

## Revisiting Pedestrians' Appraisals of Urban Streets

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**Abstract :** The walkability features of urban streets are prominent factors that are often focused on achieving a pedestrian-friendly environment. The limited attention that walkability enhancements devote to pedestrians' experiences or perceptions, on the other hand, raises the question of whether walkability enhancement is sufficient for pedestrians to enjoy using the streets. Thus, this paper evaluates the relationship between the socio-physical components of urban streets and pedestrians' perceptions. A total of 1152 pedestrians from five urban streets in two major Malaysian cities, Kuala Lumpur, and George Town, Penang, participated in this study. In particular, this study used pedestrian preference scores towards socio-physical attributes that exist in urban streets to assess their impact on pedestrians' appraisals of street likeability, comfort, and safety. Through analysis, the principal component analysis extracted eight socio-physical components, which were then tested via an ordinal regression model to identify their impact on pedestrian street likeability, comfort (visual, auditory, haptic and olfactory), and safety (physical safety, environmental safety, and security). Furthermore, a non-parametric Kruskal Wallis test was used to identify whether the results were subjected to any socio-demographic differences. The results found that all eight components had some degree of effect on the appraisals. It was also revealed that pedestrians' preferences towards the attributes as well as their appraisals significantly varied based on their age, gender, ethnicity and education. These results and their implications for urban planning are further discussed in this paper.

**Keywords :** pedestrian appraisal, pedestrian perception, street sociophysical attributes, walking experience

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