Review of: "Analysing the conglomeration of various urban pockets through the lens of environmental design for crime prevention: A case of Kolkata"

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Potential competing interests: No potential competing interests to declare.

The research paper addresses the challenges within Kolkata's built environment and proposes actionable design measures. Through its abstract, the paper effectively communicates its significance, methodology, and potential impact, providing readers with a clear roadmap for understanding its contents and contributions. In the **Introduction**, the paper delves into Kolkata's historical morphological evolution, influenced by various rulers and socio-political changes. It also underscores the role of crime prevention in the city's built fabric, specifically focusing on elevated sitting platforms known as 'Dalan,' although the exact definition or significance of 'Dalan' is not clearly elucidated, leaving room for interpretation.

The study reveals that although Dalans held historical significance, they have lost their relevance in terms of security and are now repurposed for other activities, potentially including political meetings and even crime-related activities. This transformation has contributed to a chaotic blend of architectural styles, materials, and forms, creating what is termed as a "cacophony" of the cityscape. Additionally, traditional security systems like well-lit streets and clear sight lines have been disrupted by inconsistent planning policies, inadequate enforcement, and fragmented decision-making processes. The research aims to incorporate additional parameters such as attitude, responsibility, action, and belief systems to understand crime in historic growing cities like Kolkata. It employs the Confirmatory Factor Analysis (CFA) model to effectively retrieve data based on surveys and incorporate Crime Prevention Through Environmental Design (CPTED) parameters. The conclusion emphasizes the need to cater to the duality of usage in historic cities based on CPTED principles, suggesting small but effective measures like introducing wall art and colours to enhance natural surveillance.

In the **methodology section**, the paper focuses on selected localities across the Kolkata Metropolitan Area (KMA), examining both urban and suburban morphological patterns. It highlights key findings based on areas with continuous human presence, especially in residential morphologies. The paper advocates for localized crime prevention initiatives tailored to the unique characteristics of each urban pocket in Kolkata, incorporating principles from the 'Defensible Space Theory.' The research conducted population surveys across three sites, aiming to understand people's perceptions towards CPTED elements in crime prevention. Various factors such as age, gender, occupation, and residential tenure were considered to ensure demographic representation in the survey samples. Given potential variations in respondents' perceptions influenced by different times of the day, the utilization of Confirmatory Factor Analysis (CFA) becomes imperative. In **Section 4 Results and Discussions**, the paper presents the study's findings, focusing on CPTED elements: Natural Surveillance, Natural Access Control, Territorial Reinforcement, and Maintenance and Management.

Each of these elements is further broken down into sub-items, with CFA employed to validate the measurement model, especially when dealing with overlapping and synergistic principles.

Overall, the paper suggests that the application of CPTED principles, managed by local authorities, could enhance the security of public spaces in Kolkata and foster stronger urban communities. It advocates for comprehensive guidelines for crime prevention in the Indian context and emphasizes community engagement and awareness programs to empower residents in maintaining a positive and secure built environment.

Amendments:

1. *Clarification of Negative Factor Loadings*: Provide an explanation for negative factor loadings observed in the CFA model, such as the negative factor loading for "Large windows promote casual supervision of the street" in the Natural Surveillance dimension. Address any inconsistencies or contradictions in the data to ensure a comprehensive understanding.
2. *Further Insight into Access Control*: Offer additional insights into the negative reliability factor observed for Access Control. Discuss potential reasons for its exclusion and its implications for Crime Prevention Through Environmental Design (CPTED) in the selected localities.
3. *Improving Table Presentation*: Enhance the clarity of Table 1 by organizing CPTED dimensions, items, descriptions, factor loadings, and reliability values into separate sections. This restructuring will facilitate readability and assist readers in interpreting the results more effectively.
4. *Interpretation of Cronbach's Alpha*: Provide a succinct interpretation of Cronbach's Alpha values to explain the reliability of the items within each CPTED dimension. Discuss what these reliability values signify in terms of the internal consistency of the measurement model.
5. *Detailed Analysis of Radar Charts*: Offer a thorough interpretation of the radar charts, highlighting specific patterns, trends, or significant observations found in each chart. This detailed analysis will aid readers in understanding the implications of the visual representations presented in the study.
6. *Addressing Dalan and Natural Surveillance Discrepancy*: Elaborate on the apparent contradiction between the significance of Dalan in architectural features and the emphasis on Natural Surveillance in the survey outcomes. Discuss the implications of this discrepancy for understanding crime prevention in historic city contexts.
7. *Implications for Kolkata*: Discuss the practical implications of the study's findings for Kolkata, emphasizing how the results can inform urban planning, policy development, or design interventions aimed at enhancing crime prevention in the city.

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