

# Enhancing Safety and Crowd Management; A Way of Promoting Tourism in Recreational Facility

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**Abstract-** *The focus of this research is on the implementation of crowd management strategies to enhance crowd control and safety in the recreational facility located in Oguta, Imo State, Nigeria. According to Balogun (2021), Recreational facility has been in operation since 1940's and has been serving as a place for entertainment, relaxation, social activity and other leisure needs. Several operational recreational facilities were selected as case study. This study adopted a mix research method, which includes qualitative and quantitative technique for the collected data, the international case studies chosen was selected for their architectural merits, information richness, building material choice, proper planning of the facilities, artificial natural environment styles, inclusive design and quality of the facility available. A comparative analysis which was drawn from the entire study helped to complete the journal article and design. The study revealed that numerous factors were considered before the development of a recreational facility, factors like technology, proper planning, safety of users. Crowd management strategies such as proper site planning layout, clear sight lines, appropriate material and spatial arrangement was used to enhance crowd management and safety in this facility. The study recommends that Architects and designers in building and construction must have a good understating of how recreational facilities are being planned, to help avoid traffic congestion, accidents and insecurity in this proposed recreational facility. The researcher concluded that the study has provided solutions by enhancing crowd management and safety in a recreational facility in oguta, imo state Nigeria.*

**Indexed Terms-** *Recreational Facility, Visitors Experiences, Tourism, Safety, Crowd Management.*

## I. INTRODUCTION

Recreation is defined as a pleasurable, socially

sanctioned activity that restores the individual, concomitant with the experience of leisure. In a deeper psychological sense, recreation refers to the human emotional and inspirational experience arising out of the recreation act. Although it contrasts with the work, which is done mostly to earn money and mechanics of life (eating, sleeping), there is no sharp line between recreation and all other activities. Therefore, some activities may be work at some times and recreation at others. In some manner, tourism contributes to the enlightenment of that difference. Considering that most of the tourists, arrives in destination for leisure, it is expected that recreational activities they undertake will mostly be focused on recreation in its profound meaning – Latin recreate, to renew or to be re-created. Recreational activities that visitors undertake may include different specific indoors and/or outdoors actions. Some activities can be relatively formal, as in case of organized events and group activities, while most of the recreational activities are informal and include picnics, hiking, fishing, expeditions and many other activities. Regardless of form, recreation is an integral element of tourism product that influences significantly tourism development and visitor's satisfaction (Tribe, 2012).

Recreational facilities are an integral part of physical infrastructure which is an indispensable pillar of overall economic and tourism development (Khadaroo and Seetana in: Jafari and Xiao, 2016). Along with hotels and other hospitality facilities, they form the constituent called tourism infrastructure. Each of these elements boosts tourism development mostly by raising the attractiveness and competitiveness of a destination. Tourists expect facilitates in their chosen destination to be comparable to what they enjoy at home, especially those that have become the essential element of everyday life recreation (Crouch and Ritchie, 2000). Recreational facilities are mostly organized, provided and developed in the context of public and commune pool resources, which implies government and public sector involvement and

provision. In that process, public sector deals with management issues ranging from simple cost-benefit analysis to complex questions of the optimal mix of recreational facilities (McConnell, 1985). In tourism destinations, public sector involvement implies local or regional authorities and tourist boards activities,1. focused on fostering sustainable tourism development. The rapid development of tourism has blurred the line2. between public and private sector responsibilities. Due to different reasons, sometimes the public sector is3. limited to respond emerging needs of tourism development and depends upon private sector4. involvement. New challenges that we face in the 21st century are transforming the understanding of "traditional" public and private sector roles in economic and tourism development. The increasing importance of tourism in the local, regional and national economy requires and boosts active cooperation between key public and private sector stakeholders. The provision of recreational facilities is commonly seen as the responsibility of public sector (Cooper, 2008). However, a different understanding of the concept of tourism infrastructure along with the growing importance of tourism has resulted with the stronger involvement of private sector stakeholders. This research explores the concept of tourism infrastructure and recreational facilities to broaden the understanding on: The interconnectedness between tourism infrastructure, recreational facilities and tourism development; Their importance in a process of shaping tourism product and delivering visitors and local population requirements; The compliance between the state of the infrastructure, facilities and the phase of destinations development (TALC); Tourist board managers perception of infrastructural management and key limitation for involvement in management process; The role of the private sector in the development of infrastructure and facilities.

### 1.2 Statement of the Problem

Recreational facilities attract a large number of visitors daily due to the variety and appeal of recreational services they deliver. As a result, the safety of users while playing is the first prerequisite. Maintaining safety, crowd control, efficiency and quality of services while ensuring customer satisfaction with large number of visitors is a challenging issue for organizations operating such facilities.

### 1.3 Purpose of the Study

The study is focused on recreational facility and visitor's experiences as a way of promoting tourism and enhancing safety and crowd management. Specifically, this study seeks to:

Helps to create a center or facility where a family or group of people can spend their leisure time.

Helps to create a well-circulated and comfortable environment for everyone to enjoy.

Helps to reduce the risk of accidents and injuries in a recreational facility.

Helps to provide strategies that will address crowd management and safety challenges in public center such as recreational facility.

### 1.4 Definition of Terms

**Recreational and Water Park:** A facility or area consisting of several special-purpose pools, along with accompanying structures and equipment, intended for public swimming and water-based recreational activities (C.H.D 2018).

**Crowd Management:** The planning, design, and implementation of features and strategies to effectively and safely handle the movement and behavior of large groups of people within a building or specific area. It's crucial for ensuring the comfort, safety, and well-being of occupants, especially in busy spaces and facilities. (Brian, 2014).

**Safety:** Safety is the invisible lifeguard watching over every splash and shriek. It's the handrail that prevents a stumble, the clear signage that guides way finders, and the watchful eyes of trained staff ensuring everyone plays by the rules, it is important to prevent accidents and secure the overall environment (James, 2010).

**Lake:** A lake is an inland water body that is permanently or seasonally filled with water or surrounded by water, some are built by nature, filling valleys, while others are human-made, damming rivers to create new ones (Marco, 2020).

**Leisure:** is a characteristic feature of the quality of life of societies with a high level of development, and is particularly regarded measure of personal freedom, participation in social life and the wellbeing of the citizens living in it. (George, 2020).

## II. LITERATURE REVIEW

Recreation and leisure are as old as humanity itself,

and our ancestors engaged in them. Research on the early African sites where Homo sapiens first appeared revealed that people would gather pigment powders, such as red ochre, and use them to paint their bodies in anticipation of ritual dances (ECRTD-UK 2020). Anthropologists are sure of the fact that early humankind had the same intelligence and instincts as we do. But according to the creation story as recorded in the Bible, leisure and recreation started earlier before the Stone Age. God, after the creation rested. This shows that the act of rest is embedded in man and is necessary after work. “And when God had created all the host of heaven and the earth, He rested” (CSB Bibles by *Holman*, Bible 2020; Gen.chap.1-3...). So, according to the Holy Bible, (CSB,2020) leisure, free time after work was first observed by God, even recreation too, because the Holy Bible remarks that at the cool of the day God used to come down to enjoy the evening breeze [cool of the day] with Adam and Eve. The development of tourism infrastructure and recreational facilities is associated with tourism development. In many cases, the state of the urban renewal and local infrastructure indicate the destination position in area life cycle (Garay and Canoves, 2011). Therefore, it is not surprising that tourism destinations depending on their position in TALC have different expectations and requirements regarding tourism infrastructure. According to the life-cycle model, tourism management should be proactive, smoothing the fluctuations foreseen by the cycle and favoring a balanced relation between the costs and the benefits originated by tourism. Once developed, infrastructure and facilities highly influence destination competitiveness, increase the efficiency of privately producing and distributing tourism services, and in certain cases make possible the supply of tourism services (Dwyer and Forsyth, 2006). The emergence of sustainability has highly influenced the research path for infrastructure and facilities. Consequently, attention has been given to those researchers encompassing both concepts; for instance, the relationship between transport infrastructure and tourism development (Albalade, 2017; Rehman Khan, 2017), or management of sustainable destinations (Phillips and Jones, 2006; Currie and Falconer, 2014). Researchers also place the significant emphasis on the development of outdoor facilities. For instance, Deenihan and Caulfield (2015) examine how tourists value different types of cycling

infrastructure. They found out how tourists are willing to double their cycling time if proper infrastructure is provided. Bil (2012) explored the potentials of new technologies i.e. GIS in the creation of a network of cycling tourism infrastructure, to support visitor’s activity. Olafsdottir and Runnstrom (2013) use similar technology to analyse the hiking trail condition and its relationship with local physical properties. They deliver important managerial implications on how to improve existing and design new infrastructure to deliver visitors requirements and remain sustainable. Fallon and Kriwoken (2003) explore the community involvement in tourism infrastructure. They have concluded how local and cultural community, managers and operators play an important role in planning, designing and operating new tourism infrastructure.

The plate below shows a view of a beautiful scenario at the Oguta blue lake.



*Plate 2.1: View of one of the inlets showing a beautiful scene of Oguta Blue Lake’s treasure (Source: imostate.gov.ng)*

According to Nanki (2011), Oguta Blue Lake is the greatest natural hydrological feature in the state and the second largest in the nation, behind Lake Chad.

The enormous Oguta Lake seen from aerial view in the plate below



Plate 2.2: Aerial view of the Large Oguta lake  
(source: www.imostateblog.com)

Tourism is not a new concept in Imo state as it is one of the most prosperous and liveliest states of the eastern part of Nigerian and attracts millions of travelers. Imo state is strategically situated in the heart of Southeast. The state is one of the most preferred tourist destinations in Nigeria. Tourist attractions are many and varied including the Oguta lake, the second largest fresh water in Nigeria, Abadabalake, Mbari cultural centre, amadioha shrine, the blue obana lake, Iyi Ogidi, Nekede Zoo and gardens, etc. Thus, this destination has enormous importance to the local population as a source of water, fish and tourism; and also as an outlet for sewerage. The lake is the largest natural lake in the Imo State of Nigeria. Located within the equatorial rainforest region, it is of enormous importance to the local population (the people of Oguta, Orsu, Nkwesi and Awo) as a source of water, fish and tourism. (Manwa, 2012).

### 2.5 Study Location

The study area is Oguta is a town in Imo State, Nigeria. It is situated on the shores of Oguta Lake, the largest natural lake in southeastern Nigeria. Oguta's natural beauty is undeniable, drawing travelers from far and wide to revel in its serene charm. Whether it's a boat ride on the shimmering Lake Oguta, a trek through lush forests, or simply basking in the golden sunlight, every corner unveils a new piece of the town's captivating scenery (John, 2023). The main reason while people flock into Oguta, Imo State include, the possibility of having gainful employment and enjoying modern amenities and infrastructure in the state.

Oguta Lake is located in Imo State, Imo State being one of the most prosperous and liveliest states of the eastern part of Nigeria and attracts millions of

travelers to the area for business, leisure and other purposes which have resulted in the state over-congested during the holidays. This will lead to overcrowding in oguta lake recreational and water park facility (Cletu,2016).



Fig 2.1. Showing The map of Imo State (Source: Wikipedia 2017)

Therefore, it becomes more imperative for the researcher to study this city, because little or no research work have been identified as at now that the journal is being done to have addressed the problems and also enhance crowd management and safety in a facility in Oguta Lake, Imo State, Nigeria.

### III. RESEARCH METHODOLOGY

The Mixed Method research approach was implemented in finding important data for this journal article which is the qualitative and quantitative research method. The primary materials were obtained from field investigations, case studies of facilities concerning the project sub-topic, and literary works. The methodology is aimed at identifying the merits, demerits and inadequacies of selected cases and conducts a comparative study amongst these cases with regards to internationally acceptable standards. To address the research questions, a Qualitative research approach was employed. This involves the use of data collection and analysis methods. The study encompasses both primary data, gathered through case studies and observations, and secondary data, obtained from scholarly articles, books, and industry reports.

#### IV. ANALYSIS AND DISCUSSION

##### 4.1 Create a Center or Facility Where People Can Spend their Leisure Time

This research is aimed at establishing a center dedicated to providing families and groups with enjoyable and engaging activities for their leisure time. The center can foster connections within families and create opportunities for groups to meet new people through shared activities. Oguta Lake has the potential to be a thriving tourist destination, and its recreational facilities can play a key role in attracting visitors and establishing a strong reputation. According to Timothy (1995), there is need to develop activities and attractions that cater to a specific niche or highlight the unique aspects of Oguta Lake. This could include boat tours focused on the lake's ecosystem, cultural experiences showcasing local traditions, or water sports competitions.

##### 4.2 Create a Well-Circulated and Comfortable Environment

This research is aimed designing a space that promotes ease of movement, minimizes congestion, and optimizes thermal and acoustic comfort for user enjoyment. A well-circulated space allows for comfortable movement and navigation, reducing stress and frustration. Crafting positive and memorable experiences for tourists in Oguta Lake requires a focus on various elements which are identified in this research. This is in line with Timothy (1995) who stated that there is need to offer activities that cater to specific interests and highlight the lake's unique features.

##### 4.3 Reduce the Risk of Accidents and Injuries in a Recreational Facility

The positive aspect of this research is to help reduce the number of accidents and injuries that might likely occur in this recreational facility, by creating a safer environment for everyone. Minimizing potential for physical harm and emotional distress associated with accidents. Well-designed facilities and proper management practices are crucial for ensuring visitor safety at Oguta Lake. This is in line with National Fire Protection Association (NFPA) (2020), there is need to ensure all facilities comply with local building and safety codes. Also includes proper electrical wiring,

fire safety measures, and the use of slip-resistant materials in walkways and common areas.

##### 4.4 Provide Strategies that will address Crowd Management and Safety Challenges

This research is aimed at implementing effective crowd management and safety measures to ensure a smooth, controlled, and secure environment within public centers like recreational facilities. There is need to adopt certain strategies to ensure the management of visitors and prevent overcrowding. This is in line with Lindberg, Bergman, Magnusson and Peterson (2002) establish a science-based carrying capacity for different areas around the lake. This refers to the maximum number of visitors a specific area can accommodate without causing environmental damage or degrading the visitor experience.

#### V. CONCLUSIONS AND RECOMMENDATIONS

With extreme traffic congestions, insecurity and accidents occurring in Recreational facilities now, because this kind of facility attract large number of visitors on a daily basis due to the variety and appeal of recreational services they deliver. As a result, the safety of users while playing is the first prerequisite. Maintaining safety, crowd control, efficiency and quality of services while ensuring customer satisfaction with large number of visitors is a challenging issue for organizations operating such facilities. The redefining process puts the responsibility of offering sound advice to Architects and designers in building and construction environment, before planning to establish a facility as this, you must have a good understating of how recreational facilities are being planned, to help avoid traffic congestion, accidents and insecurity in this proposed recreational facility. Such advice is based on current knowledge obtained through cutting-edge research and Architectural designs. For instance, following the increased rate issues in recreational facilities, its best to completely avoid these things and follow the proper and well-planned process. One of the observations from the study conducted by Martini (2020). The architectural tenets and methods utilized in architecture to create areas that can comfortably, safely, and efficiently hold large numbers of people are referred to as crowd

control tactics. These tactics are meant to maximize movement, lessen traffic, and protect people's general welfare when they are gathered in a crowd. The following are some typical architectural crowd-control techniques:

#### 5.1 Space planning and layout

The spatial arrangement of a building or a public space is crucial for crowd management. Bogers (2016). factors such as crowd flow patterns, entry and exit points, and the distribution of amenities and facilities. Efficient space planning ensures smooth movement, minimizes bottlenecks and allows for easy access to different areas.

#### 5.2 Circulation routes

According to Brown, (2021) Well-defined and marked circulation routes help guide the movement of people within a space. This includes designing wide corridors, stairways, and ramps that can accommodate high volumes of pedestrian traffic. Providing separate entry and exit points and creating logical pathways can prevent congestion and facilitate crowd dispersal.

According to Winter (2012), passive crowd control design is the integration of architectural components, features, and principles to regulate crowds in both regular and severe ways (emergency) and conditions. The phrase crowd control literally refers to measures put in place to organize or keep crowds orderly. While emergency situations concentrate on characteristics responsible for crowd evocation with the shortest possible time, regular conditions crowd control is supposed to integrate features essential for crowd comfort, limitation of crowd from inappropriate places, and ease of circulation. According to Oluwafemi's (2018) hierarchy of wants, safety and security rank second among human needs, following physiological needs. Consequently, passive design features that are essential for achieving crowd safety must receive greater emphasis. The study also reveals that part of the blame no matter how small, for developers not taking precautionary measures lies with the built environment professionals such as architects. The design of a built environment has an important perspective to play in providing infrastructure especially that can prevent crime and also that creates a sense of safety and comfort within communities, hence, the provision of recreational facilities.

This research is aimed at improving the health and well-being of the community, promote the Oguta area as a tourist destination, and enhance the quality of life for residents. The main objective of this recreational facility research is not only to provide interventions that will address a few challenges in public center only such as recreational facility, but to also educate people about the recreational activities, enhance safety and prevent overcrowding. Findings from this research shows that recreational facilities can attract visitors and establish a destination's reputation, there are elements that can create positive and memorable experiences for tourist, facility design and management practices can contribute to visitor safety and that there are strategies for managing visitor flow and preventing overcrowding in Oguta Lake.

It is therefore part of my recommendation that these planned principles should be adopted by Policies and guides to planning with legislative principles are necessary for consideration and made available to architects to ensure proper adaptable building and environmental developments in this region. This study also recommends that this journal article should be adopted in this region in Nigeria.

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