar 2016).

- vi. *Activities*: public space must provide facilities for users and encourage them to take part in various activities, (Javadi 2016).
- vii. *Economically sustainable*: public space should be commercial purposes for economic profits and growth (Szucs 2013). A public space attracts tourists and can boost the economy of the host neighbourhood (Setaih, Hamza and Townshed 2013).

#### **2.4 Use and Significance of Neighbourhood Public Space**

Theorists of neighbourhood studies generally have the same opinion that neighbourhoods are both physical and social spaces. Physical as relates to buildings and infrastructure and social as relates to communal facilities that residents and non-resident enjoy (Buys, Vine, & Miller, 2013). Neighbourhood illustrates sections that exist within the cities, villages and towns where people reside. The neighbourhood can be described as the immediate environment around the dwelling units. Galster (1986) and Jenks, Gallacher (2005), and Dempsey (2007) described the neighbourhood as a social/spatial unit of social organisation that is larger than a household and smaller than a city. Carmona, Heath and Tredell (2003) noted that social interaction at the neighbourhood level develops residents' quality of life.

A neighbourhood is a place where people live, work and recreate. A neighbourhood is a unit that consists of households who occupy residential and non-residential units of private and public spaces in the community. In a developed country an efficient neighbourhood must have three essential components which are infrastructure, topography and buildings (Galster 2001, Taylor 2012). Gallacher (2005) described Neighbourhood public spaces as everyday spaces within a community where people meet or a place where people socialise with each other. Neighbourhood public space describes the physical features of the urban public spaces such as Parks, Greenery and Streets space.

Neighbourhood public spaces provide recreational facilities, services and amenities to their dwellers, (Javadi, 2016, Whyte 1988 and Hickman 2013). Neighbourhood public space has an impact on residents' quality of life, such as green space, open space, playground, plaza and street furniture table 2.1, (Ramlee, Omar, Yunus, and Samadi, 2015). Morphet (2016) divided neighbourhood public space into physical (environmental/ green) and social community.

Table 2.1: Categories of Neighbourhood public space

S	Physical	Social
1	Green Space	Markets
2	Open spaces	Shopping mall
3	Hills/ mountain tops	Schools
4	Parks	Church/ mosque
5	Water falls/ lakes	Hospitals

Source: Morphet, 2016: Infrastructure delivery plan.

## 2.5 Significance of Public Space in Nigeria

The benefits of public spaces cannot be undermined, they improve the quality of life, promote community existence and add to the beauty of the city. Public space is a place where people meet and socialize irrespective of age, tribe, or religion, which are in the small neighbourhood park and a large city centre. Public space brings people together for so many reasons, for social activities, political, cultural, religious activities and sometimes

for economic activities. people can come together for social activities, such as relaxation, exercising and meeting people, it encourages social integration among city/ community dwellers. Silaci and Vitkova, (2017) conclude that social and cultural activities are carried out under the open sky, in public spaces and open spaces. Public space plays a vital role in the cultural and personal development of the individual. Cultural practices can be shared and experienced by people only in public spaces, (Rupa, 2015)

Public space plays a vital role in the economic development of cities, it is a place where people engages in economic ventures and for tourist development. Children are often seen in public spaces hawking one thing or the other for their parents. Inappropriate use of public space is a common occurrence in Nigeria. An ideal public space should draw people to enjoy the visual experience of using the place, it should not just be used as a transitional space to pass by, but rather, it should be a place that improves the lives of the people using it,( Chopa and Mahapatra 2018)

With the advent of democratic rule in Nigeria, political rallies and campaigns take in public space, also for weekend owanbe parties, public spaces are used as event centres all within the country.

## 2.6 Summary of the researchers works of public spaces

A reviw of relevant classification of the roles and significance of public space from different authors, Table 2.2.

Table 2.2: Summary of roles of public spaces

Dimension	Roles of public space	References
Socio-cultural	Representation of cultures, identities and diversity	Worpole, 2008
	Place attachment	Worpole, 2008: Cattel et al, 2006
	Sense of community and unique	Worpole, 2008: Cattel

	identity	et al, 2006: Kazmierczak, 2014/
	Social interaction, social mixing, social inclusion and socialization	Zukin, 1995: Worpole, 2008: Cattell et al, 2006:
	Facilitation of the exchange of ideas and friendships	Worpole, 2008: Cattell et al, 2006:
	Improvement of the quality of life,	Nared and Lamovsek, 2015
	Reduction of crime and the fear of crime	Carmona et al, 2004
Economic	Facilitation of the exchange of goods and skills	Carmona et al, 2004
	Retail and commercial leisure activities	Carmona et al, 2004
	Public space as marketplace	Carmona et al, 2004: Rupa, 2015
	Increase in nearby property values	Shoup and Ewing, 2010
	Attraction of customers, employee and services	Carmona et al, 2004
	Generation of significant private sector investment	Carmona et al, 2004
	Tourist attraction	Madanipour, 2003: Urda Pena. 2012
Political	Stage for Political action	Hunning, 2008
	Representation of power	Low and Smith, 2013: Abrahao. 2016
	Space of democracy	Goodsell, 2003: Parkinson, 2012

Source: Rezaei (2019)

## 2.7 Public space management

Public space is an important aspect of human existence that aids interaction and is a meeting point for social activities. Successful public spaces are designed and developed to

attract a range of use and activities, by providing an opportunity for socialization among users' Chitrakar, Baker and Guaralda(2017). One of the major challenges in the management of public spaces is the regulation of use, how to guarantee that they are used for their core function, be it for social, political and religious purposes, Chitrakar, et al,(2017).

Public spaces are faced with numerous challenges, management is a vital factor in the continuous existence and uses of such spaces. Some of the factors affecting public spaces are encroachment, conversion in use, decay, deterioration, insecurity, lack of basic amenities, funding and economic decline. A major challenge is a safety with the high rate of crime, kidnapping, unknown armed men, presence of mentally disordered people and other illegal activities in society. Ensuring the safety of users of public space, curbing inappropriate use will increase patronage and increase economic gains to investors.

The management of public spaces according to DeMagalhaes and Carmona (2009) is associated with the public sector and local Government and that public spaces traditionally are owned and managed by public organizations. Many authors have attributed poor maintenance as one of the problems facing management of public spaces, Chitrakar, et al,(2017) noted that lack of regular maintenance, weak urban governance at the neighbourhood, local and state level also affected the use of public spaces, DeMagalhaes and Carmona(2009) concept of public space management identified 4 (four) interlinked method to public space management by the public sector, community-based organization and private sector they are:

- The regulation of uses and conflicts between uses.
- The maintenance routine
- The new investment into ongoing resourcing of public spaces.
- The coordination of intervention in public spaces.

The management of public spaces enables spaces to fulfil their functions as a place for social bonds through regular maintenance and the regulations of use while keeping it safe and inviting for the uses (Chitrakar, et al, 2017). The management of public space must consider regulating its uses, enforcement of proper usage most especially by unwanted people and controlling accessibility.

## **2.8 Public space across the world**

Public spaces all around the world is a source of investment and also for their tourist potential more effort is been put into developing them. Developed cities promote public space as a means of social integration among its resident, some used public space to project a positive image and to create a new public display for the city (Madanipour, 2004). Public space in a developed country for example European cities have moved from a place of recreation space to encourage integration and economic globalization, a meeting point for politics, culture and social spaces, (Madanipour, Knierben and Degros, 2014). Western cities are going through a period of transition which has consequences on their inhabitants and their built environment. This transition poses serious threats and challenges to all aspects of the contemporary city. The western city now witnesses an integration of economic, political and cultural functions in public spaces. Madanipour (2004) noted that the nineteenth century witnessed efforts to improve the quality of urban life by introducing public parks and boulevards where nature was brought onto the city for hygiene and aesthetics.

## **2.9 Characteristic and Image of the city**

The city can be characterised by demographic or functional definition. Massey, Allen and Pile (1999) opined that the city constitutes the physical features, human experience and urban image. Boyer (1994) described the city as the collective expression of architecture, urban form, and history and that it carries in the weaving and unrevealing of its fabric the

memory traces of earlier architectural forms, city plans, and public monuments. Gabdrakhmanor and Rubtsov (2014) described City as a social-economic scheme with many functions such as administrative, industrial, transport, educational, cultural and others. Montgomery (1998) described a good city as one with orderliness and legible city form, a place of many going and coming, meetings and transactions take place.

The city could be for pleasure, for home, for work, for administration and government. The city can be perceived in different ways, according to Lynch (1960), a city is not only a physical space but also a social environment. Lynch noted that cities all over the world have both physical and visual challenges. The image of the city is very different as seen by holidaymakers, city dwellers, all have a different view of how the city looks like, the city reality can be perceived by residents and non-residents who experience the city directly or indirectly as described by Lançs (2004) and Neacşu (2009)

## **2.10 Theoretical framework**

This section discussed theories propounded and found relevant to this study, these include concepts of city image, imageability and legibility.

### **2.10.1 Concept of City Image**

Montgomery (1998) defined image as the combination of the identity of place and user perceptions. The image of a place is the people set of feelings and impressions about a particular place. Image of a place as seen by observer connotes different meaning and interpretation, Suthasupa (2012) noted that images differ from individual to individual but share features that result in a public mental image. The image of the city by the observer must be about an object or a place for easy identification. Lynch (1960) analysed the image of a city into three components, identity, structure and meaning. The object can be easily

identified based on its spatial or pattern to other objects and its meaning by the observer.

The concept of city image according to Lynch (1960) sought to understand how people perceive their environment and how the professionals respond to the deepest human need, ascertained that the elements or parts of the cities are designed as paths, edges, nodes, landmarks, and district. While Pallasmaa (2005) noted that cities are experienced through the cities, Lynch emphasised that sensory architecture through body interaction with the environment. the study described the city image by its space, matter and scale which can be measured. Koseoglu and Onder (2011) affirming Lynch (1960) and Pallasmaa (2005) described the concept of city image to mean the possibility of organizing an environment within an imageable and coherent pattern.

The contents of the city images which refer to the physical form are classified into five (5) distinct elements and described by Lynch (1960) as follows:

- i. *Paths*: as the channels through which the observer moves. They include streets, walkways, transit lines, canals, railroads. Lynch (1960) noted that people observe the city while moving through it; along these paths, the other environmental elements are arranged and related.
- ii. *Edges*: as boundaries between two phases. Such as shores, railroad cuts, edges of development, walls.
- iii. *Districts*: as the medium to large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters "inside of" and which are recognized as having some common, identifying character.
- iv. *Nodes*: as points, the strategic spots in a city into which an observer can enter, and which the intensive foci to and from and;

- v. *Landmarks*: as another type of point-reference, but in this case, the observer does not enter within them, they are external. They are usually defined by the physical object, such as a building, sign, store, or mountain.

### **2.11 The legibility of City Image.**

The legibility of the city describes peoples' understanding, experience and enjoyment of the city (Kelly, 2001). Legibility also refers to the way people read their environment, and it depends on whether or not the image is positive or negative. The city must be flexible and easy to walk through. Lynch (1960) defined the legibility of a city as "the ease with which its parts may be recognized and can be organized into a coherent pattern." Collaborating with Lynch's (1960), Kelly (2001) noted that the physical and spatial quality of the surrounding is an essential consideration in city legibility. For effective city legibility, orderliness and visual organisation between city components must be achieved.

The legibility of the city also contributes to the well-being of the people, they must feel comfortable with their surroundings. Lynch (1960) argued on the significant quality of a city, the legibility of a city is central to the physical well-being of its inhabitants.

The physical city must be clear enough to be seen by the observer, some factors however influenced how the city is been viewed. Abeer (2007) noted that city legibility is influence by the city physical elements and its visual aspects. The study stressed further that the characteristic of the environment helps people to construct a mental representation of the built environment in which they live.

### **2.12 Imageability of the city**

People's perception of a city varies with the individual interpretation of the various elements of the city profile. The concept of imageability is the understanding of how people see the city, how they interpret the image and understand the city. Lynch (1960)

described the imageability of the city as the quality of the physical object that gives an observer a strong vibrant image, simplicity in which one can identify the patterns and significance of their environment and how pleasing it can be. Jadon (2007) described the concept of imageability of a city as the interpretation of various layers of a city's images-its form, profile and experiences over some time.

Lynch (1960) reiterated that image development is a two-way process between observer and observed, and attributed image as a product of immediate and past memory being experienced by observers. Imageability/imagery is the physical quality of the urban environment in terms of its shape, colour or arrangement which forms the mental image of the city. Imageability/imagery is the physical features of a city that lead to image formation which comes with the city challenges and its delight. Although the perception of the image of the city differs from person to person, Carrera (1998) asserted that individual experience of the city varies from a different time and different spatial viewpoints.

### **2.13 City life and city image**

A city is distinct by its population and can mix people and activities nearby, it is characterised by its dense neighbourhoods and vast network of public services (Newton, 2009). City life is distinct as a result of its luxury, poverty, amenity and pollution, tradition and innovation, drudgery and novelty, order and disorder, thrill and spills (Massey et al, 1999). City life describes the way of life of city dwellers while city image is the visual characteristic of the environment such as landscape, streetscape and physical infrastructure that beautify the city (Zhang & Lin, 2011).

City features are physical features such as a house, housing estate, streets, shops, hotels, hospitals, museums, traffic, libraries, cathedral, and restaurants. City experience changes from person to person, it varies depending on the part of that city in which the

person or group is located. City life is distinctive because it is bigger and with more activities. The essence of city image is to appeal to both residents and non-resident to the city (Giboa, Jaffe, Viamelli, Pastore & Hertein, 2015). The city image describes the visual quality perception of the neighbourhood. Residents' attached a greater level of value to the environment that is more aesthetically attractive to them. The perception and responses of the city dwellers to the city image can be positive or negative.

#### **2.14 Review of works on City Image**

1. Cities use cultural events to improve their image to stimulate cultural consumption among residents while promoting Rotterdam city as a cultural destination. This study examined the influence of European cultural events on the city image of the Rotterdam cultural event staged in 2001. In-depth interviews were undertaken with policy-makers and cultural managers, to evaluate survey findings for qualitative data. The study revealed that the image of the city as a cultural destination did improve in 2001, while the physical and tangible elements of the city's image continued to dominate. The study noted a positive change in the image of Rotterdam among residents and visitors immediately following the event (Richard & Wilson 2004)
2. Kuala Lumpur city is known for its indistinguishable identity and image quality due to the rapid development and expansion of the city structure over many decades. The relationship and interaction between people and the city structure were examined, specifically through public evaluation of landmarks as one of the five elements of the city image. Both qualitative and quantitative data were collected using mixed techniques, the results showed significant differences in the public evaluation of landmarks based on the respondents, nationality and ethnicity. The study recommends that much effort by the local authorities was necessary to create a distinguishable

image of Kuala Lumpur. Factors of design, history and uniqueness were the key factors that influenced the respondent's evaluation (Al-Shans & Badarulzaman, 2014).

### **2.15 Element of Design Principles**

The elements and principles of design open eyes to the beauty that is all around, most especially in the artwork, built spaces and landscape environment. They form the building block for understanding and creating, art, crafts and designs. A designer is a practical person who confronts visual assignments with a process of visual creation (Wongsirisup 2001). Designers and artists used elements and design principles in analysing the work of art and image. In the field of art appreciation, elements and principles of design are used to plan and execute works of art.

Element and principles are tools used to create desired visual effects and illustration in a creative medium, such as architecture, film, theatre and writing (Watson 2003). Fichner (2007) described elements of design as being tools for "expressive purpose" and principles of design as "visual strategies". Esaak (2010) writes, elements and principles of design are sorts of atoms, which serve as building blocks for holding up the process of carrying out a work of art or design. Artists used the elements and principles of design when executing a design or planned an artwork, every design is different from every other, and in designing artists have distinctive ways of using these tools, Michael et al (2007).

In any work of art, there is the presence of elements and principles of design, it is, therefore, necessary to pay attention to details, from one object to the other, what attract the observer to a part of an image. To further explain what images represent, Negm and Tantawi (2015) affirm that, image is a complex mode of communication in art appreciation and understanding the principles of design helps to plan and organize art.

Mostly, the basic design creation can be divided into two categories which are elements of design and principles of design.

1. Elements of design: are used for enhancing the artwork or a design, can be geometric or organic, they include line, plane, size, shape, volume, texture and colour.
2. Principles of design: examples are balance, rhythm, emphasis, variety, contrast and repetition.

### 2.15.1 Principles of Design

Design principles play an important role in arranging and presentation of objects and images of public spaces and the effects on user's perceptions.

Design principles are the basic rules which help the designer to set the elements of design together successfully (Brainard, 1998). Principles and elements of design work together, which is according to the designer preferences. Proper use of design principles plays an important role in creating beautiful spaces. The principles of design guide the integration and composition of the various design elements into a unified whole.

Different classification design principles noted the following components of the design as unity, space, dominance, hierarchy, balance and colour. Cedillion (2011) grouped design principles into, Balance, Rhythm, emphasis and unity. Table 2.3 shows the summary of classifications of design principles

Table 2.3: Selected Design Principles for this research

Author	Classification
“Design Basics” by David A. Lauer and Stephen Pentak	Emphasis, Contrast, Rhythm, Scale and Proportion, Balance, Harmony, Unity

Principles of Design” by J.  
Paul Getty Trust

Emphasis, Movement, Pattern, Repetition, Rhythm,  
Proportion, Variety, Unity

Architecture, Form, Space,  
Order” by Francis  
D.K.Ching

Scale, Proportion, Axis, Symmetry, Hierarchy,  
Rhythm, Repetition, Datum, transformation, Order

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Source: Safavi 2013

From the design principles, table 2.4 can be summaries as follows

- Contrast: the use of numerous elements of design to embrace the viewer’s attention and to guide the viewer’s eye through the artwork (Glatstein, 2009)
- Emphasis: is formed in a work of art when the artist contrasts colour, textures, or shapes to direct viewing towards a particular part of the image, (Glatstein 2009).
- Rhythm: rhythm aids in achieving unity in the artwork and image development. It is the repetition of elements such as form, line, texture and colour fig 2.1. Rhythm can be formed when repeating a colour, shape during design (Glatstein 2009). Rhythm is a movement in which some elements recur regularly, it creates a sense of movement, and can establish pattern and texture (Nagpal 2015 fig 2.2).

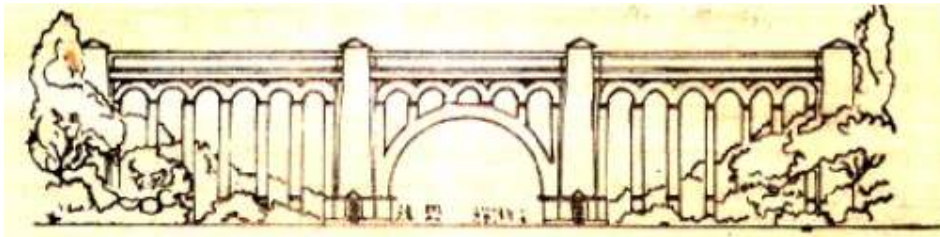


Figure 2.1: Rhythm

Source: Nagpal, 2015

- Proportion: is created when the sizes of elements in a work of art are combined harmoniously, all of the proportions appear exactly as one would expect, (Glatstein, 2009).

- Order: the overall organisation and structure of a design which can be in symmetry, hierarchy and rhythm, (Nagpal 2015).

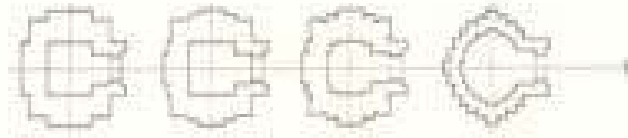


Figure 2.2: Rhythm  
Source: Nagpal 2015

- Harmony: Harmony is the visually satisfying effect of combining similar or related elements. Elements to be combined to, adjacent colours or into similar shapes, (Nagpal 2015).
- Unity: the concept of unity describes the relationship between individual parts and the whole of a composition. Unity is achieved when all the elements complements each other and create a perfect piece of art without any blemishes.
- Balance: balance is the distribution of visual weight in artwork or image. Balance describes the visual composition of elements. Balance can be symmetrical or asymmetrical. In symmetrical one side of the image is a mirror image of the other, Toscano and Holmes (2017) in symmetrical balance, elements are arranged the same or very similar on either side of a central axis, asymmetrical is where different elements are arranged opposite a vertical axis and weighted alike, Fig 2.3.



Figures 2.3: Symmetrical balance



Asymmetrical balance

Source: Toscano and Holmes 2017 (Oklahoma cooperative extension service)

Effects of observer's perception on design principles description are stated as follows in table 2.4:

Table 2.4: Summary of the effect of design principles on users' perceptions

S / N	Design principles	Definition	Effect
1.	Contrast	Contrast is the difference between two adjoining parts	Attracts attention to separated parts. Contrast creates emphasis.
2.	Emphasis	Emphasis describes the different position of one in comparison with the element which will be created by emphasising on that element.	Emphasis attracts users/visitors attention on emphasised object. Emphasis are to create focal point in design,
3.	Proportion	Proportion is to indicate ratio between elements.	Proportion helps in creating aesthetically and pleasant spaces in design.
4.	Repetition	Repetition is repeating one element or object or shape with constant distant,e.g. lines, colour and texture.	Repetition gives direction of movement. Its creates unity in design
5.	Rhythm	Rhythm is the combination of elements or objects	Rhythm help users' mind to understand what is going on in the design or work of art.
6.	Order	Order is the arrangement of elements in repetitive form or hierarchy. Order creates unity in space.	Order makes observers eye to follow the order of arrangement of elements. It gives a better feeling in space.
7.	Balance	Balance is the equal distribution of objects with	Balance makes space more pleasant and comfortable. It draws attention to the

		different visual weight.	overall arrangement of space.
8.	Unity	Unity is achieved when all parts have relationship with one another.	All elements/parts work together to give a sense of satisfaction to the observers’.
9.	Harmony	Harmony is the relationship between elements. Harmony could be in colour, texture, shape and form.	Harmony gives a feeling of completeness and unity in design.
10.	Hierarchy	Hierarchy is the arrangement of form, size, colour, or shape in different steps	Hierarchy creates focal point.

Source: Safavi (2013)

## 2.16 Design Charrette

Charrette is an intensely focused activity intended to build agreement among participants, aim at developing specific design goals and solutions for a project, and motivate participants and stakeholders to be committed to reaching those goals. Participants represent all those who can influence the project design decisions (Lindsey et al, 2003). Charrette is often conducted in the process of designing spaces like parks and building or to plant communities where open exchange of ideas and aspirations are outlined (Girling, Kellett and Johnstone 2006). A charrette is a participatory planning process that assembles an interdisciplinary team, Charrette involves a wide range of stakeholders typically consists of architects, planners, citizens, city officials, architects, parks and recreation officials and other stakeholders to create a design and implementation plan for a specific project (Hughes 2017). Charrette

participants work together to find design solutions that will address the issues that stakeholders have identified as priorities and result in a clear detailed, realistic vision for future development.

### **2.16.1 Goal of the Design Charrette**

The study is to examine how public spaces improvement can enhance the city image within the neighbourhood by proposing guidelines for the redesign of public spaces in Akure, Nigeria.

### **2.16.2 Pre-charrette**

- Site visitation
- Formal invitation letters to participants

### **2.16.3 Charrette Type**

Palmer, Chiveralls, Pullen, Zuo, Wilson and Zillante (2013) noted that design charrette combines creative, intense working sessions with workshops and open forums. Type of design charrette table 2.5, are as follows:

1. Visionary charrettes
2. Consultation charrettes
3. Project Based Charrettes
4. Research charrettes

Table 2.5: Charrette types established through Literature Review

<b>Charrette type</b>	<b>Purpose</b>	<b>Examples relevant to project</b>	<b>Participant</b>	<b>Possible Outcomes</b>
Visionary charrettes	Problem definition/needs assessment (Sulton and Kemp 2006) Establishing future goals. Future visions. Identifying opportunity to achieve future goals (Remtena and Nuland 2009).	Citizen's assemblies. Active /participatory democracy. World cities (carson 2011). Planning project.		Agreed goals. Identification of opportunities for change. Policy. Advocacy. Advocacy implement plans
Consultancy Charrettes	Stakeholder's engagement (Gindo et al 2003), positive participation, buy-in diffusion confrontation.	Planning projects and other design projects with multiple stakeholders	Multiple stakeholders	Agreed plan
Project based charrette	Iterative design process specific to a defined project. Project problem solving.	Planning projects. Spatial design. Projects (Building, interior, parks and others)	Broder community(Mendler2005, Cole et al 2010, Lewis 2004) Projects specific (Sarkission 2009) stakeholders.	Agreed project goals Design brief implementation. Proposal or design. Design retirement

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			Design team (Mendler 2005)	
Research charrettes	Data collection (Walshe et al 2010)		interviews and focus group	Collection similar to that achieved through surveys, interviews and focus group
Testing charrette	Assessment of Applicability (Clayton1998). Model refinement (Gibson and Wittington 2010).	Development of alternative Processes and systems (Gibson and Wittington 2010).	Industry and community.	Knowledge for further projects. Model development

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Source: Palmer, Chiveralls, Pullen, Zuo, Willan and Zillante (2013)

#### **2.16.4 Charrette in Research**

Gibson and Whittington (2010) discuss research charrette, specifically to the construction industry describing them as an effective interaction and feedback mechanism between industry respondents and academia.

Charrette as a research tool aims to gather meaningful input from diverse groups of interested parties through a collaborative and consultative process, these activities may serve as a legitimate method for gathering qualitative data Gibson and Whittington (2010). The charrette based research method developed for this study seeks to employ multiple charrette types with different defined purposes and various participant groups as both research tools and a design.

#### **2.17 Conceptual Framework**

The major theories propounded and found relevant to this study include the concept of city image, public spaces, accessibility and design. The quality of public space will translate into how the image will be measured. Many studies have developed models and checklists to measure the quality of public spaces in the neighbourhood. This study will adapt and redevelop existing relevant models by incorporating city image and public space into the proposed model.

##### **2.17.1 Quality of Public Space Model**

The study examined the work of Mehta (2014) and De magalhaes and Carmona (2009) on public space and Lique-Mantinez, Barrio-Garcia, Tnanez-Zapata, and Molina, (2007) on city image. They measured the quality of public spaces and created a public space index to assess the quality of public space by empirically evaluating through five dimensions which are: its inclusiveness, meaningfulness, safety, comfort and pleasurability. Mehta (2014) also investigated four public spaces in downtown Florida

using the public space index (PSI) and several applications for public spaces (figure 2.4). The study concluded by developing a model to evaluate public spaces such as streets, plazas, squares and urban parks. The index can be used as a tool to gauge the performance of public space on several facets and the citizens can use the index to determine the quality of public space in their neighbourhood or cities.



Figure 2.4: The five dimensions for evaluating public spaces  
Sources: Mehta (2014)

### 2.17.2 Management of Public Space Model

De Magalhaes and Carmona(2009) conceptualised public space management to ascertain if activities of public space are undertaken by public sector agencies, community organisations or private sector companies by applying four interlinked processes to access public space management. They developed key dimensions for management of public space with four interlinked dimensions for public space management, which are the regulation of uses and conflicts between uses, the definition and deployment of maintenance routines, investment of public spaces and their services and the co-ordination of interventions in public space, the study provides an analytical framework through which to examine emergent practice in the management of public space and their potential consequences fig 2.5.

- i. The regulation of uses and conflicts between uses which are the use of public spaces and the conflict between uses regulated, the regulation setting out how public spaces should be used, the determination of rules to access and established acceptable and unacceptable behaviour and lastly, how regulation is concerned, adhered to and how it adapts to changing societal needs.
- ii. The maintenance routines include public spaces and the infrastructure, equipment and facilities that need to be maintained to perform the functions that justify their existences and to ensure public spaces are usable, unclustered, clean and safe.
- iii. The new investment into ongoing resourcing of public space. Public spaces required resources both in financial and materials.
- iv. The coordination of interventions in public space. Co-ordination of mechanisms to ensure that the agents in charge of those activities pull in the same direction

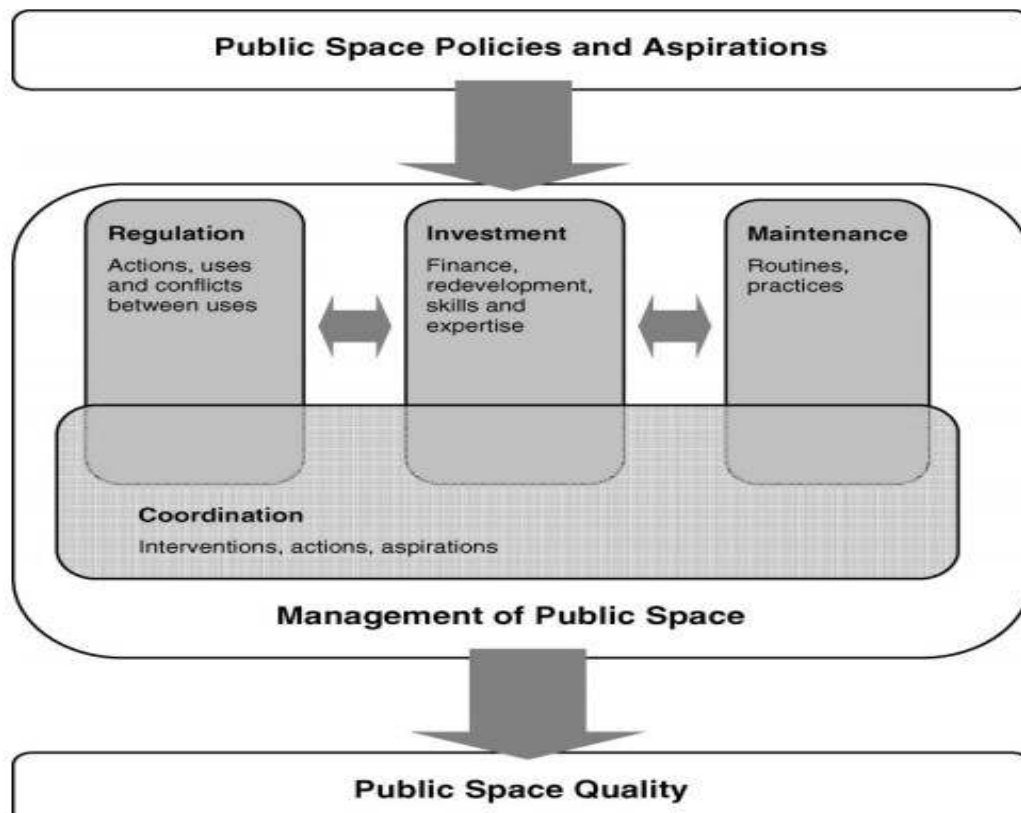


Fig 2.5: Dimensions and Models of contemporary public space management in England  
 Source: De magalhaes and Carmona (2009)

### 2.17.3 Image of the City Model

The study by Luque-Mantine, Barrio-Garcia, Tnanez-Zapata, and Molina, (2007) identifies dimensions for forming city image and developed a measurement scale to form a model which helps in understanding the image of Granada, Spain (Table 2.6). The study measured both city image and satisfaction to achieve a methodology that combines qualitative research with in-depth interviews and quantitative research. A semantic –differential scale ranging from 0 to 11 was developed to measure the city image of Granada.

Table 2.6: Dimension of City Image. Semantic – differential scale from 0-11

Dimension	Item used to measure the dimension
i. Architectural and Urbanistic attractiveness (A)	Recreation area Sport facilities Architectural appeal
ii. Transport and communication, infrastructure & traffic (B)	Traffic problem City transportation services Infrastructure
iii. Historical heritage (C)	Preservation of heritage Importance of heritage
iv. Environment (D)	City environment Noise pollution/ visual communication Unemployment
v. Social problem (E)	Drug addiction Street begging Social integration
vi. Culture (F)	Cultural events/ museums and exhibitions. Leisure and recreation activities
vii. Innovation and business culture (G)	Innovations & new technologies
viii. Economy & commerce (H)	Range of shops/ hypermarkets Shopping mall. Restaurant

ix. Range of services (I)	Health service Social services
x. Education (J)	Education centres, research centres
xi. International projection (K)	International markets
xii. Citizen self-perception (L)	Politeness, hardworking, modern
xiii. Image & satisfaction of living	

Source: Source: Luque-Mantinez, Barrio-Garcia, Tnanez-Zapata, and Molina, (2007)

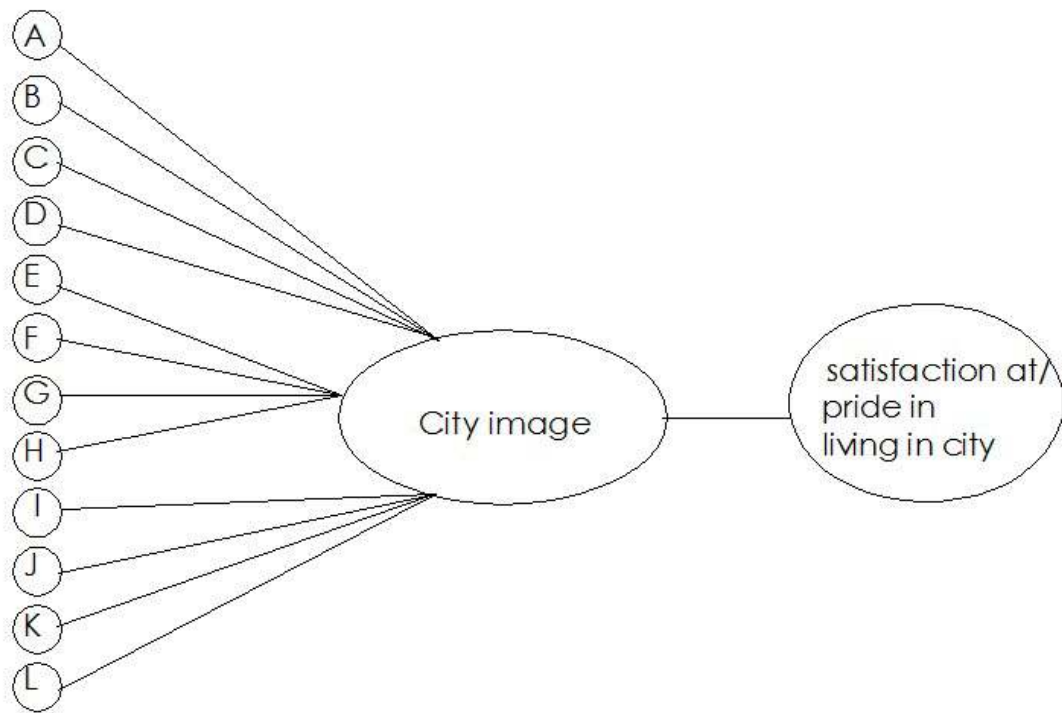


Figure 2.6: Conceptual model

Source: Luque-Mantinez, Barrio-Garcia, Tnanez-Zapata, and Molina, (2007)

#### 2.17.4 Framework Development

In developing a framework that involves public space and city image, this study will make use of the previous model by Metha (2014) on quality of public space, De-magalhaes and Carmona (2009) on the management of public space and Luque-Martine et al (2007) On city image fig 2.7.

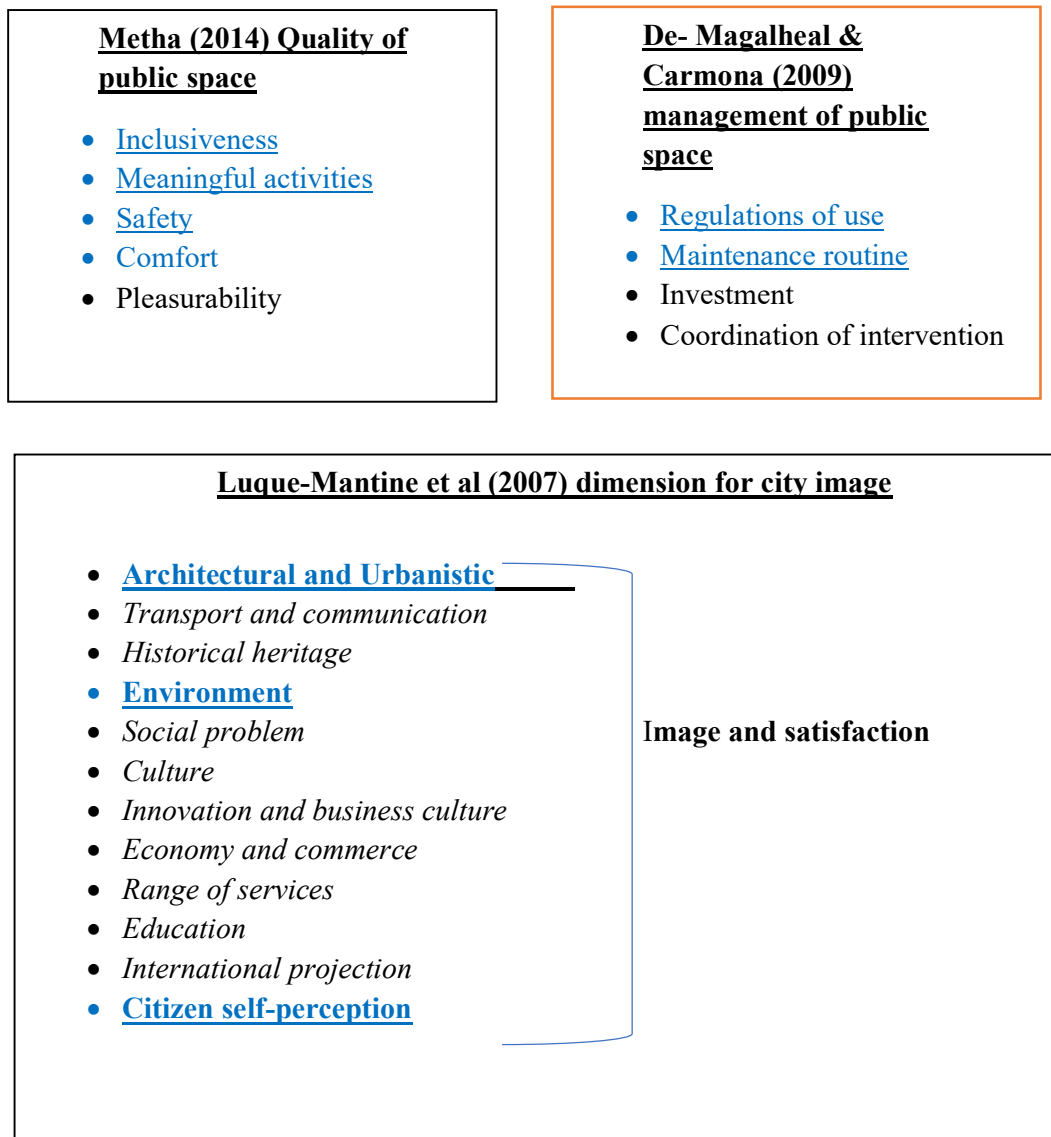


Figure 2.7: Conceptual Development

Source: Researcher's field work, 2019

### 2.17.5 Proposed framework

The proposed framework for this study is the combination of the works done by Metha (2014), De-magalhaes and Carmona (2009) and Luque-Martine et al (2007) as shown in fig 2.8: The study adopted the proposed framework in assessing the impact of neighbourhood public space on city image in Akure as highlight below:

#### 1. Adopting Metha (2014) framework on Quality of public space

**Inclusiveness:** it describes space participation, where interests are shared and conflict and differences play out. A space for a range of activities, accessible to various individuals and groups.

**Meaningful activities:** space to support activity and sociability and the resultant place attachment.

**Safety:** safety from social and physical factors.

**Comfort:** depends on the perceived level of safety, physical (space) and environmental (natural elements) satisfaction of basic physiological needs.

#### 2. Adopting De- Magalheal & Carmona (2009) management of public space

**Regulation of uses and conflicts between uses:** the use of public space and the conflict between uses have always been regulated, formally through byelaws. Regulation is set out on how public spaces should be used and settling of the framework for conflicts between uses.

**Maintenance routine:** public spaces and the infrastructure, equipment and facilities need to be maintained for optimal performance. Public spaces must be usable, uncluttered, clean and safe, street furniture, lighting and vegetation.

#### 3. Adopting Luque-Mantine et al (2007) dimension for the city image

Architectural and Urbanistic attractiveness: Recreation area, pleasant area for walking, sports facilities with a lot of architectural appeals and urbanistic appeal.

Environment: with regards to city environment. Inhabitants' commitment to the environment and the responsibility of the authorities.

Citizen perception: as regards the quality of the environment, cleanliness, beauty and monuments, and also the city's architecture and urban layout.

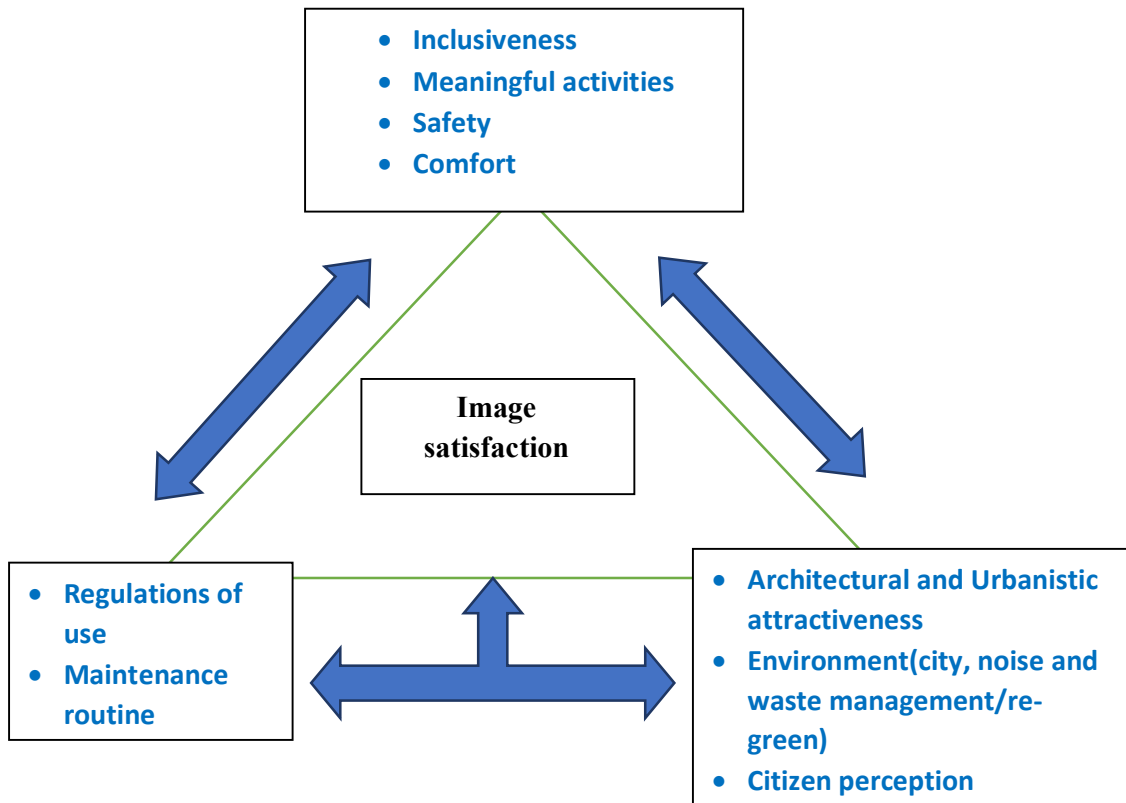


Figure 2.8: Proposed framework

Source: Researcher's field work, 2019

## CHAPTER THREE

### 3.0 RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter presents the methodological procedure adopted in the study. It includes the research design, research population, sampling frame, sampling technique, sample size, data collection instruments, the procedure for data collection, methods of data analysis and scale of measurement of variables. The chapter reveals how users use existing neighbourhood public spaces in the three zones of Akure, Nigeria, including interviews and charrette workshops with professionals in the built environment.

##### 3.1.1 Study approach

The study was perceived on strategies to improve the image of Akure through neighbourhood public spaces enhancement. One of the approaches to achieving the study aims was to identify the challenges faced by the existing neighbourhood public spaces on city image. The image of the city as used in this study relate to the image of its public spaces in the study area. Two sets of questionnaire were designed and administered to extract information on problems related to public spaces in the study area, the study took place in the three zones of Akure, the core, the transition and the peripheral zones, twelve existing neighbourhood public spaces was identified out of which five are selected in this study.

#### 3.2 Research Design

The research design employed mixed methods of the survey approach. The data required numerical, descriptive and explanatory components. The mixed-method is the use of both qualitative and quantitative methods. Quantitative measures were carried out

through surveys, whereas qualitative approaches were achieved through interviews and design charrette.

The questionnaire survey was used to collect quantitative data and qualitative data adopted interviews for users of neighbourhood public spaces in Akure. Design charrette participatory field research process as a methodology to establish a dialogue between experts in the built environment, the architects and planners for an in-depth description of the mental image and knowledge about Akure and its environs. 5-points Likert-type scales were chosen for the study as a suitable measurement of the attitudinal issues in which respondents indicated approval or disapproval in varying degrees. The in-depth Interview section with 25 users who are willing to engage in a long conversation and 25 participants for the design charrette workshop was used for the qualitative methods. Pictorial views of the identified public spaces were numbered and participants were shown the images (plates 1.1-1.12) and relevant questions were asked on the perceptions of the Akure city image and useful recommendations were made. Lynch (1960) and white (1980) employed the use of observations and pictures and affirm that pictures taken at the site have the same effect on respondents as on-site experiences

### **3.3 Research Population**

The Research population comprises of two categories: all the twelve Neighbourhood public spaces identified in Akure and users of public spaces. The population was from the three concentric zones in Akure: the core, the transitional and the peripheral zones. Akure has a provisional census figure of 484,798 people according to the 2006 census and a projection of 687,620 in 2020 using a 3% yearly increase as recommended by the National Population Commission (NPC). In determining sample size Glenn (2009) identified four strategies; these are using a census for small populations, imitating the sample size of similar studies, using published tables and sample size calculation. The

total population at 687,620 and using the sample size calculator, with a confidence level of 95% and error of 5%, a total number of 384 sample size of on-site and near-site users of NPS in each of the zones was used for this study.

### **3.4 Sampling frame**

The sampling frame in this study is the entire elements from which a sample was selected out of the target population. The sampling frame is five Neighbourhood public spaces and users of public spaces in Akure. The five Neighbourhood public spaces within Akure city are the Games Reserve Amusement Park, Oyemekun Rocks, Democracy Park, Ministry of Agricultural Biological garden and House of assembly arcade. Selected public spaces represent a mix of high and popular public spaces, and Government and privately owned. Different public spaces were selected based on the physical classification which was identified in chapter one, Table 1. The selected public spaces were unique in characteristics, accessible to the public, centrally located, and actively used for different purposes.

### **3.5 Sampling Techniques**

In all, a total of 384 copies of the questionnaire were administered to users of Neighbourhood public spaces in the three zones of the study area. With the employment of 12 Masters Students of the Department of Architecture, FUTA who assisted in questionnaire administration, a direct method of questionnaire management was achieved.

The research chose the non-probability purposive sampling method; this method is suitable when respondents are deliberately selected because they have special knowledge and characteristics important to the study, (McMillian 2012).

### **3.6 Sample Size**

The sample size for this study was from users of public spaces in Akure, to analyse the impact of neighbourhood public spaces on city image. 384 sample sizes were used for this study, which was distributed to on-site users of NPS in each of the zones. The participants for this study were people who actively use those spaces. For the qualitative method, the interview was conducted on 25 respondents (users) and a design charrette among 25 professionals from the built environment to validate empirical data.

### **3.7 Procedure for Data collection.**

Data collection was in the evening from 5 pm, during weekends and at festive periods, these are the time when most people usually visit the identified public spaces. To conduct the survey research assistants were trained on how to introduce themselves to respondents and how to administer the survey in a group of two and the principal researcher supervised collection in each group

This first-hand information obtained during the physical visit aided in conducting a comprehensive study. Direct observation was carried out in investigating the existing neighbourhood public spaces in the area.

#### **3.7.1 Questionnaire Design**

The questionnaire was designed to collect quantitative data on the study. The questions focused on the user's perception, their socioeconomic status, availability/existing neighbourhood public spaces and their management, and effects of public spaces on city image.

### **3.8 Data sources**

Two sources of data were utilized in the study. The primary and secondary data sources of data. The two were combined and were appropriate in satisfying the study objectives.

#### **3.8.1 Primary sources**

The primary data for this study was obtained from a reconnaissance field survey, through direct observation, questionnaire administration, and interview and charrette workshop with stakeholders in the built environment (that includes architects, planners, interior designers and Government officials). The research obtained data from on-site users of neighbourhood public spaces in the study area with quantitative data through a structured questionnaire and qualitative data from in-depth interviews and design charrette. Data were collected on respondents, socio-economic status, proximity and accessibility, user's satisfaction/ perception level, the impact of environment of Neighbourhood public spaces and factors influencing management.

#### **3.8.2 Secondary Data**

The secondary data was sourced from published works of related researchers in journals, textbooks, monographs, maps and necessary visual and pictorial images were sourced from the Ministry of Tourism, Urban and physical planning unit Ondo State and other data were sourced from the internet.

#### **3.8.3 Data Collection Instrument**

The instrument for the collection of information was a structured questionnaire designed for the study. The questionnaire was divided into five parts. Part I contained general information of respondents on socio-demographic characteristics, Part II comprises questions to measure uses of neighbourhood public spaces in the study area,

functions and activities in NPS, proximity, accessibility and inclusiveness in NPS, while Part III are questions to measure users satisfaction variables in NPS, on essential amenities in NPS, Part VI questions are to measure the impact of NPS on city image variables (physical, environment and image assessment) and Part V are questions to measure factor influencing effective management of NPS. Images of spaces within the zones as shown in plates 1.1-1.12 were presented to respondents to examine based on variables used by artists in image evaluation and the last part IV was on variables that can measure factors influencing the management of public spaces.

### **3.8.4 Data Process**

The process of data involved the use of statistical software package for social scientists (SPSS). Data obtained was analysed in univariate and bivariate level of analysis, using the following formulas

#### **1. Spearman rank correlation**

Spearman rank correlation was used to check the significant, direction and strength of the relationship between two variables. It was used to check the significance relationship between the availability of neighbourhood public spaces and their usage in the study area and to check the significant difference between the environment of neighbourhood public spaces and the city image. Hypotheses 1 and 3 were tested with ordinal scales to check the strength and direction of the relationship between variables.

Spearman's rho correlation: The formula is given as

$$\rho = 1 - \frac{6 \sum_{i=1}^n d_i^2}{n(n^2 - 1)}$$

Where, n is the total number of observations or cases;

P is the spearman's rho correlation coefficient; and

$d_i$  is the difference in the  $r_x$  and  $r_y$ .

## 2. Weighted mean

Weighted mean aid in making decisions where attributes have more significance than others. It was used in this research to check the significance of each of the variables studied.

1) Weighted mean score: the formula is given as thus

$$\bar{X}_w = \frac{\sum_{i=1}^n w_i X_i}{\sum_{i=1}^n w_i}$$

Where  $w_i$  is the weight of all variables ith;

$X_i$  is the value of all the variables; and

$\bar{X}_w$  is the weighted item score.

## 3. Relative importance index

The relative importance index (RII) was used in this research to determine the relative importance of the quality of factors involved. The points of Likert scale used are equal to the value of W, weighting given to each factor by respondents

2) Relative importance index: The formula is given as:

$$RII = \frac{\sum_{i=1}^n f x_i}{\sum_{i=1}^n f_i} \times \frac{1}{k}$$

Where

$\sum_{i=1}^n f x_i$  Is the total weight given to each attribute by the respondents?

$\sum_{i=1}^n f_i$  Is the total number of respondents in the sample

K is the highest weight on the Likert Scale

4. Kruskal-Wallis H test sometimes also called the “one-way ANOVA on ranks”) is a rank –based nonparametric test that can be used to determine if there are statistically significant

differences between two or more groups of an independent variable on a continuous or ordinal dependent variable. It is considered the nonparametric alternative to the one-way ANOVA, and an extension of the Mann-Whitney U test to allow the comparison of more than two independent groups.

5. Kendall's tau-b correlation coefficient is a nonparametric measure of the strength and direction of association that exists between two variables measured on at least an ordinal scale. It is considered a nonparametric alternative to the Pearson's product-moment correlation when your data has failed one or more of the assumptions of this test. It is also considered an alternative to the nonparametric spearman rank-order correlation coefficient.

### 3.8.5 Method of data collection

Both descriptive and inferential techniques were used in analysing the research objectives with statistical package for social sciences (SPSS) 20.0 software. As stated briefly in Table 3.1.

Table 3.0.1: Data collection and methods of analysis

Research objectives	Data type	Research instrument	Method of Data Analysis	Software	Respondents/ Sources of Data
Assess the uses of existing neighbourhood public Spaces and their availability in the study area.	Ordinal Nominal Interval	Questionnaires	RII  Spearman Correlation  Kendall-tau	SPSS	All respondents
Examine users' satisfaction level in neighbourhood public spaces in the zones	Ordinal	Questionnaires	Kruskal Wallis Post- hoc Descriptive Analysis  Spearman Rank Correlation	SPSS	All respondents
Examine the impacts of the environment of neighbourhood public spaces on Akure city image	Ordinal	Questionnaires	Descriptive statistics. Kendall-tau Spearman Correlation	SPSS	All respondents
Examine the various factors affecting the effective management of neighbourhood public spaces	Ordinal	Questionnaires	Kruskal Wallis Factor analysis Descriptive Analysis  Spearman Rank Correlation	SPSS	All respondents
Propose practical measures on how to guide the Government and other stakeholders on Neighbourhood public space enhancement	Nil	Charrette	Design process  Thematic Analysis	Nil  MS Excel	Built environment Professionals, recreation/ Government officers.

### **3.8.6 General questions**

The general socio-demographic information required from the participants for this study included information about age, sex, employment status, level of education, marital status and income level.

#### **3.8.5.1 Uses of neighbourhood public spaces**

This section is comprised of variables to measure the use of neighbourhood public spaces in the zones. This was further divided into uses and activities. It is important to investigate other activities that take place in NPS. This section equally contains other relevant questions to elicit information from the respondents. Variables such as relaxation, exercise, closeness to nature, adventure, meet people and being alone were measured under uses, while under activities in NPS variables such as political activity, religious activity, cultural activity, social activity and economic activity in NPS was measured.

#### **3.8.5.2 User's satisfaction with neighbourhood public spaces**

The section comprised of variables to measure users satisfaction in NPS, it is pertinent to investigate how satisfied respondents are with NPS, in terms of its physical environment, essential items that can bring comfort and provide ease of access for old and disable in NPS such as Good lighting, Signage Railings/stairs, Ramps/wheelchair, Greenery Sidewalk/footpath, Shops/Stores/eatery, orderliness, cleanliness, manmade features, amenities and free of indiscriminate waste disposal methods.

#### **3.8.5.3 Impact of the environment of neighbourhood public spaces on city image.**

This section was to investigate the impact of the environment of NPS on city image. The environment of NPS contributes to the city image, to see how respondents can describe the image of Akure using the element of designs, variables such as harmony, balance, variety, proportion and rhythm, while variables such as landscape area, artificial

light, playground, manmade features, historical elements, physical and environmental elements, natural features and noise/quietness were examined.

### **3.9 Charrette Design Methodology**

Charrette is an intensely focused activity intended to build agreement among participants, aimed at developing specific design goals and solutions for a project, and motivate participants and stakeholders to be committed to reaching those goals. Participants represent all those who can influence the project design decisions (Lindsey, Todd, and Hayter (2003). Charrette is often conducted in the process of designing spaces like parks and buildings or to plan communities where the open exchange of ideas and aspirations are outlined (Girling, Kellett and Johnstone 2006). A charrette is a participatory planning process that assembles an interdisciplinary team Charrette involves a wide range of stakeholders typically consists of architects, planners, city officials, architects, parks and recreation officials and other stakeholders to create a design and implementation plan for a specific project, (Hughes 2017). A team of design experts meet with community groups, developers, and neighbours over a period lasting from a day to a couple of weeks, gathering information on the issues that face the community. Charrette participants work together to find design solutions that will address the issues that stakeholders have identified as priorities and result in a clear detailed, realistic vision for future development.

#### **3.9.1 Charrette Design Steps**

The neighbourhood public space design charrette is to help stakeholders to examine how public space improvement can enhance the city image within the neighbourhood. A one-day charrette workshop with multi-discipline professional volunteers to redesign specific neighbourhood public space with urban design principles as a tool to guide in making recommendations and the development of a final report of the re-designing of two

neighbourhood public spaces in Akure based on the recommendations from participants, this is to give room for generalization of research findings.

Design professionals from different disciplines (planning, Landscape architecture, architecture) were invited to participate in the one-day event. Participants were selected through systematic sampling techniques. In a mini-lesson where a video clip of public spaces over the world was shown, the participants were briefed before the charrette on the urban design principles for public spaces and were guided by a facilitator. A proposal design was presented to the group to deliberate upon and consequently make recommendations.

### **3.10 Pilot Study**

The survey was conducted in 5(five) neighbourhood public spaces identified: Games Reserve Amusement Park, Oyemekun Rocks, Democracy Park, Ministry of Agricultural Biological garden and House of Assembly arcade from the three selected zones in Akure; the core, the transitional and the peripheral zones. Twenty (20) copies of the questionnaires were administered in the study area. Cronbach's Alpha test was used to test the reliability of the questions for the study.

The outcome of the pilot survey on the general information revealed, that 25% of the respondent resides around Oyemekun rocks, 20% resides in Games amusement park, 15% Democracy Park and 15% around House of Assembly arcade. 70% of the respondents are male while 30% are female. The pilot survey further revealed that 45% of the respondents are below 30years of age, 10% between 31-40 years, 20% are between 41-50 years, and 5% are between 61-70 years while 20%are 71 years and above. The information from the pilot survey further shows that 30% of the respondent are employed, 35% are self-employed, 10%i n Civil/Public service, 5% are in private sector employment and 20% are retired. Level of education 5% of the respondents have primary education,

20% tertiary 60% and 15% have postgraduate education. About 40% of the respondents are single, 55% are married and 5% are either widow/widower as indicated in their marital status.

### 3.10.1 Validity and Reliability of the major questionnaire.

The acceptable, validity and reliability recommendation for Cronbach’s Alpha Reliability Coefficients is shown in Table 3.1. Cronbach and Shavelson (2004) noted that the alpha coefficient ranges in value from 0 to 1 and that alpha (x) coefficient value of between 0.6 and 0.7 is acceptable

Table 3.0.2: Recommendation for Cronbach’s Alpha Reliability Coefficients

<b>Cronbach’s Alpha Value</b>	<b>Grading</b>	<b>Recommendation</b>
Greater than 0.9	Excellent	No Revision Required
0.899-0.8	Good	No Revision Required
0.799-0.7	Acceptable	No Revision Required
0.699-0.6	Questionable	Minor Revision Required
0.599-0.5	Poor	Major Revision Required
Less than 0.5	Reject	Reject

The Cronbach Alpha test for reliability was conducted with the research major questionnaire for this study and data obtained through the pilot survey and the results are shown in Table 3.2. The Cronbach's Alpha test Value obtained for part 1 on the general question is 0.669. This scale has a slightly weak coefficient value, not within the acceptable limits of the face validity, consistency and reliability in the recommendation for Cronbach’s Alpha Reliability Coefficients.

Part 2, usage of Neighbourhood public spaces (functions/patronage, proximity/accessibility and inclusiveness) shows 0.750 when the Cronbach's Alpha test was conducted, which required no revision.

Part 3, users' perception shows 0.826, which required no revision as shown in table 3.2.

Part 4: the impact of Neighbourhood public spaces shows 0,840, which required no revision shown in table 3.2.

Part 5: factors militating against effective management of Neighbourhood public spaces shows 0.652, this required minor revision.

Table 3.0.3: Cronbach's Alpha Reliability test

<b>S / N</b>	<b>Section/Part</b>	<b>Cronbach's Alpha Value</b>	<b>Recommendation</b>
1.	Part 1	.669	Minor Revision Required
2.	Part 2	.750	No Revision Required
3.	Part 3	.813	No Revision Required
4.	Part 4	.840	No Revision Required
5.	Part 5	.652	Minor Revision Required
6.	Part 1 and 2	.701	No Revision Required
7.	Part 2 and 3	.707	No Revision Required
8.	Part 3 and 4	.762	No Revision Required
9.	Part 3 and 5	.788	No Revision Required
10.	Part 4 and 5	.670	Minor Revision Required

### 3.11 Research Variables

A research variable is defined as anything that has a quantity or quality that varies, Creswell 2014, .52) in Fakere et al (2017) defined it as a characteristic or attribute of an individual or organization that can be measured or observed and that varies among the people or organization being studied. Table 3.0.4 shows the definitions and operationalization of the research variables. Each variable is related to each question in the questionnaire.

Table 3.0.4: Definition of Variables

<b>Variables</b>	<b>Definition of Variables</b>
V1	Gender of respondents
V2	Age of respondents
V3	Employment status of respondents
V4	Educational qualification
V5	Marital status of respondents
V6	Income level of respondents
V7	Availability of NPS
V8	Purpose of visiting-Relaxation
V9	Purpose of visiting-Exercise
V10	Purpose of visiting-Close to nature
V11	Purpose of visiting-Adventure
V12	Purpose of visiting-Meet people
V13	Purpose of visiting- Beautiful Scenic
V14	Purpose of visiting-Alone
V15	activities in NPS- Political
V16	activities in NPS-Religious
V17	activities in NPS-Cultural
V18	activities in NPS- Social
V19	activities in NPS-Economic
V20	Good lightning for comfort

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V21	Adequate signage for comfort and access
V22	Railings and stair for ease of circulation.
V23	Ramps/wheel chair for ease of circulation.
V24	Green area for comfort and relaxation.
V25	Side walk for ease of circulation.
V26	Shops, stores /eatery for convenience
V27	The neighbourhood public space are visually appealing and inviting
V28	Orderliness in neighbourhood public space
V29	Serene atmosphere in NPS
V30	View of natural elements in neighbourhood public space.
V31	Adequate Amenities facilities in Public Space
V32	High level of Safety in Neighbourhood Public Space.
V33	Opinion on Arts element display in Public Space
V34	Proper waste disposal methods in NPS.
V35	Varieties of architectural display.
V36	NPS is well enclosed.
V37	Useful activity in NPS
V38	NPS is physically attractive
V39	Harmony in visual image of NPS
V40	Balance in visual image of NPS
V41	Rhythm in visual image of NPS
V42	Variety in visual image of NPS
V43	Proportion in visual image of NPS
V44	Physical and environmental elements in NPS
V45	Cleanliness in NPS
V46	Natural features in NPS improves usage
V47	Man-made features in NPS
V48	Natural and artificial light in NPS
V49	Green area in NPS
V50	Historical elements in NPS
V51	Playground in NPS
V52	Attractive NPS

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V53	Noise control in NPS
V54	Safety from traffic encourage using NPS
V55	Landscape area in NPS
V56	Serene environment in NPS
V57	NPS properly managed by concerned authorities
V58	Management of neighbourhood public spaces
V59	Economy decline
V60	Environmental decay
V61	Encroachment on Neighbourhood Public space
V62	Government Policy on Neighbourhood Public space
V63	Adequate spaces in NPS
V64	Basic Amenities in Neighbourhood Public space
V65	Population Growth
V66	Cost of maintenance
V67	Adequate security
V68	Conversion in use
V69	City growth
V70	The growth of Akure
V71	Unkempt Environment

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### **3.11 Definitions of Research Variables**

The socio-economic characteristic variables (age, sex, marital status, income, level of education etc.) and variables on the purpose of using neighbourhood public space and activities, others include users satisfaction in neighbourhood public spaces, the impact of the environment of neighbourhood public space on city image and factors influencing the management of neighbourhood public spaces variable were measured in this study.

All variables involved were defined and coded in Table 3.0.5. In the coding process, a value indicating the scale of measurement that was used is assigned to each option indicated in the variable.

### 3.11.1 Operationalization of variables

Table 3.0.5: Socio-economic Characteristics

S/N	Variable	Code	Definition of Variable	Variable Type	Scale of Measurement
<b>Part 1:</b>					
1.	Sex	SEX	Gender of respondents	Nominal	2-point Scale Male=1, female=2
2.	Age	AGE	Age of respondents	Ordinal	4-points scale 21-30=1, 31-40=2, 41-50=3, 50 and above=4
3.	Employment Status	EMPLOY	Employment status of respondents	Nominal	4-points scale Unemployed=1, self-employed=2, civil/public servant=3, private sector employee=4
	Level of Education	EDU	Educational qualification	Ordinal	6-point scale No formal education=1, primary school=2, secondary school=3, NCE/OND = 4, HND/BSc =5, MSC/PhD=6
4.	Marital status	MAR_S TAT	Marital status of respondents	Nominal	5-point scale Single=1, married=2, Widow=3, Widower=4, Divorced=5
5.	Income level	INCOME	Income level of respondents	Ordinal	5-point scale Less than ₦50,000=1, ₦ 50,000–₦ 99,999=2, ₦ 100,000–₦ 149,999=3, ₦ 150,000–₦ 199,999=4,

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**Part 2: Usage of Neighbourhood public spaces (functions/patronage, proximity/accessibility and inclusiveness)**

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6.	Availability of Neighbourhood public spaces	AVAIL_NPS	Neighbourhood public space is available	Ordinal	<b>4-point scale</b> Not very sure =1, Not sure =2, Uncertain =3, Sure =4, Very sure =5
7.	Purpose - Relaxation	PURP_REL	Purpose of relaxing to neighbourhood public space?	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
8.	Purpose - Exercise	PURP_EXER	Purpose of exercise to neighbourhood public space	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
9.	Purpose – Close to nature	PURP_CLOSE_NATURE	Purpose to close to nature neighbourhood public space	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
10.	Purpose - adventure	PURP_ADVENTURE	Purpose of adventure in neighbourhood public space	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
11.	Purpose – Meet people	PURP_MEET	Purpose to meet people in	Ordinal	<b>5 Point Scale</b> Strongly disagree =1,

			neighbourhood public space		disagree =2, Undecided =3, agree =4, Strongly agree =5.
12.	Purpose - Beautiful	PURP_B EAU	Purpose beautiful scenic of neighbourhood public space	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
13.	Purpose - Alone	PURP_A LONE	Purpose to be alone neighbourhood public space	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
14.	Purpose - Political	ACT_PO L	Political activity in neighbourhood public space	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
15.	Purpose - Religious	ACT_RE L	Religious activity in neighbourho od public space	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
16.	Purpose - Cultural	ACT_CU L	Cultural activity in neighbourho od public space	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
17.	Purpose – Social	ACT_SO CIAL	Social activity in neighbourho	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided

			od public space		=3, agree =4, Strongly agree =5.
18.	Purpose - Economic	ACT_EC ON	Economic activity in neighbourhood public space	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
19.	Good lightning	GOOD_L IGHT	Good lightning for comfort	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
20.	Adequate signage	ADEQ_SI GN	Adequate signage for comfort and access	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
21.	Railings/stairs	RAIL_ST AIR	Railings and stair for ease of circulation.	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
22.	Ramps/wheel chair	RAMPS	Ramps/wheel chair for ease of circulation.	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5.
23.	Greenery	GREEN	Green area for comfort and relaxation	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly

agree =5

24.	Sidewalk/foot path	SIDE_WALK	Sidewalk for pedestrian circulation	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5
25.	Shops/stores /eatery	SHOP_ATEERY	Shops/stores /eatery for comfort	Ordinal	<b>5 Point Scale</b> Strongly disagree =1, disagree =2, Undecided =3, agree =4, Strongly agree =5

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### Part 3: Users' satisfaction

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26.	Visually Appealing	VISUAL	The neighbourhood public space are visually appealing and inviting	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
27.	Orderliness	ORDER	Orderliness is an important factor in neighbourhood public space	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
28.	Serene	SERENE	Serene atmosphere in NPS increase patronage	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
29.	Natural environments element	NATURE	View of natural elements in neighbourhood public space.	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.

30.	Amenities	AMEN	How satisfied are the amenities in Public Space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
31.	Safety	SAFE	How satisfied are you with the level of Safety in Neighbourhood Public Space?	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
32.	Artistic features	ART	Opinion on Arts element display in Public Space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
33.	Waste disposal	WASTE	Waste disposal method in neighbourhood public space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
34.	Architectural varieties	VARIETY	Presence of architectural varieties in neighbourhood public space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
35.	enclosure	ENCLOSURE	Feeling of enclosure/privacy in neighbourhood public space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5

36.	Activities	ACTIVIT Y	Opinion on the activities in your neighbourhood public space.	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
37.	Attractive	ATTRA	Attractive neighbourhood public space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
38.	Harmony	HAR	Harmony neighbourhood public space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
39.	Balance	BAL	Balance of element in neighbourhood public space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
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40.	Rhythm	RHYTH M	Rhythm in neighbourhood public space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
41.	Variety	VARIET Y	Variety neighbourhood public space	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1, Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
42.	Proportion	PROP	Proportion in neighbourhood	Ordinal	<b>5 Point Scale</b> Very Unsatisfactory =1,

			public space		Unsatisfactory =2, Undecided =3, Satisfactory =4, Very Unsatisfactory =5
43.	Physical and environmental element	PHYSIC	Well-coordinated physical environment in public spaces		Very poor =1, poor =2, uncertain =3, good =4, very good=5
44.	Cleanliness	C LEAN	Degree of cleanliness in NPS	Ordinal	Very poor =1, poor =2, uncertain =3, good =4, very good=5
45.	Natural Features	NATURE	Natural features in NPS improves usage	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
46.	Manmade features	MANM	Manmade features in neighbourhood public space	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
47.	Natural and artificial light	LIGHT	Presence of natural and artificial lights in public spaces	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
48.	Green area	GREEN	Presence of green area in public spaces	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
49.	Historical elements	HIST	Presence of historical elements in public spaces	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
50.	Playground	PLAY	Presence of playground in	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3,

			public spaces		agree =4, Strongly agree =5.
51.	Attractiveness	ATTRACT	Neighbourhood Public Space adds to the attractiveness of Akure	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
52.	Noise and quietness	NOISE	Noise and quietness in NPS improve privacy	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
53.	Traffic	TRAFFIC	Safety from traffic encourage using NPS	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
54.	Landscape/Green area	GREEN	Green area in NPS improves environmental and health of users	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
55.	Serene environment	SERENE_ENVIR	Neighbourhood public spaces in Akure are in a serene environment.	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.

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**Factors affecting effective management of Neighbourhood Public Space**

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56.	Concerned authorities	AUTORITY	Neighbourhood public spaces in Akure are properly managed by concerned authorities	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
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57.	Managem ent	MGT	Management of neighbourhood public spaces in Akure has no effect on the image of Akure city.	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
58.	Economic decline	ECON_D EC	Effect of finance on Neighbourhood Public space	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
59.	Environe mental Decay	ENVIRO N_DECA Y	Environmental decay affects the management of Neighbourhood Public space	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
60.	Encroach ment	ENCRO	Encroachment on Neighbourhood Public space affect its management	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
61.	Governme nt Policy	GOVT_P OLICY	Government Policy on Neighbourhood Public space affect its management	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
62.	Adequate space	ADEQU ATE_SP ACE	Lack of adequate spaces in neighbourhood public spaces affects patronage	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
63.	Basic Amenities	AMENIT IES	Basic Amenities in Neighbourhood Public space affect	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree

			its management		=5.
64.	Population Growth	POPU_GROWTH	Population Growth effect on Neighbourhood Public space affect its management	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
65.	Cost of maintenance	COST	Cost of maintenance affect the quality of neighbourhood public spaces	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
66.	Security	SECURITY	Adequate security in neighbourhood public spaces increases patronage.	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
67.	Conversion in Use	CONVERSION	Conversion in use of Neighbourhood Public space affect its management	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
68.	Growth	GROWTH	The growth of Akure city improves the management of neighbourhood public spaces	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
69.	Location	LOCATION	The location of neighbourhood public spaces in Akure affect its management	Ordinal	Strongly disagree =1, disagree =2, Uncertain =3, agree =4, Strongly agree =5.
70.	Unkempt	UNKEM	Filthy and	Ordinal	Strongly disagree =1,

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PT	unkempt Environment affect management of neighbourhood public space	disagree =2, Uncertain =3, agree =4, Strongly agree =5.
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## CHAPTER FOUR

### 4.0 DATA ANALYSIS, RESULTS AND DISCUSSIONS

#### 4.1 Introduction

In this section, the data presentation and analysis of the objectives are developed based on the questionnaires distributed among the three zones during the field survey. The questionnaires were administered in transitional, peripheral and core zones of Akure, Ondo State, Nigeria and were analysed with appropriate statistical tools in accordance with the research hypothesis.

A total of 384 questionnaires were distributed to the respondents and 334 questionnaires were used after the data cleaning and management process had been done. This implies that all missing variables were deleted before analysis. This, however, showed that 90% of the questionnaires distributed were returned as shown in Table 4.1.

Table 4.1: Rate of Response from questionnaires

<b>Zone</b>	<b>Total administered</b>	<b>Returned</b>
Core Zone	73	50
Transitional Zone	94	85
Peripheral Zone	217	199
<b>Total</b>	<b>384</b>	<b>334</b>

Source: Researcher's Field Work, (2019)

#### 4.2 Socio-demographic Characteristics of the Respondents

This section discussed the personal information of the respondents using the variables which include gender, age, employment status, educational qualification, marital status, and income level as described in Table 4.2. Table 4.2 shows the frequency and percentage distribution of each of the zone used in the study area. The core zones showed

that males had the highest percentage distribution of 62% while female respondents were 38%. In the transitional zone, the majority of the respondents were male with the frequency and percentage distribution of 55 (64.7%) while 35.3% of the respondents were female. For the peripheral zone, the larger percentage of the respondents was male with 63.3% while 36.7% were female. This implied that the majority of the respondents were male in the study area. This might be because a male could be easily approached than a female since male always gives attention to people than female. For this study, the respondents in the three zones were asked their age. The age distributions were of different ranges. The core zone also showed the percentage distribution of the respondents in different age-group. About 34.0% of the respondents responded to  $\leq 30$  years; while other proportions as shown in Table 4.1 was 38.0%, 18.0%, 6.0%, 4.0% and 0.0% respectively. For transitional zone, 37.6% of the respondents responded to  $\leq 30$  years followed by respondents who responded to the 31 – 40 years with the percentage distribution of 30.6 while 15.3% of the respondents fall within the age group of 41 – 50; 10.6% of the respondents fall within the age group of 51 – 60 years; 4.7% of the respondents were in the age-group of 61 – 70 years. The least of all the respondents were above 70 years with a percentage distribution of 1.2. This implied that the majority of the respondents were  $\leq 30$  years since it had the highest percentage distribution. For peripheral zone, 48.2% of the respondents were  $\leq 30$  years; 25.1% of the respondents responded to 31 – 40 years; 13.6% of the respondents fall in the age group of 41 – 50 years; 7.5% of the respondents fall in the age-group of 51 – 60 years; 2.5% and 3.0% of the respondents fall in the age-group of 61 - 70 years and above 70 years respectively. The findings reveal that the age group which were between 70 years and above were not involved in leisure and physical activities. It has been observed that engagement in physical activities declines with age (Paul and Nagendra, 2017). From the results, the

majority of the respondents are youth, it is therefore inferred that the NPS in the zones are dominated by young people.

The question was asked from the respondents about their employment status Table 4.2 shows different categories of employment status. In the core zone, it was shown that 24% of the respondents were unemployed; 34% of them were self-employed while 26%, 10%, and 6% of the respondents were civil/public servants, private/cooperate sector, and retired respectively. For the transitional zone, it was showed that 15.3% of the respondents were unemployed; 64.7% of the respondents were self-employed; 11.8% of the respondents were civil/public servants while 7.1% and 1.2% of the respondents were private / Cooperate sector and retired respectively. For the peripheral zone, 25.1% of the respondents were unemployed, 35.2% of the respondents were self-employed; 18.1% of the respondents were civil/public servants while 15.6% and 6.0% of the respondents were private/cooperate sector and retired respectively.

For educational qualification of the respondents, in the core zone, 38.0% of the respondents have HND / BSC; followed by 26.0% of the respondents who were secondary, school holders NCE/OND holders, 6.0% of the respondents have postgraduate education while 4.0% of the respondents were primary school holder with no respondents from any formal education. In the transitional zone, 43.5% of the respondents are HND / BSC holders, followed by respondents who had secondary with 31.8% and 15.3% of the respondents were NCE / OND holders. Other educational levels were postgraduate with 8.2%, primary school with 1.2. There are none without formal education. The proportion of each educational qualification for the peripheral zone is shown in Table 4.2. 41.2% of the respondents are HND / BSC degree holder, followed by 23.6% of the respondents who responded to secondary; 19.1% of the respondents responded to NCE / OND while 13.6%; 2.0%, and 0.5% of the respondents were postgraduate, primary and no formal

education respectively. The findings reveal that majority of the respondents who used the neighbourhood public spaces are educated. This could be an indication that the educated ones are more knowledgeable and participated more actively in recreational activities.

Meanwhile, the marital status of the respondents is considered as another aspect of socio-demographic characteristics as indicated in Table 4.2. As indicated, in the core zone, 44.0% of the respondents were single, 46.0% of them were married and 10.0% were widow / widowed while there was no respondent for divorced and separated. For the transitional zone, it was shown that 42.4% of the respondents were single; 54.1% of them were married; 3.5% of them were widow/widower while there were no respondents for divorced and separated. The percentage distribution of respondents for the peripheral zone showed that 50.8% of the respondents were single; 44.2% of the respondents were married while widow/ widower and divorced had the number of respondents with 2.0% and 1.0% of the respondents were separated. This implied that the majority of the respondents for transitional and core zone were married with 54.1% and 46.0% respectively while the peripheral zone showed that the larger percentage of the respondents were single. However, the last socio-demographic characteristics of the respondents are the monthly income levels. The core zone showed that 52.0% of the respondents earned < N50,000; 42.0% of them earned N50,000 – N99,000 and 6.0% of the respondents earned N100,000 – N149,000 while there was no respondent for N150,000 – N199,000 and N250,000 and Above respectively. For transitional zone 44.7% of the respondents earned < N50,000; 35.3% earned N50,000 – N99,000 as their monthly income; 8.2% of the respondents earned N100,000 – N149,000 while 2.4% and 9.4% of the respondents earned between N150,000 – N199,000 and N250,000 and Above respectively. This implied that the majority of the respondents earned < N50, 000 as their monthly income level; the second amount earned was between N50, 000 – N99, 000 and the least amount earned was N150, 000 – N199, 000. For Peripheral zone, the respondents

responded that 46.7% of them earned < N50,000; 30.2% of them earned N50,000 – N99,000 while 13.6%, 4.0% and 5.5% of the respondents earned N100,000 – N149,000; N150,000 – N199,000 and N250,000 and Above respectively. This explained that the majority of the respondents earned < N50, 000 as their monthly income.

Table 4.2: Socio-demographic Characteristics of the Respondents

<b>Frequency and Percentage Distribution</b>			
<b>Socio-demographic Characteristics</b>	<b>Core Zone</b>	<b>Transition al Zone</b>	<b>Peripheral Zone</b>
<b>Gender</b>			
Male	31 (62.0)	55 (64.7)	126 (63.3)
Female	19 (38.0)	30 (35.3)	73 (36.7)
<b>Total</b>	<b>50 (100)</b>	<b>85 (100)</b>	<b>199 (100)</b>
<b>Age distribution</b>			
≤ 30 years	17 (34.0)	32 (37.6)	96 (48.2)
31 – 40 years	19 (38.0)	26 (30.6)	50 (25.1)
41 -50 years	9 (18.0)	13 (15.3)	27 (13.6)
51 – 60 years	3 (6.0)	9 (10.6)	15 (7.5)
61 – 70 years	2 (4.0)	4 (4.7)	5 (2.5)
Above 70 years	0 (0.0)	1 (1.2)	6 (3.0)
<b>Total</b>	<b>50 (100)</b>	<b>85 (100)</b>	<b>199 (100)</b>
<b>Employment Status</b>			
Unemployed	12 (24.0)	13 (15.3)	50 (25.1)
Self-Employed	17 (34.0)	55 (64.7)	70 (35.2)
Civil/Public Servant	13 (26.0)	10 (11.8)	36 (18.1)
Private / Cooperative Sector	5 (10.0)	6 (7.1)	31 (15.6)
Retired	3 (6.0)	1 (1.2)	12 (6.0)
<b>Total</b>	<b>50 (100)</b>	<b>85 (100)</b>	<b>199 (100)</b>
<b>Educational Qualification</b>			
No formal Education	0 (0.0)	0 (0.0)	1 (0.5)

Primary	2 (4.0)	1 (1.2)	4 (2.0)
Secondary	13 (26.0)	27 (31.8)	47 (23.6)
NCE / OND	13 (26.0)	13 (15.3)	38 (19.1)
HND / BSC	19 (38.0)	37 (43.5)	82 (41.2)
Postgraduate	3 (6.0)	7 (8.2)	27 (13.6)
<b>Total</b>	<b>50 (100)</b>	<b>85 (100)</b>	<b>199 (100)</b>
<b>Marital Status</b>			
Single	22 (44.0)	36 (42.4)	101 (50.8)
Married	23 (46.0)	46 (54.1)	88 (44.2)
Widow / Widower	5 (10.0)	3 (3.5)	4 (2.0)
Divorced	0 (0.0)	0 (0.0)	4 (2.0)
Separated	0 (0.0)	0 (0.0)	2 (1.0)
<b>Total</b>	<b>50 (100)</b>	<b>85 (100)</b>	<b>199 (100)</b>
<b>Income Level</b>			
< N50,000	26 (52.0)	38 (44.7)	93 (46.7)
N50,000 – N99,000	21 (42.0)	30 (35.3)	60 (30.2)
N100,000 – N149,000	3 (6.0)	7 (8.2)	27 (13.6)
N150,000 – N199,000	0 (0.0)	2 (2.4)	8 (4.0)
N250,000 and Above	0 (0.0)	8 (9.4)	11 (5.5)
<b>Total</b>	<b>50 (100)</b>	<b>85 (100)</b>	<b>199 (100)</b>

Source: Researcher's Field Work, (2019).

#### 4.2.1 Analysis of Socioeconomic characteristic of respondents

The result of data collected on the socio-economic characteristics of respondents in Table 5 reveal that majority of the respondents were male 63.3%, who actively engages in more physical activities than the female 36.5%, this shows that there is a little disparity in both gender representations of the sample. The findings revealed that the majority of the respondents in the study area were youth who are less than 30 years of age used

neighbourhood public spaces more than other age groups; an interview question asked, *"With your experience will it be easy and convenient for you to recommend other people. Especially old and disable to visit this place (NPS) or will it be difficult"* the extract from the interview report that facilities in NPS are not suitable for the elderly and people with disabilities, this shows that respondents who are above 70 years cannot use neighbourhood public spaces in the three zones of Akure. It is also revealed that the majority of the respondents are self-employed, educated, and single. A very significant number of respondents earned below N50, 000 (low-income earners), the socio-economic profile reveals that most of the users are low-income group

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### 4.3 The Use of Existing Neighbourhood Public Study Area

This section was divided into the purpose and activity of the neighbourhood public space in Akure, Ondo State which consists of core zone, transitional zone and peripheral zone... This is analysed using frequency distribution, percentage distribution, total score, relative importance index, standard deviation, and ranking.

#### 4.3.1 Analysis of the use of the Existing Neighbourhood Public Spaces in the Core Zone

The analysis consists of frequency and percentage distribution with the standard deviation of the relative importance index. Different variables were used to measure the main purpose of the existing NPS in the core zone as indicated in **Error! Reference source not found.** The result shows that to meet people was rated the highest of all the variables with the RII value of (0.732) with the standard deviation of (1.025) being rated "Agreed" by the highest frequency and percentage distribution of 27 (54.0 per cent). Purpose of meeting people is followed by beautiful scenic (0.640 RII;  $\pm 1.066$  std) being rated "Agreed" by 17 (34.0 per cent); relaxation (0.608 RII;  $\pm 1.408$ std) being rated "Agreed" by 20 (40.0 per cent); closeness to nature (0.520 RII;  $\pm 1.242$  std) being rated "Agreed" by 12 (24.0 per cent); Exercise (0.508 RII;  $\pm 1.193$ std) being rated "Disagreed" by 16 (32.0 per cent); Adventure (0.492 RII;  $\pm 1.054$ std) being rated "Disagreed" by 15 (30.0 per cent), and the least of all the factors analysed is alone having the value of its relative importance index as (0.488), and the standard deviation of (1.250) being rated "Strongly Disagreed" by the highest frequency and percentage distribution of 15 (30.0 per cent). The result proves people visit the NPS in the corearea to meet people, the beautiful scenic, and relaxation, Yuen (1996) posit that neighbourhood parks are used for everyday activities of rest and relaxation, play and contact with others. This implies that

respondents do not visit the place for exercise, adventure, and they do not visit the place alone as seen in the results.

Table 4.3: Use of neighbourhood public space in the core zone

Purpose	Frequency and Percentage distribution					Relative Importance Index			
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Total Score	Statistic	Std. dev	Rank
Meet people	2 (4.0)	6 (12.0)	7 (14.0)	27 (54.0)	8 (16.0)	183	0.732	1.025	1
Beautiful scenic	3 (60.0)	11 (22.0)	14 (28.0)	17 (34.0)	5 (10.0)	160	0.640	1.066	2
Relaxation	9 (18.0)	14 (28.0)	0 (0.0)	20 (40.0)	7 (14.0)	152	0.608	1.408	3
Closeness to nature	10 (20.0)	18 (36.0)	7 (14.0)	12 (24.0)	3 (6.0)	130	0.520	1.242	4
Exercise	11 (22.0)	16 (32.0)	10 (20.0)	11 (22.0)	2 (4.0)	127	0.508	1.193	5
Adventure	11 (22.0)	15 (30.0)	15 (30.0)	8 (16.0)	1 (2.0)	123	0.492	1.054	6
Alone	15 (30.0)	14 (28.0)	7 (14.0)	12 (24.0)	2 (4.0)	122	0.488	1.250	7

Source: Researcher's Field Survey, 2019.

#### **4.3.2 Analysis of the use of neighbourhood public spaces in the transition zone**

The findings from the transition NPS, the highest-rated variable was to meet people with the relative importance index showing the value of 0.758 with the standard deviation of (0.969) being rated "Agreed" by the highest frequency and percentage distribution (mode) of 56 (65.8 percent); followed by relaxation (0.734 RII;  $\pm 1.147$ std) being rated "Agreed" by the mode (highest frequency and percentage distribution) of 48 (56.5 percent); beautiful scenic (0.701RII;  $\pm 1.180$  std) being rated "Agreed" by 35 (41.2 percent); closeness to nature (0.654RII;  $\pm 1.122$  std) being rated "Agreed" by 34 (40.0 percent); adventure (0.649RII; 1.190std) being rated "Undecided" by 28 (32.9 percent); exercise (0.640 RII;  $\pm 1.091$ std) being rated "Agreed" by 37 (43.5 percent), and alone (0.558RII;  $\pm 1.223$ std) being rated "Agreed" by 31 (36.5 percent). As shown in the result, it indicates that people visit the transition NPS to meet people, the study of Yuen(1996) described neighbourhood parks as a convenient place for play, recreation, socialization with people and having contact with nature.

Table 4.4: Analysis of Use of neighbourhood public spaces in the transitional zone

Purpose	Frequency and Percentage distribution					Relative Importance Index			
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Total Score	Statis tic	Std. dev	Rank
Meet people	5 (5.9)	5 (5.9)	6 (7.1)	56 (65.8)	13 (15.3)	322	0.758	0.969	1
Relaxation	9 (10.6)	5 (5.9)	7 (8.2)	48 (56.5)	16 (18.8)	312	0.734	1.147	2
Beautiful scenic	6 (7.1)	14 (16.5)	18 (21.1)	35 (41.2)	12 (14.1)	298	0.701	1.180	3
Closeness to nature	9 (10.6)	11 (12.9)	22 (25.9)	34 (40.0)	9 (10.6)	278	0.654	1.122	4
Adventure	8 (9.4)	12 (14.1)	28 (32.9)	25 (29.4)	12 (14.1)	276	0.649	1.190	5
Exercise	8 (9.4)	16 (18.8)	18 (21.2)	37 (43.5)	6 (7.1)	272	0.640	1.091	6
Alone	15 (17.7)	25 (29.4)	11 (12.9)	31 (36.5)	3 (3.5)	237	0.558	1.223	7

Source: Researcher's Field Survey, 2019.

#### 4.3.3 Analysis of the use of neighbourhood public spaces in the peripheral zone

The purpose of visiting the peripheral NPS was identified in the section below as shown in Table 4.5. The result indicates that relaxation has the highest relative importance index showing the value of 0.965 with the standard deviation of (1.131) being rated “Agreed” by the highest frequency and percentage distribution of 107 (53.8 percent); followed by meet people (0.736 RII;  $\pm 0.999$ std) being rated “Agreed” by 105 (52.8 percent); exercise (0.663RII;  $\pm 1.088$ std) being rated “Agreed” by 86 (43.2 percent); beautiful scenic (0.634RII;  $\pm 1.110$ std) being rated “Agreed” by 87 (43.7 percent); closeness to nature (0.632RII;  $\pm 1.089$  std) being rated “Agreed” by 83 (41.7 percent); adventure (0.609RII;  $\pm 1.049$  std) being rated “Agreed” by 70 (35.2 percent), and alone

having the relative index value of (0.600) with the standard deviation of (1.178) being rated “Agreed” by the mode value (highest frequency and percentage distribution) of 59 (29.6 percent). This implies that respondents in the peripheral use neighbourhood public spaces in the zone for relaxation, meet people, exercise and because of the beautiful scenic of the place.

Table 4.5: Purpose of the Existing Peripheral NPS

Purpose	Frequency and Percentage distribution					Relative Importance Index			Rank
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Total Score	Statis tic	Std. dev	
Relaxation	17 (8.5)	30 (15.1)	20 (10.1)	107 (53.8)	25 (12.5)	690	0.965	1.131	1
Meet people	7 (3.5)	24 (12.0)	29 (14.6)	105 (52.8)	34 (17.1)	732	0.736	0.999	2
Exercise	12 (6.0)	39 (19.6)	42 (21.1)	86 (43.2)	20 (10.1)	660	0.663	1.088	3
Beautiful scenic	16 (8.1)	45 (22.6)	39 (19.6)	87 (43.7)	12 (6.0)	631	0.634	1.110	4
Closeness to nature	14 (7.1)	49 (24.6)	40 (20.1)	83 (41.7)	13 (6.5)	629	0.632	1.089	5
Adventure	13 (6.5)	57 (28.6)	48 (24.2)	70 (35.2)	11 (5.5)	606	0.609	1.049	6
Alone	22 (11.1)	55 (27.6)	45 (22.6)	59 (29.6)	18 (9.1)	593	0.600	1.178	7

Source: Researcher’s Field Survey (2019)

#### 4.3.4 Summary of the analysis of the use of neighbourhood public spaces in the three zones

Summary of the reasons for using the existing neighbourhood public spaces in the core zones, transitional zones, and peripheral zones is analysed in Table 4.6. The results show the frequency distribution, percentage distribution, relative importance index, and standard deviation. The relative importance index was used to determine the importance of the factor considered, and it is used when the variables are measured in Likert Scale, ranging from 1 – 5, where 1 is referred to as strongly disagreed, 2 – disagreed, 3 – undecided, 4 – Agreed, and 5 – strongly agreed as indicated in table 4.6. Meanwhile, the mode obtained from the frequency and percentage distribution was used to explain the importance of the factor. Different variables were used to measure the purpose of the neighbourhood public spaces in Akure. The findings from the analysis show that people visit the existing neighbourhood public spaces because of the purpose of meeting people. This is because meet people have the highest relative importance index when compared with other purposes with the value of 0.741 as shown in Table 4.6, and the standard deviation of (1.091) being rated "Agreed" with the highest frequency and percentage distribution of 188 (56.3 per cent); followed by relaxation (0.691 RII;  $\pm 1.150$  std) being rated "Agreed" by 175 (52.4 per cent); beautiful scenic (0.646 RII;  $\pm 1.187$  std) being rated "Agreed" by 139 (41.6 per cent); exercise (0.634 RII;  $\pm 1.177$  std) being rated "Agreed" by 134 (40.0 per cent); Closeness to nature (0.621 RII;  $\pm 1.189$  std) being rated "Agreed" by the frequency and percentage distribution of 129 (38.6 per cent); Adventure (0.602 RII;  $\pm 1.220$  std) being rated "Agreed" by 103 (30.8 per cent), and alone (0.570 RII;  $\pm 1.230$  std) being rated "Agreed" by 102 (30.5 per cent). This proves that the people mainly visit the existing neighbourhood public space in Akure, to meet people, relax, and because of the beautiful scenery in the public spaces. The findings have shown that most people do not visit the existing neighbourhood public spaces all alone instead they visit to

meet one person or the other as indicated in the result. The purpose of meeting people has been the main reason the majority of people visiting public spaces. A study done by Ezenma, Uwageh and Irouke, (2017) has found out that public spaces were used as a placeto socialize and point of contact. Some of the interviewees also reported that they can easily meet their friends in public spaces. (See appendix III). Further findings, showed that respondents desires a functioning and attractive public spaces that are comfortable and with a good image where physical activities can take place and are safe to use, the study of Wolch et al(2014) noted that the City may become more attractive as human activities increases. It is therefore pertinent to generalize that a good image of the city can prompt the desires for recreational activities, to relax and to socialize in NPS, Bedimo-Rung et al (2005) posits that enjoyable scenery was found to be positively associated with physical activities.

#### **4.3.5 Relative importance index analysis of the use of NPS in the zones**

The relative importance index (RII) was used to address this objective for ranking and determining the significance of the identified factors. The decision for the ranking is that the factor with the highest relative index (RII) is ranked 1<sup>st</sup> and others in such subsequent descending order. RII is used to identify the purposes of using NPS. The analysis presented in Table 4.6 were ranked and presented with the RII value accordingly. The result shows that all variables were significant with the use of neighbourhood public spaces except the purpose to be alone with the RII value of 0.570. This implied that the respondents could not decide whether being alone was useful for neighbourhood public space. Other variables were also significant with the use of neighbourhood public spaces, with acceptable RII values ranging from 0.6 to 0.8. The variables rated with their relative importance index include meet people (0.741) ranked 1<sup>st</sup>; relaxation (0.691) ranked 2<sup>nd</sup>;

beautiful scenic (0.646) ranked 3<sup>rd</sup>; exercise (0.634) ranked 4<sup>th</sup>; closeness to nature (0.634) ranked 5<sup>th</sup>; adventure (0.602) ranked 6<sup>th</sup> and the least is alone rated 7<sup>th</sup> position with the RII value of (0.570). The purpose of meeting people has been the main reason the majority of people visiting public spaces.

Information from the design Charrette workshop agrees with this assertion, the finding reveals that public spaces are for social gathering and recommends zoning of spaces for all categories of people, Kostrzewska (2017) said that a properly designed public urban space should take into account the diverse needs of different social groups.

Table 4.6: Analysis of the use of the existing neighbourhood public spaces

Purpose	Frequency and Percentage distribution						Relative importance Index		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Total Score	Statistic	Std. dev.	Rank
Meet people	14 (4.2)	35 (10.5)	42 (12.6)	188 (56.3)	55 (16.5)	1,237	0.741	1.091	1
Relaxation	35 (10.5)	49 (14.7)	27 (8.1)	175 (52.4)	48 (14.4)	1,154	0.691	1.150	2
Beautiful scenic	25 (7.5)	70 (21.0)	71 (21.3)	139 (41.6)	29 (8.7)	1079	0.646	1.187	3
Exercise	31 (9.3)	71 (21.3)	70 (21.0)	134 (40.1)	28 (8.4)	1059	0.634	1.177	4
Closeness to nature	33 (9.9)	78 (23.4)	69 (20.7)	129 (38.6)	25 (7.5)	1037	0.621	1.189	5
Adventure	32 (9.6)	84 (25.1)	91 (27.2)	103 (30.8)	24 (7.2)	1005	0.602	1.220	6
Alone	52 (15.6)	94 (28.1)	63 (18.9)	102 (30.5)	23 (6.9)	952	0.570	1.230	7

Where SA indicates strongly agreed; A – agreed; U – undecided; D – Disagreed; and SD – strongly disagreed, Std. dev – Standard deviation.

Source: Researcher's Field Survey, 2019.

#### 4.3.6 Analysis of activities in the NPS of the core zone.

The activities that are most likely to occur in the NPS are identified in Table 4.7. The activities that might occur are grouped into five different sections. It is shown that social activity is rated the highest relative importance index with the value of 0.872 and the standard deviation of 0.637 being rated "Agreed" by the highest frequency and

percentage distribution of 24 (48.0 per cent); followed by political activity (0.820 RII;  $\pm 0.978$ std) being rated "Agreed" by 24 (48.0 percent); religious (0.804 RII;  $\pm 0.913$ std) being rated "Agreed" by 21 (42.0 percent); cultural (0.788RII;  $\pm 1.006$ std) being rated "Agreed" by 24 (48.0 percent), and the least of all the variable is economic (0.692RII;  $\pm 1.368$ std) being rated "Agreed" by 15 (30.0 percent). This indicates that people visiting the NPS always go for social activities, political activities, and cultural activities. It is therefore germane to generalize that public spaces are for other purposes, the study of Amin (2009) posits that public spaces are used for mass political, religious and cultural gathering.

Table 4.7: Analysis of activities in the NPS of the core zone.

Activity	Frequency and Percentage distribution					Relative Importance Index			Rank
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Total Score	Statis tic	Std. dev	
Social	0 (0.0)	0 (0.0)	4 (8.0)	24 (48.0)	22 (44.0)	218	0.872	0.637	1
Political	2 (4.0)	1 (2.0)	6 (12.0)	24 (48.0)	17 (34.0)	205	0.820	0.978	2
Religious	0 (0.0)	4 (8.0)	8 (16.0)	21 (42.0)	17 (34.0)	201	0.804	0.913	3
Cultural	1 (2.0)	5 (10.0)	5 (10.0)	24 (48.0)	15 (30.0)	197	0.788	1.006	4
Economic	6 (12.0)	8 (16.0)	7 (14.0)	15 (30.0)	14 (28.0)	173	0.692	1.368	5

Source: Researcher's Field Survey, 2019.

#### 4.3.7 Analysis of activities in the NPS of the transition zone.

The activities in transition NPS show that the majority of the people who visit the transition NPS do visit for the social activity regarded as the highest of all the variables with the relative importance index of 0.807 and the standard deviation of 0.702 being rated "Agreed" by the highest frequency and percentage distribution of 56 (65.6 percent);

followed by religious (0.713 RII;  $\pm 1.183$ std) being rated "Agreed" by 30 (35.3 percent); economic (0.708 RII;  $\pm 1.003$ std) being rated "Agreed" by 40 (47.1 percent); political (0.682 RII;  $\pm 1.267$ std) being rated "Agreed" by 28 (32.9 percent) by 28 (32.9 percent), and the least is cultural having the relative importance value of 0.673 with the standard deviation of 1.139 being rated "Agreed" by the mode value (frequency and percentage distribution) of 29 (34.1 percent). This proves that people visit the transition zone for social activity, the study by Oloruntoba, Rasidi and Said (2013) noted that people visit public spaces for social engagement and activities which provides the opportunity for them to meet other people.

Table 4.8: Analysis of activities in the NPS of the peripheral zone

Activity	Frequency and Percentage distribution					Relative Importance Index			Rank
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Total Score	Statis tic	Std. dev	
Social	2 (2.4)	0 (0.0)	9 (10.6)	56 (65.9)	18 (21.1)	343	0.807	0.702	1
Religious	4 (4.7)	14 (16.5)	17 (20.0)	30 (35.3)	20 (23.5)	303	0.713	1.183	2
Economic	1 (1.2)	18 (21.2)	13 (15.3)	40 (47.1)	13 (15.3)	301	0.708	1.003	3
Political	7 (8.2)	17 (20.0)	14 (16.5)	28 (32.9)	19 (22.4)	290	0.682	1.267	4
Cultural	4 (4.7)	18 (21.2)	20 (23.5)	29 (34.1)	14 (16.5)	286	0.673	1.139	5

Source: Researcher's Field Survey, 2019.

### 4.3.8 Analysis of activities in the NPS of the peripheral zone

The activities conducted on the peripheral NPS are displayed in Table 4.9 below. It is shown that social activity has the relative importance index with the value of 0.757 and the standard deviation of 1.006 being rated "Agreed" by the highest frequency and percentage distribution of 114 (57.3 percent); followed by economic (0.718RII;  $\pm 1.083$  std) being rated "Agreed" by 88 (44.2 percent); religious (0.712RII;  $\pm 1.209$  std) being rated "Agreed" by 83 (41.7 percent); cultural (0.667RII;  $\pm 1.025$  std) being rated "Agreed" by 83 (41.7 percent), and political having the value of 0.650RII with the standard deviation of (1.159) being rated "Agreed" by 69 (34.7 percent). This means that the respondents in the peripheral zone visit the NPS for social activities; the study by Yuen (1996) posits that neighbourhood parks are an inducement for social activity, to be with friends, to "people-watch" and to do something that a family can do together.

Table 4.9: Analysis of activities in the NPS of the peripheral zone

Activity	Frequency and Percentage distribution					Relative Importance Index			
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Total Score	Statistic	Std. dev	Rank
Social	9 (4.5)	18 (9.0)	19 (9.5)	114 (57.3)	39 (19.6)	753	0.757	1.006	1
Economic	9 (4.5)	27 (13.6)	38 (19.1)	88 (44.2)	37 (18.6)	714	0.718	1.083	2
Religious	15 (7.5)	28 (14.1)	30 (15.1)	83 (41.7)	43 (21.6)	708	0.712	1.209	3
Cultural	9 (4.6)	36 (18.0)	52 (26.0)	83 (41.7)	19 (9.5)	664	0.667	1.025	4
Political	12 (6.0)	47 (23.6)	45 (22.6)	69 (34.7)	26 (13.1)	647	0.650	1.159	5

Source: Researcher's Field Survey, 2019.

#### **4.3.9 Summary of the analysis of activities in the NPS of the three zones**

The People visiting the neighbourhood public spaces used the space for one activity or the other. The activity includes social activity, religious activity, economic activity, cultural activity, and political activity. The result displayed in Table 4.10 shows that majority of the people who visited the neighbourhood public spaces used the space for social activity with the highest RII value of (0.787) and the standard deviation of (0.918) being rated "Agreed" by the frequency and percentage distribution of 194 (58.1 per cent). Other activities mostly carried out in the NPS include religious (0.726 RII;  $\pm 1.155$  std) being rated "Agreed" by 134 (40.1 per cent); Economic (0.711 RII;  $\pm 1.113$  std) being rated "Agreed" by 143 (42.8 per cent); Cultural (0.687 RII; 1.068 std) being rated "Agreed" by 136 (40.7 per cent), and political (0.683 RII;  $\pm 1.177$  std) being rated "Agreed" by the frequency and percentage distribution of 121 (36.2 per cent). This implies that the neighbourhood public spaces in Akure, which are divided into three zones including core zone, transitional zone, and peripheral zone indicate that in all the zones, the respondents always use the NPS for social activities, religious activities, as well as economic activities, Smith (2016) posit that more events are taken place in public spaces, unlike in the past when events are held in parks, streets and squares. The respondents also used the zone for other activities such as cultural activities, and political activities. For instance, the NPS in the core zone is mostly used for political activities while some areas in the transitional zones are used for the cultural zone. Meanwhile, in the peripheral zone, all areas are used for religious, and social activities, this finding is in accordance with the study Ikoku (2004) noted that public spaces can be used for numerous activities such as social, cultural, economic, religious and political activities.

Table 4.10: Descriptive analysis of the activities in neighbourhood public spaces

Activity	Frequency and Percentage Distribution					Relative Importance Index			
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Total Score	Statistic	Std. dev	Rank
Social	11 (3.3)	18 (5.4)	32 (9.6)	194 (58.1)	79 (23.7)	1314	0.787	0.918	1
Religions	19 (5.6)	46 (13.8)	55 (16.5)	134 (40.1)	80 (24.0)	1212	0.726	1.155	2
Economic	16 (4.8)	53 (15.9)	58 (17.4)	143 (42.8)	64 (19.2)	1188	0.711	1.113	3
Cultural	14 (4.2)	59 (17.7)	77 (23.1)	136 (40.7)	48 (14.4)	1147	0.687	1.068	4
Political	21 (6.3)	65 (19.5)	65 (19.5)	121 (36.2)	62 (18.5)	1140	0.683	1.177	5

Where SA indicates strongly agreed; A – agreed; U – undecided; D – Disagreed; and SD – strongly disagreed, Std. dev – Standard deviation

Source: Researcher’s Field Survey, 2019.

#### 4.3.10 Relationship between the availability of the NPS and purpose in the zones

Spearman's Rho correlation is also known as Spearman's rank correlation is a non-parametric test that was used to measure the strength or the degree of relationship between two variables. The variables considered in this section are availability and purposes where the purpose is divided into meet people, relaxation, exercise, beautiful scenery, alone, closeness to nature, and adventure. The strength of each of the variables is determined using spearman's rho correlation coefficient as well as checking whether a significant relationship exists between the variables. As indicated in the result in Table 4.11 showed the significant variables and the variable include meet people which is significant at P-value  $(0.012) < 0.05$  with the correlation coefficient of  $(0.138)$  and relaxation is also significant at P-value  $(0.072) < 0.1$  with the correlation coefficient of  $(0.099)$ . These two variables (meet people and relaxation) show a weak positive relationship with availability. This implies that users can meet people and also relax in the neighbourhood public space if it is available and comfortable.

Other variables which shows no significant relationship with availability include exercise ( $\rho = -0.007$ ;  $p = 0.905$ ); closeness to nature ( $\rho = -0.053$ ;  $p = 0.338$ ); adventure ( $\rho = 0.019$ ;  $p = 0.726$ ); beautiful scenic ( $\rho = 0.045$ ;  $p = 0.416$ ), and alone ( $\rho = 0.021$ ;  $p = 0.696$ ). These indicate that the variables do not contribute to the availability of the neighbourhood public spaces since they are not significant at P-value  $< 0.01$ ,  $0.05$ , and  $0.1$  respectively. The study of Mamao and Rufai (2018) confirmed this study which stated that people visited the open space for meeting purposes. Other purposes do not have a significant relationship with availability, which means that majority of the people do not use the public spaces for exercise, closeness to nature, adventure, beautiful scenic and the purpose of being alone.

Table 4.11: Spearman's Rho Correlation of the availability of neighbourhood public space and purpose

	Availability of NPS	Relaxation	Exercise	Closeness to nature	Adventure	Meet people	Beautiful scenic	Alone
Availability of NPS	1.000							
Relaxation	.099* (0.072)	1.000						
Exercise	-.007 (0.905)	.375** (0.000)	1.000					
Closeness to nature	-.053 (0.338)	.338** (0.000)	.514** (0.000)	1.000				
Adventure	.019 (0.726)	.278** (0.000)	.359** (0.000)	.546** (0.000)	1.000			
Meet people	.138** (0.012)	.320** (0.000)	.236** (0.000)	.254** (0.000)	.323** (0.000)	1.000		
Beautiful scenic	.045 (0.416)	.266** (0.000)	.344** (0.000)	.347** (0.000)	.340** (0.000)	.218** (0.000)	1.000	

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Alone	.021 (0.696)	.181** (0.001)	.211** (0.000)	.236** (0.000)	.148** (0.007)	.083 (0.129)	.144** (0.008 )	1.000
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Where \*\*\* indicates  $P$ -value < 0.01; \*\* indicates  $P$ -value < 0.05, and \* indicates  $P$ -value < 0.1,  $\rho$  indicates the Spearman's rho correlation coefficient, NS indicates Not significant and S indicates Significant.

Source: Researcher's Field Survey, 2019.

#### **4.3.11 Relationship between the availability of NPS and their Activities in the zones**

The relationship between the availability of the neighbourhood public spaces and activities was analysed using Spearman's rho correlation coefficient. The result in

Table 4.12 showed that variables are significant with the availability of the neighbourhood public space at P-value  $< 0.01$  (1% significance level). The variables which are significant include political ( $\rho = 0.253$ ;  $p = 0.000$ ); religious ( $\rho = 0.181$ ;  $p = 0.001$ ); cultural ( $\rho = 0.271$ ;  $p = 0.000$ ); social ( $\rho = 0.252$ ;  $p = 0.000$ ), and economic ( $\rho = 0.153$ ;  $p = 0.005$ ). Meanwhile, the degree of the relationship shows a weak positive relationship between activities and the availability of the neighbourhood public spaces. It is therefore pertinent to generalize that public spaces are used for other purposes as deemed fit by the Government or other interested individuals or groups as such places are within the neighbourhood and hence could serve as a point of gathering for the populace. The study of Silaci and Vitkova (2017) showed that public spaces performed other civic functions in the cities such as social, political, physical as well as economic and symbolic functions.

Table 4.12: Correlation of availability of neighbourhood public space and activities

	Availability of NPS	Political	Religious	Cultural	Social	Economic
Availability of NPS	1.000					
Political	.253** (0.000)	1.000				
Religious	.181** (0.001)	.460** (0.000)	1.000			
Cultural	.271** (0.000)	.526** (0.000)	.474** (0.000)	1.000		
Social	.252** (0.000)	.392** (0.000)	.223** (0.000)	.364** (0.000)	1.000	
Economic	.153** (0.005)	.230** (0.000)	.198** (0.000)	.204** (0.000)	.317** (0.000)	1.000

Where \*\*\* indicates  $P$ -value  $< 0.01$ ; \*\* indicates  $P$ -value  $< 0.05$ , and \* indicates  $P$ -value  $< 0.1$ , indicates the Spearman's rho correlation coefficient, NS indicates Not significant and S indicates Significant.

Source: Researcher's Field Survey, 2019.

#### 4.3.12 Testing of Hypothesis 1

Bivariate analysis was conducted on the usage and availability of neighbourhood public space in the zones. Kendall-tau b correlation analysis is a non-parametric test used to test the strength of the relationship between two variables. The two variables considered are the availability of neighbourhood public space and usage.

The null hypothesis used in the analysis showed that there is no significant relationship between the availability of neighbourhood public space and its usage. It is further stated that if the probability value ( $p$ -value)  $< 0.05$  (95% confidence interval), reject the null hypothesis, otherwise do not reject the null hypothesis.

From the result of the analysis displayed in Table 4.13, it is shown that there is a weak positive relationship between the availability of the neighbourhood public space and its usage with the value ( $\tau = 0.323$ ). This implies that an increase in the number of public spaces will increase the usage and patronage of the neighbourhood public space in the

zones. A significant relationship is established between the variables at P-value (0.000) < 0.05 (95% confidence interval). This proves that the null hypothesis is rejected at P-value < 0.05 and thereby concludes that there is a significant relationship between the availability of neighbourhood public space and its usage. Ord, Mitchell and Pearce (2013) noted that the availability of green space and its attractiveness within the neighbourhood is associated with their usage and can improve patronage. The interviewees reported that they are attracted to public spaces where they can sit outside and eat; with varieties of greenery, a conducive environment, and is close to them (see appendix III).

Table 4.13: Availability of neighbourhood public spaces and their usage

	$\tau$ (coefficient)	P-value	Remarks
Availability of NPS	0.323***	0.000	Significant

Where \*\*\* indicates P-value < 0.01; \*\* indicates P-value < 0.05, and \* indicates P-value < 0.1, and  $\tau$  indicates the Kendall tau correlation coefficient.

Source: Researcher's Field Survey, 2019.

#### 4.3.13 Summary

The section sought to investigate the uses of NPS in the three zones of Akure, which was further divided into purpose and activity. Different variables were used to measure the purpose of visiting NPS, and the result shows that the majority of respondents meet people and also relax in neighbourhood public spaces within the zones, Smith (2016) noted that public spaces function well when they can meet the needs for user's relaxation.

This could be as a result that the existing NPS in the zones are not fully equipped with facilities and infrastructure to enhance meaningful activities, a charrette participant stated that "introduction of facilities that can enhance physical activities like exercise and walking." This will further encourage that NPS are put to more use than relaxing and meeting people.

The findings on activities in neighbourhood public spaces revealed that respondents engage in other activities, variables such as social activity political, religious, economic activities take place in NPS. This could be an indication that neighbourhood public spaces within the zones are used for weekend parties and religious gatherings. The study shows that there is a significant relationship between the availability of neighbourhood public spaces and their uses. In the developed countries public spaces such as open spaces, playgrounds and parks are an important avenue for users to satisfy their recreational needs irrespective of age group, Kostrzevska (2017)

#### **4.4 Examine the user's satisfaction level in NPS in the Zones.**

User's satisfaction level was examined to check how essentials the variables under this section are important based on 5 Likert scales of strongly dissatisfied to strongly satisfied, and from strongly disagree to strongly agree. The satisfaction levels of respondents were examined using frequency distribution, percentage distribution, weighted mean score, standard deviation, and ranking. Further analysis was conducted on the relationship between the variables as well as checking for the significant difference in the user's satisfaction of NPS in the zones.

##### **4.4.1 User's satisfaction level in NPS in the core zone**

Different user's satisfaction is used in the NPS of the core zone. It is deduced from the result below that attractiveness has the highest weighted mean value of (4.298) with the standard deviation of (0.710) being rated "Agreed" by the mode value (highest frequency and percentage distribution) of 25 (50.0 percent); useful activities (4.423wms;  $\pm 0.643$ std) being rated "Agreed" by 25 (50.0 percent); visual appealing (4.162wms;  $\pm 0.946$ std) being rated "Agreed" by 21 (42.0 percent); Akure view (4.074wms;  $\pm 0.716$ std) being rated "Agreed" by 34 (68.0 percent); architectural variety (4.000wms;  $\pm 0.868$ std)

being rated "Agreed" by 25 (50.0 percent); signage (3.967wms;  $\pm 0.873$ std) being rated "Agreed" by 22 (44.0 percent); shops/stores/eatery (3.950wms;  $\pm 1.083$ std) being rated "Agreed" by 18 (36.0 percent); orderliness (3.937wms;  $\pm 1.018$ std) being rated "Agreed" by 16 (32.0 percent); artistic features (3.874wms;  $\pm 0.910$ std) being rated "Agreed" by 26 (52.0 percent); natural environment (3.872wms;  $\pm 1.040$ std) being rated "Agreed" by 16 (32.0 percent); railing/stairs (3.855wms;  $\pm 1.319$ std) being rated "Strongly Disagreed" by 13 (26.0 percent); good lightening (3.812wms;  $\pm 0.936$ std) being rated "Agreed" by 26 (52.0 percent); sidewalk/footpath (3.784wms;  $\pm 1.286$ std) being rated "Agreed" by 15 (30.0 percent); cleanliness (3.773wms;  $\pm 1.079$ std) being rated "Agreed" by 16 (32.0 percent); sense of enclosure (3.710wms;  $\pm 0.935$ std) being rated "Agreed" by 21 (42.0 percent); waste disposal (3.662wms;  $\pm 1.095$ std) being rated "Agreed" by 17 (34.0 percent); safety (3.658wms;  $\pm 1.122$ std) being rated "Agreed" by 15 (30.0 percent); ramps/wheelchair (3.639wms;  $\pm 1.362$ std) being rated "Disagreed" by 14 (28.0 percent); greenery (3.511wms;  $\pm 1.318$ std) being rated "Strongly Disagreed" by 14 (28.0 percent), and amenities being the least of all the factors showing the weighted mean score of (3.263) with the standard deviation of (1.107) being rated "Disagreed" by the highest frequency and percentage distribution of 14 (28.0 percent). The findings implies that the users are satisfied with an attractive public spaces, various useful activities and visually appealing places to visit, the study of Bedimo-Rung, Mowen and Cohen (2005) posits that there are some important design considerations for public spaces, which are size its layout, landscaping, topography, visual appeal and other aesthetic features such as ponds or sculpture.

Table 4.14: User's satisfaction in the core zone

Users satisfaction	Frequency and Percentage Distribution					Weighted Mean Score		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Statis tic	Std. dev	Rank
Attractiveness	2 (4.0)	0 (0.0)	6 (12.0)	25 (50.0)	17 (34.0)	4.298	0.710	1
Useful activities	0 (0.0)	2 (4.0)	2 (4.0)	25 (50.0)	21 (42.0)	4.423	0.643	2
Visual appealing	1 (2.0)	10 (20.0)	2 (4.0)	21 (42.0)	16 (32.0)	4.162	0.946	3
Akure view	4 (8.0)	2 (4.0)	2 (4.0)	34 (68.0)	8 (16.0)	4.074	0.716	4
Architectural variety	3 (6.0)	5 (10.0)	7 (14.0)	25 (50.0)	10 (20.0)	4.000	0.868	5
Signage	4 (8.0)	2 (4.0)	12 (24.0)	22 (44.0)	10 (20.0)	3.967	0.873	6
Shops / stores / eatery	11 (22.0)	2 (4.0)	8 (16.0)	18 (36.0)	11 (22.0)	3.940	1.083	7
Orderliness	5 (10.0)	5 (10.0)	12 (24.0)	16 (32.0)	12 (24.0)	3.937	1.018	8
Artistic features	5 (10.0)	6 (12.0)	6 (12.0)	26 (52.0)	7 (14.0)	3.874	0.910	9
Natural environment	4 (8.0)	8 (16.0)	11 (22.0)	16 (32.0)	11 (22.0)	3.872	1.040	10
Railing / stairs	13 (26.0)	9 (18.0)	4 (8.0)	11 (22.0)	13 (26.0)	3.855	1.319	11
Good lightening	5 (10.0)	8 (16.0)	5 (10.0)	26 (52.0)	6 (12.0)	3.812	0.936	12
Sidewalk / foot path	15 (30.0)	7 (14.0)	3 (6.0)	15 (30.0)	10 (20.0)	3.784	1.286	13
Cleanliness	7 (14.0)	7 (14.0)	11 (22.0)	16 (32.0)	9 (18.0)	3.773	1.079	14
Sense of enclosure	2 (4.0)	10 (20.0)	11 (22.0)	21 (42.0)	6 (12.0)	3.710	0.935	15
Waste disposal	7 (14.0)	10 (20.0)	9 (18.0)	17 (34.0)	7 (14.0)	3.662	1.095	16
Safety	5 (10.0)	13 (26.0)	9 (18.0)	15 (30.0)	8 (16.0)	3.658	1.122	17
Ramps / wheel chair	11 (22.0)	14 (28.0)	6 (12.0)	8 (16.0)	11 (22.0)	3.639	1.362	18
Greenery	14 (28.0)	12 (24.0)	4 (8.0)	13 (26.0)	7 (14.0)	3.511	1.318	19
Amenities	9 (18.0)	14 (28.0)	11 (22.0)	13 (26.0)	3 (6.0)	3.263	1.107	20

Source: Researcher's Field Survey, 2019.

#### 4.4.2 User's satisfaction in the transitional zone

Table 4.15 shows the result users of satisfaction in the transition zone where 85 people were interviewed on the level of facilities available in the zone. The result explains that the attractiveness of the transition zone is rated the highest of all the variables. It has the highest weighted mean value of 4.388 and the standard deviation of (0.551) being rated "Agreed" of the highest frequency and percentage distribution of 53 (62.4 percent). It is followed by useful activities (4.326 wms;  $\pm 0.740$  std) being rated "Agreed" by 42 (49.4 percent); natural environment (4.282 wms;  $\pm 0.678$  std) being rated "Agreed" by 47 (55.3 percent); sidewalk/footpath (4.164 wms;  $\pm 0.782$  std) being rated "Agreed" by 49 (47.6 percent); architectural variety (4.153 wms;  $\pm 0.656$  std) being rated "Agreed" by 50 (58.8 percent); shops/stores/eatery (4.133 wms;  $\pm 0.855$  std) being rated "Agreed" by 43 (50.6 percent); sense of enclosure (4.069 wms;  $\pm 0.893$  std) being rated "Agreed" by 41 (48.2 percent); Akure view (4.068 wms;  $\pm 0.888$  std) being rated "Agreed" by 48 (56.5 percent); artistic features (4.062 wms;  $\pm 0.819$  std) being rated "Agreed" by 40 (47.1 percent); good lightening (4.056 wms;  $\pm 0.769$  std) being rated "Agreed" by 51 (60.0 percent); signage (4.037 wms;  $\pm 0.772$  std) being rated "Agreed" by 52 (61.2 percent); greenery (4.010 wms;  $\pm 0.846$  std) being rated "Agreed" by 43 (50.6 percent); railing/stairs (4.000 wms;  $\pm 0.958$  std) being rated "Agreed" by 32 (37.6 percent); amenities (3.978 wms;  $\pm 1.802$  std) being rated "Agreed" by 26 (30.6 percent); ramps/wheelchair (3.929 wms;  $\pm 1.052$  std) being rated "Agreed" by 30 (35.3 percent); visual appealing (3.928 wms;  $\pm 0.975$  std) being rated "Agreed" by 45 (52.9 percent); orderliness (3.914 wms;  $\pm 1.046$  std) being rated "Agreed" by 36 (42.2 percent); waste disposal (3.774 wms;  $\pm 1.083$  std) being rated "Agreed" by 31 (36.5 percent); safety (3.770 wms;  $\pm 1.110$  std) being rated "Agreed" by 24 (28.2 percent), and cleanliness which is the least of all the level of facilities in the transition zone of the NPS shows the value of 3.765 wms with the standard deviation of 1.122 being rated "Agreed" by 47 (55.3 percent). The findings reveal that users of NPS in

the transition zone are satisfied with attractive public spaces, useful activities, natural environment and sidewalk or footpath, the study of Bedimo-Rung, Mowen and Cohen (2005) noted that public spaces should provide facilities and equipment that makes physical environment attractive and safe to a variety of users such as restroom, picnic area, parking lots, pedestrian walkways and so on.

Table 4.15: User's satisfaction in the Transitional Zone

Users satisfaction	Frequency and Percentage Distribution					Weighted Mean Score		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Statistic	Std. dev	Rank
Attractiveness	0 (0.0)	2 (2.4)	0 (0.0)	53 (62.4)	30 (35.3)	4.388	0.551	1
Useful activities	2 (2.4)	5 (5.9)	5 (5.9)	42 (49.4)	31 (36.5)	4.326	0.740	2
Natural environment	1 (1.2)	3 (3.5)	7 (8.2)	47 (55.3)	27 (31.8)	4.282	0.678	3
Sidewalk/footpath	5 (5.9)	6 (7.1)	4 (4.7)	49 (47.6)	21 (24.7)	4.164	0.782	4
Architectural variety	2 (2.4)	1 (1.2)	10 (11.8)	50 (58.8)	19 (22.4)	4.153	0.656	5
Shops / stores / eatery	6 (7.1)	7 (8.2)	7 (8.2)	43 (50.6)	22 (25.9)	4.133	0.855	6
Sense of enclosure	2 (2.4)	14 (16.5)	7 (8.2)	41 (48.2)	21 (24.7)	4.069	0.893	7
Akure view	13 (15.3)	4 (4.7)	3 (3.5)	48 (56.5)	17 (20.0)	4.068	0.888	8
Artistic features	3 (3.5)	5 (5.9)	17 (20.0)	40 (47.1)	20 (23.5)	4.062	0.819	9

Good lightening	3 (3.5)	8 (9.4)	7 (8.2)	51 (60.0)	16 (18.8)	4.056	0.769	10
Signage	3 (3.5)	9 (10.6)	6 (7.1)	52 (61.2)	15 (17.6)	4.037	0.772	11
Greenery	5 (5.9)	7 (8.2)	13 (15.3)	43 (50.6)	17 (20.0)	4.010	0.846	12
Railing / stairs	6 (7.1)	9 (10.6)	17 (20.0)	32 (37.6)	21 (24.7)	4.000	0.958	13
Amenities	10 (11.8)	21 (24.7)	14 (16.5)	26 (30.6)	14 (16.5)	3.978	1.802	14
Ramps/wheelchair	7 (8.2)	16 (18.8)	12 (14.1)	30 (35.3)	20 (23.5)	3.929	1.052	15
Visual appealing	11 (12.9)	13 (15.3)	2 (2.4)	45 (52.9)	14 (16.5)	3.928	0.975	16
Orderliness	11 (12.9)	14 (16.5)	7 (8.2)	36 (42.4)	17 (20.0)	3.914	1.046	17
Waste disposal	14 (16.5)	12 (14.1)	14 (16.5)	31 (36.5)	14 (16.5)	3.774	1.083	18
Safety	9 (10.6)	17 (20.0)	18 (21.2)	24 (28.2)	17 (20.0)	3.770	1.110	19
Cleanliness	12 (14.1)	20 (23.5)	6 (7.1)	33 (38.8)	14 (16.5)	3.765	1.122	20

Source: Researcher's Field Survey, 2019

#### 4.4.3 User's satisfaction in the Peripheral zone

The result of the user's satisfaction available in the peripheral zone from the table 4.16 shows that attractiveness of the NPS is rated the highest of all the weighted mean score with the value of (4.227) and the standard deviation is (0.742) being rated "Agreed" by the frequency and Percentage distribution of 103 (51.8 percent); followed by shops/stores/eatery (4.124 wms;  $\pm 0.772$ std) being rated "Agreed" by 108 (54.3 percent); useful activities (4.098 wms;  $\pm 0.799$ std) being rated "Agreed" by 107 (53.8 percent); sidewalk/foot path (4.040 wms;  $\pm 0.875$ std) being rated "Agreed" by 94 (47.2 percent); natural environment (3.986 wms;  $\pm 0.848$  std) being rated "Agreed" by 99 (49.7 percent); Akure view (3.982 wms;  $\pm 0.828$  std) being rated "Agreed" by 116 (58.3 percent); Architectural variety (3.958 wms;  $\pm 0.803$  std) being rated "Agreed" by 112 (56.3 percent); sense of enclosure (3.947 wms;  $\pm 0.793$  std) being rated "Agreed" by 106 (53.3 percent); visual appealing (3.895 wms;  $\pm 0.794$  std) being rated "Agreed" by 115 (57.8 percent) being rated "Agreed" by 115 (57.8 percent); Good lightening (3.850 wms;  $\pm 0.991$  std) being rated "86 (43.2 percent); Greenery (3.809 wms;  $\pm 0.978$  std) being rated "Agreed" by 77 (38.7 percent); Signage (3.798 wms;  $\pm 0.940$  std) being rated "Agreed" by 89 (44.9 percent); artistic features (3.777 wms; 0.889 std) being rated "Agreed" by 96 (48.2 percent); ramps/wheel chair (3.692 wms;  $\pm 2.085$  std) being rated "Agreed" by 60 (30.2 percent); cleanliness (3.658 wms;  $\pm 1.033$  std) being rated "Agreed" by 77 (38.7 percent); orderliness (3.628 wms;  $\pm 0.955$  std) being rated "Agreed" by 83 (41.7 percent); railing/stairs (3.624 wms;  $\pm 1.084$  std) being rated "Agreed" by 62 (31.2 percent); safety (3.534 wms;  $\pm 0.934$  std) being rated "Agreed" by 78 (39.2 percent); waste disposal (3.523 wms;  $\pm 0.803$  std) being rated "Agreed" by 69 (34.7 percent), and the least weighted value is amenities (3.306 wms;  $\pm 1.032$  std) being rated "Disagreed" by the frequency and percentage distribution of 67 (33.7 percent). This is as a result of the respondent's agreement to nineteen (19) of the twenty (20) variables measured in the peripheral zone.

This proves that users are not pleased with the level of satisfaction in the NPS in the peripheral zone. The respondents were able to identify that there is a lack of adequate amenities in the peripheral zone, Kruszynska and Poczta (2020) posits that lack of access to adequate facilities that can enhance physical recreational activities are not available in most public spaces.

Also, noticed are scattered and disarray of recreational facilities in some of the spaces visited during reconnaissance survey, absence of greenery and presence of overgrown weeds which add a negative impression to the image of NPS. Also noted is that people do not feel safe using public spaces after sunset due to lack of security, different criminal activities and anti-social activities such as drug dealing by young people and prostitution take place after dusk, this discourages people from visiting.

Table 4.16: User’s satisfaction in the Peripheral zone

Users satisfaction	Frequency and Percentage Distribution					Weighted Mean Score		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Statistic	Std. dev	Rank
Attractiveness	4 (2.0)	10 (5.0)	22 (11.1)	103 (51.8)	60 (30.2)	4.227	0.742	1
Shops / stores / eatery	5 (2.5)	15 (7.5)	23 (11.6)	108 (54.3)	48 (24.1)	4.124	0.772	2
Useful activities	7 (3.5)	17 (8.5)	22 (11.1)	107 (53.8)	46 (23.1)	4.098	0.799	3
Sidewalk / foot path	8 (4.0)	23 (11.6)	28 (14.1)	94 (47.2)	46 (23.1)	4.040	0.875	4
Natural environment	7 (3.5)	22 (11.1)	32 (16.1)	99 (49.7)	39 (19.6)	3.986	0.848	5

Akure view	8 (4.0)	28 (14.1)	14 (7.0)	116 (58.3)	33 (16.6)	3.982	0.828	6
Architectural variety	10 (5.0)	18 (9.0)	28 (14.1)	112 (56.3)	31 (15.6)	3.958	0.803	7
Sense of enclosure	7 (3.5)	16 (8.0)	38 (19.1)	106 (53.3)	32 (16.1)	3.947	0.793	8
Visual appealing	7 (3.5)	24 (12.1)	28 (14.1)	115 (57.8)	25 (12.6)	3.895	0.794	9
Good lightening	17 (8.5)	35 (17.6)	27 (13.6)	86 (43.2)	34 (17.1)	3.850	0.991	10
Greenery	10 (5.0)	37 (18.6)	41 (20.6)	77 (38.7)	34 (17.1)	3.809	0.978	11
Signage	14 (7.0)	32 (16.1)	36 (18.1)	89 (44.7)	28 (14.1)	3.798	0.940	12
Artistic features	13 (6.5)	28 (14.1)	39 (19.6)	96 (48.2)	23 (11.6)	3.777	0.889	13
Ramps/wheel chair	18 (9.0)	45 (22.6)	43 (21.6)	60 (30.2)	33 (16.6)	3.692	1.085	14
Cleanliness	20 (10.1)	44 (22.1)	34 (17.1)	77 (38.7)	24 (12.1)	3.658	1.033	15
Orderliness	11 (5.5)	46 (23.1)	40 (20.1)	83 (41.7)	19 (9.5)	3.628	0.955	16
Railing/stairs	19 (9.5)	49 (24.6)	41 (20.6)	62 (31.2)	28 (14.1)	3.624	1.084	17
Safety	13 (6.5)	44 (22.1)	50 (25.1)	78 (39.2)	14 (7.0)	3.534	0.934	18
Waste disposal	16 (8.0)	56 (28.1)	39 (19.6)	69 (34.7)	19 (9.5)	3.523	0.803	19
Amenities	17 (8.5)	67 (33.7)	47 (23.6)	56 (28.1)	12 (6.0)	3.306	1.032	20

Source: Researcher's Field Survey, 2019

#### 4.4.4 Users satisfaction level in the NPS

The analysis was conducted to check what users feel was essential to satisfy them most in NPS. The variables were analysed accordingly as shown in Table 4.17, attractiveness in NPS is rated the highest at 53.5%, with the highest weighted mean score of (4.292) and the standard deviation of (0.701) being rated "Agreed" as the highest frequency and percentage distribution of 178 (53.3 per cent). It is followed by useful activities in the NPS with the value of (4.230 wms;  $\pm 0.772$  std) being rated "Agreed" by 172 (51.5 percent); shops/stores/eatery (4.102 wms;  $\pm 0.842$  std) being rated "Agreed" by 169 (50.6 percent); Natural environment (4.053 wms;  $\pm 0.847$  std) being rated "Agreed" by 162 (48.5 percent); sidewalk/footpath (4.043 wms;  $\pm 0.917$  std); being rated "Agreed" by 158 (47.3 percent); Architectural variety (4.036 wms;  $\pm 0.791$  std) being rated "Agreed" by 186 (55.7 percent); sense of enclosure (3.966 wms;  $\pm 0.859$  std) being rated "Agreed" by 165 (49.4 percent); sense of enclosure (3.966 wms;  $\pm 0.859$  std) being rated "Agreed" by 165 (49.4 percent); visual appealing (3.945 wms;  $\pm 0.870$  std) being rated "Agreed" by 181 (54.2 percent); Good lightning (3.901 wms;  $\pm 0.931$  std) being rated "Agreed" by 163 (48.8 percent); Signage (3.889 wms;  $\pm 0.893$  std) being rated "Agreed" by 163 (48.8 percent); Artistic features (3.869 wms;  $\pm 0.881$  std) being rated "Agreed" by 162 (48.5 percent); Greenery (3.829 wms;  $\pm 1.002$  std) being rated "Agreed" by 133 (39.8 percent); Railing/stairs (3.763 wms;  $\pm 1.099$  std) being rated "Agreed" by 105 (31.4 percent); Orderliness (3.750 wms;  $\pm 0.999$  std) being rated "Agreed" by 135 (40.4 percent); Cleanliness (3.703 wms;  $\pm 1.063$  std) being rated "Agreed" by 126 (37.7) ; Safety (3.614 wms;  $\pm 1.016$  std) being rated "Agreed" by 117 (35.0 percent); waste disposal (3.609 wms;  $\pm 1.064$  std), and Amenities (3.402 wms;  $\pm 1.083$  std) being rated "Agreed" by the frequency and percentage distribution of 95 (28.4 percent). The results from Table 4.17 shows the Users satisfaction in the zones of the NPS in Akure, Ondo State, with attractiveness ranked first, useful activities is ranked second, Shops/Stores/eatery is

ranked third, and Amenities is ranked the last of the all the essential variables for users satisfaction in NPS, the study of Guedoudj, Ghenouchi, and Toussaint (2020) posits that proximity of commercial area in public spaces such as groceries, stores and eatery encourages usage and ensure users comfort. It is shown that the users are satisfied with the attractive view in NPS and useful activities in the NPS, Guedoudj, et al (2020) noted that attractiveness in public spaces depends on the duration and variety of activities. The interviewees from the core zone noted the unattractive beauty of the environment, and the facilities present are not enough.

Charrette participants also noted that attractive public space and available useful activities are essential for user's satisfaction. Participants reported that "Mechanical workshop, artisans and illegal structures around the entrances and visitors will hardly know there is a public space in there. Participants also reported that the physical environments of NPS in Akure are not beautiful and pleasant to look at.

Introduction of facilities that will enhance physical activities like exercise and walking" (see appendix III) was reported by the interviewees and are not satisfied with NPS in Akure as regards, the facilities, and the physical features provided, and lastly, their experience during the visit was not pleasant, the study of Ramlee et al (2015) posit that facilities such as traffic signs, streetlight, parking area, signage and other facilities are essentials for users intercommunication in public spaces. Some of the interviewees rated their satisfaction level on a scale of 1 – 10, showing that the neighbourhood public spaces in Akure cannot be rated average. The ratings are 4.5, 4, and 6. The rating of 4 and 4.5 are below average and 6 is not satisfying at all. Generally, the reports from the interviewees have shown that the respondents are not satisfied with the NPS in Akure (see appendix III). Other respondents said "*bad terrain*", "*the disable will find movement difficult because; the makeup of the environment is not in their favour as it were*", "*old and*

*disabled cannot use the place because it is not well designed for them*" these are the major challenges the disabled and the older people would face in NPS, the study of Kostrzevska (2017) noted that open access for all age groups and the people with disability is an important spatial determinant of properly designed public spaces.

#### **4.4.5 Summary of the analysis of user's satisfaction level in NPS in the zones**

A bivariate type of analysis that considered the ordinal level of measurement was used to analyse the user's satisfaction level in NPS named "Spearman's rho correlation" denoted by " $\rho$ ". It is used to establish the strength of the relationship between two variables as indicated in **Error! Reference source not found.** The variables show a significant relationship with each other. The relationships between them are significant but have a weak positive relationship between each other. Part of the variables which are significant include Signage ( $\rho = 0.467$ ;  $p = 0.000$ ); Railing/Stairs ( $\rho = 0.451$ ;  $p = 0.000$ ); Greenery ( $\rho = 0.347$ ;  $p = 0.000$ ); Sidewalk/footpath ( $\rho = 0.340$ ;  $p = 0.000$ ); Shops/stores/eatery ( $\rho = 0.370$ ;  $p = 0.000$ ); Visual ( $\rho = 0.077$ ;  $p = 0.158$ ); orderliness ( $\rho = 0.072$ ;  $p = 0.190$ ); cleanliness ( $\rho = 0.003$ ;  $p = 0.962$ ); Amenities ( $\rho = -0.080$ ;  $p = 0.142$ ); Artistic feature ( $\rho = 0.188$ ;  $p = 0.001$ ); Architectural variety ( $\rho = 0.350$ ;  $p = 0.000$ ); sense of enclosure ( $\rho = 0.238$ ;  $p = 0.000$ ); useful activities ( $\rho = 0.315$ ;  $p = 0.000$ ), and Attractiveness ( $\rho = 0.240$ ;  $p = 0.000$ ). Other variables which are not significant include natural environment ( $\rho = 0.297$ ;  $p = 0.000$ ); Safety ( $\rho = 0.017$ ;  $p = 0.753$ ), and Waste disposal ( $\rho = 0.039$ ;  $p = 0.474$ ). The findings reveal a lack of playground and natural environment in public spaces for children and young adults, this creates non-inclusiveness of these groups in physical activities. Respondents desire a natural environment which can improve the emotional and psychological wellbeing of people in public spaces, studies have found out that landscape and green area helps to improve productivity and mental health, Hami, and Abdi, (2019). The element of the urban environment (both natural and

physical) and its functionalities directly influence the attractiveness of public spaces Guedoudjet al (2020). For successful public spaces Carmona (2019) posits that for users comfort, a balance between traffic and pedestrian is a vital design consideration. Further findings from the results show that users desire proper furnishing in public spaces, amenities needed for outdoor spaces such as sidewalk/footpath, presence of shops/stores/eatery are essential for user's satisfaction of facilities in NPS.

Older people and people with a disability prefer a wide range of amenities that can support their usage. Public spaces must be made accessible to have ramps, stairs/railings, adequate signage, lighting and other necessary amenities that can contribute to age-friendly public spaces, Urban Transport (2019). Directional or warning signage in public spaces aids in visual communication, Bashiti, and Rahim. (2016) posits that design considerations in public spaces must include, direction or warning signs, removal of barriers for wheelchairs users and good lighting for ease of circulation.

Other factors that pose a problem to Akure image include lack of cleanliness of the neighbourhood, lack of beauty of the city architecture and lack of liveliness of the city. Other problems associated with neighbourhood public spaces in Akure are lack of adequate parks, absence of street visual beautification and street vitality which affect the image of the neighbourhood. Residents' unwillingness to visit public spaces as a result of their bad conditions, and most recently issues of kidnapping, insecurity in Akure and Nigeria as a whole, which are evident as observed during the reconnaissance survey. (Agboola, Rasidi and Said 2016).

Table 4.17: Frequency and percentage analysis of user's satisfaction level

<b>Facilities</b>	<b>SD (%)</b>	<b>D (%)</b>	<b>U (%)</b>	<b>A (%)</b>	<b>SA (%)</b>	<b>TS</b>	<b>Statistic</b>	<b>Std. dev</b>	<b>Rank</b>
Attractiveness	8 (2.4)	11 (3.3)	27 (8.1)	178 (53.3)	110 (32.9)	1373	4.292	0.701	1
Useful Activities	10 (3.0)	23 (6.9)	27 (8.1)	172 (51.5)	102 (30.5)	1335	4.230	0.772	2
Shops/stores/eatery	22 (6.6)	24 (7.2)	38 (11.4)	169 (50.6)	81 (24.3)	1265	4.102	0.842	3
Natural environment	12 (3.6)	33 (9.9)	50 (15.0)	162 (48.5)	77 (23.1)	1261	4.053	0.847	4
Sidewalk/footpath	28 (8.4)	36 (10.8)	35 (10.5)	158 (47.3)	77 (23.1)	1222	4.043	0.917	5
Architectural variety	17 (5.1)	23 (6.9)	44 (13.2)	186 (55.7)	64 (19.2)	1259	4.036	0.791	6
Sense of enclosure	13 (3.9)	39 (11.7)	54 (16.2)	165 (49.4)	63 (18.9)	1228	3.966	0.859	7
Visual appealing	19 (5.7)	47 (14.1)	32 (9.6)	181 (54.2)	55 (16.5)	1208	3.945	0.870	8
Good lightning	25 (7.5)	51 (15.3)	39 (11.7)	163 (48.8)	56 (16.8)	1176	3.901	0.931	9
Signage	21 (6.3)	43 (12.9)	54 (16.2)	163 (48.8)	53 (15.9)	1186	3.889	0.893	10
Artistic features	21 (6.3)	39 (11.7)	62 (18.6)	162 (48.5)	50 (15.0)	1183	3.869	0.881	11
Greenery	29 (8.7)	56 (16.8)	58 (17.4)	133 (39.8)	58 (17.4)	1137	3.829	1.002	12
Railing/stairs	38 (11.4)	67 (20.1)	62 (18.6)	105 (31.4)	62 (18.6)	1088	3.763	1.099	13

Orderliness	27 (8.1)	65 (19.5)	59 (17.7)	135 (40.4)	48 (14.4)	1114	3.750	0.999	14
Ramps/wheelchair	36 (10.8)	75 (22.5)	61 (18.3)	98 (29.3)	64 (19.2)	1081	3.749	1.122	15
Cleanliness	39 (11.7)	71 (21.3)	51 (15.3)	126 (37.7)	47 (14.1)	1073	3.703	1.063	16
Safety	27 (8.1)	74 (22.2)	77 (23.1)	117 (35.0)	39 (11.7)	1069	3.614	1.016	17
Waste disposal	37 (11.1)	78 (23.4)	62 (18.6)	117 (35.0)	40 (12.0)	1047	3.609	1.064	18
Amenities	36 (10.8)	102 (30.5)	72 (21.6)	95 (28.4)	29 (8.7)	981	3.402	1.083	19

Where SA indicates strongly agreed; A – agreed; U – undecided; D – Disagreed; and SD – strongly disagreed, wms – weighted mean score, Std. dev – Standard deviation.

Source: Researcher’s Field Survey, 2019.

Table 4.18: Spearman’s Rho correlation of user’s satisfaction level in the NPS

	Good lightning	Signage	Railing/Stairs	Ramps/wheelchair	Greenery	Sidewalk/footpath	Shops/stores/eatery	Visual	Orderlines	Cleanlines	Natural environment	Amenities	Safety	Artistic features	Waste disposal	Architectural	Enclosure	Activities	Attractiveness
Good lightning	1.000																		
Signage	0.467*** (0.000)	1.000																	
Railing/Stairs	0.451*** (0.000)	0.451*** (0.000)	1.000																
Ramps/wheelchair	0.338*** (0.000)	0.368*** (0.000)	0.654*** (0.000)	1.000															
Greenery	0.347*** (0.000)	0.410*** (0.000)	0.525*** (0.000)	0.624*** (0.000)	1.000														

Sidewalk/footpath	0.340*** (0.000)	0.314*** (0.000)	0.466*** (0.000)	0.458*** (0.000)	0.515*** (0.000)	1.000													
Shops/stores/eatery	0.370*** (0.000)	0.296*** (0.000)	0.244*** (0.000)	0.307*** (0.000)	0.386*** (0.000)	0.415*** (0.000)	1.000												
Visual	0.077 (0.158)	-0.048 (0.380)	-0.105 (0.055)	-0.143*** (0.009)	-0.074 (0.178)	-0.056 (0.305)	0.057 (0.303)	1.000											
Orderlines	0.072 (0.190)	0.035 (0.521)	-0.139*** (0.011)	-0.169*** (0.002)	-0.113** (0.039)	-0.111** (0.044)	0.060 (0.277)	0.516*** (0.000)	1.000										
Cleanlines	0.003 (0.962)	0.020 (0.715)	-0.192*** (0.000)	-0.201** (0.000)	-0.099 (0.071)	-0.101 (0.065)	0.055 (0.319)	0.379*** (0.000)	0.562*** (0.000)	1.000									
Natural environments element	0.297*** (0.000)	0.304*** (0.000)	0.269*** (0.000)	0.213*** (0.000)	0.298*** (0.000)	0.301*** (0.000)	0.218*** (0.000)	0.085 (0.120)	-0.010 (0.856)	0.039 (0.473)	1.000								
Amenities	-0.080 (0.142)	0.010 (0.854)	-0.114** (0.038)	-0.117** (0.033)	-0.080 (0.142)	-0.127** (0.020)	-0.057 (0.299)	0.290 (0.000)	0.495*** (0.000)	0.469*** (0.000)	0.023 (0.676)	1.000							
Safety	0.017 (0.753)	0.028 (0.613)	-0.153*** (0.000)	-0.167*** (0.002)	-0.078 (0.155)	-0.154*** (0.005)	-0.064 (0.243)	0.293*** (0.000)	0.483*** (0.000)	0.477*** (0.000)	0.010 (0.850)	0.570*** (0.000)	1.000						
Artistic feature	0.188*** (0.001)	0.246*** (0.000)	0.145*** (0.008)	0.101 (0.065)	0.198*** (0.000)	0.198*** (0.000)	0.100 (0.069)	0.156*** (0.004)	0.243*** (0.000)	0.215*** (0.000)	0.397*** (0.000)	0.250*** (0.000)	0.231*** (0.000)	1.000					
Waste Disposal	0.039 (0.474)	0.027 (0.619)	-0.099 (0.071)	-0.151*** (0.006)	-0.122** (0.025)	-0.167*** (0.002)	-0.095 (0.084)	0.160*** (0.003)	0.352*** (0.000)	0.337*** (0.000)	0.026 (0.630)	0.291*** (0.000)	0.440 (0.000)	0.101 (0.064)	1.000				
Architectural variety	0.350*** (0.000)	0.309*** (0.000)	0.331*** (0.000)	0.313*** (0.000)	0.285*** (0.000)	0.354*** (0.000)	0.190*** (0.000)	0.000 (0.997)	0.019 (0.735)	-0.049 (0.375)	0.386*** (0.000)	-0.012 (0.831)	-0.023 (0.670)	0.309*** (0.000)	-0.032 (0.557)	1.000			
Sense of enclosure	0.238*** (0.000)	0.297*** (0.000)	0.211*** (0.000)	0.200*** (0.000)	0.270*** (0.000)	0.221*** (0.000)	0.283*** (0.000)	0.070 (0.201)	0.163*** (0.003)	0.041 (0.459)	0.271*** (0.000)	0.043 (0.438)	0.034 (0.532)	0.187*** (0.001)	-0.014 (0.803)	0.396*** (0.000)	1.000		
Useful activities	0.315*** (0.000)	0.347*** (0.000)	0.256*** (0.000)	0.227*** (0.000)	0.211*** (0.000)	0.251*** (0.000)	0.212*** (0.000)	0.094 (0.087)	0.075 (0.174)	0.002 (0.972)	0.351*** (0.000)	-0.058 (0.289)	0.002 (0.973)	0.226*** (0.000)	0.007 (0.901)	0.402*** (0.000)	0.346*** (0.000)	1.000	
Attractiveness	0.240*** (0.000)	0.246*** (0.000)	0.254*** (0.000)	0.191*** (0.000)	0.197*** (0.000)	0.248*** (0.000)	0.122** (0.026)	0.079 (0.152)	0.056 (0.305)	-0.027 (0.624)	0.372*** (0.000)	0.056 (0.308)	-0.032 (0.563)	0.294*** (0.000)	0.008 (0.879)	0.521*** (0.000)	0.287*** (0.000)	0.497*** (0.000)	1.000

Where \*\*\* indicates P-value < 0.01 (1% significance level); \*\* indicates P-value < 0.05 (5% significance level), and \* indicates P-value < 0.1 (10% significance level).  
Source: Researcher's Field Survey, 2019.

#### 4.4.6 Testing of Hypothesis 2

Kruskal-Wallis Test was used to determine the significant difference between the user's satisfaction level in the three (3) zones since the data collected are Likert scale or ordinal level of measurement. A null hypothesis stated that there is no significant difference between the user's satisfaction levels in the three zones. A significant difference between users satisfaction level in the zones is observed since the probability value (p-value = 0.000) < 0.05 (5% significance level) with a chi-square distribution test ( $\chi_{2(cal)} = 16.114$ ). This proves that the null hypothesis is rejected at a p-value < 0.05 (5% significance level). This implies that there is a significant difference in the user's satisfaction level of NPS in the zones (Table 4.19).

Meanwhile, the number of respondents in each of the zone who responded to the level of satisfaction in the NPS in Akure is displayed in the table below. For the core zone, the mean rank is (117.58); the transition zone has a mean rank (170.92) and the peripheral zone has 199 respondents with a mean rank of (178.58).

Table 4.19: Kruskal-Wallis Test

	Test Statistics <sup>b</sup>				Remarks
	Mean	Chi-square	df	P-value	
Core zone	117.58				
Transition zone	170.92	16.114	2	0.000***	Reject the Null hypothesis
Peripheral zone	178.58				

a. Kruskal-Wallis Test, grouping variable: Zones

#### 4.4.7 Post-hoc Analysis

To be able to identify the pattern of the statistically significant difference in the user's satisfaction level of the zones in the NPS in Akure, a post hoc test was carried out. The results show that there is no significant relationship between the zones in the NPS of Akure. Though, the core zone was different from the transition and peripheral zone as indicated in Table 4.20. No significant difference occurs between the transition zone and the peripheral zone as indicated in the P-value of (0.756). When discussing the user's satisfaction level, the result Table 4.20, showed that there is no difference between the satisfaction level, in the transitional zone and the peripheral zone, no significant difference occurs between the zones, meaning that there is a similarity between satisfaction levels, in the transition zone and the peripheral zone.

Table 4.20: Post-hoc Analysis

Student-Newman-Keuls			
Zone	N	Subset for alpha = 0.05	
		1	2
Core Zone	50	3.2011	
Transition Zone	85		3.4533
Peripheral Zone	199		3.4768
Sig.		1.000	.756

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 81.544.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

#### 4.4.8 Summary

The findings on evaluation of user's satisfaction in neighbourhood public spaces in the zones were investigated, to ascertain the essentials items/descriptions that respondents are satisfied with within NPS. Variables such as attractiveness, sense of enclosure, good lighting, greenery, signage, ramps/wheelchairs, useful activities, shops/stores/eatery etc. were measured. The interview question asked was "*Describe your satisfaction level when you visited NPS in your area*", "the extract reported that *shows that the interviewees are attracted and satisfied in NPS where they can sit outside and eat, varieties of greenery present in the zone, the environment, and the distance of the public space to their house are what attracted them*". Michal (2019) study corroborate these findings that public space is attractive only when it is largely surrounded by or filled with objects and activities of a commercial nature such as cafeterias, restaurants, shops, entertainment, venues and cultural visitation.

Further findings reveal that respondents ranked waste disposal methods in NPS and amenities 18<sup>th</sup> and 19<sup>th</sup> positions respectively, the interviewee's report affirmed that "*The findings from the analysis show that the interviewees are not satisfied with the facilities, amenities provided, their experience is not pleasant*". Charrette participants also noted that attractive public space and available useful activities are essential for user's satisfaction. Most of the interviewees are not satisfied with the experiences in the zones. It was also gathered during the physical observation at Oyemekun Rocks, almost all the recreational facilities provided are in a bad state Plate 4.1.



Plate 4.1: Dilapidated recreational facilities at Oyemekun Rocks

#### **4.5 Impact of the Environment of NPS on city image**

This section examines the impact of environment NPS in Akure, analysed using frequency distribution, percentage distribution, weighted mean score, standard deviation, and ranking. Further analysis conducted shows Kendall tau b correlation coefficient between the variables and also a significant difference between the environmental NPS in the three zones.

##### **4.5.1 Impact of the Environment of NPS in the Core Zone**

On the impact of environment NPS in the core zone, Table 4.21 shows nine (9) factors used to measure the impact of environment NPS in the core zone. From the result, traffic is considered to be the best factor that has an impact on environment NPS in the core zone with the weighted mean score of (4.359) and the standard deviation of (0.658) being rated "Agreed" by 27 (54.0 percent). it is being followed by landscape area (4.295wms;  $\pm 0.806$ std) being rated "Agreed" by 23 (46.0 percent); manmade features (4.229wms;  $\pm 0.730$ std) being

rated "Agreed" by 26 (52.0 percent); playground (4.162wms;  $\pm 0.832$ std) being rated "Agreed" by 27 (54.0 percent); artificial light (4.128wms;  $\pm 0.923$ std) being rated "Agreed" by 22 (44.0 percent); physical and environmental elements (4.068wms;  $\pm 1.013$ std) being rated "Agreed" by 32 (64.0 percent); noise/quietness (3.909wms;  $\pm 1.128$ std) being rated "Agreed" by 18 (36.0 percent); historical elements (3.890wms;  $\pm 0.951$ std) being rated "Agreed" by 24 (48.0 percent), and natural features having the weighted value of (3.867) with the standard deviation of (0.987) being rated "Agreed" by 21 (42.0 percent). This showed that the respondents of the core zone agree to the fact that some factors have an impact on the environment of NPS in the zone. The results showed that safety from traffic, landscaped area, manmade features, playground and artificial light have an impact on the environment of NPS, the study of Guedoudj (2020) noted that the lack of effective infrastructure, traffic safety and comfort have decreased users accessibility to public spaces which affect the attractiveness of these places. The charrette design workshop recommended adequate provision of landscape area as a form of buffer and attraction in Akure neighbourhood public spaces to add to its image value, Hami, and Abdi, (2019) posits that places for leisure time need to be adorned with formal and informal landscape design elements which can create a pleasant view for users of public spaces.

The findings revealed the lack of playground and natural environment in public spaces for children and young adults, this creates non-inclusiveness of these groups in physical activities. This study hereby conclude, that respondents desire a natural environment which can improve their emotional and psychological wellbeing in public spaces, study have found out that landscape and green area helps to improve productivity and mental health, Hami, and Abdi, (2019).

Table 4.21: The impact of Environment of NPS in Core Zone

Impacts	Frequency and Percentage Distribution					Weighted Mean Score		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	WMS	Std. dev	Rank
Traffic	0 (0.0)	2 (4.0)	3 (6.0)	27 (54.0)	18 (36.0)	4.359	0.658	1
Landscape area	0 (0.0)	2 (4.0)	7 (14.0)	23 (46.0)	18 (36.0)	4.295	0.806	2
Manmade features	0 (0.0)	1 (2.0)	8 (16.0)	26 (52.0)	15 (30.0)	4.229	0.730	3
Playground	1 (2.0)	3 (6.0)	6 (12.0)	27 (54.0)	13 (26.0)	4.162	0.832	4
Artificial light	1 (2.0)	3 (6.0)	10 (20.0)	22 (44.0)	14 (28.0)	4.128	0.923	5
Physical and environmental elements	2 (4.0)	5 (10.0)	2 (4.0)	32 (64.0)	9 (18.0)	4.068	1.013	6
Noise / quietness	3 (6.0)	8 (16.0)	10 (36.0)	18 (36.0)	11 (22.0)	3.909	1.128	7
Historical elements	1 (2.0)	6 (12.0)	11 (22.0)	24 (48.0)	8 (16.0)	3.890	0.951	8
Natural features	0 (0.0)	9 (18.0)	11 (22.0)	21 (42.0)	9 (18.0)	3.867	0.987	9

Source: Researcher's Field Survey, (2019).

#### 4.5.2 Impact of Environment of NPS in the Transition Zone

Table 4.22 displayed the result of the weighted mean score showing the impact of environment NPS in the transition zone. The result of the analysis showed that landscape area has the highest weighted mean score of (4.247) with the standard deviation of (0.613) being rated "Agreed" by 53 (62.4 percent); historical elements (4.165wms;  $\pm 0.832$ std) being rated "Agreed" by 49 (57.6 percent); artificial light (4.138wms;  $\pm 0.985$ std) being rated "Agreed" by 55 (64.7 percent); playground (4.111wms;  $\pm 0.994$ std) being rated "Agreed" by 44 (51.8 percent); traffic (4.073wms;  $\pm 0.845$ std) being rated "Agreed" by 49 (57.6 percent); natural features (4.028wms;  $\pm 1.016$ std) being rated "Agreed" by 53 (62.4 percent); manmade features (3.994wms;  $\pm 0.691$ std) being rated "Agreed" by 64 (75.3 percent); physical and environment elements (3.927wms;  $\pm 1.212$ std) being rated "Agreed" by 52 (61.2 percent), and noise/quietness (3.914wms;  $\pm 1.090$ std) being rated "Agreed" by 42 (49.4 percent). This indicates that the respondents agreed to the fact that some of the variables measured have an impact on the environment of NPS in the transition zone. The findings in the zone showed that landscape areas were rated high, which translated to the fact that users agreed that landscape areas have an impact on the environment of NPS than other variables measured, Hami, and Abdi, (2019) noted that the quality of an environment is reliant on its landscaping. A common theme from the interviewees is the feeling of relaxing more in a natural environment of public spaces is pleasing.

Table 4.22: The impact of Environment NPS in the Transition Zone

<b>Environmental NPS</b>	<b>Frequency and Percentage Distribution</b>					<b>Weighted Mean Score</b>		
	<b>SD (%)</b>	<b>D (%)</b>	<b>U (%)</b>	<b>A (%)</b>	<b>SA (%)</b>	<b>Statistic</b>	<b>Std. dev</b>	<b>Rank</b>
Landscape area	0 (0.0)	1 (1.2)	8 (9.4)	53 (62.4)	23 (27.1)	4.247	0.613	1
Historical elements	1 (1.2)	4 (4.7)	10 (11.8)	49 (57.6)	21 (24.7)	4.165	0.832	2
Artificial light	5 (5.9)	0 (0.0)	8 (9.4)	55 (64.7)	17 (20.0)	4.138	0.985	3
Playground	4 (4.7)	9 (10.6)	7 (8.2)	44 (51.8)	21 (24.7)	4.111	0.994	4
Traffic	3 (3.5)	4 (4.7)	12 (14.1)	49 (57.6)	17 (20.1)	4.073	0.845	5
Natural features	5 (5.9)	7 (8.2)	6 (7.1)	53 (62.4)	14 (16.5)	4.028	1.016	6
Manmade features	1 (1.2)	3 (3.5)	9 (10.6)	64 (75.3)	8 (9.4)	3.994	0.691	7
Physical and environmental elements	8 (9.4)	11 (12.9)	3 (3.5)	52 (61.2)	11 (12.9)	3.927	1.212	8
Noise / quietness	4 (4.7)	17 (20.1)	7 (8.2)	42 (49.4)	15 (17.6)	3.914	1.090	9

Source: Researcher's Field Survey, (2019).

### 4.5.3 Impact of the environment of NPS in the Peripheral Zone.

The result showed analysis of the environment NPS in the Peripheral zone as shown in Table 4.23 below. Safety from traffic has the highest weighted mean score of 4.033 with the standard deviation of 3.791 being rated "Agreed" by the highest frequency and percentage distribution of 116 (58.3 percent); artificial light (4.011 wms;  $\pm 3.818$ std) being rated "Agreed" by 108 (54.3 percent); playground (4.000 wms;  $\pm 3.780$ std) being rated "Agreed" by 116 (58.3 percent); landscape area (3.995 wms;  $\pm 3.807$ std) being rated "Agreed" by 119 (59.8 percent); manmade features (3.989 wms;  $\pm 3.805$ std) being rated "Agreed" by 126 (63.6 percent); physical and environment elements (3.943 wms;  $\pm 1.068$ std) being rated "Agreed" by 117 (58.8 percent); historical elements (3.920 wms;  $\pm 3.709$ std) being rated "Agreed" by 111 (55.8 percent); natural features (3.905 wms;  $\pm 3.678$ std) being rated "Agreed" by 112 (56.2 percent), and noise/quietness (3.851 wms;  $\pm 3.526$ std) being rated "Agreed" by 90 (45.2 percent).

Table 4.23: The impact of the Environment NPS in the Peripheral Zone

Environmental NPS	Frequency and Percentage Distribution					Weighted Mean Score		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Statistic	Std. dev	Rank
Traffic	9 (4.5)	14 (7.0)	24 (12.1)	116 (58.3)	36 (18.1)	4.033	3.791	1
Artificial light	7 (3.5)	15 (7.5)	32 (16.1)	108 (54.3)	37 (18.6)	4.011	3.818	2
Playground	9 (4.5)	15 (7.5)	26 (13.1)	116 (58.3)	33 (16.6)	4.000	3.780	3
Landscape area	8 (4.0)	12 (6.0)	29 (14.6)	119 (59.8)	31 (15.6)	3.995	3.807	4
Manmade features	8 (4.0)	13 (6.5)	24	126	28	3.989	3.805	5

			(12.1)	(63.3)	(14.1)			
Physical and environmental elements	15 (7.5)	19 (9.5)	20 (10.1)	117 (58.8)	28 (14.1)	3.943	1.068	6
Historical elements	6 (3.0)	19 (9.5)	35 (17.6)	111 (55.8)	28 (14.1)	3.920	3.709	7
Natural features	6 (3.0)	24 (12.1)	30 (15.1)	112 (56.2)	27 (13.6)	3.905	3.678	8
Noise / quietness	11 (5.5)	33 (16.6)	33 (16.6)	90 (45.2)	32 (16.1)	3.851	3.526	9

Source: Researcher's Field Survey, (2019).

#### 4.5.4 Summary of the analysis of the environment of Neighbourhood public spaces in the three zones

It is pertinent to conclude that the visual perception of the environment of public spaces affects the quality of life of city inhabitants, presence of green area to replace the undeveloped and dirty environment of neighbourhood public spaces increase the aesthetic image quality of the urban environment, the study of Yilmaz and Mumcu (2016) noted that presence of natural green area beautify the environment and improve quality of life. If the physical environments of public spaces are improved on, it will subsequently reflect on the overall image of the city. A good environment of public spaces improve the image of the city, (Ramlee, 2014)

Table 4.24 revealed the frequency distribution, percentage distribution, weighted mean score, standard deviation, and ranking of each of the variables used to determine the environment NPS in Akure. As demonstrated in It is pertinent to conclude that the visual

perception of the environment of public spaces affects the quality of life of city inhabitants, presence of green area to replace the undeveloped and dirty environment of neighbourhood public spaces increase the aesthetic image quality of the urban environment, the study of Yilmaz and Mumcu (2016) noted that presence of natural green area beautify the environment and improve quality of life. If the physical environments of public spaces are improved on, it will subsequently reflect on the overall image of the city. A good environment of public spaces improve the image of the city, (Ramlee, 2014)

Table 4.24, Landscape has the highest weighted mean score of 4.110 with the standard deviation of (0.714) being rated "Agreed" by the frequency and percentage distribution of 195 (58.4 percent) and it is being ranked first; followed by traffic having the value (4.096 wms;  $\pm 0.753$  std) being rated "Agreed" by 192 (57.5 percent) and it is ranked second, and the third-ranked variable is artificial light having the value of (4.062 wms;  $\pm 0.764$  std) being rated "Agreed" by 185 (55.4 percent). The least of all the variables is noise/quietness having the value of (3.876 wms;  $\pm 0.945$  std) being rated "Agreed" by 150 (44.9 percent). Other variables include a playground (4.054 wms;  $\pm 0.790$  std) being rated "Agreed" by 187 (56.0 percent); Manmade (4.029 wms; 0.680 std) being rated "Agreed" by 216 (64.7 percent); Historical elements (3.982 wms;  $\pm 0.777$  std) being rated "Agreed" by 201 (60.2), and Natural features (3.932 wms;  $\pm 0.810$  std) being rated "Agreed" by the frequency and percentage distribution of 186 (55.7 percent). From the result displayed, the variables which showed more impact on the environment of NPS include landscape area, traffic, and artificial light while the variable which shows the least factor is noise/quietness as demonstrated in Figure 4.1. The question interviewees were asked, "*How will you describe the physical environment*

of Akure?” The findings showed that the environment of the peripheral zone of neighbourhood public spaces in Akure are undeveloped, dirty, and disorderly, also observed by the interviewees was that the core zone is unattractive, and the facilities present are not enough and in disarray (see appendix III). The study of Yuen (1996) posits that respondents are attracted to neighbourhood parks for their natural elements of trees, flowers and the natural environment.

It is pertinent to conclude that the visual perception of the environment of public spaces affects the quality of life of city inhabitants, presence of green area to replace the undeveloped and dirty environment of neighbourhood public spaces increase the aesthetic image quality of the urban environment, the study of Yilmaz and Mumcu (2016) noted that presence of natural green area beautify the environment and improve quality of life. If the physical environments of public spaces are improved on, it will subsequently reflect on the overall image of the city. A good environment of public spaces improve the image of the city, (Ramlee, 2014)

Table 4.24: Analysis of the environment of NPS

	Frequency and Percentage Distribution						Weighted Mean Score (WMS)		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	TS	statistic	Std. dev	Rank
Landscape area	8 (2.4)	15 (4.5)	44 (13.2)	195 (58.4)	72 (21.6)	1310	4.110	0.714	1
Traffic	14 (4.2)	18 (5.4)	39 (11.7)	192 (57.5)	71 (21.3)	1290	4.096	0.753	2
Artificial light	13 (3.9)	18 (5.4)	50 (15.0)	185 (55.4)	68 (20.4)	1279	4.062	0.764	3

Playground	14 (4.2)	27 (8.1)	39 (22.7)	187 (56.0)	67 (20.1)	1268	4.054	0.790	4
Manmade features	9 (2.7)	17 (5.1)	41 (12.3)	216 (64.7)	51 (15.3)	1285	4.029	0.680	5
Historical elements	8 (2.4)	29 (8.7)	56 (16.8)	184 (55.1)	57 (17.1)	1255	3.982	0.777	6
Physical and environment elements	25 (7.5)	35 (10.5)	25 (7.5)	201 (60.2)	48 (14.4)	1214	3.959	0.821	7
Natural features	11 (3.3)	40 (12.0)	47 (14.1)	186 (55.7)	50 (15.0)	1226	3.932	0.810	8
Noise/quietness	18 (5.4)	58 (17.4)	50 (15.0)	150 (44.9)	58 (17.4)	1174	3.876	0.945	9

Where SA indicates strongly agreed; A – agreed; U – undecided; D – Disagreed; and SD – strongly disagreed, wms – weighted mean score, Std. dev – Standard deviation.

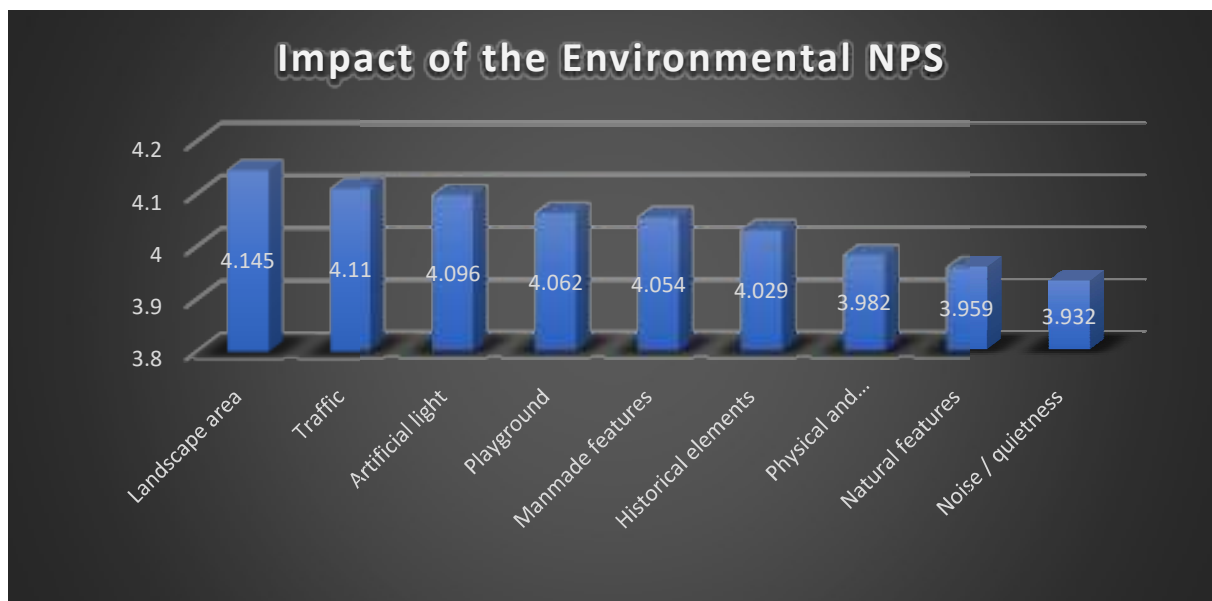


Figure 4.1: Impact of the Environment of NPS

Source: Researcher's Field Survey, 2019

#### 4.5.5 Descriptive Statistics on City Image

City image was measured using five categories of variables namely harmony, balance, rhythm, variety, and proportion. These variables were used to represent city image. For each of the variables, the images are shown in five different categories which include: Plate 4.2, Plate 4.4, Plate 4.3, Plate 4.5, and Plate 4.6 below. The results of the analysis show the frequency distribution, percentage distribution, total score, weighted mean score, and standard deviation as indicated in Table 4.25.



Plate 4.2: Democracy Park, Oba-Adesida road, Akure



Plate 4.4: Games Reserve Amusement Park, Ikota, Ijare Road



Plate 4.3: House of Assembly Arcade ground, Igbatoro, Akure



Plate 4.6:Ministry of Agricultural biological garden



Plate 4.5: Oyemekun Rocks

On harmony, image 3 has the highest weighted mean score with the value of 3.49 and the standard deviation of (1.089) being regarded as “harmony” by the frequency and percentage distribution of 106 (31.7 percent) and it is being ranked first. It is followed by image 4 (3.45 wms; 1.318 std) being rated “no harmony” by the frequency and percentage

distribution of 100 (29.9 percent); Image 5 (3.13 wms; 1.192 std) being rated "No harmony" by 100 (29.9 percent); Image 2 (2.66 wms; 1.016 std) being rated "less harmony" by 170 (50.9 percent), and image 1 (1.85 wms; 0.720 std) being rated "no harmony" by 180 (53.9 percent). For balance, Image 2 is rated the highest weighted mean score of all the variables with the value of (3.61) and the standard deviation of (1.316 std) being rated "no balance" by the frequency and percentage distribution of 90 (26.9 percent); image 4 (3.34 wms; 1.296 std) being rated "less balance" by 94 (28.1 percent); Image 3 (3.10 wms; 1.151 std) being rated "less balance" by 117 (35.0 percent); Image 1 (2.83 wms; 1.153 std) being rated "less balance" by 119 (35.6 percent), and image 5 (2.71 wms; 1.063 std) being rated "less balance" by 111 (33.2 percent). For rhythm, Image 4 is rated the highest weighted mean value among the five (5) variables used to measure rhythm. It is shown that the rhythm of image 4 has (3.64 wms) and the standard deviation of 1.354 being rated "no rhythm" by 87 (26.0 percent). it is followed by Image 3 having the value (3.60 wms; 1.276 std) being rated "less rhythm" by 92 (27.5 percent); image 5 (3.45 wms; 1.190 std) being rated "rhythm" by 88 (26.3); image 1 (3.10 wms; 1.121 std) being rated "no rhythm" by 113 (33.8 percent), and image 2 (2.23 wms; 0.877 std) being rated "less rhythm" by 192 (57.5 percent). For variety, Image 4 is rated first and it has the highest weighted mean score among the images of variety used to measure the city image. Image 4 shows the value (3.52 wms; 1.154 std) being rated "less variety" by 104(31.1 percent); image 3 (3.32 wms; 1.116 std) being rated "undecided" by 120 (35.9 percent); image 5 (3.22 wms; 1.365 std) being rated "no variety" by 114 (34.1 percent); image 1 (3.08 wms; 1.289 std) being rated "no variety" by 133 (39.8 percent), and image 2 is rated the least of all the five variables of variety with the value (2.64 wms; 1.060 std) being rated "101" by the frequency and percentage distribution of 101 (30.2 percent). For

proportion, image 3 is rated the highest of the weighted mean score with a value of 3.53 and the standard deviation of (1.218) being rated "less proportion" by the frequency and percentage distribution of 97 (29.0 percent); followed by image 4 (3.30 wms; 1.097 std) being rated "proportion" by 100 (29.9 percent); image 1 (3.27 wms; 1.094 std) being rated "proportion" by 110 (32.9); image 2 (3.11; 1.021 std) being rated "undecided" by 110 (32.9 percent), and image 5 (2.25 wms; 0.926 std) being rated "less proportion" by the frequency and percentage distribution of 151 (45.2 percent). The result proves that the city image is seen from different perspectives and views. The view of the respondent is quite different from each other. Though the result can be more clearly seen from the perspective of having less harmony, less balanced, less rhythm, less variety, the proportion of city image in Akure, Ondo State, Nigeria, the study of Yoseh (2018) affirms that imageability of amenities in public space setting is not distributed in rhyme, unity and order.

Meanwhile, the average value of all the images is used to determine each of the variables of the city image as shown in Table 4.25 and Figure 4.2 below. The variables obtain for harmony, balance; variety, rhythm, and proportion are represented graphically. It is shown that the highest value of the city image is rhythm with the value of (3.204), followed by variety (3.156); the third-rated is balance (3.118), the fourth is the proportion (3.092), and the last variable is a harmony (2.916). The appearance of an object depends on the environmental image that the observers see and as it is being arranged in elements. City form can be organized into distinct elements for ease of recognition, such as harmony, balance; variety, rhythm, and proportion, these are the tools to analyse the qualities of neighbourhood public spaces in Akure. The image parameters measured with the tools of the principle of design mentioned above are the spaces, greenery, variety, landscape, parking, outdoor furniture and

comfort. It is important to analyse the public spaces influences on society taking into account the interpretation of the mental image form by users.

The findings reveal that there is no harmony of elements in neighbourhood public space in Akure, the totality of the physical environment in terms of greenery and other physical facilities are in disarray, scattered and unkempt, Adejumo and Adebamowo (2012) noted that harmony in the environment is based on wholeness with nature through a continuous flow of interaction between principles and city form. Further findings reveal that neighbourhood public spaces are not well developed, planned and lack basic artistic features and as such does not attract users, Zagrob, Szczepanska, and Senetra, (2020) posits that orderly and harmonious planning of public spaces considerably influences the perception of space aesthetic and attractiveness of public spaces Zagrob, Szczepanska, and Senetra, (2020) further findings reveal lack of proportion in the elements found in neighbourhood public spaces in the zones, to height, scale and combinations of physical features, also noticed is lack of balance in the visual arrangement of form that can arouse a sense of balance in viewers. Balance in the image can be evaluated based on the visual distribution of the weight of the elements

The summary of the findings in this section showed that the perception of the environment of neighbourhood public spaces in the zones affects the city image and users behaviour. Findings showed that social attraction, a safe, comfortable and aesthetically attractive public space affect user's behavioural patterns Zmudzinska (2003). A positive city image strengthens social integration and creates harmony in the neighbourhoods; a distinct city image helps observers to establish a harmonious relationship between self and the surrounding environment (Lynch 1960).

It is obvious from the findings that the satisfaction of users of public space depends on the perception of its image qualities; effort should be geared towards creating an attractive space to attract visitors and investors. The outcome showed that design principles elements (Harmony, balance, rhythm, proportion and variety) are an important consideration in city image and should be considered in the development of public spaces. Neacsu (2019) noted that a good image of the environment can stimulate a positive attitude and harmonic behaviour in people. As the city is experience through its image, so also it affects the mood and mental state of its inhabitants, (Pompe 2019). It is therefore expedient to generalise that having a beautiful serene environment while exercising or visiting public spaces can be a powerful motivator of physical activity, (Bedimo-Rung et al 2005).

Table 4.25: Descriptive statistics on city image

						<b>Weighted Mean Score (WMS)</b>			
<b>Variables</b>	<b>Frequency and Percentage Distribution</b>					<b>TS</b>	<b>statistic</b>	<b>Std. dev</b>	<b>Rank</b>
<b>Harmony</b>	<b>NH</b>	<b>LH</b>	<b>U</b>	<b>H</b>	<b>GH</b>		<b>2.916</b>		<b>5</b>
Image 1	180 (53.9)	120 (35.9)	34 (10.2)	0 (0.0)	0 (0.0)	522	1.85	0.720	5
Image 2	72 (21.6)	170 (50.9)	35 (10.5)	57 (17.1)	0 (0.0)	745	2.66	1.016	4
Image 3	51 (15.3)	76 (22.8)	69 (20.7)	106 (31.7)	32 (9.6)	994	3.49	1.089	1
Image 4	100 (29.9)	79 (23.7)	27 (8.1)	87 (26.0)	41 (12.3)	892	3.45	1.318	2
Image 5	100 (29.9)	88 (26.3)	44 (13.2)	89 (26.6)	13 (3.9)	829	3.13	1.192	3
<b>Balance</b>	<b>NB</b>	<b>LB</b>	<b>U</b>	<b>B</b>	<b>VB</b>		<b>3.118</b>		<b>3</b>
Image 1	97 (29.0)	119 (35.6)	57 (17.1)	51 (15.3)	10 (3.0)	760	2.83	1.153	4
Image 2	90 (26.9)	73 (21.9)	32 (9.6)	81 (24.3)	58 (17.4)	946	3.61	1.316	1
Image 3	77 (23.1)	117 (35.0)	38 (11.4)	91 (27.2)	11 (3.3)	844	3.10	1.151	3

Image 4	91 (27.2)	94 (28.1)	35 (10.5)	79 (23.7)	35 (10.5)	875	3.34	1.296	2
Image 5	109 (32.6)	111 (33.2)	57 (17.1)	57 (17.1)	0 (0.0)	730	2.71	1.063	5
<b>Rhythm</b>	<b>NR</b>	<b>LR</b>	<b>U</b>	<b>R</b>	<b>VR</b>		<b>3.204</b>		<b>1</b>
Image 1	113 (33.8)	46 (13.8)	90 (26.9)	75 (22.5)	10 (3.0)	825	3.10	1.121	4
Image 2	83 (24.9)	192 (57.5)	34 (10.2)	25 (7.5)	0 (0.0)	669	2.23	0.877	5
Image 3	59 (17.7)	92 (27.5)	57 (17.1)	62 (18.6)	64 (19.2)	982	3.60	1.276	2
Image 4	87 (26.0)	86 (25.7)	21 (6.3)	75 (22.5)	65 (19.5)	947	3.64	1.354	1
Image 5	87 (26.0)	54 (16.2)	70 (21.0)	88 (26.3)	35 (10.5)	932	3.45	1.190	3
<b>Variety</b>	<b>NV</b>	<b>LV</b>	<b>U</b>	<b>V</b>	<b>GV</b>		<b>3.156</b>		<b>2</b>
Image 1	133 (39.8)	57 (17.1)	65 (19.5)	58 (17.4)	21 (6.3)	779	3.08	1.289	4
Image 2	101 (30.2)	135 (40.4)	46 (13.8)	51 (15.3)	1 (0.3)	718	2.64	1.060	5
Image 3	48 (14.4)	81 (24.3)	120 (35.9)	49 (14.7)	36 (10.8)	946	3.32	1.116	2
Image 4	54 (16.2)	104 (31.1)	17 (5.1)	127 (38.0)	32 (9.6)	981	3.52	1.154	1
Image 5	114 (34.1)	77 (23.1)	60 (18.0)	44 (13.2)	39 (11.7)	819	3.22	1.365	3
<b>Proportion</b>	<b>NP</b>	<b>LP</b>	<b>U</b>	<b>P</b>	<b>VP</b>		<b>3.092</b>		<b>4</b>
Image 1	87 (26.0)	65 (19.5)	61 (18.3)	110 (32.9)	11 (3.3)	895	3.27	1.094	3
Image 2	75 (22.5)	69 (20.7)	110 (32.9)	70 (32.9)	10 (3.0)	873	3.11	1.021	4
Image 3	57 (17.1)	97 (29.0)	45 (13.5)	88 (26.3)	47 (14.1)	973	3.53	1.218	1
Image 4	76 (22.8)	70 (21.0)	71 (21.3)	100 (29.9)	17 (5.1)	914	3.30	1.097	2
Image 5	124 (37.1)	151 (45.2)	38 (11.4)	21 (6.3)	0 (0.0)	624	2.25	0.926	5

Source: Researcher's Field Survey. 2021.

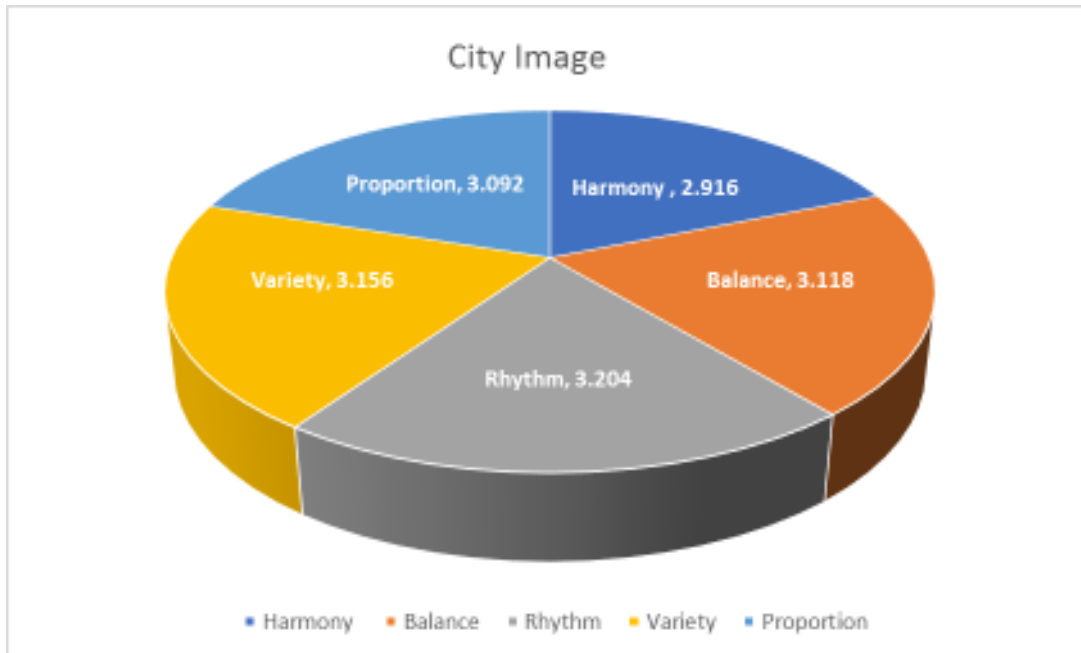


Figure 4.2: Graphical Representation of City Image  
 Source: Researcher’s Field Survey, 2019.

#### 4.5.6 Testing of Hypothesis 3

Kendall-tau b correlation analysis is conducted to determine the relationship between city image and environment of the neighbourhood public spaces. The null hypothesis states that there is no statistically significant relationship between the environment of NPS and city image and the decision rule state that if  $P\text{-value} < 0.05$  (5% significance level), reject the null hypothesis, otherwise, do not reject the null hypothesis.

From the result of the analysis, the null hypothesis is not rejected at  $P\text{-value} < 0.05$  (Table 4.26) and the study conclude that there is no statistically significant relationship between the environment of NPS and the city image with a  $P\text{-value}$  of (0.355). This implies that the environment of the NPS does affect the city image. The image of the city is the representation of the city environment, its landscape and spaces, to achieve a distinctive

image of the city, special consideration must be given to the public spaces in the city and the surrounding, Pompe (2019) posit that the metropolitan environment contributes to a desire city image.

Table 4.26: Test of Hypothesis (Objective 3)

	T	P-value	Remarks
City Image	0.036	0.355	Do not reject the null hypothesis

Where \*\*\* indicates P-value < 0.01, \*\* indicates P-value < 0.05, and \* indicates P-value < 0.1.

Source: Researcher's Field Survey, 2019.

#### 4.5.7 Relationship between Environment of NPS and City image

The individual correlation of the city image and the environmental NPS is analysed using Kendall tau correlation. The results of the analysis show in Table 4.27 indicate that none of the variable is significant at P-value < 0.01, 0.05, and 0.1 respectively. As displayed, the analysis reveals that there is no significant relationship between city image and environment of NPS (physical and environmental elements; natural features; manmade features, artificial light, landscape area, historical elements, playground, noise/quietness control, and traffic). The result of the Kendall tau correlation coefficient and the p-value reveal for each of the variable shows physical and environmental elements ( $\tau = 0.014$ ;  $p = 0.747$ ); natural features ( $\tau = -0.13$ ;  $p = 0.765$ ); manmade features ( $\tau = 0.016$ ;  $p = 0.712$ ); artificial light ( $\tau = -0.002$ ;  $p = 0.963$ ); landscape area ( $\tau = 0.044$ ;  $p = 0.302$ ); historical elements ( $\tau = 0.036$ ;  $p = 0.401$ ); playground ( $\tau = 0.035$ ;  $p = 0.408$ ); noise/quietness control ( $\tau = 0.027$ ;  $p = 0.518$ ), and traffic ( $\tau = -0.048$ ;  $p = 0.259$ ). Meanwhile, the variable of environment of NPS is significant among each other, findings revealed that respondents agreed to the facts that natural and manmade features, artificial light and landscaped areas are essential element to consider in public spaces, the study of Javadi (2016) posit that natural

and artificial elements are important in the beautification of the public spaces. Many other studies have noted the importance of natural features in public spaces, Jahdi, and Khanmohamadi (2013) noted that natural environment promotes health and wellness, and also that clean and healthy spaces encourage people to walk and spend leisure-time in landscape/green area. Guedoudj, et al (2020) noted that the components of the physical environment (natural and manmade) directly influence the attractiveness of public spaces.

Table 4.27: Correlation Analysis between Environment of NPS and City image

	City image	Physical and environmental elements	Natural features	Manmade features	Artificial light	Landscape Area	Historical elements	Playground	Noise/quietness control	Traffic
City image	1.000									
Physical and environmental elements	0.014 (0.747)	1.000								
Natural features	-0.13 (0.765)	0.389*** (0.000)	1.000							
Manmade features	0.016 (0.712)	0.278*** (0.000)	0.378*** (0.000)	1.000						
Artificial light	-0.002 (0.963)	0.267*** (0.000)	0.311*** (0.000)	0.320*** (0.000)	1.000					
Landscape Area	0.044 (0.302)	0.247*** (0.000)	0.399*** (0.000)	0.363*** (0.000)	0.301*** (0.000)	1.000				
Historical elements	0.036 (0.401)	0.097** (0.000)	0.248*** (0.000)	0.225*** (0.000)	0.190*** (0.000)	0.361*** (0.000)	1.000			
Playground	0.035 (0.408)	0.108** (0.023)	0.224*** (0.000)	0.255*** (0.000)	0.247*** (0.000)	0.332*** (0.000)	0.370*** (0.000)	1.000		
Noise/quietness control	0.027 (0.518)	0.060 (0.199)	0.114** (0.015)	0.207*** (0.000)	0.192*** (0.000)	0.248*** (0.000)	0.359*** (0.000)	0.407*** (0.000)	1.000	
Traffic	-0.048 (0.259)	0.128*** (0.008)	0.233*** (0.000)	0.289*** (0.000)	0.243*** (0.000)	0.344*** (0.000)	0.246*** (0.000)	0.447*** (0.000)	0.429** * (0.000)	1.000

Where \*\*\* indicates P-value < 0.01 (1% significance level); \*\* indicates P-value < 0.05 (5% significance level), and \* indicates P-value < 0.1 (10% significance level).

Source: Researcher's Field Survey, 2019.

#### 4.5.8 Summary

The study explores inquiry to identify how respondents perceive the image of the city through the evaluation of neighbourhood public spaces. Attributes of design principles such as harmony, rhythm, balance, variety and proportion were used. The findings highlight that there is a relationship between the environment of NPS and city image'

The physical tangible elements to measure in city image are the visual evaluation of its attributes as observed by the users. The image of a place plays a significant role in attracting visitors and other interested individuals, though the image of the city is hard to measure. The image of the city as described in this study refers to the image of its public spaces.

The way the physical environment is arranged is a characteristic of the image, which Lynch (1960) describe as the spatial layout, which is related to the concept of legibility as described in chapter two. The quality of an image gives it a high probability of evoking a strong image in a given observer (Lynch1960), in other words, the study explores the physical qualities of neighbourhood public spaces through city image using five distinct design principles which are: harmony, rhythm, balance, variety and proportion.

For example, image parameter, harmony was used to measure the image of NPS; harmony describes the visually satisfying effect of combining similar or related elements. Elements to be combined to, adjacent colours or into similar shapes, the findings from the zones reveal "No harmony". Another parameter, balance, which is the distribution of visual weight in artwork or image, was also measured. Balance describes the visual composition of the element. Balance can be symmetrical or asymmetrical. In symmetrical one side of the image is a mirror image of the other, Toscano and Holmes (2017).in symmetrical balance,

elements are arranged the same or very similar on either side of a central axis, the findings from the zones reveal "No balance". The overall findings on the five parameters used reveal, No harmony, no balance, no variety, no rhythm and no proportion of the physical elements of the neighbourhood public spaces.

Furthermore, to check the relationship between the environment of neighbourhood public spaces and city image statistically, the findings show that there is no significant relationship between these two variables whereas the interview and charrette results were not in agreement with the survey findings.

One aspect of the image assessment was to ask respondents to describe *their perception of the image of Akure*, many of the interviews made it clear that the image of Akure as a city is not pleasant. Interviewees report findings to reveal "that the environment of the transitional zone is beautiful and peaceful but the physical environment is not in order and well arranged". Another report said, "*Some of the facilities are not put in place*". Report from the core zone has revealed that the NPS is beautiful but the environment is not well coordinated. An interviewee noted that *Akure is not having a standard image and public space. Akure is not beautiful compare to other southwest states like Lagos State, Ogun state, and Oyo State not pleasing to be called a city. Not up to standard, needs improvement.*

#### **4.6 Factors influencing the Management of NPS in the three zones.**

Meanwhile, the graph in Error! Reference source not found. shows the graphical representation of the variables used to measure the effective management of the NPS in Akure. The variables are shown according to their rank and how they influence the management of the NPS. Findings show that there is no significant difference in the factors

influencing effective management of neighbourhood public spaces in all the three zones of the study area, security, lack of amenities, unkempt physical environment, lack of proper monitoring, control, regulation of use by Government and its agencies for government-owned public spaces and lack of cost of maintenance by private owned, Carmona and De magalhaes (2016) noted that poor management is to be blamed for the state of many public spaces, where abandonment and deterioration have filled the spaces with indiscriminate waste disposal methods and dilapidated facilities. This study concludes that a redevelopment by investment in public spaces, its environment, proper management policies will increase the mental image perception of users and encourage usage; the study of Ramlee (2015) posits that public space functions as useful component of urban regeneration strategies by improving the image of the city.

Table 4.31 shows the result of the analysis of using spearman's rho correlation to investigate the degree of relationship between the variables, and Kruskal-Wallis was used to test the hypothesis.

#### **4.6.1 Factors Influencing Management in the Core**

The factor influencing the effective management of the NPS is shown in Table 4.28: Factors influencing the management in the core. Thirteen (13) factors are used to measure the influence of the effective management of the NPS in the core zone as displayed in Table 4.14 below. The result shows that security has the highest weighted mean score of (4.313) with the standard deviation of 0.857 being rated "Agreed" by the mode (highest frequency and percentage distribution) value of 23 (46.0 percent); basic amenities (4.275wms;  $\pm 0.975$ std) being rated "Strongly Agreed" by 20 (40.0 percent); population growth (4.270wms;  $\pm 0.965$ std) being rated "Strongly Agreed" by 19 (38.0 percent); cost of maintenance

(4.253wms;  $\pm 0.823$ std) being rated "Agreed" by 22 (44.0 percent); unkempt (4.218wms;  $\pm 0.685$ std) being rated "Agreed" by 31 (62.0 percent); growth (4.194wms;  $\pm 0.852$ std) being rated "Agreed" by 26 (52.0 percent); economic decline (4.060wms;  $\pm 0.939$ std) being rated "Agreed" by 20 (40.0 percent); concerned authority (3.752wms;  $\pm 0.984$ std) being rated "Agreed" by 23 (46.0 percent); conversion in use (3.520wms;  $\pm 1.098$ std) being rated "Undecided" by 15 (30.0 percent); encroachment (3.458wms;  $\pm 1.194$ std) being rated "Undecided" by 14 (28.0 percent); government policy (3.452wms;  $\pm 1.210$ std) being rated "Disagreed" by 19 (38.0 percent); management (3.312wms;  $\pm 1.128$ std) being rated "Disagreed" by 18 (36.0 percent). From the result of the analysis, it is shown that the respondents agreed to nine (9) factors out of the thirteen (13) factors shown in table 4.38 while the respondents could not decide on the conversion in use, and encroachment policy stated in the core zone. Also, the respondents disagreed with government policy and management not being a factor that influences the effective management of the core NPS. The finding showed that government policy has no effect on management of public spaces, whereas security, basic amenities, population growth and cost of maintenance are factor respondents noted influence effective management of neighbourhood public spaces in the study area, the study of Carmona and De magalhaes (2016) posits that the general cleanliness, traffic management, roads/pavement, lighting maintenance and the availability of basic amenities are some the challenges faced in public spaces in most developing countries. Guedoudj, et al (2020) noted that most young adults are attracted to the public spaces because of the environmental amenities and the lively ambiance they experience.

Table 4.28: Factors influencing the management in the core

Factors	Frequency and Percentage Distribution					Weighted Mean Score		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Statistic	Std. dev	Rank
Security	4 (8.0)	3 (6.0)	3 (6.0)	21 (42.0)	19 (38.0)	4.313	0.857	1
Basic Amenities	3 (6.0)	8 (16.0)	2 (4.0)	17 (34.0)	20 (40.0)	4.275	0.975	2
Population growth	7 (14.0)	2 (4.0)	5 (10.0)	17 (34.0)	19 (38.0)	4.270	0.965	3
Cost of maintenance	3 (6.0)	2 (4.0)	6 (12.0)	22 (44.0)	17 (34.0)	4.253	0.823	4
Unkempt	1 (2.0)	3 (6.0)	2 (4.0)	31 (62.0)	13 (26.0)	4.218	0.685	5
Growth	5 (10.0)	3 (6.0)	2 (4.0)	26 (52.0)	14 (28.0)	4.194	0.852	6
Economic decline	5 (10.0)	3 (6.00)	9 (18.0)	20 (40.0)	13 (26.0)	4.060	0.939	7
Concerned Authority	6 (12.0)	8 (16.0)	7 (14.0)	23 (46.0)	6 (12.0)	3.752	0.984	8
Conversion in use	4 (8.0)	13 (26.0)	15 (30.0)	11 (22.0)	7 (14.0)	3.520	1.098	9
Encroachment	9 (18.0)	11 (22.0)	14 (28.0)	9 (18.0)	7 (14.0)	3.458	1.194	10
Government Policy	5 (10.0)	19 (38.0)	8 (16.0)	11 (22.0)	7 (14.0)	3.452	1.210	11
Management	6 (12.0)	18 (36.0)	9 (18.0)	13 (26.0)	4 (8.0)	3.312	1.128	12
Environmental decay	5 (10.0)	23 (46.0)	11 (22.0)	8 (16.0)	3 (6.0)	3.046	1.101	13

Source: Researcher's Field Survey, 2019.

#### **4.6.2 Factors Influencing Management in the Transition Zone.**

Security is rated the highest weighted mean score showing the value of (4.372) with the standard deviation of (0.659) being rated "Agreed" by the highest frequency and percentage distribution of 42 (49.4 percent); followed by cost of maintenance (4.318wms;  $\pm 0.883$ std) being rated "Strongly Agreed" by 36 (42.4 percent); basic amenities (4.312wms;  $\pm 0.773$ std) being rated "Agreed" by 38 (44.7 percent); population growth (4.194wms;  $\pm 0.922$ std) being rated "Strongly Agreed" by 30 (35.3 percent); unkempt (4.078wms;  $\pm 0.864$ std) being rated "Agreed" by 40 (47.1 percent); economic decline (4.000wms;  $\pm 0.908$ std) being rated "Agreed" by 39 (45.9 percent); government policy (3.944wms;  $\pm 0.980$ std) being rated "Agreed" by 32 (37.6 percent); growth (3.833wms;  $\pm 1.009$ std) being rated "Agreed" by 29 (34.1 percent); concerned authority (3.679wms;  $\pm 1.044$ std) being rated "Agreed" by 37 (43.5 percent); Management (3.642wms;  $\pm 1.046$ std) being rated "Agreed" by 27 (31.8 percent); encroachment (3.448wms;  $\pm 1.012$ std) being rated "Undecided" by 29 (34.1 percent); environmental decay (3.409wms;  $\pm 0.993$ std) being rated "Agreed" by 27 (31.8 percent), and conversion in use (3.325wms;  $\pm 1.095$ std) being rated "Undecided" by 25 (29.4 percent). This indicates that all the factors influence the effective management of NPS in the transition zone. The findings in the transition zone are not different from the core zone, users desire a safe space, properly funded with basic amenities, Carmona and De magalhaes (2016) posits that the decline in the reduction of funds by Governments over the years affectsthe effective management of public spaces.

Table 4.29: Factors Influencing the Management in the Transition Zone

Factors	Frequency and Percentage Distribution					Weighted Mean Score		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Statistic	Std. dev	Rank
Security	1 (1.2)	1 (1.2)	8 (9.4)	42 (49.4)	33 (38.8)	4.372	0.659	1
Cost of maintenance	1 (1.2)	11 (12.9)	8 (9.4)	29 (34.1)	36 (42.4)	4.318	0.883	2
Basic Amenities	2 (2.4)	5 (5.9)	8 (9.4)	38 (44.7)	32 (37.6)	4.312	0.773	3
Population growth	2 (2.4)	11 (12.9)	12 (14.1)	30 (35.3)	30 (35.3)	4.194	0.922	4
Unkempt	4 (4.7)	8 (9.4)	12 (14.1)	40 (47.1)	21 (24.7)	4.078	0.864	5
Economic decline	2 (2.4)	14 (16.5)	11 (12.9)	39 (45.9)	19 (22.4)	4.000	0.908	6
Government Policy	7 (8.2)	10 (11.8)	17 (20.0)	32 (37.6)	19 (22.4)	3.944	0.980	7
Growth	10 (11.8)	8 (9.4)	22 (25.9)	29 (34.1)	16 (18.8)	3.833	1.009	8
Concerned Authority	7 (8.2)	24 (28.2)	7 (8.2)	37 (43.5)	10 (11.8)	3.679	1.044	9
Management	6 (7.1)	20 (23.5)	20 (23.5)	27 (31.8)	12 (14.1)	3.642	1.046	10
Encroachment	8 (9.4)	18 (21.2)	29 (34.1)	22 (25.9)	8 (9.4)	3.448	1.012	11
Environmental decay	4 (4.7)	27 (31.8)	21 (24.7)	27 (31.8)	6 (7.1)	3.409	0.993	12
Conversion in use	14 (16.5)	20 (23.5)	25 (29.4)	19 (22.4)	7 (8.2)	3.325	1.095	13

Source: Researcher's Field Survey, 2019.

#### **4.6.3 Factors Influencing the Management in the Peripheral Zone**

This indicates that the respondents agree to the majority of the factors listed in table 4.16 as the main factors that influence management in the peripheral Zone. This implies that users perceptions on factors that influence effective management of public spaces in the three zones are not different from one another, which include, lack of Government policy, unkempt environment, cost of maintenance, security and lack of provision of basic amenities, the study of Mandeli (2019) noted that poor Government has hindered the creation of high-quality public spaces, failure of planning authority to preserve the existing spaces and deteriorations on the quality by the regulatory authority. Further findings revealed inadequate facilities, dilapidated recreational facilities as reported by the interviewees (see appendix III), which further hindered users from visiting to public spaces for recreational activities, Guedoudj, et al (2020) posits that lack of effective infrastructure affects the image of public spaces, and have decreased users accessibility

Table 4.30 shows that unkempt is the highest factor influencing the effective management of peripheral NPS having the weighted mean score of 4.088 with the standard deviation of 0.810 being rated "Agreed" by 104 (52.3 percent); followed by government policy (4.023wms;  $\pm 0.831$ std) being rated "Agreed" by 106 (53.3 percent); growth (4.012wms;  $\pm 0.752$ std) being rated "Agreed" by 115 (57.8 percent); cost of maintenance (3.996wms;  $\pm 0.852$ std) being rated "Agreed" by 103 (51.8 percent); security (3.991wms;  $\pm 0.828$ std) being rated "Agreed" by 99 (49.7 percent); basic amenities (3.987wms;  $\pm 0.822$ std) being rated "Agreed" by 107 (53.8 percent); population growth (3.984wms;  $\pm 0.857$ std) being rated "Agreed" by 99 (29.7 percent); economic decline (3.848wms;  $\pm 0.892$ std) being rated "Agreed" by 90 (45.2 percent); conversion in use (3.567wms;  $\pm 0.905$ std) being rated "Agreed" by 75 (37.7 percent); encroachment (3.565wms;  $\pm 1.045$ std) being rated "Undecided" by 56 (28.1 percent); concerned authority (3.538wms;  $\pm 1.066$ std) being rated "Agreed" by 69 (34.7 percent); management (3.512wms;  $\pm 1.073$ std) being rated "Agreed" by 65 (32.7 percent, and environmental decay shows the weighted mean score value of (3.436) with the standard deviation of 1.072 being rated "Undecided" by the mode (highest frequency and percentage distribution) value of 56 (28.1 percent). This indicates that the respondents agree to the majority of the factors listed in table 4.16 as the main factors that influence management in the peripheral Zone. This implies that users perceptions on factors that influence effective management of public spaces in the three zones are not different from one another, which include, lack of Government policy, unkempt environment, cost of maintenance, security and lack of provision of basic amenities, the study of Mandeli (2019) noted that poor Government has hindered the creation of high-quality public spaces, failure of planning authority to preserve the existing spaces and deteriorations on the quality by the

regulatory authority. Further findings revealed inadequate facilities, dilapidated recreational facilities as reported by the interviewees (see appendix III), which further hindered users from visiting to public spaces for recreational activities, Guedoudj, et al (2020) posits that lack of effective infrastructure affects the image of public spaces, and have decreased users accessibility

Table 4.30: Factors Influencing the Management in Peripheral zone

Factors	Frequency and Percentage Distribution					Weighted Mean Score		
	SD (%)	D (%)	U (%)	A (%)	SA (%)	Statistic	Std. dev	Rank
Unkempt	8 (4.0)	16 (8.0)	25 (12.6)	104 (52.3)	46 (23.1)	4.088	0.810	1
Government Policy	6 (3.0)	24 (12.1)	23 (11.6)	106 (53.3)	40 (20.1)	4.023	0.831	2
Growth	2 (1.0)	19 (9.5)	28 (14.1)	115 (57.8)	35 (17.6)	4.012	0.752	3
Cost of maintenance	12 (6.0)	19 (9.5)	27 (13.6)	103 (51.8)	38 (19.1)	3.996	0.852	4
Security	6 (3.0)	19 (9.5)	36 (18.1)	99 (49.7)	39 (19.6)	3.991	0.828	5
Basic Amenities	7 (3.5)	22 (11.1)	27 (13.6)	107 (53.8)	36 (18.1)	3.987	0.822	6
Population growth	7 (3.5)	24 (12.1)	30 (15.1)	99 (29.7)	39 (19.6)	3.984	0.857	7
Economic decline	8 (4.0)	28 (14.1)	42 (21.1)	90 (45.2)	31 (15.6)	3.848	0.892	8
Conversion in use	11 (5.5)	36 (18.1)	61 (30.7)	75 (37.7)	16 (8.0)	3.567	0.905	9
Encroachment	12 (6.0)	50 (25.1)	56 (28.1)	55 (27.6)	26 (13.1)	3.565	1.045	10
Concerned Authority	22 (11.1)	52 (26.1)	36 (18.1)	69 (34.7)	20 (10.1)	3.538	1.066	11
Management	22 (11.1)	53 (26.6)	39 (19.6)	65 (32.7)	20 (10.1)	3.512	1.073	12
Environmental decay	18 (9.0)	55 (28.1)	56 (28.1)	49 (24.6)	21 (10.6)	3.436	1.072	13

Source: Researcher's Field Survey, 2019.

#### **4.6.4 Summary of the analysis of factors influencing Management of the NPS in the three zones**

Meanwhile, the graph in Error! Reference source not found. shows the graphical representation of the variables used to measure the effective management of the NPS in Akure. The variables are shown according to their rank and how they influence the management of the NPS. Findings show that there is no significant difference in the factors influencing effective management of neighbourhood public spaces in all the three zones of the study area, security, lack of amenities, unkempt physical environment, lack of proper monitoring, control, regulation of use by Government and its agencies for government-owned public spaces and lack of cost of maintenance by private owned, Carmona and De magalhaes (2016) noted that poor management is to be blamed for the state of many public spaces, where abandonment and deterioration have filled the spaces with indiscriminate waste disposal methods and dilapidated facilities. This study concludes that a redevelopment by investment in public spaces, its environment, proper management policies will increase the mental image perception of users and encourage usage; the study of Ramlee (2015) posits that public space functions as useful component of urban regeneration strategies by improving the image of the city.

Table 4.31 shows the factors influencing effective management in the NPS in Akure. The result of the analysis shows that security is the major factor influencing the effective management of the NPS in Akure, with the highest weighted mean score of 4.145 and the standard deviation of (0.809) being rated “Agree” by the highest frequency and percentage distribution of 162 (48.5 percent); followed by cost of maintenance (4.122 wms;  $\pm 0.868$  std) being rated “Agreed” by 154 (46.1 percent); Basic Amenities (4.119 wms;  $\pm 0.848$  std) being

rated “Agreed” by 162 (48.5 percent); Unkempt (4.106 wms;  $\pm 0.807$  std) being rated “Agreed” by 175 (52.4 percent); Population Growth (4.082 wms;  $\pm 0.899$  std) being rated “Agreed” by 146 (43.7 percent); Growth (3.998 wms;  $\pm 0.841$  std) being rated “Agreed” by 170 (50.9 percent); Government Policy (3.933 wms;  $\pm 0.940$  std) being rated “Agreed” by 149 (44.6 percent); Economic decline (3.920 wms;  $\pm 0.907$  std) being rated “Agreed” by 149 (44.6 percent); Concerned Authority (3.608 wms; 1.050 std) being rated “Agreed” by 129 (38.6 percent); Encroachment (3.521 wms;  $\pm 1.059$  std) being rated “Undecided” by 99 (29.6 percent); Management (3.520 wms;  $\pm 1.077$  std) being rated “Agreed” by 105 (31.4 percent); conversion in use (3.504 wms;  $\pm 0.986$  std) being rated “Agreed” by 105 (31.4 percent), and Environmental decay (3.377 wms;  $\pm 1.063$  std) being rated “Disagreed” by 105 (31.4 percent).

This proves that the main factor which influences the effective management in the core zone, transitional zone, and peripheral zone are security, cost of maintenance, and basic amenities as the variables are ranked first, second, and third respectively. The last variable which is considered under the factor influencing effective management is environmental decay as indicated in Meanwhile, the graph in Error! Reference source not found. shows the graphical representation of the variables used to measure the effective management of the NPS in Akure. The variables are shown according to their rank and how they influence the management of the NPS. Findings show that there is no significant difference in the factors influencing effective management of neighbourhood public spaces in all the three zones of the study area, security, lack of amenities, unkempt physical environment, lack of proper monitoring, control, regulation of use by Government and its agencies for government-owned public spaces and lack of cost of maintenance by private owned, Carmona and De magalhaes (2016) noted that poor management is to be blamed for the state of many public spaces,

where abandonment and deterioration have filled the spaces with indiscriminate waste disposal methods and dilapidated facilities. This study concludes that a redevelopment by investment in public spaces, its environment, proper management policies will increase the mental image perception of users and encourage usage; the study of Ramlee (2015) posits that public space functions as useful component of urban regeneration strategies by improving the image of the city.

Table 4.31 below. This result implies that respondents desire that more effort towards the provision of adequate security in NPS, robust maintenance and the provision of basic amenities. The charrette result also recommends adequate and modern facilities in NPS to increase patronage and ensure comfort for all users. The results further show the increasing order of factors influencing effective management of NPS in Akure, and also reflect the user's aspiration of improved management strategies.

Meanwhile, the graph in **Error! Reference source not found.** shows the graphical representation of the variables used to measure the effective management of the NPS in Akure. The variables are shown according to their rank and how they influence the management of the NPS. Findings show that there is no significant difference in the factors influencing effective management of neighbourhood public spaces in all the three zones of the study area, security, lack of amenities, unkempt physical environment, lack of proper monitoring, control, regulation of use by Government and its agencies for government-owned public spaces and lack of cost of maintenance by private owned, Carmona and De magalhaes (2016) noted that poor management is to be blamed for the state of many public spaces, where abandonment and deterioration have filled the spaces with indiscriminate waste disposal methods and dilapidated facilities. This study concludes that a redevelopment by

investment in public spaces, its environment, proper management policies will increase the mental image perception of users and encourage usage; the study of Ramlee (2015) posits that public space functions as useful component of urban regeneration strategies by improving the image of the city.

Table 4.31: Descriptive analysis of factors influencing effective management in the NPS

	SD (%)	D (%)	U (%)	A (%)	SA (%)	TS	Statistic	Std. dev	Rank
Security	11 (3.3)	23 (6.9)	47 (14.1)	162 (48.5)	91 (27.2)	1301	4.145	0.809	1
Cost of Maintenance	16 (4.8)	32 (9.6)	41 (12.3)	154 (46.1)	91 (27.2)	1274	4.122	0.868	2
Basic Amenities	12 (3.6)	35 (10.5)	37 (11.1)	162 (48.5)	88 (26.3)	1281	4.119	0.848	3
Unkempt	13 (3.9)	27 (8.1)	39 (11.7)	175 (52.4)	80 (24.0)	1284	4.106	0.807	4
Population Growth	16 (4.8)	37 (11.1)	47 (14.1)	146 (43.7)	88 (26.3)	1255	4.082	0.899	5
Growth	17 (5.1)	30 (9.0)	52 (15.6)	170 (50.9)	65 (19.5)	1238	3.998	0.841	6
Government Policy	18 (5.4)	53 (15.9)	48 (14.4)	149 (44.6)	66 (19.8)	1194	3.933	0.940	7
Economic decline	15 (4.5)	45 (13.5)	62 (18.6)	149 (44.6)	63 (18.9)	1202	3.920	0.907	8
Concerned Authority	35 (10.5)	84 (25.1)	50 (15.0)	129 (38.6)	36 (10.8)	1049	3.608	1.050	9
Encroachment	29 (8.7)	79 (23.7)	99 (29.6)	86 (25.7)	41 (12.3)	1033	3.521	1.059	10
Management	34 (10.2)	91 (27.2)	68 (20.4)	105 (31.4)	36 (10.8)	1020	3.520	1.077	11
Conversion in use	29 (8.7)	69 (20.7)	101 (30.2)	105 (31.4)	30 (9.0)	1040	3.504	0.986	12
Environmental decay	27 (8.1)	105 (31.4)	88 (26.3)	84 (25.1)	30 (9.0)	987	3.377	1.063	13

Where SA indicates strongly agreed; A – agreed; U – undecided; D – Disagreed; and SD – strongly disagreed, wms – weighted mean score, Std. dev – Standard deviation.

Source

e: Researcher's Field Survey, 2019

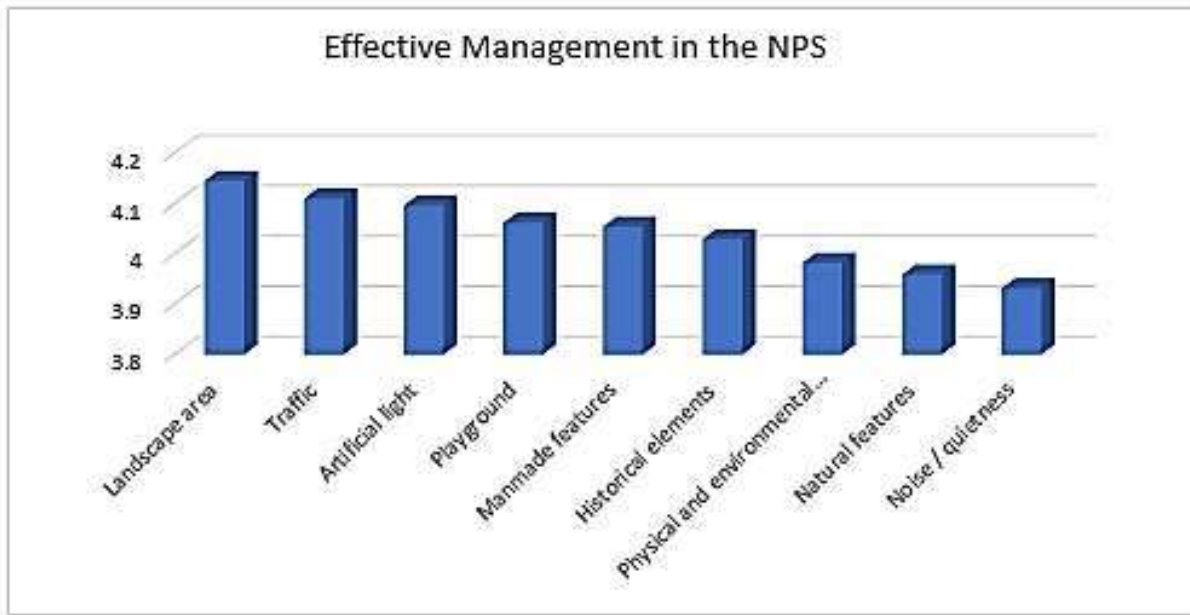


Figure 4.3: Bar chart of the Effective Management in the NPS

#### 4.6.5 Analysis on factors influencing effective management of the NPS in the zones

The relationship between the factors used to measure the effective management was analyzed using Spearman's rho correlation coefficient. This determines the strength of relationship between the variables as well as considered the significant relationship between each of the factors used to measure the effective management of the NPS in Akure, Ondo State. Meanwhile, the graph in **Error! Reference source not found.** shows the graphical representation of the variables used to measure the effective management of the NPS in Akure. The variables are shown according to their rank and how they influence the management of the NPS. Findings show that there is no significant difference in the factors influencing effective management of neighbourhood public spaces in all the three zones of the study area, security, lack of amenities, unkempt physical environment, lack of proper monitoring, control, regulation of use by Government and its agencies for government-owned

public spaces and lack of cost of maintenance by private owned, Carmona and De magalhaes (2016) noted that poor management is to be blamed for the state of many public spaces, where abandonment and deterioration have filled the spaces with indiscriminate waste disposal methods and dilapidated facilities. This study concludes that a redevelopment by investment in public spaces, its environment, proper management policies will increase the mental image perception of users and encourage usage; the study of Ramlee (2015) posits that public space functions as useful component of urban regeneration strategies by improving the image of the city.

Table 4.31 indicates that there is weak positive relationship between the variables. The analysis shows the variables which are significant with management. The variables include Concerned authorities ( $\rho = 0.477$ ;  $p = 0.000$ ); Economic decline ( $\rho = 0.113$ ;  $p = 0.039$ ); Environmental decay ( $\rho = 0.120$ ;  $p = 0.028$ ); Encroachment ( $\rho = 0.170$ ;  $p = 0.002$ ); Basic Amenities ( $\rho = 0.092$ ;  $p = 0.094$ ), and Conversion in use ( $\rho = 0.258$ ;  $p = 0.000$ ). Other variables which are found not significant with management include Government policy ( $\rho = 0.240$ ;  $p = 0.826$ ); Population Growth ( $\rho = 0.033$ ;  $p = 0.553$ ); Cost of maintenance ( $\rho = -0.016$ ;  $p = 0.775$ ); Growth ( $\rho = 0.066$ ;  $p = 0.226$ ), and Unkempt ( $\rho = -0.011$ ;  $p = 0.847$ ). The variables indicate a significant contribution while the ones that are not significant indicates that variables do not.

#### **4.6.6 Factors influencing the management of NPS in the three zones.**

Factor analysis was used to investigate the variables measuring aspects of the same underlying dimensions. Many variables of interest that are linearly related are observed in this section. It is required to establish where the condition for factor analysis is met before processing the analysis. According to Hair et. al., (2010), they reported that the minimum

variables required for factor analysis should be 5 subjects per variable. Also, Tabachnick and Fidell, (2007) said about 150 – 300 sample size is suitable for factor analysis. However, the factors used are thirteen (13) in total with a 334 sample size.

The analysis used a principal component dimensional reduction method of data analysis. Before proceeding with the analysis, it is required to examine if the distribution of this dataset is adequate for factor analysis, Kaiser-Meyer-Olkin Measure of (KMO) Sampling Adequacy is assigned. Field (2009) suggested that a dataset that attained a KMO index of 0.50 and Bartlett's test of sphericity where ( $p < 0.05$ ) is good enough for factor analysis. From the result in Table 4.32, KMO and Bartlett's Test, it was observable that a KMO has a significant value greater than 0.5. Bartlett's test of sphericity is significant at P-value (0.000)  $< 0.05$ . This proves that the data is appropriate for factor analysis and there is a need to proceed with the data analysis.

Table 4.32: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.678
	Approx. Chi-Square	742.525
Bartlett's Test of Sphericity	Df	78
	Sig.	.000

Where \*\*\* indicates  $P\text{-value} < 0.01$ ; \*\* indicates  $P\text{-value} < 0.05$ , and \* indicates  $P\text{-value} < 0.1$   
 Source: Researcher's Field Survey, 2019.

All the variables were subjected to factor analysis as shown in Table 4.34. It was observed from the result that the variables showed a commonality score greater than 0.4. Chidi, (2009) recommended a communality score greater than 0.4 to be safe for factor analysis. Meanwhile, the result shown in Table 4.34 is far above the minimum requirement of the commonality score. The least communality score for the variable is 0.428. This indicates

that the data meet up all the requirements for factor analysis. It is, therefore, safe to proceed with the analysis.

Eigenvalues represent the total amount of variance that can be explained by given principal components. Since the value of the eigenvalues obtained is positive, it implied that it is a good sign. Eigenvalues are also the sum of squared components loadings across all items for each component, which represent the amount of variance in each item that can be explained by the principal components. Four (4) components were extracted from the result of the total variance explained. The extracted component is as follows: component 1 (19.062%); component 2 (13.680%); component 3 (12.445%), and component 4 (11.165%). The total cumulative variance of the component extracted shows approximately (56.353%). The remaining 43.647% is a loss to an error term as shown in Table 4.33. It indicated that four of the components are associated with the first component. The result has also proven that the remaining nine (9) variables are not explained in the component.

Table 4.33: Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.812	21.633	21.633	2.478	19.062	19.062
2	1.828	14.060	35.693	1.778	13.680	32.742
3	1.433	11.026	46.718	1.618	12.445	45.187
4	1.252	9.634	56.353	1.452	11.165	56.353
5	.941	7.238	63.591			
6	.879	6.760	70.351			
7	.732	5.629	75.980			
8	.644	4.957	80.937			
9	.578	4.443	85.380			
10	.527	4.056	89.436			
11	.507	3.900	93.337			
12	.460	3.539	96.876			
13	.406	3.124	100.000			

Extraction Method: Principal Component Analysis.

Source: Researcher's Field Survey, 2019.

Figure 4.4 shows a close observation of the scree plot which reveals a break after the fourth factor. The second clusters of factors positioned close to the steep slope were extracted. The variables loaded under the third extracted factors (the principal components)

are illustrated in Table 4.17. The goal of running principal component analysis is to reduce our set of factors used in studying the effective management of NPS, it would be useful to have a criterion of selecting the optimal number of components that are of course smaller than the total number of items. One criterion is to choose components that have eigenvalues greater than 1. Under the Total Variance Explained table, we see the first four components have an eigenvalue greater than 1. This can be confirmed by the scree plot which plots the eigenvalue (total variance explained) by the component number. As shown in the visualization, the first component extracted has the highest total variance, followed by the second, and the third while the last extracted factor given a total variance extracted as 1.252. Other factors as shown in the scree plot are lower than 1. This implied that any components between 1 and 4 would be plausible and further corroborative evidence would be helpful. Factor loadings that were less than 0.40 were not displayed in the table. The finding has proven that of the thirteen factors used to measure the effective management of the neighbourhood public space, the figure has shown the number of factors extracted and used in the analysis. Meanwhile, the graphical representation of Table 4.17 is the result of Figure 4.12 shown below

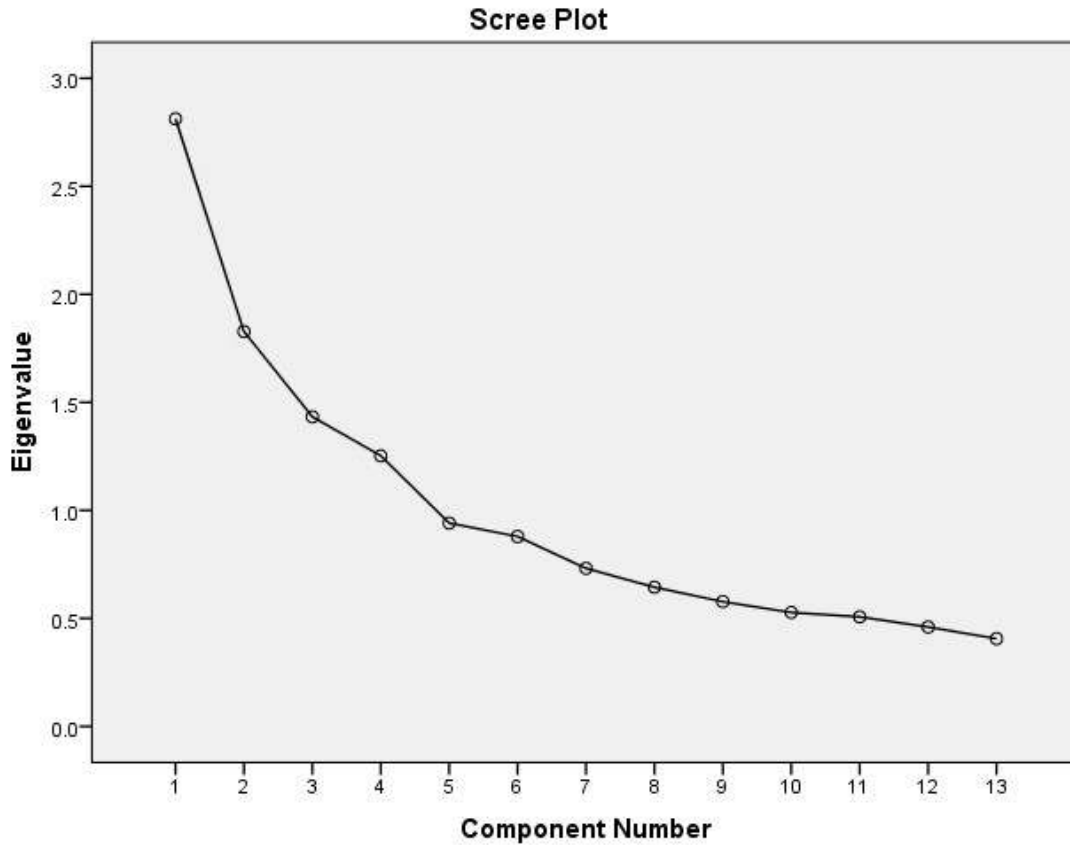


Figure 4.4: Scree Plot of the factors influencing the effective management of the NPS  
 Source: Researcher’s Field Survey, 2019.

### Communalities

The communalities of the factors used to measure the effective management of the NPS. It is the sum of the squared component loadings up to the number of components extracted. Since the principal components analysis is an iterative estimation process, it starts with 1 as an initial estimate of the communality (since it is the total variance across all the 13 components) and then proceeds with the analysis until a final communality is extracted. From table 4.34, it is deduced that the extraction value is small than the initial value because only four components were extracted from the 13 factors. From the initial extracted value of 100%, 74.1% of the concerned authorities were extracted; 70% of management; 39.5% of economic

decline; 55.6% of environmental decay; 61.3% of encroachment; 52.1% of government policy; 42.8% of basic amenities; 46.7% of population growth; 61.2% of the cost of maintenance; 49.3% of security; 56.6% of conversion in use; 72.3% of growth, and 51.0% of unkempt were extracted from the initial estimate of communality and the extraction presented in percentage are the final communality extracted.

Table 4.34: Communalities

	Initial	Extraction
Concerned Authorities	1.000	.741
Management	1.000	.700
Economic decline	1.000	.395
Environmental decay	1.000	.556
Encroachment	1.000	.613
Government policy	1.000	.521
Basic Amenities	1.000	.428
Population Growth	1.000	.467
Cost of maintenance	1.000	.612
Security	1.000	.493
Conversion in use	1.000	.566
Growth	1.000	.723
Unkempt	1.000	.510

Extraction Method: Principal Component Analysis.

Source: Researcher's Field Survey, 2019.

## **Components Matrix**

The components matrix has the same loadings as the thirteen components solution showing the components extracted. This showed that the elements of the factors are correlated with each of the items. The plots show a good level of association between the factors extracted and it indicated a strong relationship between the factors extracted as explained in table 4.35. Meanwhile, the result shown in Table 4.35 is also the same as the graphical representation shown in Figure 4.5(Component plot in rotated space). The factors considered in this section showed a positive relationship with the four components extracted from the factor as shown in the result. However, concerned authority has a strong positive correlation with components 2 and 3; management has with only component 2; the economic decline has a strong positive correlation with component 1; basic amenities are correlated with component 1; population growth with component 1; cost of maintenance with component 1; security with component 1; conversion in use with component 2, and growth with component 4. The factors also showed a weak positive or negative correlation with the unlisted components as shown and explained in Table 4.35 and Figure 4.5.

Table 4.35: Component Matrix

	Component			
	1	2	3	4
Concerned Authorities	.120	.533	.623	-.234
Management	.217	.650	.406	-.256
Economic decline	.540			-.319
Environmental decay	.421	.309	-.456	-.276
Encroachment	.343	.512	-.471	-.106
Government policy	.498		-.520	
Basic Amenities	.628	-.144		
Population Growth	.613	-.252		-.145
Cost of maintenance	.670	-.372	.128	
Security	.555	-.298	.308	
Conversion in use	.245	.594	-.114	.374
Growth	.314	.275	.180	.718
Unkempt	.481	-.146		.500

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

Source: Researcher's Field Survey, 2021.

#### 4.6.7 Testing of Hypothesis 4

Kruskal-Wallis test is a non-parametric test used to test samples originated from the same distribution. The non-parametric test is used by comparing two or more independent samples of equal or different sample sizes which originate from the same distribution. This is used when either of the assumptions of one-way ANOVA failed. It means that when one or more assumptions failed, there is a need to result in a non-parametric test of analysis. The assumption which failed in this study is the use of the Likert scale dataset; therefore, the analysis used a non-parametric method called the "Kruskal-Wallis test".

The null hypothesis states that there is no significant difference between the management of the neighbourhood public spaces and the three (3) zones. The decision is that

at a 5% level of significance and the null hypothesis is rejected when the p-value  $< 0.05$ , otherwise, the null hypothesis is not rejected. From the analysis above, the p-value (0.494)  $> 0.05$  (5% level of significance) implies that the null hypothesis is not rejected at a P-value  $> 0.05$ . The management of the neighbourhood public spaces in the study area does not significantly affect the image of the city.

Meanwhile, the number of respondents in each of the zone who responded to the management of the neighbourhood public space in Akure is displayed in Table 4.366. For the core zone, the mean rank is (158.20); the transitional zone has a mean rank (177.28) and the peripheral zone has 199 respondents with a mean rank of (165.66). Even with the different mean ranks, the result shows that there is no significant difference in the management of the zones. This proved that the perceptions of the three zones of the NPS are not different. It can be further explained that there is no significant difference between the perception of the core zone, transitional zone and the peripheral zone when considering the effective management of the NPS in Akure. However, the study reveals that if the NPS are not properly managed, it would affect the city image. Also, when there is effective management in the NPS, the city image will improve positively, corroborating Carmona and De Magalhaes (2006) that management of public spaces enhances city transformation.

Table 4.36: Testing of Hypothesis 4

	Test Statistics <sup>b</sup>			Remarks
	Mean	Chi-square	Df	
Core zone	158.20			
Transitional zone	177.28	1.412	2	0.494
Peripheral zone	165.66			

a. Kruskal-Wallis Test, b. Grouping variable: Zones

Where \*\*\* indicates  $P\text{-value} < 0.01$ ; \*\* indicates  $P\text{-value} < 0.05$ , and \* indicates  $P\text{-value} < 0.1$ , and  $\tau$  indicates the Kendall tau correlation coefficient.

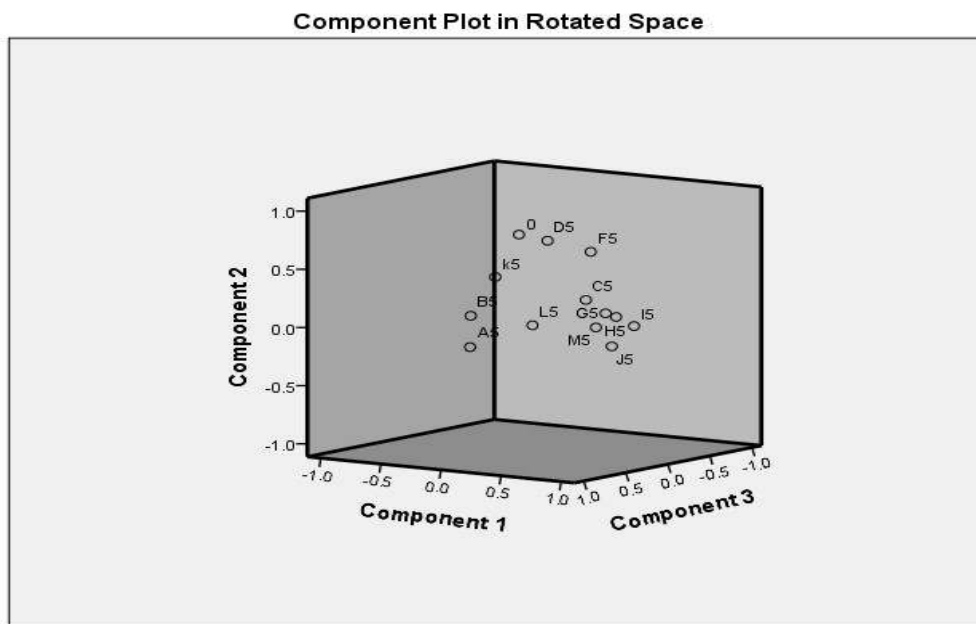


Figure 4.5: Component Plot in Rotated space

Source: Researcher’s Field Survey, 2019.

A pairwise comparison was conducted among the zones of the NPS in Akure using a posthoc analysis. The result Table 4.37 shows no significant difference in the zones. This

means that all the zones are similar with the core zone having the value of (3.5122); transitional zone (3.4742), and peripheral zone (3.5017). This implies that the zones are significant, not different from each other when discussing the effective management of the NPS. Meanwhile, the probability value also revealed the significance of the zones in terms of effective management. Result revealed that the p-value (0.886) > 0.05 (5% significance level for the subset for alpha). This also confirms that there is no significant difference between the effective management of the neighbourhood public places in Akure, Nigeria

Table 4.37: Management

Student-Newman-Keuls		
Zones	N	Subset for alpha = 0.05
		1
Transitional Zone	91	3.4742
Peripheral Zone	199	3.5017
Core Zone	44	3.5122
Sig.		.886

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 77.437.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

#### 4.6.8 Frequency description of Design Charrette recommendations

The descriptive analysis showing the theme coding and grouping based on participants' recommendations which are, environmental needs, social spaces, facilities, inclusiveness and management are presented as follows in Table 4.38: Group 1 results 8 items under environmental needs, 1 item on social spaces, 4 for facilities, 1 under inclusiveness and 3 items under management fig 1. Group 2 results 6 items under environmental needs, 5 items

on social spaces, 2 for facilities, 1 under inclusiveness and 4 items under management fig 2. Group 3 results 5 items under environmental needs, 4 items on social spaces, 3 for facilities, 2 under inclusiveness and 4 items under management fig 3. Group 4 results 4 items under environmental needs, 9 items on social spaces, 1 for facilities, 3 under inclusiveness and 3 items under management figure 4.

Table 4.38: Descriptive Analysis from Charrette

<b>Variables</b>	<b>Group 1</b>	<b>Group 2</b>	<b>Group 3</b>	<b>Group 4</b>
Environmental needs	8	6	5	4
Social spaces	1	5	4	9
F r e q u e n c y Facilities	4	2	3	1
Inclusiveness	1	1	2	3
Management	3	4	4	3

Frequency table Group 1

Environmental Needs 8

Social Spaces	1
Facilities	4
Inclusiveness	1
Management	3

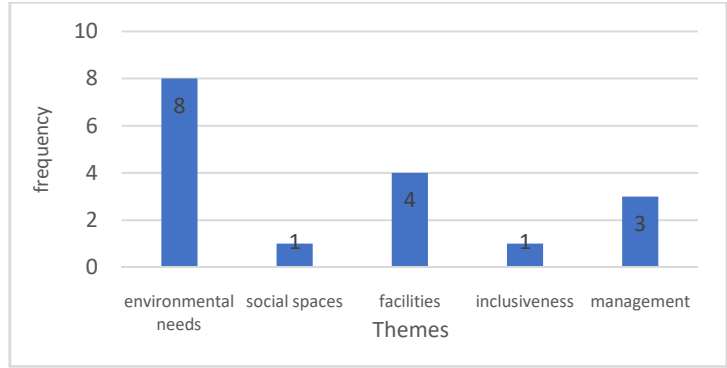


Fig 1: Group 1 theme Bar chart

Frequency table Group 2

Environmental Needs	6
Social Spaces	5
Facilities	2
Inclusiveness	1
Management	4

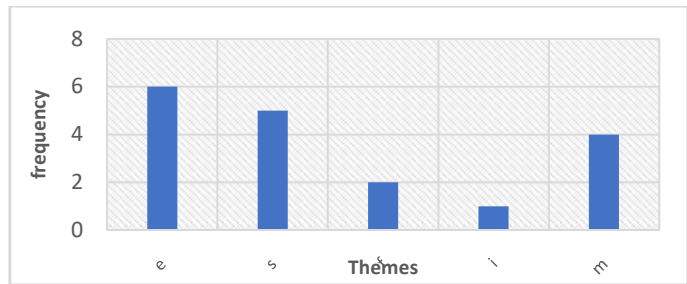


Fig 2: Group 2 theme Bar chart

Frequency table Group 3

Environmental Needs	5
Social Spaces	4
Facilities	3
Inclusiveness	2
Management	4

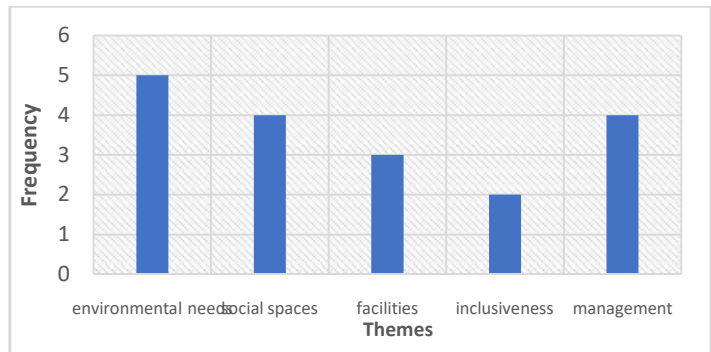
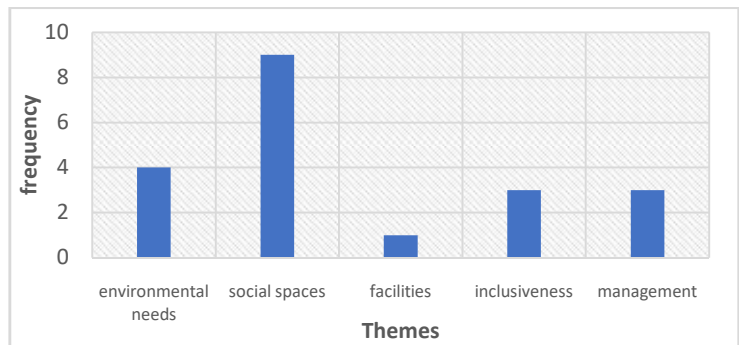


Fig 3: Group 3 theme Bar chart

Frequency table Group 4

Environmental Needs	4
Social Spaces	9
Facilities	1
Inclusiveness	3
Management	3



#### 4.6.9 Summary

The high rate of criminal activities, vandalism, robbery and kidnapping that the country is witnessing in recent times may have resulted in security being ranked high. The findings reveal that respondents desire adequate security in neighbourhood public spaces. The interviewee was asked "How safe is this place (NPS), describe your experience during your visit? And the report affirms the quantitative findings, the report of interviewees from the core zone noted that "lack of security in public spaces discouraged them.

Further findings reveal inadequate basic amenities in neighbourhood public spaces, and some dilapidated amenities, while some do not function anymore due to long years of usage. Physical observation by the researcher shows a lack of proper waste management methods where open waste disposal is evident, unkempt and filthy environment in Akure neighbourhood public spaces as a result of poor management strategies.

Finding also pointed out the cost of maintenance of NPS in the zones, two of the spaces in the zones are privately owned, interview with the manager of Oyemekun rocks in the core zone revealed the lack of finance for proper management of the space as almost all the facilities needs replacement, the outlook is an eyesore and subsequently impact on the image quality of the city,

Findings also revealed, lack of strict policy by the government on NPS, the inability of the Government to contribute financially to the maintenance and development of more public spaces which ought to be a door to new investment for internal revenue generation and to boost the tourism potential of the state. The interviewees were asked that "*What do you think the government can do to improve the image of Akure?*" the responses are as follows: *new*

*development and investing in public spaces, Control and regular maintenance of such places and proper monitoring and maintenance.*

#### **4.7 Practical measures on how to guide public space managers on NPS enhancement.**

Thematic analysis, which is the process of analysing the data, involved reading and re-reading the data several times and to obtain common concepts and coding for the text is employed. The codes were then grouped in similar clusters to create a meaningful theme. Thematic analysis is a method of identifying, analysing and reporting patterns (themes) within the data (Braun and Clarke, 2006). Six phases guiding the thematic analysis are, familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and reporting.

##### **4.7.1 Variables extract from the design charrette.**

Several variables contributed to the workshop outcomes, and there was a possibility of a positive and negative association with any or all of the variables, the variables were group as related.

1. Access, walkway, circulation, parking spaces, layby, pedestrian and vehicular route.
2. Landscape, green area, shading trees, topography, terrain, land use, and soft and hard landscape.
3. Sit-out, street furniture, outdoor pool, outdoor furniture, picnic spaces, children playground.
4. Stair, ramps, railing, signage and directional signs, lighting.
5. Artistic sculpture, fountain, monument ornamental trees.
6. Economic activities, eatery, shops.
7. Amenities, conveniences, public toilets, security posts and waste disposal.

8. Government policy, public-private involvement, poor funding, proper finances.
9. Monitoring, enforcement agencies, proper management, waste management.

**Theme codes**

In further explanation of the themes and for clarity, codes were assigned to each variable as shown in Table 4.39. Letter: E: represents environmental needs, ‘S’ represents social spaces, F; represents facilities, ‘I’ represent inclusiveness and ‘M’ represents Management. Table 4.41 shows the highlight of codes assigned to participants’ responses according to each group.

Table 4.39: Theme Codes

Themes	Code
Environmental needs	E
Social spaces	S
Facilities	F
Inclusiveness	I
Management	M

Source: Fieldwork 2020

**4.7.2 Analysis of Charrette Design Workshop.**

This section presents the results from the design charrette.

**4.7.2.1 Participants Profile**

Table 4.40 shows the descriptive analysis of results of the participants' profile which are, Architects 60%, Planners 25%, Builders 4%, Government officers 7% and Designer 4%.

Table 4.40: Participants' profile

Professions	Code	Numbers	Percentage
Architects	A	17	60%
Planners	P	7	25%
Builders	B	1	4%
Officers	O	2	7%
Designers	D	1	4%
Total		28	100%

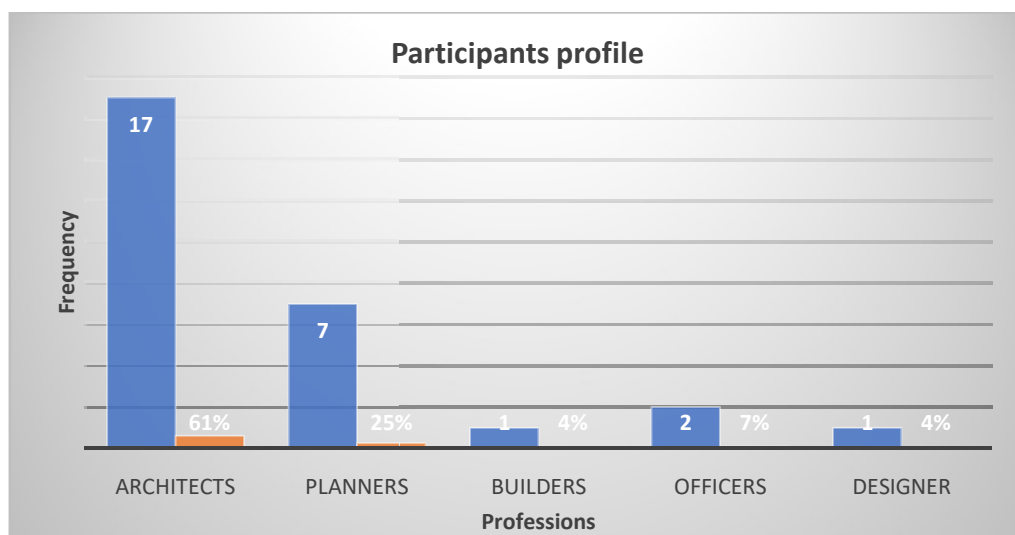


Figure 4.6: Participants' Profile

Table 4.41: Grouping and Coding of Participants responses

<b>Group 1- Oyemekun Rocks</b>	<b>Code</b>	<b>Group 2-Oyemekun rocks</b>	<b>Code</b>	<b>Group 3- Agric Biological</b>	<b>Code</b>	<b>Group 4-Agric Biological</b>
Accessibility	E	picnic spaces	S	poor topography	E	not suitable for disable
walkways/paving	E	parking spaces	S	not comfortable for children	I	poor circulation
defined adjoining land use	E	signage /direction signs	F	zooning for all-purpose	S	inadequate parking space
Circulation	E	Landscape	E	design based on site terrain	E	no conveniences
green spaces	E	lack of green space	E	play area	E	artistic sculpture seat not comfortable
EIA impact on the area	E	perimeter fence	E	pool/outdoor seat area	S	sit-out furniture
outdoor seating area	F	Security	S	soft and hard landscape	E	attraction for children
poor waste disposal methods	M	haphazard development	E	circulation/vehicle/pedestrian	E	aesthetic improvement
signage	F	improve topography	E	defined parking spaces	F	fountain/monument
redefined playground	E	Circulation	S	economic activities	S	Security
Facilities	F	outdoor furniture	S	safety and security	I	pedestrian walkway/sidewalk
child-friendly facilities	I	lighting for night activities	S	railing/ramp for disable	F	shading trees/green area

street furniture	S	Amenities	S	lighting illumination	F	ornamental trees
public toilet	F	proper management	M	waste management	M	games/play area for children
Enforcement	M	not suitable for everyone	I	outdoor furniture	S	shops/stores/eatery
monitoring of the place	M	public-private partnership	M	public/private management	M	children playground
private sector involvement	M	Monitoring	M	Finances	M	Conveniences
		funding of public space	M	government policy	M	enforcement agency
						private involvement
						proper funding

### **4.7.3 Group's feedback**

Feedback received from group 1: access, defined adjoining land use, EIA impact of Oyemekun rocks in the area, green area space and friendly child facilities were seen as important, others include enforcement, monitoring and private sector involvement in public spaces.

Feedback from group 2: participants noted the following key issues, the need for picnic spaces, seating, and lighting for night activities and include space suitable for everyone, proper management, funding, improve topography and the monitoring haphazard development around the Oyemekun area.

Feedback from group 3: participants noted lack of zoning for various purposes, railing/ramp for disabling and aged, improve management, lighting illumination, improve management and government policy, finances and landscape/green area, pool and outdoor spaces.

Feedback from group 4, participants noted the lack of suitability of public spaces for the disabled and comfort for all categories of people, artistic sculpture, fountain, sit-out furniture and pedestrian and vehicular circulation.

#### **Descriptive Summary of Group recommendations.**

Table 4.40 shows the frequency percentage description of the design charrette recommendations, which collaborate with the results from the quantitative data. The results show environmental needs with the highest percentage 32% followed by social spaces 26%. 19% for management, 14% for facilities and 10% for inclusiveness.

The overall assessments of the design charrette group noted that space for leisure and green spaces are limited, outdoor features need improvement, and the amenities are not enough. Moreover, parking spaces were not well articulated with the other spaces, poor circulations hence accessing most of the spaces are difficult. They advocate that more attention should be given to the zoning of spaces for all categories of people. The results from the design charrette were on issues relating to environmental needs, social spaces to accommodate all users, provision of adequate facilities, inclusiveness and improve management strategies.

#### **4.7.4 Findings from Charrette Discussion**

Table 4.42 shows the frequency percentages and bar charts respectively, description of the design charrette recommendations, which corroborates the results from the quantitative data. The results show environmental needs with the highest percentage 32% followed by social spaces 26%, 19% for management, 14% for facilities and 10% for inclusiveness.

The overall assessments of the design charrette group noted that space for leisure and green spaces was limited, outdoor features need improvement, and the amenities are not enough. Moreover, parking spaces were not well articulated with the other spaces, poor circulations, which make accessing most of the spaces, are difficult. They advocated that more attention should be given to the zoning of spaces for all categories of people. The results from the design charrette are on issues relating to environmental needs, social spaces to accommodate all users, provision of adequate facilities, inclusiveness and improve management strategies.

Table 4.42: Descriptive Summary of Group Recommendations

Themes	Frequency	Percentage
Environmental needs	23	32%
Social spaces	19	26%
Management	14	19%
Facilities	10	14%
Inclusiveness	7	10%
Total	73	100%

Charrette design workshop provided a convenient and effective method for stakeholders in the built environment to present their views on the barriers to effective use and management of public spaces in the study area. The findings of the charrette design workshop further validate those from the questionnaire survey carried out. The following observation and recommendation encapsulate the essential findings from this method.

#### **Environmental needs in public spaces**

Participants recommend an environmentally friendly public space, with natural features and conducive surroundings for all users. Environmental needs that encompassing, green and landscaped areas, natural and artificial environment, walkway/paving/ an improved topography and proper circulation, Mitchell and Pearce (2013) noted that the availability of green space and its attractiveness within the neighbourhood is associated with its usage and can improve patronage.

### **Social spaces**

Zoning of spaces into various functions was recommended by the participants, providing spaces for social activities, such as a place for picnic, outdoor seating area, and shops/stores/eatery, other economic activities, fountain and artistic features to increase patronage. Micek and Staszewska (2019) observed that spontaneous development in public spaces cause threats and loss in the zoning of spaces and activities according to user's preferences, also that zoning plans are often developed under pressure which results in dispersed and multifunctional development of land.

### **Inclusiveness in public spaces**

Participants desired a public space that offered activities for all categories of people, the children, youth, old and people with disabilities, Mehta (2014) described inclusiveness in public space, as one that supports all activities and is open to people from all walks of life, a space that is accessible to varying individuals and group to support a range of activities. During the discussion, participants noted that children playground and amusement equipment is lacking in the study area, advocate for the installation of facilities that can aid the old and disable in using public space, such as ramps/wheelchairs, paved area and proper illumination.

### **Facilities in public spaces**

It was recommended by participants that public spaces should have adequate and modern facilities to improve patronage and ensure comfort for all users, Jansson and Power (2006) affirm that significant investment in infrastructural facilities will improve cities image and brand. The findings of Patrick, Afolabi, Emmanuel and Ajayi (2019) showed that quality facilities have a positive sign on customers' patronage. Facilities such as signage/directional signs, lighting, adequate parking spaces in public spaces.

## **Management of public spaces**

It is noted by participants that one of the major challenges facing public space in the study area is the lack of adequate management by Government and private sector involvement in public space management. Carmona and De Magalhaes (2006) observed that the management of public spaces enhances city transformation and beautification, as well as encourages healthy recreation and enhances the economic growth of the city. Management strategies to include, maintenance of infrastructure, public/private sector involvement, finance and funding of public spaces, enforcement and monitoring of public spaces.

### **4.7.5 Findings from the Content analysis**

#### **4.7.5.1 Introduction**

This section presents the interview analysis of 25 respondents of neighbourhood public spaces in the study area using content analysis. The interviewees are the primary sources of data for this section. Some main variables extracted from coding the interviewee responses were considered and used. The coded extracted were put into themes (variables) which include, satisfaction level, attractiveness, inclusiveness (for old and disable), environment and effective management.

The analysis of the interview was performed using content analysis, a transverse analysis of the interview discussions based on the theme identified are presented in the summary of interview analysis.

#### **4.7.7.2 Summary of interview analysis**

**Attractiveness:** **Attractiveness** is rated first among the variables considered for the satisfaction level of users in the NPS in the study area. The result from the interview, as shown in the Appendix, revealed that users are attracted to NPS that satisfied them and

there is no difference in responses from the three zones (core zone, transitional zone, and peripheral zone). The findings from the interviewees indicated that there are common factors interviewees identified as items of attraction in each of the zones. From the findings of the peripheral zone, the report shows that the interviewees are attracted to the fact that they like to sit outside and eat, present of varieties of greenery in the zones, the environment, and the distance of the public space to their house are what attracted them, Chen, Liu, Xie and Marusic (2016) posit that the provision of users-oriented spaces with facilities that can encourage outdoor activities is key to the use of public spaces.

In the transitional zone, it is reported that the rock formation, especially in Oyemekun public space is what attracted the interviewees. Some also reported that the craving of the rocks is a focal point and it is attractive to them. Moreover, the interviewees from the core zone are not attracted to the beautification of the environment, and the facilities present is not enough. Some reported that they can easily meet their friends and socialize in public spaces.

**Satisfaction:** This mainly discussed the level of user's satisfaction as presented in objective 2 of the research. The satisfaction is considered in terms of the experience, the convenience of the NPS in Akure, the satisfaction level in terms of essential facilities present for both old, young, adult, and disable. The findings from the analysis show that the interviewees are not satisfied with the facilities, amenities provided, and their experiences are not pleasant. Some of the interviewees rated their satisfaction level on a scale of 1 – 10, showing that the neighbourhood public spaces in the study area are not rated averagely. The ratings are 4.5, 4, and 6. The rating of 4, and 4.5 are below average and 6 is not satisfying enough when compared to 4, and 4.5. Other respondents from the

peripheral zone, report that they are not satisfied with smoking and the loud music played in the environment and desire zoning in public spaces.

Some of the facilities in the NPS in the zones are not well arranged and not properly taking care of. As shown in Objective 2 under user's satisfaction level, the findings show that the majority of the people visiting the NPS do so not because of the attractiveness of the place but due to lack of other places of interest to them, this indicate that they are not satisfied with the physical environment of the NPS but still visit the spaces. Generally, the reports from the interviewees have shown that the respondents are not satisfied with the NPS in Akure, Nigeria.

**Inclusiveness:** respondents were asked, "*with your experience will it be easy and convenient for you to recommend other people, especially old and disable to visit this place (NPS) or will it be difficult*". The report from the interviewees reveals that the facilities are not available for old and disable people. Facilities like wheelchairs, railing, stairs, and ramps. These facilities are rated 13<sup>th</sup>, 14<sup>th</sup>, and 15<sup>th</sup> among 19 variables considered. This has indicated that the facilities are not available for old and disable people. Since the facilities are not available, the NPS is not convenient for old and disabled people. The interviewees affirm not recommend the NPS in the zones to children, old or disable visit spaces as it is not conducive for them, Senda (2015) study on safety in public spaces, posit that creating a safe and conducive environment in public space is key to functioning patronage.

**Environment:** interviewees were asked, "*How will you describe the physical environment of Akure*". The findings have shown that the environment of peripheral neighbourhood public spaces in Akure is undeveloped, dirty, and disorder. Though, report findings reveal that the environment of the transitional zone is beautiful and

peaceful but the physical environment is not systematic order and arranged. Some of the facilities are not put in place. Report from the core zone has revealed that the NPS is beautiful but the environment is not well coordinated. This is as a result of the findings obtained in objective 3 of the "impact of the environmental NPS" show that physical and environmental element is rated 7<sup>th</sup> out of 9 variables considered in the analysis. Generally, the physical environment as discussed by the interviewees is not attractive.

**Effective Management:** This is related to objective 4 presented in the quantitative analysis. In this interview section, the report was based majorly on security, maintenance, and management. Findings from the analysis conducted on objective 4 shows that security is the most important aspect of effective management. The people visiting the NPS should be secure and safe. The properties of the visitors should be secure and safe for better visitation. The report from the respondents has reviewed that the properties and lives are not safe and secure in the NPS in Akure, especially the report of the transitional zone and the peripheral zone indicate that people are not safe from wild animals like snakes, and some other wild animal but a little safe in the core zone most especially the Ijare park. Though, all most all the zones are reported as not having securities and guidelines. Meanwhile, proper management of the NPS has a significant effect on the city's image. If proper management is put in place, the city image will improve. In this view, the respondents suggested that the government should invest and develop the NPS in Akure. It is also suggested that proper monitoring, controlling, and maintenance of the NPS should be put in place

#### 4.7.6 Architectural re-design layout plan

Findings from the charrette workshop based on the 5 items from the proposed framework used in the redesign of two neighbourhood public spaces in the study area (Plates 4.8 and 4.9).

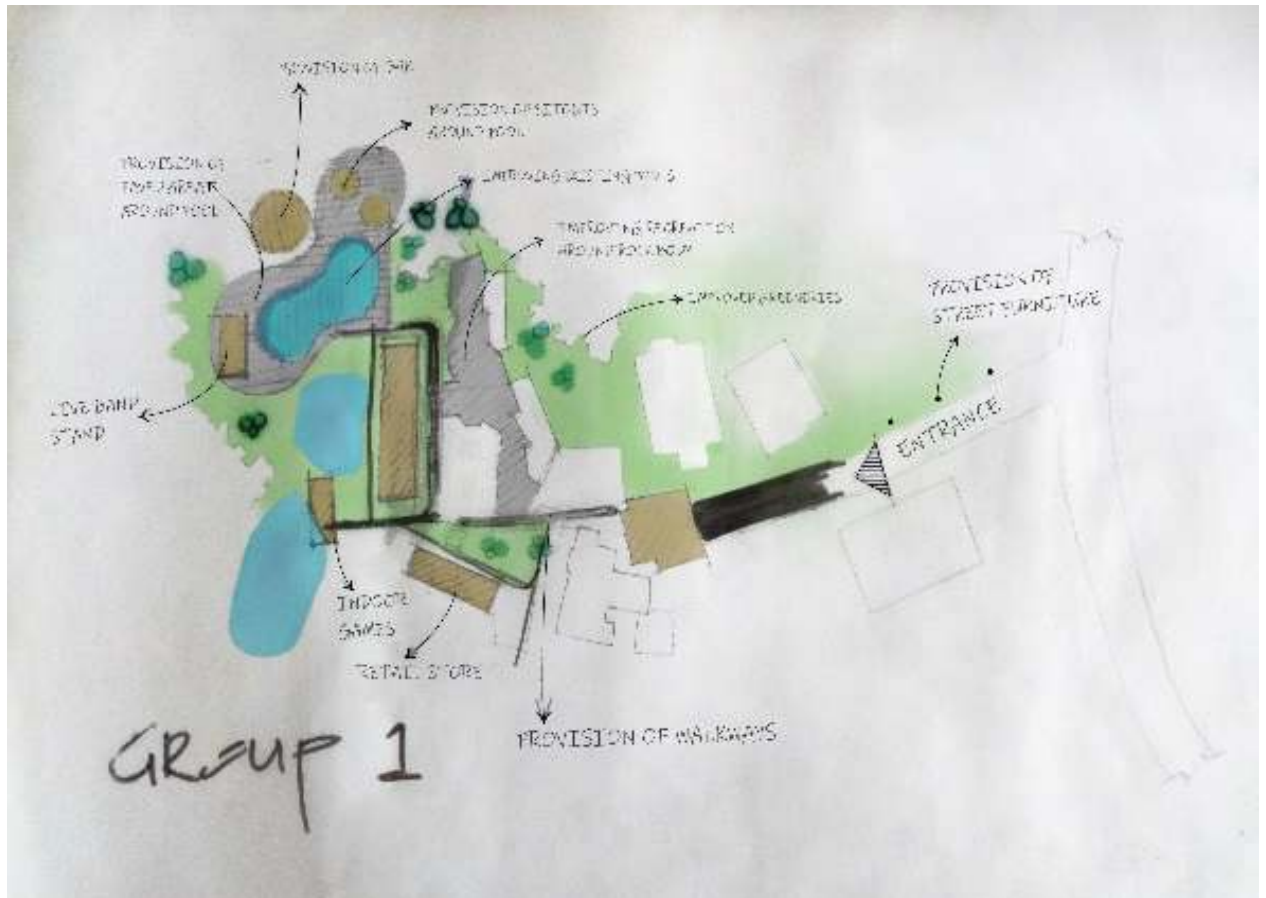


Plate 4.7: Design proposal of Oyemekun Rocks from Charrette



Plate 4.8: Design proposal of Ministry of Agriculture Biological Garden from Charrett

#### **4.8 Implication of Findings**

This section gives the descriptive analysis of all the variables from the questionnaire survey, interview and design charrette. The previous chapter has satisfied the aim of this study, which is to investigate the impact of neighbourhood public spaces on the city image of Akure, to improve it. The variables used in this study were selected from previous works that are related to the research topic, they were analysed to establish significant or insignificant relationships or differences amongst them. This is followed by recommendations and conclusions and identifying areas for further research.

The general results from the data analysis revealed the following

- a) Statistically, the null hypothesis was rejected at  $P\text{-value} < 0.05$  and thereby concludes that there is a significant relationship between the availability of neighbourhood public space and its usage.
- b) There is a significant difference in the user's satisfaction level of NPS in the zones.
- c) There is no statistically significant relationship between the environment of NPS and the city image.
- d) there is no statistically significant difference in factors influencing the management of NPS in the zones

## **CHAPTER FIVE**

### **5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This section summarizes the various findings carried out in the previous chapters. The first discussion was on the uses of available public spaces in the study area, the second the assessment of user's satisfaction of neighbourhood public spaces, the third was the impact of the environment of NPS on city image and the factors influencing the management of neighbourhood public spaces in the zones. This chapter, however, focuses on the research findings, the recommendation and the conclusion.

#### **5.2 Summary of Findings**

The study measured the impact of neighbourhood public spaces on city image; a framework was developed as practical measures to guide public space managers in Akure, Nigeria. The study investigated the quality of public space, management and the image of the city; it's relevant and beneficial to Government and the general public on public space management to improve the image of Akure. The impact of public city image in Akure was studied and specific objectives were attained. Quantitative and qualitative methods were used to observed, measure and analysis the objectives of this study.

Uses of the availability of NPS were measure within the three zones of the study area, which revealed that meeting people and relaxing is what users do in NPS and also other activities take place which includes political, social, religious economic and cultural activities. The result revealed a significant relationship between the availability of neighbourhood public spaces and their usage.

User's satisfaction with neighbourhood public spaces in the zones was measured to see if the null hypothesis stated that there is no significant difference in their satisfaction level. The results revealed elements that users desire more in NPS, which are attractiveness in NPS, useful activities, shops/stores/ eatery, natural environment, sidewalk/footpath, architectural variety and visually appealing public spaces. The null hypothesis was rejected, and the findings revealed that there is a significant difference in user's satisfaction with NPS in each of the zones.

The impact of the environment of neighbourhood public spaces on city image was in two parts, one to measure the environment of NPS and the city image. Variables that have an impact on the environment include: landscape area, safety from traffic, artificial lights, playground and manmade features (art, monuments and sculptures) and were found to have a significant relationship on NPS. Michal (2019) posit that spaces such as playgrounds and care centre should be provided in public spaces instead of being isolated, they should be integrated to attract instead of divide and restrict.

On city image characteristic and uniformity of the elements of NPS in terms of harmony, balance, proportion, rhythm and variety, was examined, which revealed that there should be the integration of the various features in neighbourhood public spaces. The null hypothesis which stated there is no significant relationship between the environment of NPS and city image is not rejected statistically but the report from charrette and interview said otherwise, it revealed that the environment of NPS affects the city image.

The last objective measured the factors influencing the management of neighbourhood public spaces, this section highlighted factors influencing the management of neighbourhood public spaces, some of the variables measured include,

concerned authority, economic decline, encroachment, government policy, cost of maintenance, security, conversion in use and others. The findings reveal that security, cost of maintenance, basic amenities are the major factors influencing management in the zones. In addition, the relationship between variables and the difference was examined and a model fig 5.1 was developed for the management of public spaces.

The study further established inclusiveness in public spaces for all categories of users, such as aged and people with disabilities; this will increase patronage and improve the quality of life of Akure inhabitants.

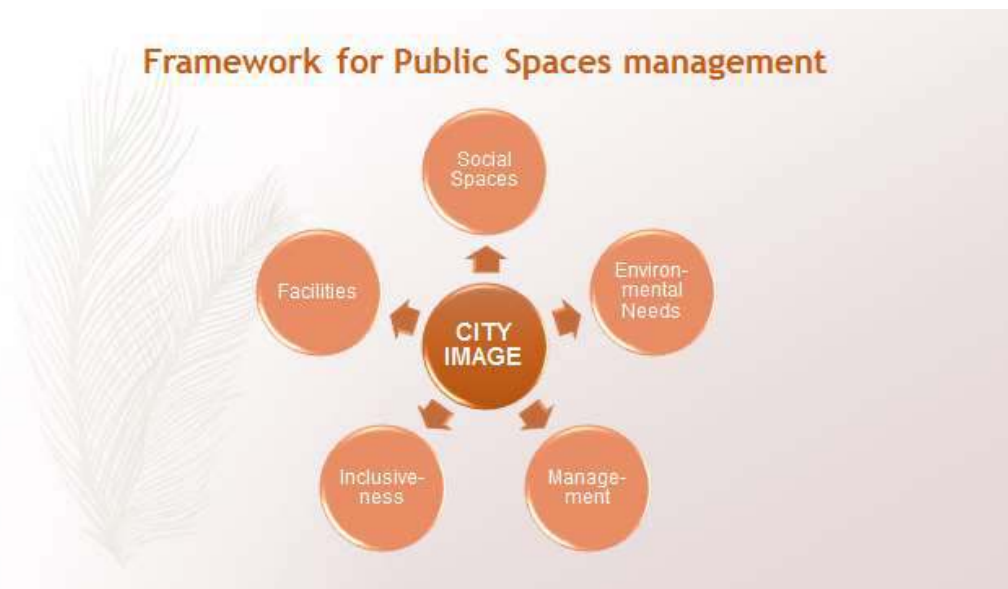


Figure 5.1: The Model

### 5.3 Conclusion

This research has espoused the need to improve the image value of public spaces in Akure which will subsequently improve the city image. Public spaces are the integral parts of the city this study, therefore, recommend strategies to enhance the image of the city through the image of its public spaces.

The findings and analysis reveal that activities, level of user's satisfaction, the physical environment of NPS, and lack of management affect the mage value of public spaces as

they relate to the overall city image of the study area. The findings noted the importance of unhindered access for all categories of people to socialize, having more useful activities, a serene physical environment, inclusiveness, regulation of use and proper management.

Also identified by respondents as essential in NPS is a natural environment, with greenery and well landscape, well-defined sidewalk and footpath for ease circulation in public spaces. Accessibility and uses by aged and disabled people were found to be very poor, due to the terrain of the NPS studied, absence of paved walkways, and lack of ramps for a person with a wheelchair. Users are also not satisfied with the cleanliness of public spaces with overgrown weeds and lack of proper waste management system, Rafeian and Seyfaee (2006) posit that the major factors determining the quality of public spaces are cleanliness, attractiveness, a relaxing environment, security and safety.

Findings also reveal that people do not visit NPS after sunset as a result of insecurity, criminal and antisocial activities that take place in public spaces. Further findings to examine the significant difference in user's satisfaction level in neighbourhood public spaces in the zones; the findings reveal that there is a significant difference in user's satisfaction in the three zones. From the results obtained, the majority of the respondents are not satisfied with the lack of orderliness, cleanliness in NPS'.

Major components to enhance the city image were identified, which are, creating a harmonious relationship and proportion in public spaces to achieve a visual appreciation of its physical environment. Visual pleasure is achieved by creating a rhythmic element in public spaces, planting trees, landscaping and greenery in NPS gives a sense of rhythm. Balance in neighbourhood public spaces is the presence of repetition which can provide a visual balance in space. Order in NPS provides

legibility, according to Lynch (1960) legibility helps in creating a strong image of an object in a space which will further give a feel of orderliness in public spaces.

The design charrette identified workshop zoning of spaces, proper management, provision of adequate facilities, presence of greenery and inclusiveness in neighbourhood public spaces. The interview section, reveal users desire for attractive spaces with adequate facilities for the old and disable in NPS and effective management. Findings from this study can guide architects, practitioners, planners, designers, private developers and the Government in promoting and creating user-friendly public spaces.

#### **5.4 Recommendations**

Based on the findings, the research recommends as follows:

- Integration and inclusiveness in public spaces of all categories of users by providing facilities that can aid utilization of public spaces at the planning, designing and construction stages.
- The incorporation of meaningful activities in public spaces not just opens empty spaces but spaces where children and adults can enjoy varieties of activities.
- Safety in public spaces cannot be overemphasized, with the current situation in Nigeria, kidnapping especially, the fear of which might prevent fun lovers to recreate safe public spaces will surely improve patronage. The presence of security officers may not prevent or reduce crime but the inclusion of security architecture in the planning and design of public spaces is the important and proper spatial organization of spaces within public spaces.

- The study investigated factors affecting the management of public spaces and suggested routine maintenance and proper management; this will subsequently improve the image value of public spaces and thus attracts users to the place.
- The management of public spaces plays an important role in projecting the image of Akure and thus consideration should be given to the maintenance of natural features, provision of manmade features, well-landscaped area and playground, these will improve the city image of Akure, beautify the city, and also youngsters will be encouraged to play around in public spaces.
- The environment of public spaces should be free from noise pollution, indiscriminate waste disposal methods and provide maximum safety from traffic.
- Public spaces in Akure are used for other purposes such as political, economic, religious and cultural activities, regulation of use and maintenance strategies should be put in place for proper use of the spaces.
- Adherence to the Nigerian Urban and Regional planning decree No. 88 of 1992 on development control and improvement area (rehabilitation, renewal and upgrading of the physical environment and infrastructure.
- Revenue generation through taxation level and payment of token by users of neighbourhood public spaces in Akure.

### **5.5 Area for further study**

There are other areas of public spaces (plaza, streets and parks) and city image. The present study cannot embrace all facets of the subjects within the study; the researcher proposes that the following research fields can be further investigated.

1. Impart of iconic/ historical buildings on the image of Akure, Nigeria
2. Assessment of building height in the CBD of Akure on the overall city image of Akure.

3. Users 'perception of the neighbourhood road network on the image of the city.

### **5.6 Contribution to Knowledge**

Inclusiveness in public spaces is one of the notable contributions made by the study; neighbourhood public spaces in Akure are not suitable for the aged and people with disabilities and thus are limited to young people as found out in the social-economic characteristics of respondents, where respondents below 30years used public spaces more than any other age group.

The research emphasized the zoning of spaces in public spaces, the addition of diverse activities according to age group e.g. children zone, adult zone, having no-smoking zone, children playground, where restrictions of activities for underage will be considered at planning and design stages. The image component identified by users are landscape area, orderliness in NPS, presence of natural and artificial lights, manmade features and incorporating elements of design principles in planning and designing of public spaces. Lastly, the study provides guidelines for the development, planning and management of public spaces in Akure to improve the image of the city through the image of its public spaces

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**APPENDIX I**

**DEPARTMENT OF ARCHITECTURE  
SCHOOL OF ENVIRONMENTAL TECHNOLOGY, FEDERAL UNIVERSITY OF  
TECHNOLOGY, AKURE.  
QUESTIONNAIRE**

Dear Respondent,

I am a postgraduate student in the above department; I am currently researching for the award of Doctor of Philosophy in Architecture. This questionnaire is designed to collect data from you on the issue of **IMPACT OF NEIGHBOURHOOD PUBLIC SPACES ON THE IMAGE OF AKURE, NIGERIA.**

Your candid assistance will be highly appreciated. The information you provide will be kept in **strict confidence** and will be used for academic purposes only, you will **remain anonymous**. Please just click (✓) as appropriate.

Thank you very much for your anticipated cooperation.

Please tick as appropriate

**Part 1: Respondents' General information**

**Respondents location**.....

1. What is your sex?

Male	Female
------	--------

2. What is your age?

1) below 30	2) 31-40	3) 41-50	4) 51 -60
5) 61-70	6) above 70		

3. What is your employment status?

1) Unemployed	2) self-employed	3) civil/public servant	4) private/corporate sector
5) Retired			

4. What is your level of education?

1) no formal education	2)Primary	3)Secondary
4)NCE/OND	5)HND/BSc	6)Postgraduate

5. What is your marital status?

1) Single	2)Married	3)Widow/widower
4) Divorced	5) Separated	

6. What is the range of your monthly income?

1) Below N50,000	2) N50,000- N99,000	3) N100,000-N149,000
4) N150,000- N199,000	5) N250,000 and above	

**Part 2: Usage of Neighbourhood public spaces (functions/patronage, proximity/accessibility and inclusiveness)**

7. Are there Neighbourhood public spaces (NPS) in your area?

1) Not very sure	2) Not sure	3) Uncertain
4) Sure	5) Very Sure	

### **Functions/patronage**

What are the purposes for/of NPS in your area? Please tick how well you agree with the followings

S/N	Factors	Strongly disagreed	Disagreed	Undecided	Agree	Strongly agree
8.	Relaxation					
9.	Exercise					
10.	Closeness to nature					
11.	Adventure					
12.	Meet people					
13.	Beautiful scenic					
14.	To be alone					

What other activities take place in the neighbourhood public space (NPS) in your area? Please tick how well you agree with the followings

S/N	Factors	Strongly disagreed	Disagreed	Undecided	Agree	Strongly agree
	Political					
	Religious					
	Cultural					
	Social					
	Economic					

### **Proximity and accessibility**

20. How long does it take to get to the nearest neighbourhood public space (NPS) close to you?

1) less than 5mins	2) 6-15mins	3) 16-30mins
4) 31-45mins	5) above 45mins	

21. How regular and often do you visit the NPS in your area?

1) Daily	2) Weekends	3) Holidays
4) Festive Period	5) Never	6) once in a while

22. NPS in your area is accessible to all classes of people

1) Strongly disagree	2) Disagree	3) Undecided
4) Agreed	5) Strongly agreed	

### **Inclusiveness**

23. Are you involved in the development of neighbourhood public space (NPS) in your area?

1) Yes	2) No
--------	-------

Which of these items give comfort and provide ease access for the old and disable in NPS?

S/N	Factors	Strongly disagreed	Disagreed	Undecided	Agree	Strongly agree
24.	Good lightning					
25.	Signage					
26.	Railings/sairs					

27.	Ramps/wheelchair					
28	Greenery					
29	Sidewalk/footpath					
30	Shops/stores/eatery					

### Part 3: Users' Perceptions

Please tick how well you agreed with the following about NPS and Akure image.

S/N	Factors	Strongly disagreed	Disagreed	Undecided	Agree	Strongly agree
31.	NPS makes Akure beautiful?					
32.	NPS appealing and inviting					
33.	The NPS is orderly and well organised.					
34.	NPS environment is always clean and quiet					
35.	A natural environment helps in relaxation than a manmade environment.					
36.	The amenities are adequate.					
37.	NPS are safe and secure					
38.	Artistic features give the (NPS) a memorable experience to cherish					
39.	NPS is free of waste deposits?					

Which of the following do you think is essential to the NPS?

S/N	Item	Strongly disagreed	Disagreed	Undecided	Agree	Strongly agree
40.	Architectural variety					
41.	Sense of enclosure					
42.	Useful activities					
43.	Attractive view					

**Use the images 1-5 above to answer the following on the image assessment of Neighbourhood public spaces in Akure.**

1. Harmony: harmony in visual design means all parts of an object relate to and complement each other. (in appearance and proximity to one another)

Please tick how well you agreed with the following.

S/N	All the parts of the NPS relate and complement one another	No Harmony 1	Less Harmony 2	Undecided 3	Harmony 4	Great Harmony 5
44.	Image 1					
45.	Image 2					
46.	Image 3					
47.	Image 4					
48.	Image 5					

2. Balance is the distribution of visual height of objects, colours and spaces. (Arrangement of objects, orderliness and integration of objects one to another).

Please tick how well you agreed with the following.

S/N	The total environment of NPS is balance	No Balance 1	Less Balance 2	Undecided 3	Balance 4	Very Balance 5
49.	Image 1					
50.	Image 2					
51.	Image 3					
52.	Image 4					
53.	Image 5					

3. Rhythm: Rhythm is created when one or more elements of design are used repeatedly. A rhythm manifests itself in the interaction between a place, a time and an expenditure of energy. (circulation and spaces in rhythm with one another)

Please tick how well you agreed with the following.

S/N	A positive interaction exists between NPS and users	No Rhythm 1	Less Rhythm 2	Undecided 3	Rhythm 4	Very good Rhythm 5
54.	Image 1					
55.	Image 2					
56.	Image 3					
57.	Image 4					
58.	Image 5					

4. **Variety:** Variety is the use of several elements of design to hold the viewer's attention and to guide the viewer's eye through and around the work of art. (presence of natural environment, integration of physical elements)

Please tick how well you agreed with the following.

S/N	The presence of varieties of physical elements in NPS attracts the users	No Variety 1	Less Variet 2	Undecided 3	Variety 4	Good Variety 5
59.	Image 1					
60.	Image 2					
61.	Image 3					
62.	Image 4					
63.	Image 5					

5. **Proportion:** is the feeling of unity created when all parts relate well with each other, e.g. size of the head compared to the rest of the body. (proportion of green spaces and other spaces)

Please tick how well you agreed with the following.

S/N	Total unity of every part is achievable in NPS	Not proportional 1	Less Proportional 2	Undecided 3	Proportional 4	Very Proportional 5
64.	Image 1					
65.	Image 2					
66.	Image 3					
67.	Image 4					
68.	Image 5					

Image 1



Plate 1: Games Reserve Amusement Park, Ikota, Ijare Road.

Image 2



Plate 2: House of Assembly Arcade ground, Igbatoro, Akure.

Image 3



Plate 3: Democracy Park, Oba-Adesida road, Akure.

Image 4



Plate 4: Ministry of Agricultural biological garden

Image 5



Plate 5: Oyemekun Rocks

**Part 4: The Impact of Neighbourhood Public Spaces (NPS) on City Image (physical, environment and location)** Please tick how well you agreed with the following.

S / N	Impacts	Strongly disagree 1	Disagreed 2	Undecided 3	Agree 4	Strongly agree 5
69.	Physical and environmental elements of NPS improve the city image of Akure.					
70.	The presence of natural features in NPS improves Akure image.					
71.	Man-made features in NPS add to the beautiful image of the city.					
72.	The presence of artificial light in NPS adds to the beauty of Akure.					
73.	Landscape/green area in NPS improves the image of the city.					
74.	The presence of historical elements/statues in NPS enhances the image.					
75.	Adequate playground for youngsters in NPS increases patronage.					
76.	Noise control in NPS increases patronage.					
77.	Safety from traffic encourages usage of NPS					

**Part 5: Factors Militating Against Effective Management of Neighbourhood Public Spaces**

Please tick how well you agreed with the following as its affect the management of NPS.

S / N	Factors	Strongly disagree 1	Disagreed 2	Undecided 3	Agree 4	Strongly agree 5
78.	Neighbourhood public spaces in Akure are properly managed by concerned authorities					
79.	Management of neighbourhood public spaces in Akure does not affect the image of the city.					
80.	The declining economy affects the management of public space					
81.	Neighbourhood public spaces cause environmental decay in Akure.					
82.	There is no encroachment of neighbourhood public spaces in					

	Akure					
83.	Poor Government policy affects neighbourhood public spaces.					
84.	The presence of basic amenities in neighbourhood public spaces increases patronage					
85.	Overpopulation in neighbourhood public spaces leads to disorderliness.					
86.	High Cost of maintenance affects the quality of neighbourhood public spaces					
87.	Adequate security in neighbourhood public spaces increases patronage.					
88.	Conversion in the use of neighbourhood public spaces in Akure does not affect its management.					
89.	The growth of Akure city improves the management of neighbourhood public spaces					
90.	The unkempt environment of neighbourhood public spaces affects its management.					

## APPENDIX II

### Charrette design workshop on the impact of neighbourhood public spaces on city image of Akure

GROUPS	PARTICIPANTS	DISCUSSIONS	REMARKS
<b>Group 1</b> <b>(Oyemekun rocks)</b>	P1	What are the pull factor and the time frame for users possible weekends and festive periods?	
		The major issue is Oyemekun rocks is not so assessable despite being in the core area of Akure.	
		To find a pull factor in terms of accessibility and facilities.	
		Understanding our nature in developing countries, we don't recreate a lot, what are the kind of pressure people are exposed to in their daily life will determine how much to recreate or use such spaces.	
		What determines how well they can use the spaces, circus, garden, amusement and park?	
	P2	Can we say this place is an amusement park?	
		defining boundary perimeter to control development	
		Children and friendly park, when children disturb parents, they will ask them to go there.	
		More residential areas and parents are living around will be encouraged to visit.	
		Walkways, circus, playing area should be linked.	
		The place is not attractive.	
		There should be a space for adults.	
	What can attract a lady to public spaces? For example a boutique		
	P3	Mechanical workshop, artisans and illegal structures around the entrances, you will hardly know there is a public space in there. Not beautiful at all.	

		The swimming pool has been turned into fish ponds.	
		Development around Oyemekun rocks is without adherence to building law.	
		The place is not very accessible.	
	<b>P4</b>	There is a need for pedestrian walkways.	
		Facilities in public spaces should complement one another.	
		A place for adults, such as a bar and swimming pool.	
	<b>P5</b>	Zoning of activities.	
		Provision of sit-out around the pool area.	

<b>GRO UPS</b>	<b>PARTI CIPAN TS</b>	<b>DISCUSSIONS</b>	<b>REMAR KS</b>
<b>Group 3 (Mini stry of Agric, Biolo gical</b>	P1	Zoning of activities especially smokers area and children area.	<b>zoning</b>
		A place where people can buy takeaway food instead of eating it there, a general area for food vendors, snacks and confectionaries.	<b>eatery</b>
		Safety in public space, especially when children are a concern, a child can stray away from the parents unknowing, but if the place is well defined, such spaces will be easily seen.	<b>safety</b>
		Demarcation using the gate and also link other spaces to one another.	
		Existing covered furniture should be redesign	<b>furniture</b>
		In Nigeria, people packed indiscriminately under the pretence that they are not staying for long.	<b>Parking spaces</b>
		Introduction of in and out should in case they want to introduce payment in using the space.	
		Outdoor sitting for people to come out and eat.	<b>Outdoor area</b>
		Most buildings are old and can be made better to improve the image of the place.	
		A general area with no smoking signal which can serve all categories of people, a	<b>zoning</b>

<b>Garden)</b>		place to hangout, business meetings, family time and others		
		A social area for meeting friends with a live band.	<b>Social spaces</b>	
		Waste bins should be at every point, people always litter the ground.	<b>Waste disposal</b>	
		Onsite maintenance they come every morning to clean.		
		The walkway should be made wide so that people with a wheelchair can use about 1.8mm.	<b>zoning</b>	
		Light, floodlight at strategies spaces, especially for evening activities.		
		Support for physical challenge and old people by introducing handrails to the place		
	<b>P2</b>		Parking spaces are not enough and people parked even on the streets at peak periods and weekends.	<b>Parking spaces</b>
			The more outdoor area should be provided.	<b>Outdoor area</b>
			For security purposes, users should come in through the same side, and introduction of security gate to check passer-by.	
			Introduction of the gatehouse for security.	<b>safety</b>
			Public space should be design based on the terrain of the site. People can come to eat pool area and places for simple relaxation for outdoor area life, family picnic and the kids can play about	
			There is a need to have a buffer zone in public spaces	
			Lettable shops for people to buy things, where commercial activities can take place.	
	<b>P3</b>		Landscape area where children can walk, we don't have a well-defined pedestrian and vehicle route walkway, introducing edges and demarcation for people to park their cars very well and this will prevent indiscriminate parking, a well-defined walkway that is different from where the cars are parked, This can be achieved also if the walkway is raised.	
	<b>P4</b>		Introduction of the footpath, landscaping to control circulation.	
			The driver drives anyhow, so we need to introduce speed breakers also.	

		Introduction of layby, bus stop or taxi drop.	
		Everywhere there is a sit, a waste bin should be placed there.	
		A waste bin is also part of the furniture	
		Waste collection point should be provided	
	<b>P5</b>	Does the terrain affect people in wheelchairs, can the disabled access the place.	
		Introduction of gentle slope ramp	
		Drainage should be constructed for a proper channel of runaway.	

<b>GROU PS</b>	<b>PART ICIPANTS</b>	<b>DISCUSSIONS</b>	<b>REMARKS</b>	
<b>Group 4 (Oyeme kun rocks)</b>	<b>P1</b>	The place is meant for the public		
		There should be an adequate pedestrian walkway.		
		Parking is a problem in public spaces and I may not feel like going to public spaces if there won't be a place for them to park.		
		I proposed we should zone the entire place.		
		Commercial activities in public space.		
		Landscape area is needed		
			Public space should have conveniences; this will stop indiscriminate defecations in open spaces and bushes.	
			Introduction of footpath, walkways, landscape, greenery, fountain etc.	
	<b>P2</b>	Close to the major road		
		Introduction of a fountain, just a suggestion, somewhere around if not in the middle.		
		Covered walkway if possible.		
		Safety is important; everyone can see what is going in around.		
	<b>P3</b>		People work around and family should be able to visit the place, knowing this will guide our design and recommendation	

		Introduction of sit-out, security is important, and parking must be well structured.	
		Introduction of facilities that can enhance physical activities like exercise and walk.	
		We need sit-out	
	<b>P4</b>	A place that will attract children and adults.	
		Building too close to the location	
		In planning trekking is encourage more often, the little period people should be made to walk, I suggest car park be far away from other side attraction to enjoy the serene environment.	
		Introducing shading trees, trees are found to reduce the intensity of the sun, trees should be removed within the property line.	
		Putting a major attraction in the middle of the place.	
		The development around are too close to the place, hence restrict access to the place.	
		The flow of traffic, if I packed my vehicle how easy will I go out without been checked by another vehicle, what is the direct movement of the vehicle.	
		Normal Nigerian parents will want to be close to where their children are playing.	
		Relaxation most times in Africa is just for food and drink.	
		Having a sit out under the tree, as you are sitting you are looking at something interesting	
		Provision of commercial activities like a restaurant, kiosks, barbecue etc.	
		Conveniences should be strategically located or passer-by and users of public spaces	

## APPENDIX III

### TRANSCRIPTS FOR SEMI-STRUCTURED INTERVIEW DISCUSSION IN THE STUDY AREA.

#### Transcripts for Peripheral Zone

S/N	Questions	Answer Given
1	Mention some of the things that attract you to visit this place	Sit-out and food. It is not far from my house. I can relax with my friends. Varieties of flowers. Fish and drinks. The sculpture was done at the entrance. The cool serene environment. The closeness to nature.
2	What was your experience while visiting	Fairly okay but rowdy. Not enough privacy. Too crowded. Facilities were far lower than what I imagine to be. Not enough privacy. People were present, gathered in small groups under the pavilions. The atmosphere was cool, and I was able to relax with my friends and have a good evening.
3	Describe your satisfaction level when you visited	Not satisfied with smoking and loud music. Not much has improved since my last visit 2 years ago. I am not satisfied with the facilities there. Not satisfying. Not up to standard. On a scale of 1 to 10, I would rate my satisfaction level at 6.
4	How safe is this place (NPS), describe your experience during your visit?	Safe, though no security personnel on the ground. No one watching over the vehicles especially; everyone takes care of his/her security. I am not sure about safety, but proper security should be put in place. Fairly okay. It is safe. I think the location is safe enough for intruders. As regards safety from animals such as snakes, and any other dangerous animal. I do not know.
5	With your experience will it be easy and convenient for you to recommend other people. Especially old and disable to visit this place (NPS) or will it be difficult.	I will not recommend to children, old or disable to visit the place, it will not be conducive for them. Not comfortable with them. Not comfortable for old and disabled. No, I would not recommend the NPS, not suitable for the old and disabled. Not comfortable, bad terrain. Elderly people should not have any problem navigating the available spaces. Disable people (on wheelchairs) might have a little difficulty, so it is not recommended for them.
6	How will you describe the physical environment of Akure	City image describes whether the city is beautiful or ugly. The way the city is, that is the beauty of the city. Still underdeveloped. Dirty and disorder. Akure falls behind several other Nigerian cities in many regards, especially in the artificial physical environment.
7	What do you understand by city image?	How the city looks. Akure's image is not beautiful at all. The image of Akure is fair in some places like Alagbaka and Ijapo area. The appearance of the city and her physical element. The beauty of the city. I think city image refers to how a city portrays itself, that is, the features of the city that define such a city.
8	What are your perceptions of the image of Akure?	Not too good in comparison with the environment. Having a standard public space. Not too pleasing. Not up to standard, needs improvement. Having a standard

		public space. Akure is a beautiful city, for a good part of it.
9	How do you think neighbourhood public space in Akure can improve Akure city image?	By doing proper management of the place. By proper funding (finance). Proper management. Professional involvement in the city design. Pumping money into the development of recreation. Pumping money into the development of recreation. By creating and providing more appealing landmarks for the city, and probable a custom city space.
10	What do you think the government can do to improve the image of Akure	By developing and investing in public spaces. Controlling and maintenance of such places. Proper monitoring and maintenance. Government can pay more attention to the proper maintenance of the available public spaces, and give less trouble to those that intend to establish private open spaces.

### Transcripts for Transitional Zone.

S/N	Questions	Answer Given
1	Mention some of the things that attract you to visit this place	The presence of rocks. The fact that the rocks have cravings that is almost accurate. The major attraction to the place is the rocks and the easy access to the place. The rocks. Rock formation.
2	What was your experience while visiting	Not as interesting as expected. It felt like an abandoned place. I had quite a wonderful experience when I was there even though the environment is small and doesn't give room for many activities. Nothing exciting. No enough facilities.
3	Describe your satisfaction level when you visited	My satisfaction level, on a scale of 1 – 10, would be around 4. On the rating of 10, I will rate the place 6 because apart from the rocks in the environment, there is nothing else defining the place making it recreational enough. Over 10, I will rate my satisfaction level 4.5 because some things are yet to be well and properly taken care of, in addition, another interesting element that compliments the garden are not present. I am not satisfied with the facilities here.
4	How safe is this place (NPS), describe your experience during your visit?	The location felt safe enough when I visited. It is safe from vehicular access, but there is a possibility of animals coming through, especially snakes. The place is very safe. During my visit, there was no feeling of getting scared or afraid because the environment itself is serene and safe. The environment is safe enough for anyone to carry out their activities. Fair enough, as it is within a neighbourhood.
5	With your experience will it be easy and convenient for you to recommend other	Not recommended for disabled people. It may be difficult for some elderly people. With the little experience, I had when I visited, the old people can come around to enjoy the spirit of the environment,

	people. Especially old and disable to visit this place (NPS) or will it be difficult.	also the disabled can visit the place, the only thing they will need is a guardian to help some particular activities. I can conveniently recommend young children and adults to the garden, but the disabled will find movement hard because the makeup of the environment is not in their favour as it were. Old and disabled cannot use the place because it is not well design for them.
6	How will you describe the physical environment of Akure	Akure is a traditional town, blended with western civilization. Akure's physical environment is beautiful and peaceful. I will say the physical environment of Akure is not systematic order, arranged, and not beautiful. Fair, but when good facilities are put in place, it will get better.
7	What do you understand by city image?	How the city looks. City image is the perception one gets when in a particular city, what the city represents. City image is the visual representation of the city to the viewer. The appearance of the city.
8	What are your perceptions of the image of Akure?	It is in between beautiful and bland (dirty). The city image of Akure varies according to the particular environment one finds himself or herself. Disorder and not well coordinated.
9	How do you think neighbourhood public space in Akure can improve Akure city image?	Improved public spaces portray a professional touch in city design. The neighbourhood public space in Akure can improve the city image if they are well maintained and organized, it brings people together and that appreciates the image of Akure city. The neighbourhood public space in Akure can improve the city image of the same exceptional attention given to the public paces is given to the city itself. Redevelopment and development of new ones
10	What do you think the government can do to improve the image of Akure?	Proper maintenance. The government should ensure that the whole of Akure is in uniformity in terms of landscape, amenities, etc., which will bring about a more general view of Akure. The government should ensure that the major factors that enhance the city Image such as nodes, paths, edges (flowers, trees), and landmarks are well defined and maintained. Public participation and maintenance of such places.

### Transcript for Core Zone

S/N	Questions	Answer Given
1	Mention some of the things that attract you to visit this place	The environment, social and economic interactions, comfortability, and activities.
2	What was your experience while visiting	Not interesting, I was not satisfied with some of the things I saw. I found the palace interesting. There are no many things to a discussion about in this place.
3	Describe your	Not satisfied. On a scale of 1 – 5, I will rate 2

	satisfaction level when you visited	because the facilities are old and not attractive enough for you. Facilities are not available for people to use.
4	How safe is this place (NPS), describe your experience during your visit?	Properties and lives are not safe. Not enough security to look after your properties, except in a rare case when the government is using the area. Even with that, the properties are not secure.
5	With your experience will it be easy and convenient for you to recommend other people. Especially old and disable to visit this place (NPS) or will it be difficult.	Not recommended for older and disabled people. Not suitable for disable. No facilities for disabled people. It will be difficult for older and disable people to stand, therefore, it is not recommended for them. There are not enough chairs to seat, I will not recommend it.
6	How will you describe the physical environment of Akure	Orderliness is lacking, no good lighting, and adequate signage. The environment is not well arranged. Though some of the facilities are old and dismantle, replacement of the physical and natural plants needs to be done.
7	What do you understand by city image?	How a city is visually represented. City image is the perception of how a city looks. City image is the visual representation of the city to the viewer. The view of a city.
8	What are your perceptions of the image of Akure?	Not having a standard image and public space. Akure is not beautiful to compare to other southwest states like Lagos State, Ogun state, and Oyo State Not pleasing to be called a city. Not up to standard, needs improvement. Having a standard public space.
9	How do you think neighbourhood public space in Akure can improve Akure city image?	Adequate management of the NPS can improve the city's image. The government should help the management in terms of funding to help them improve the NPS. Landscape area, artificial lights should be added to the NPS to improve the image of the city.
10	What do you think the government can do to improve the image of Akure	Proper maintenance of the NPS, Good monitoring, and staff should be employed and delegated for works. Cleanliness and monitoring should be done. The government should invest more in NPS since it attracts people and increases the economic situation of states.

## Appendix IV

**Table 1: Communalities**

	Initial	Extraction
Concerned Authorities Management	1.000	.741
Economic decline	1.000	.395
Environmental decay	1.000	.556
Encroachment	1.000	.613
Government policy	1.000	.521
Basic Amenities	1.000	.428
Population Growth	1.000	.467
Cost of maintenance	1.000	.612
Security	1.000	.493
Conversion in use	1.000	.566
Growth	1.000	.723
Unkempt	1.000	.510

Extraction Method: Principal Component Analysis.

Source: Researcher's Field Survey, 2021.

### Component Matrix

	Component			
	1	2	3	4
Concerned Authorities	.120	.533	.623	-.234
Management	.217	.650	.406	-.256
Economic decline	.540			-.319
Environmental decay	.421	.309	-.456	-.276
Encroachment	.343	.512	-.471	-.106
Government policy	.498		-.520	

Basic Amenities	.628	-.144		
Population Growth	.613	-.252		-.145
Cost of maintenance	.670	-.372	.128	
Security	.555	-.298	.308	
Conversion in use	.245	.594	-.114	.374
Growth	.314	.275	.180	.718
Unkempt	.481	-.146		.500

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

Source: Researcher's Field Survey, 2021.



**THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE**

**SCHOOL OF ENVIRONMENTAL TECHNOLOGY**

**DEPARTMENT OF ARCHITECTURE**

**Charrette design workshop**

**6<sup>th</sup> March, 2020**

**Impact of Neighbourhood Public Spaces on City Image in Akure, Nigeria**

**AGENDA**

Time	Agenda	Action
30mins	Opening prayer Welcome Introduction <ul style="list-style-type: none"> <li>Participants</li> </ul> Research overview	
20mins	<b><u>Session 1</u></b> <ul style="list-style-type: none"> <li>Video clips of public spaces/parks/gardens in developed countries.</li> <li>Video clips of public spaces /parks/gardens in Nigeria</li> <li>Existing site condition</li> </ul>	
10mins	Short break	
60mins	<b><u>Section 2</u></b>	

	<ul style="list-style-type: none"> <li>Charrette Design</li> </ul>	
20mins	Lunch break	
30mins	<b>Section 3</b> Discussion/ Evaluation <ul style="list-style-type: none"> <li>Group presentations</li> <li>Summary/findings</li> </ul>	
10mins	Vote of thanks Adjourn	

### Design Charrette

Attendance. 6<sup>TH</sup> March, 2020

S//N	Name	Profession	Institute/Dept/Office Address
1.	Dr Etsename L.E	Designer	Industrial design department, FUTA.
2.	Okunrinboye olushola	Site technical officer	Ministry of Environment, Ondo State Government.
3.	Clement Adebora	Site technical officer	Ministry of Environment, Ondo State Government
4.	Haruna Lumi Zamain	Town planner	Department of Urban and Regional Planning, FUTA
5.	Adeleye Abimbola	Architecture	Direct Labour Agency Ondo State Government.
6.	Babalola Joseph	Architecture	Direct Labour Agency Ondo State Government.
7.	Adelowo Ronke	Architecture	Stragray Associate.
8.	Makanju Sina	Builder	Nigeria institute of Builder (NIOB)
9.	Awosika Oluwaseyi	Architecture	Ministry of Works, Ondo State Government.
10.	Ola-Omole, M.C	Town planner	Department of Urban and Regional Planning, FUTA
11.	Idris Omeiza David	Town planner	Department of Urban and Regional Planning, FUTA
12.	Oloadel Micheal	Architecture	Department of Urban and Regional Planning, FUTA
13.	Ayejugbagbe Joshua	Architecture	Department of Urban and Regional Planning, FUTA
14.	Akinbami Ayobami	Town planner	Nigeria institute of Town Planners (NITP)
15.	Adeola Oluwatosin	Town planner	Nigeria institute of Town Planners (NITP)
16.	Howells O	Architecture	Department of Architecture, FUTA
17.	Popola .O	Architecture	Department of Architecture, FUTA
18.	Olarenwju Oyindamola	Architecture	Department of Architecture, FUTA.
19.	Adebiyi Bolutito	Architecture	Department of Architecture, FUTA
20.	Olagunju Laughter	Architecture	Department of Architecture, FUTA

21.	Ola-Ajayi Ifeoluwa	Architecture	Department of Architecture, FUTA
22.	Olusoga Olawale	Architecture	Department of Architecture, FUTA
23.	Adenaya Eyitayo	Architecture	Department of Architecture, FUTA
24.	Owele Oreoluwa	Architecture	Department of Architecture, FUTA
25.	Adelegan adedeji	Architecture	Department of Architecture, FUTA
26.	Ololade Kehinde	Architecture	Department of Architecture, FUTA
27.	Sennaike Daniel	Architecture	Department of Architecture, FUTA
28.	Alakufo Azeez	Architecture	Department of Architecture, FUTA