DESIGN CONSIDERATIONS FOR CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN IN MINNA SHOPPING CENTRES

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In recent time, architecture designs have emerged worldwide as one of the most promising and currently effective approaches to reducing opportunities for crime. The basic tenet of crime prevention through design in building is that proper design and effective use of the built environment can be used to reduce the fear and incidence of crime and thereby improve the overall quality of life. Studies have shown that in communities where these principles have been implemented, criminal activity has decreased by as much as 40 percent. Environmental crime prevention has many positive aspects which deter crime instead of addressing criminal activity after it occurs. This paper is aimed to assess the design considerations for crime prevention through environmental design in minna shopping centres. Five shopping centres within Minna metropolis are purposively selected for this study. The study have employed case study and a descriptive survey method. Data were collected by means of structured survey observations and interview. The outcome of the study shows that designers and developers play important role and influence in enhancing the safety and security of the community. The study suggested that for effective crime control, the government should involve architects and other building professionals through integration of crime prevention through environmental design (**CPTED**) principles and concept at the inception of design.

Keywords: Built environment, crime, safety, security, shopping centre.

INTRODUCTION

Crime is a social problem in our society that affects thousands of people's lives each year. Serious crimes against persons and properties generate considerable fear within the community. Crimes like theft, break-in, rape and murder are serious threats to the safety of the community. The resulting fear of crime in itself can restrict people's freedom of movement and prevent them from fully participating in the community, particularly some groups of people like older people, women, parents, teenagers who are more vulnerable to crime and fear of crime (**CPTED** Hand Book, 2002)

Many different strategies are needed to combat the complex issues of crime and fear of crime. A whole range of responses involving strategies in design, community action and law enforcement would be required to achieve successfully the objective of crime prevention. In this connection, there is widespread acknowledgement that planners, architects and developers can play an important role in enhancing the safety of our communities as they have a major influence in the design of the built environment. Traditionally, the community has turned to the police and the judicial system to protect them by deterring criminals and punishing offenders. The general public's indifference towards self-protection arises mainly from the lack of knowledge of the means of protection, and perhaps a perception that somebody else - the government or insurance companies - bears most of the cost of theft and vandalism.

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A great deal can be done architecturally to mitigate security risks in a facility or site. These measures often cost nothing or very little if implemented early in the design process. All considerations which include careful design of building layout, configuration of space and the use of built environment are termed architectural. All these architecture mechanism for crime prevention through principles of design are also known as Crime Prevention Through Environmental Design (**CPTED**).

Katyal (2002) argued that architecture at the beginning of the twenty first century has been given the least importance and underexplored in the form of crime control. He also states the needs and importance to understand the relationship between crime and architecture so as to enhance its effectiveness in the fight against crime

CPTED, also known as 'Design Out Crime', is an acronym for crime prevention through environmental design which states that "the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, and improvement in the quality of life" (Crowe, 2000). **CPTED** is a multi- disciplinary approach, drawing on criminology, planning and environmental psychology, and is specifically located with the field of environmental criminology. **CPTED** is concern with the identifying conditions of the physical and social environment that provide opportunities for criminality and the modification of those conditions in order to reduce such opportunities. Its objective is to proactively prevent crimes as compared to the reactive strategies of most criminal justice systems (police, court, and correctional facilities (Wallis, 1980). The term **CPTED** was originally coined by Jeffery (1971) and most of the theoretical and practical development where based upon Newman's Defensible space (1973)

Research in architectural theory and environmental psychology reveals that architects influence, in subtle ways, the paths by which we live and think, for example fast-food restaurants use hard chairs that quickly grow uncomfortable so that customers rapidly turn over; elevator designers place the numerals and floor indicator lights over people's heads so that they avoid eye contact and feel less crowded; supermarkets have narrow aisles so that customers cannot easily talk to each other and must focus on the products instead. With strategies like these, private architects are currently engaging in social control. Law occasionally harnesses the power of physical space to shape social norms and uses architecture as an expressive tool to embody certain commitments (Katyal, 2002).

This paper is focused on how architectural solutions can be explored to crime and then suggests ways for the government to take more active role in architectural design. First the paper suggest six architectural concepts which are also the principles of **CPTED** ; increasing area for natural surveillance (its visibility and susceptibility to monitoring by private citizens), introduction of territoriality (by demarcating private and semiprivate spaces), reducing social isolation, access control, maintenance management of pace and protecting potential targets. The study is to be carried out in Minna, Niger State of Nigeria. Minna being the capital city of Niger state consist of two local government area which is Bosso and Chanchaga

REVIEW OF RELATED LITERATURE

Some architects have outlined mechanisms for crime prevention through principles of design." This emerging field is known as "Crime Prevention Through Environmental Design" **(CPTED). CPTED** is an acronym for Crime Prevention Through Environmental Design which asserts that "the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life" (Crowe, 2000). By optimising opportunities for surveillance, clearly defining boundaries (and defining preferred use within such spaces) and creating and maintaining a positive 'image', urban design and management can discourage offending. This is explained by the fact that offenders are potentially more visible to 'law-abiding' others, and therefore, perceive themselves to be more at risk of observation and subsequent apprehension. Additionally, a well-maintained and appropriately used environment can signify that a sense of 'ownership' and proprietary concern exists within the community. The federal government of Nigeria, however lack regulations for crime prevention in building designs. Nevertheless, an extensive review of the architectural literature reveals six basic concepts.

Six Principles of CPTED

- Natural surveillance
- Territorial reinforcement
- Natural Access control
- Activity support
- Target management
- Maintenance Management

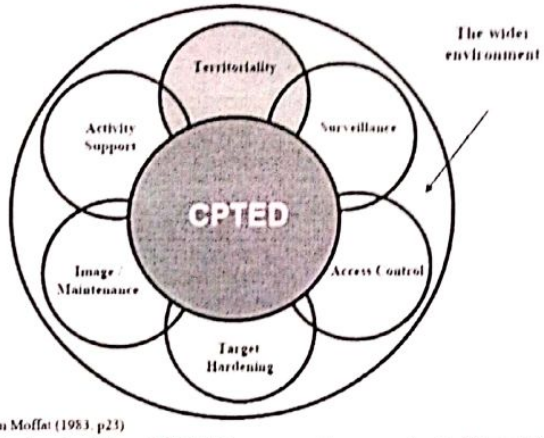

Fig. 1.1 showing the 6 principles of CPTED Source: adopted from Moffat (1983)

Natural Surveillance

Natural surveillance refers to the use of architecture to create spaces that are easily viewed by residents, neighbours, and bystanders. It supports good visibility in and around the buildings to limit concealment of criminal activities .If offenders perceive that they can be observed (even if they are not), they may be less likely to offend, given the increased potential for intervention, apprehension and prosecution. The most famous exponent of this approach was Jacob (1961) who reasoned that "eyes on the street" would deter crime. Jacobs's goal was to investigate why crime rates differed among cities. Jacob discarded the conventional theories of architecture and crime, such as those contending that building more public housing would prevent crime. Instead, she emphasized the density and diversity of city life. The primary aim of surveillance is not to keep intruders out (although it may have that effect) but rather, to keep intruders under observation. Natural surveillance can be achieved by a number of techniques. This can be done by putting more people (observers) near a potential crime area, the placement of windows and lighting and the removal of obstructions can be placed to improve sight lines from within buildings. Other forms of surveillance include formal or organised (e.g. police and security patrols) and mechanical surveillance strategies (e.g. street lighting and CCTV) .Design teams shall incorporate the following design strategies and techniques when designing or renovating a facility

- Orientate travel ways perpendicular to buildings.
- Develop pedestrian pathways and corridors with clear lines of sight.
- Parking lots rows should be perpendicular to buildings to maximize visibility.
- Landscape architecture that supports security requires a design that integrates natural surveillance, video surveillance, and natural access control.
- Avoid constructing large blank walls that limit visibility and can become targets for graffiti; instead encourage the use of walls with windows, architectural details, or foliage.
- Place facility personnel where they have clear lines of sight of walkways and parking lots through windows and doors.
- Use baffle type restroom entrances to support visual and audible surveillance and position restroom entrances to be visible from main pedestrian areas but away from outside exits and pay telephones.
- Avoid dead-end corridors, isolated stairwells, and open areas under stairs.
- Design open floor plans for offices, classrooms, and laboratories.
- Include intended gathering areas where practical to increase legitimate use of corridors and lobbies therefore increasing natural surveillance (ECU, 2011).

Empirical studies of burglary confirm that the surveillability of an area is a major predictor of its crime rate.

Territorial Reinforcement

Territoriality is a concept that clearly delineates private space from semi-public and public spaces and provides cues that help to create a sense of ownership. People usually protect territory that they feel is their own and have a certain respect for the territory of others. Identifying intruders is much easier in a well-defined space. An area that looks protected gives the impression that greater effort is required to commit a crime. CPTED Guideline (2005). Territoriality clearly defines an area by utilizing physical or psychological element to create an environment with a sense of ownership where abnormal behaviour, such as unusual loitering or other unauthorized activities, is easily recognized. This can be achieved by using physical elements such as fences or real barriers, pavement treatment, art, symbolic barriers (e.g. signage), good maintenance and landscaping to express ownership. Architects can work to create territoriality by manipulating both the internal and external features of buildings by

- Providing a defined boundary around the building.`
- Selecting pavement patterns, vegetation, low walls, or site features to form physical or psychological separation of areas.
- The Use signage to reinforce or establish territoriality and to support way finding.
- Providing trash receptacles in areas of intended pedestrian use to encourage a clean and kept environment.
- Appling polyurethane paints that reflect light and resistant to graffiti.
- The Use symbolic barriers to inform an individual that he/she is passing from a public to private space, this may include open gateways, light standards, low walls, and plantings. Research on territoriality has shown it to be most effective at the local level (Brown and Altman, 1981; Taylor, 1988; Ratcliffe, 2003)

Natural Access Control

Natural access control is a **CPTED** concept focused on reducing opportunities for crime using spatial definition to deny access to potential targets and creating a heightened perception of risk in offenders. . Natural Access Control is about using layout and design elements to easily direct site users in an orderly fashion from one location to another while reinforcing territoriality and aiding natural surveillance. By denying access to targets and creating a perception of risk for offenders this concept decreases the opportunity for criminal activity. The mainstay of natural access control is limiting the number of intended access points to the greatest extent possible without negatively affecting operations as well as to guide people through a space by strategic design. This aids natural surveillance by increasing traffic flow at each of those locations therefore increasing the opportunities for surveillance. Formal or organised access control (e.g. security personnel) and mechanical access control (e.g. locks and bolts). Natural access control relies on doors, fences, shrubs, and other physical elements to keep unauthorised persons out of a particular place if they do not have a legitimate reason for being there. In its most elementary form, access control can be achieved in individual dwellings or commercial establishments by the use of adequate locks, doors and window barriers. The strategies were not generally considered as part of the early definitions of **CPTED.**

- Limit the number of pedestrian and vehicle entrances to building facilities.
- Develop pedestrian traffic corridors between high use areas, such as between parking lots and main building entrances.
- Use site features, building design, and pathways to channel pedestrians and vehicles into intended corridors.
- Limit the number of entrances into a building without inhibiting its functionality or operations.

Activity Support

Activity support involves the use of design and signage to encourage intended patterns of usage of public space. Crowe (2000) notes how activity generation and support seeks to place inherently "unsafe" activities (such as those involving money transactions) in "safe" locations (those with high levels of activity and with surveillance opportunities). Similarly, "safe" activities serve as magnets for ordinary citizens who may then act to discourage the presence of criminals. This approach clearly contains elements of territoriality, access control and surveillance. Although increased numbers of pedestrians may provide additional

"eyes on the street" and potentially discourage some offences, this may also actually encourage and provide potential targets for crime (e.g. pick-pocketing). This concept can decrease criminal or abnormal behaviour by providing gathering areas and other architectural features that encourage the appropriate use of a space by intended users. This can deter crime because criminals do not typically intermix with intended users. These are interior and exterior features around the campuses that include features for students, faculty, and staff and may include barbeque grills, picnic tables, benches, outside eating areas, or basketball courts. Interior features could be student, staff, and faculty lounges, billiard or Ping-Pong tables, and TV or game rooms

Target Hardening

One of the more obvious ways in which architecture can prevent crime is by strengthening targets against attack. . Target hardening increases the efforts that offenders must expend in the commission of a crime and is the most long-established and traditional approach to crime prevention. Some of these techniques are easy to employ, such as placing deadbolts lower on door frames, having doors in vulnerable locations swing outward, raising fire escapes to put them out of easy reach, and reducing the size of letter-box openings. Modem technology permits targets to be hardened in ways that are not obvious to the public. Strong plastics, graffiti-resistant paint, and doors with steel cores are a few examples. These advances allow architects to disguise their efforts at strengthening targets and thus avoid sending a message that crime is rampant. This describe an important feature that distinguishes various architectures of crime control. However, there is much disagreement concerning whether or not target hardening should be considered as a component of **CPTED**. It is directed at denying or limiting access to a crime target through the use of physical barriers such as fences, gates, locks, electronic alarms and security patrols. Substantial evidence reveals that such security measures decrease crime in post offices, banks, and convenience stores.

Maintenance Management

Promoting a positive image and routinely maintaining the built environment ensures that the physical environment continues to function effectively and transmits positive signals to all users. The significance of the physical condition and "image" of the built environment and the effect this may have on crime and the fear of crime has long been acknowledged (Lynch, 1960; Newman, 1973; Wilson and Kelling, 1982; Perglut, 1983) and an extensive body of research now exists (Eck, 2002; Kraut, 1999; Ross and Mirowsky, 1999; Ross and Jang, 2000). Indeed, vacant premises have been found to represent crime "magnets" (Spelman, 1993). Maintenance and management need to be considered at the design stage, as the selection of materials and finishes will impact on the types of maintenance regimes that can be sustained over time. For example, plant material should be selected for its size at maturity to avoid blocking of sight lines. Crucially, much research suggests that the routine maintenance of the urban environment will significantly assist in reducing crime (Wilson and Kelling, 1982; Kraut, 1999; Ross and Mirowsky, 1999; Ross and Jang, 2000; Cozens *et al.*, 2001b)

The "Three D" Approach

CPTED involves the design of the physical space in the context of the normal and expected use of that space by the users as well as the predictable behaviour of people around the space. **CPTED** emphasises the connection between the functional objectives of space utilisation and behaviour management. Conceptually, the six **CPTED** principles are applied through the 3-D approach, i.e. **Designation**, **Definition** and **Design**. The 3-D approach is a simple space assessment guide that helps the user in determining the appropriateness of how a space is designed and used. The 3-D concept is based on the three functions or dimensions of human space:

- All human space has some designated purpose.
- All human space has social, cultural, legal or physical definitions that prescribe desired and acceptable behaviours.
- All human space is designed to support and control the desired behaviours.

By using the "Three D's" as a guide, space may be evaluated by asking the following questions:

1. Designation

- What is the designated purpose of this space?

- What was it originally intended for?

2. Definition

- How is the space defined?
- Where are its borders?
- Are there social or cultural definitions that affect how that space is used?
- Are legal or administrative rules clearly set-out and reinforced in policy?
- Are there signs?

3. Design

- What physical design will best support the intended use of the space?
- What physical design will best provide the means to influence human behaviour?

Consideration of these questions may reveal areas that requires changes or improvements. Once these questions have been considered, the information received may be used as a means of guiding decisions about the design or modification of the space so that the objectives of space utilization as well as natural surveillance, natural access control, territorial reinforcement and maintenance and management can be better achieved. CPTED Guidebook (2003)

CPTED Strategies for Designing A Shopping Center

The four CPTED principles can be translated into various planning and design strategies that would enhance security in shopping centre. These strategies can be categorised as follows:

1. Allow for clear sight lines,
2. Provide adequate lighting,
3. Minimise concealed and isolated routes,
4. Avoid entrapment,
5. Reduce isolation,
6. Promote land use mix,
7. Use of activity generators,
8. Create a sense of ownership through maintenance and management,
9. Provide signs and information and
10. Improve overall design of the built environment.

Sight Lines

Sight line is defined as the desired line of vision in terms of both breadth and depth. The inability to see what is ahead along a route due to sharp corners, walls, earth berms, fences, bushes or pillars can be serious impediments to the feeling of being safe. Large columns, tall fences, over grown shrubbery and other barriers blocking sight lines adjacent to pedestrian paths could shield an attacker. Alternatively, low hedges or planters, small trees, wrought iron or chain-link fences, transparent reinforced glass, lawn or flower beds, benches allow users to see and be seen and usually discourage crime and vandalism. Built environment should be design to allowing for clear sight lines and avoiding isolated or hidden spaces especially where risk to personal safety is perceived to be high such as recessed doorways, Sharp "blind spots" corners in stairs or corridors where there may be no alternative routes of escape and sudden changes of grade on walkways. Landscape can be a major impediment as they mature over time resulting to unintended screens, barriers or hiding places. Therefore, planting in a landscape must take into consideration the growth, final height and habit of the plants and proper maintenance should be ensured not to obscured sight lines. CPTED Guidebook (2003).

Lighting

Sufficient lighting is necessary for people to see and be seen. From a security point of view, lighting that is strategically placed can have a substantial impact on reducing the fear of crime. A basic level of lighting should allow the identification of a face from a distance of about 10 metres for a person with normal vision.

1. **Minimum Standards**
   If the area is intended for night time use, lighting should provide adequate visibility. Pedestrian walkways, back lanes and access routes open to public spaces should be lit so that a person with normal vision is able to identify a face from a distance of about 10 metres. Inset spaces, signs, entrances and exits should be adequately lit.

2. **Paths not Intended for Night Time Use**
   Lighting is not desirable in an isolated area or for a path leading to some obscure places. Lighting such areas may provide a false sense of confidence for people during night time use. The paths or spaces not intended for night time use could be fenced off and remained unlit to avoid giving a false sense of security or impression of being used.
3. **consistency of lighting**
   Lighting should be uniformly spread to reduce contrast between shadows and illuminated areas. More fixtures with lower wattage rather than fewer fixtures with higher wattage help reduce deep shadows and avoid excessive glare.
4. **protection of lighting**
   Light fixtures should be protected against casual vandalism by means of vandal resistant materials and design.
5. **Maintenance**
   Lighting requires maintenance to preserve visibility. Bushes and trees that block off light should be trimmed. Lighting fixtures should be located at suitable heights for easy maintenance and replacement. Light fixtures should be maintained in a clean condition and promptly replaced if burnt or broken. Posting information indicating who to call in case of burnout or vandalised lights is desirable. CPTED Guidebook (2003).

Concealed or Isolated Routes

Concealed or isolated routes are often predictable routes that do not offer alternative for pedestrians. An attacker can predict where pedestrians will end up once they are on the path. Examples are underpasses, pedestrian overhead bridges, escalators and staircases. Predictable routes are of particular concern when they are isolated or when they terminate in entrapment areas.

1. **Visibility of Concealed or Isolated Routes**
   If there is a need for the concealed or isolated route, it should be designed to incorporate visibility. If there is an existing concealed or isolated route and security is in question, it should be modified or eliminated. Concealed or isolated routes can be made safer by bringing in more activities, ensuring clear sight lines, improving lighting, installing emergency telephones and electronic surveillance devices.
2. **Surveillance Through Hardware**
   If a concealed or isolated route is enclosed and prone to crime e.g. passageway or stairwell, surveillance through security hardware should be considered and these hardware should be properly monitored..

Entrapment Areas

Entrapment areas are small, confined areas near or adjacent to well-travelled routes that are shielded on three sides by some barriers, such as walls or bushes. Examples are lifts, tunnels or bridges, enclosed and isolated stairwells, dark recessed entrances that may be locked at night, gaps in tall vegetation, a vacant site closed from three side by barriers, narrow deep recessed area for fire escape, grade-separated driveways or loading/ unloading areas off a pedestrian route. Parking lots, petrol kiosks and school buildings isolated by school yards can also become entrapment areas, especially when there is less activity after operating hours. It is preferable to have natural surveillance if an entrapment area is unavoidable, the area should be well lit with some form of formal surveillance. In the case of lifts, incorporation of glass windows in the design of lift doors would be helpful. CPTED Guidebook (2003).

Isolation

Most people feel insecure in isolated areas especially if people judge that signs of distress or yelling will not be seen or heard. People may shy away from isolated areas and in turn such places could be perceived to be even more unsafe. Natural surveillance from adjoining commercial and residential buildings helps mitigate the sense of isolation, as does planning or programming activities for a greater intensity and variety of use. Some dangerous or isolated areas may need formal surveillance in the form of security hardware, i.e. audio and monitoring systems. Compatible land use and activity generators can also be created, thereby allowing visibility by users.

Land Use Mix

A balanced land use mix is important for environmental, economic, aesthetic and safety reasons. Mixed uses must be compatible with one another and with what the community needs.. The social value of frequenting local businesses provides a sense of security and safety as the local business people "watch" the street. Generally, any design concept that encourages a land use mix will provide more interaction and a safer place. Examples include convenience retail shops, personal service shops and offices in primarily residential areas, especially if they provide local employment opportunities. Childcare centres, health and fitness clubs and grocery stores in office areas are other examples of compatible mixed uses.

Activity Generators

Activity generators are uses or facilities that attract people, create activities and add life to the street or space and thus help reduce the opportunities for crime. Activity generators include everything from increasing recreational facilities in a park, to adding a restaurant to an office building. They can be provided on a small scale or be added as supporting land use, or intensifying a particular use and provide surveillance to potentially isolated areas, e.g. by locating administration office, lounge, TV room facing back lanes or side entrances and placement of licensed vendors in sensitive areas in the parks

Ownership, Maintenance and Management

Sense of ownership, or territoriality, is often considered a vital factor in making a place safer.

Taking responsibility and caring for an environment helps make it safer. The visual or real barriers separating many new housing developments from surrounding neighbourhoods may isolate residents from the wider community.one of the ways to achieve this is to define properties by the presence of design features with the use of small fence, use of durable vandal resistance materials, proper maintenance of building and placement of telephone numbers or wed site to call for repair or vandalism of properties

Signs and Information

Well designed, strategically located signs and maps contribute to a feeling of security. Signs should be standardised to give clear, consistent, concise and readable messages from the street. It should be well lit up and visible at night. Where it is difficult to find one's way around; signs with maps should help. Signs must be visible, easily understood, well maintained and strategically located at entrances and near activity nodes. It should be placed for visibility at an appropriate height, maintained on regular basis and should indicate where and when entrance and exit are closed

RESEARCH METHOD

The research method adopted was the descriptive survey method. Data were collected by means of well-structured questionnaires and observations schedule to evaluate the physical outdoor space of each shopping centre. The assessment was conducted in Minna Niger state, Nigeria. Minna consist of two local government area which are Bosso and Chanchaga. Chanchaga local government occupies an area of about 72km^2 and population of 201,429 and Bosso occupies an area of about 1,592km^2 and a population of 147,359. Five (5) shopping centres were purposefully selected based on their large numbers of shops in the shopping centre, large numbers of patronage and their locations which makes them a target area for crime. The sampling method employed was random sampling method. 125 questionnaires were distributed to shop owners at the centres only 100 were returned. Data collected were analysed using frequency distribution tables.

FINDINGS AND DISCUSSION OF RESULTS

The shopping centres that were sellected are

1. Blue mart Tunga, Chanchaga
2. Kpakungu shopping plaza, Kpakungu, Chanchaga
3. Obasanjor shopping complex, Chanchaga
4. Peniel Albarka plaza, Chanchaga
5. Shamras plaza, Bosso

Table 1. Height of wall fencing

Height of wall fence	Frequency	Percentage (%)
None	1	20%
Less than 1m	3	60%
1-2 m	1	20%
Above 2m	0	0%
TOTAL	5	100%

Source: Author

In Table 1. 20% of the shopping centre has no perimeter fencing, 60% has its perimeter fencing less than 1meters, 20% between 1-2meters while none record above 2meters of fencing.

Table 3. Standoff distance

Standoff distance	Frequency	Percentage (%)
Less than 4m	1	20%
4m- 8m	1	20%
8m- 12m	3	60%
Above 12m	0	0%
TOTAL	5	100%

Source: Author

In table3, 20% of the shopping centres have a standoff distance less than 4meters, 20% between 4meters to 8meters, 60% between 8meters – 12meters and none recorded a standoff distance above 12meters

Table 4. Number of entrance/ exit

Number of entrance/ exit	Frequency	Percentage (%)
Less than 3	1	20%
3-5	3	60%
1-2 m	1	20%
Above 2m	0	0%
TOTAL	5	100%

Source: Author

Table 4. CPTED measures applied on the shopping centres

CPTED Strategies	Yes	No	I don't know
Isolated area	46%	35%	15%
Entrapment area	55%	25%	20%
Feature impediment	20%	70%	10%
Formal surveillance	10%	80%	10%
Compactible land use mix	50%	20%	30%
Activity generator	40%	50%	10%
Well define boundaries	70%	20%	10%

Source: Author

From table 4. The shop owners were asked questions on the availability of the following CPTED measures applied on the centres, these were their responses.

Table 5. User's general perception on the use of CPTED strategies

CPTED strategies	Satisfactory	Unsatisfactory
site visibility	32%	68%
Location of car pack	23%	77%
Site maintenance	30%	70%
Display of signs and maps	34%	66%
Quality of lighting both day and night	25%	75%
Numbers of Escape and alternative routes	35%	65%
Safety impression about the place	39%	61%

In table 5 above, the shop owners were asked their general perception of the shopping centres. 32% of them were satisfied with the site visibility while 68% were unsatisfied 23% were satisfied with the location of the car park while 77% were unsatisfied. For display of signs and maps, 30% were satisfied while 70% of them were unsatisfied. For quality of lightning both day and night, 25% of them were satisfied while 75% were unsatisfied. For number of alternative routes and escape routes, 35% unsatisfied while 65% satisfied. They were also asked their general impression of the safety of the site, 39% satisfied while 61% unsatified

CONCLUSION AND RECOMENDATIONS

It is quite clear and obvious from the results and data analysed that most of the shopping centres in Minna are design with little or no consideration for crime prevention and safety of the users. This result has reveal the tendency of high crime rate in Minna shopping centres. People's safety and crime prevention should be given utmost priority in shopping centres. There is clear evidence that well-planned crime prevention strategies not only prevent crime and victimization, but also promote community safety and contribute to the sustainable development of countries. Conventional law would be at its best in crime prevention if architectural considerations should be integrated into law, not banished into a separate and isolated discipline.

It is the government responsibility to create, maintain and promote a context within which relevant governmental institutions and all segments of civil society, including the corporate sector, can better play their part in preventing crime. Firstly government should involve architects and other building professionals through integration of crime prevention through environmental design (**CPTED**) principles and concept at the inception of design. Secondly, it will be recommended that the government should design, implement and enforce policies regarding crime prevention and safety on building designs before being built. There are also needs to involve the people's perception of safety in building design.

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