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Assessment of Security Design Strategies in Resorts Design in Osun State, Nigeria

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Abstract

Security has become an issue that has been reoccurring especially in the current state of the country which raises concern for the design of resorts within the nation and the challenges should be considered and gotten a solution for as soon as possible. The aim of this study is to assess security strategy design in resort design. The research method used in this study is the qualitative method and the use of observation check list has been adopted in obtaining information. The observation schedule was used as an instrument to collect data and the data were used as sampling method. These data were analyzed with content analysis and the findings showed that security measures have not been properly adopted in the resort design and most resorts do not take into consideration the necessary design strategies which has automatically open them to external threats. The research recommends that the need to design with consideration of security should be of uttermost importance in designing resort based on the number of people going and the function of the building and to urge other designers to consider the requirements while designing.

Keywords: Security strategies, resort

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Introduction

Attractions, tourism, establishments, and the green environment are all physical components of a site that must be organized in a sustainable manner since they impact the location's image and, as a result, its future (Kamra and Mohinder Chand 2004). A resort is a commercial self-contained facility that caters to the majority of a vacationer's need, including dining, housing, sports, entertainment and shopping, all on the same premises. A hotel that offers entertainment, recreational activities, and a variety of facilities is referred to as a "resort." The major attraction of a resort is generally a hotel (Nagle 1999).

Because of the country's large number of ethnic gatherings, Nigeria's tourism sector concentrates mostly on events, although it also has tropical rainforests, savannah, waterfalls, and other standard attractions. (Archibong 2004) Travelers spent $2.6 billion in Nigeria in 2015, but this plummeted to $1.5 billion in 2017, owing to the rise of the Boko Haram insurgency in 2015 (Macro trend 2022).

On the Obudu Level in Cross Waterway State, Obudu Mountain Resort is a farm and resort. M. McCaughley, a Scot who had previously researched the mountain ranges in 1949, established it in 1951. (Yusuff and Akinde 2015). He camped for a month on the crest of the Oshie Edge in the Sankwala Mountains before returning to Mr Hugh Jones, an individual farmer, in 1951. They nurtured the Obudu Cows Farm with Dr. Crawfeild's help. Despite the fact that the farm has faced challenges since then, it has been restored to its former glory (AllAfrica 2010).

A trolley began rising 870 meters (2,850 feet) from the base to the highest point of the level in 2005, providing passengers with a spectacular view while skipping the highly twisty route to the summit. The hotel is located on the Obudu Level, In Cross Waterway State's Obanliku nearby Government Area, near the Cameroon border in the northeastern portion of the state, roughly 110 kilometers (68 miles) east of Ogoja and 65 kilometers (40 miles) east of Obudu. Calabar, the capital of Cross Stream State, is 332 kilometers (206 miles) away and takes around 30 minutes to drive from Obudu town (Nwokorie 2014). Between Obudu and the retreat lies the Bebi Air terminal, which gives access to sanctioned air administration. The farm has recently suffered a deluge of both Nigerian and foreign visitors as a result of the Cross-Stream State Government's growth of vacationer offices, making the farm into a significant event and vacationer resort focus in Nigeria (Oladejo 2020).

Similarly, the Ibeno Ocean side is one of the most beautiful seashores in the country, with the longest sand beach in Nigeria and West Africa. It will take place at Jamestown, AkwaIbom. The city is said to be called for the local government in which it is located. The ocean side, according to antiquarians, is Nigeria's most seasoned ocean side (Obudu 2017).

Concept of Security Design Strategies

Detached security in engineering comprises of configuration highlights which hinder dangers while remaining to a great extent undetectable to clients of an office. Aloof security involves planning to guarantee protection, security and assurance (Fennelly 2012). In deciding the ideal level of safety of a structure, it is critical to think about the worth of the resource, distinguish the potential dangers and the office's weakness to the dangers along these lines recognized. Upon assessment, the reason for the execution of safety effort that meets the ideal level of safety is laid out (Eja, Joseph. K Ukwayi, and Felix Eja Ojong 2012).

Passive security (known as Crime Prevention through Environmental Design) is, as its name suggests, a security feature that doesn't generally take action in response to activity. Some security measures are very passive, such as bollards that physically prevent cars from entering through unauthorized points in the lot. Other passive measures may record activity without necessarily responding to it at that point. Passive security may not take action, but it remains an important part of a good security strategy. Why? (Hayes and Isah 2021). First, these measures are often easier and less expensive than active options. Landscape features like berms and boulders around the perimeter of your lot force cars to enter only where you want them to. These are relatively inexpensive to install and need little additional care. And unmonitored security cameras can run 24 hours a day without the added expense of a full-time person to watch. Second, passive measures generally impact the activities of parking lot users less than active ones. Installation of good lighting improves safety but doesn't cause anyone extra trouble as they come and go, so users don't find it intrusive or inconvenient (Hayes and Isah 2021).

Security Design Strategies

Defines Security is defined as the prevention of unintended events. Desired events occur as a result of an intentional and well-planned action (Skavland and Mejdell 2000). Defined security measures or controls as a physical, psychological, procedure, technological, or other devices that performs or contributes to one or more security function (Nunes-Vaz, Lord, and Ciuk 2011). This is accomplished by dividing and demarcating physical space, which is referred to as zones (Hayes and Isah 2021).

In general, when it comes to vacations and travel, security is regarded as one of the most important factors to consider. A tourist destination's image is generally tarnished by an unsafe or threatening environment (George 2003).

Suggests that various security measures be explored using phrases like security planning, border and external security, entry security, interior security, and perimeter and external security, and ecological design as a means of preventing crime (CPTED) (Atlas Randy I. 2021). Both passively

and aggressive techniques were used in these measures, as well as the sort of plants to be employed throughout the design process. One of the most often used planning methods for increasing safety in cities and big regions or institutions is CPTED (Lee, Park, and Jung 2016). CPTED is defined by primary elements such such as organic monitoring, parochialism, access management, activity assistance, and picture management, while the notion is still evolving (Moffatt 1983). In general, the CPTED concept takes into account the fact that criminals do not want to be noticed, hence surveillance measures like as watch towers, CCTV cameras, and security posts are prioritized. According to Lee, Park, and Jung (2016), the safest urban environment is one that is constantly monitored by humans. Buildings and community designs that encourage natural monitoring, according to Newman (1972), are crucial for reducing crime. Underlined the need of designing for security without sacrificing aesthetics (Hayes and Isah 2021). He emphasized that landscape art, auxiliary structures, and disguising obstacles might all be used to accomplish this. The significance of security concerns in the built environment is so great that it serves as a reminder of why we started construction in the first-place security should be taken seriously when designing buildings. Bulla (2004) claims that designing for security is similar to peeling an onion: it must be done layer by layer. Mechanical and electrical technologies, operational processes, and natural and architectural aspects are used to create a succession of overlapping levels of security defenses (Ashikodi 2010).

Methods

The mixed method research approach was used for the study that was carried out on application of security strategies in resort design because of its in depth understanding and research method for the understanding of both the researcher and the readers use. Primary and secondary was used in the collection of information, the variables considered are, standoff distance, hardened landscape element, access control features, height of kerbs, number of entry point to the site, features that define site boundaries, material for glazing, lighting fixtures on site, presence of speed breakers and the location of access point to the next floor. In consideration of these variable, an observation checklist was used in gathering the necessary data. The SPSS program was used to analyze the data acquired from the field by the researcher using the study instruments created. Plates, figures, tables, and charts were used to present the data.

Results and Discussion

Stand-off distance

The space between an asset and a liable danger is referred to as standoff. While 71.4% of the ten selected samples provided for a standoff distance of 1-6 meters, it was discovered that only 14.3% of the samples provided for a standoff distance of 7-10 meters. Only Ife Grand Resort of the observed samples offered an allowance of up to 15 meters (14.3%), as stated by the US army for infrastructure of this kind (US Department of State 2004) as shown in table 1. It's also worth noting that, even in some

of the facilities where standoff was witnessed, automobile users were still spotted within the parking their areas marked for driving through and drop-offs points.

	Frequency	Percent
1-6 meters	5	71.4
7-10 meters	1	14.3
11 meters above	1	14.3
Total	7	100.0

Table 1.
Standoff distance observed by the resorts

Figure 1.
Stand-off observed at Ife grand resort, Ife

Hardened landscape elements

This is the anti-intrusion characteristics in landscaping that are used in identifying incoming threats from approaching an asset. At least one hardened landscape feature was used in each sample's design. Kerbs and cement plantings were used in the majority of the examples analyzed. According to the research, 57.2% of the samples made use of kerbs as the only hard landscape element in their layout as in the case of ilaji hotel and sport resort and Royal Park International Resort as seen in plate I this has allowed easy visibility of threats, while 42.8% made use of both the kerbs and the concrete planters in their planning as shown in table 2.

		Frequency	Percent
Valid	Kerbs	50	57.2
	Both	30	42.8
	Total	7	100.0

Table 2.
Hardened landscape element

Figure 2.
Hardened landscape element as seen at Royal Park International Resort

Access control features

The items that are installed on site to direct within the premises, pedestrian and vehicular travel is possible which are known as access control features. Cement planters, concrete benches, curbs, bollards, speed ramps, and hedges are examples of such components. As shown in table 3, kerbswere used as a passive entry control method in 100% of the samples as seen plate II showing Zenanbabs Half-Moon Resort showing the means of access control with the use of planters and kerbs to help with the navigation within the site, and these were the sole control measure used in all of the resorts. Both automobile and pathways were integrated in the majority of the instances examined.

Table 3.
Access control features

		Kerbs	Total
Name of Resort	Ife Grand Resort	Yes	1
	Ilaji Hotel and Sport Resort	Yes	1
	Royal Park International Resort	Yes	1
	Zenababs Half-Moon Resort	Yes	1
	Lekki Sport Resort	Yes	1
	Ikogusi Warm Springs Resort	Yes	1
	Inagbe Grand Resort and Leisure	Yes	1
Total		7	7

Figure 3.
Access control feature at Zenababs Half Moon Resort

Height of kerbs

Curbs are a type of hard anti-intrusion barrier that divides green areas from asphalt walkways and driveways. They can also be used to guide the flow of traffic (human and vehicular). According to the findings, the great majority of resorts visited (85.7%) used kerbs with a height of around 100mm as in Zenababs Half-Moon Resort and Lekki Sport resort, these has given the rise in cases where cars cross the other side of the road and even falling into the drainage and only 14.3% of the investigated samples saw kerb heights of up to 300mm, as shown in figure 4. Vehicles find it difficult to traverse to the other side of the kerbs at a depth of 300mm. It is thus recommended to use kerbs with a height of 300mm or more for passive security as it is in Ife Grand Resort in Ile Ife (figure 5) It has shown the use of 300mm height kerbs.

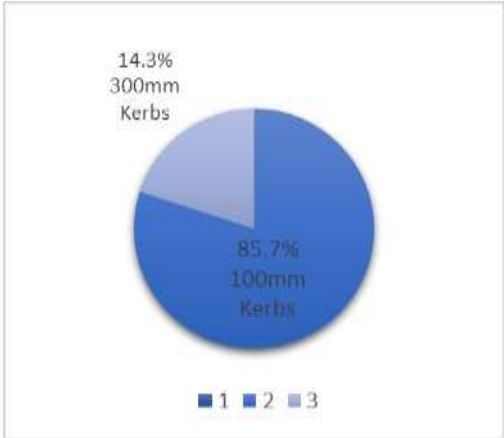

Figure 4.
Kerb height distribution as a percentage of total height

Figure 5.
300mm height observed at Ife Grand Resort

Number of entry point to the site

When planning for security, the amount of entrance place in all neighborhood of the planned structure is a critical issue to consider. The fewer the site's access points, the less vulnerable it is to potential threats and assaults as seen in plate v as seen in Ikogusi Warm springs Resort, Lekki Sport Resort and Zenanbabs Half-Moon Resort. The premise of all of the samples tested featured a single gated entry. Security officers in charge of restricting entry to the property also guarded these gates. These has given

a medium for maximum security at the point of entrance and has enablable the site to be well monitored of people going in and going out of the site.

Figure 6.
Entry point to the main site at Zenababs Half Moon Resort

Features that defines site boundaries

A fence is a common element in resorts for defining property boundaries. Low barriers with wooden railings, coupled with larger fences along the site's borders, were employed in Zenababs half-moon resort, Inagbe Grand Resort and leisure, Shutters and weaves, for example, may be employed both as the soft and hard environment features, while in Royal Park International Resort. The use of block for fencing was employed. In addition to providing security, they can offer artistic appeal to the facility's overall design. As seen in figure 7, metals were used as barricade within the site.

Figure 7.
Wooden railing as site boundary at Zenababs Half Moon Resort

Material for glazing

The glass material used to cover apertures is referred to as glazing. Translucent glazing provides vision from only one side of the object, whereas transparency glazing allows visibility from both sides. For the selected samples, the materials utilized for glazed apertures were investigated, table 4 shows that 4 of the studied resorts as seen in Ife Grand Resort, Inagbe Grand Resort and leisure used translucent glass for fenestrations, while 3 of the resorts used transparent glass which are Royal Park International Resort, Zenababs Half-Moon Resort. The translucent glass helps with seeing threats outside which helps to improve their preparation for any incoming threats as seen in figure 8.

		Transparent	Translucent
Name of Resort	Ife Grand Resort	No	Yes
	Ilaji Hotel and Sport Resort	No	Yes
	Royal Park International Resort	No	Yes
	Zenababs Half-Moon Resort	No	Yes
	Lekki Sport Resort	Yes	No
	Ikogusi Warm Springs Resort	Yes	No
	Inagbe Grand Resort and Leisure	Yes	No
Total		3	4

Table 4.
Type of Material Used for Glazing

Figure 8.
Translucent glazing at Ife Grand Resort

Lighting fixtures on site

This identifies the numerous lighting technologies used to illuminate the resort grounds. Lamp posts and other lighting fixtures are among them. While 2 of the analyzed samples had no light fixtures in their area that is in Ikogosi Warm Spring Resort and Inagbe Grand Resort and Lesuire, as shown in table 5, 4 made certain that illumination was given within their arrangement as seen in Royal Park International Resort in plate VII and Lekki Sport Resort with good illumination, this helps with easy visibility of the activities going on within site and outside the site to see incoming attacks from outside. The light also helps with safety, it reduces hazard

within the site and helps create a clear pathway for the users and also movement within the site, the light also serves as beautification of the environment while simultaneously serving the main purpose for security.

Table 5.
Lighting within the Resort

		Lighting Fixture Present	Lighting Fixture Absent
Name of resort	Ife Grand Resort	Yes	No
	Ilaji Hotel and Sport Resort	Yes	No
	Royal Park International Resort	Yes	No
	Zenababs Half-Moon Resort	Yes	No
	Lekki Sport Resort	Yes	No
	Ikogusi Warm Springs Resort	No	Yes
	Inagbe Grand Resort and Leisure	No	Yes
Total		5	2

Figure 9.
Lighting fixture at Royal Park International Resort

4.9 Use of Speed Breakers

The uses of speed breakers are to help reduce and limit the speed a car can go within a particular area can be in form of metal or concrete (bumps, speed breaker). Out of all the samples carried out, it was discovered that there was no use of any of these to reduce vehicular speed. As seen in plate ix, there was no use of any speed control on site.

Figure 10.
Absence of speed of breakers at Ife Grand Resort

Stairs location

The location of the stairs within the building has a lot to do with the accessibility to other floors and the location will determine how secure the next floor is going to be. Out of all the samples collected 57.1% had their stairs located in open lobby as in Royal Park International Resort and Inagbe Grand Resort and Leisure, 14.4% had theirs in closed area while 28.5% had no stairs as it is observed in figure 11 in the case of Ikogusi Warm Springs Resort and Zenababs Half-Moon Resort, therefore it is better to locate stairs in areas that landing will be in an open area like the lounge so as to enable visibility of people accessing the next floor from the previous one this will help reduce crime rate because of the visibility to open areas.

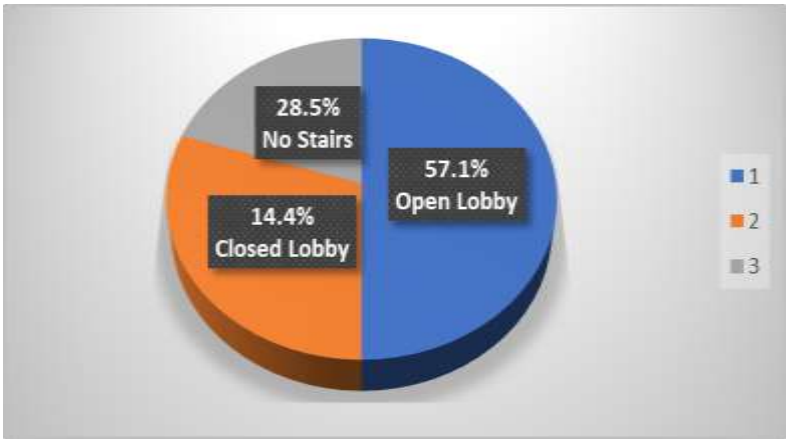

Figure 11.
Percentage of stairs location

Figure 12.
Stairs location at Royal Park International Resort

Conclusions

In general, security strategies are not usually followed when it comes to resort design and planning, also most of the resort are not really developed and this causes a lot of potential threats. The issues related security must be considered in resort to be designed, all the challenges can be based on applying passive security strategies in the designing resorts such as the stand-off distance, use of hard landscape element, height of kerbs, number of entries, access control feature, site boundary facility, material for glazing, environment lighting fixture, speed breakers and location of access to the next floor. In Osun state, the resorts studied states that most of the resorts do not properly meet the requirement for security strategies design measures and this has result in most resort not properly planned.

Recommendations

(1) The resorts should observe the minimum stand-off distance of a minimum of 15meters before accessing any of the facilities; (2) The use of hard landscape element like concrete planter can be used to also restrict movement at the same adding beauty to the environment; (3) The minimum height of the kerbs should be at least 30mm to prevent cars from climbing over to the other side of the road or to the pedestrian track; (4) The number of entrances should be one to help enhance maximum security at the entrance; (5) The lighting fixture on site should be bright enough to see every activity within the site; (6) Material for glazing of windows should not be see through from the exterior of the buildings.

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Aisha P. Abdullahi contributed to the research concepts preparation, methodologies, investigations, data analysis, visualization, articles drafting and revisions.

Timothy O. Abiodun contribute to methodology, supervision, and validation.

Kolawole O. Morakinyo contribute to the research concepts preparation and literature reviews, data analysis, of article drafts preparation and validation.

Olatunde F. Adedayo contribute to methodology, supervision, and validation.

Nneka O. Akande contribute to methodology, supervision, and validation.