

ABSTRAK

Area tunggu stasiun merupakan fasilitas penting dalam sistem transportasi publik yang berperan dalam memberikan kenyamanan serta pengalaman positif bagi pengguna. Namun, pada beberapa kasus desain area tunggu belum sepenuhnya mempertimbangkan aspek psikologis dan persepsi emosional pengguna terhadap lingkungan ruang. Penelitian ini bertujuan menganalisis kenyamanan dan kepuasan afektif pengguna terhadap desain area tunggu Zona 3 Stasiun Semarang Poncol serta memberikan rekomendasi parameter desain. Pendekatan *Kansei Engineering* (KE) digunakan untuk mengidentifikasi persepsi emosional pengguna melalui 12 pasang kata bipolar skala 1–7 yang diisi oleh 123 responden, kemudian dianalisis menggunakan *Principal Component Analysis* (PCA) untuk menghasilkan faktor-faktor utama persepsi. Selain itu, metode *eye-tracking* dengan perangkat Tobii digunakan untuk memvalidasi efektivitas visual desain alternatif melalui metrik *fixation duration*. Hasil PCA menghasilkan 3 faktor utama: Kenyamanan Termal-Lingkungan, Kualitas Spasial dan Fasilitas, dan Kualitas Visual dan Afektif Ruang. Analisis *mean* menunjukkan bahwa aspek kenyamanan termal-lingkungan ($V_2=4.54$; $V_9=4.85$) menjadi prioritas perbaikan. Hasil *eye-tracking* menunjukkan perhatian visual yang lebih besar pada elemen desain faktor 1 (54.63%) dibanding faktor 2 (45.37%). Berdasarkan integrasi kedua analisis tersebut, direkomendasikan penggunaan material alami, elemen vegetasi, kanopi, warna netral, serta keramik lantai berukuran besar untuk meningkatkan kenyamanan dan kepuasan afektif pengguna.

Kata kunci: kenyamanan afektif; kepuasan afektif; area tunggu stasiun; *Kansei Engineering*; *eye-tracking*; desain.

ABSTRACT

The station waiting area is an important facility in public transportation systems that contributes to user comfort and overall positive experience. However, in many cases, waiting area designs have not fully considered users' psychological and emotional perceptions of the spatial environment. This study aims to analyze the affective comfort and satisfaction of users regarding the design of the Zone 3 waiting area at Semarang Poncol Station and to provide design parameter recommendations. The Kansei Engineering (KE) approach was applied to identify users' emotional perceptions through 12 bipolar word pairs on a 1–7 scale completed by 123 respondents, subsequently analyzed using Principal Component Analysis (PCA) to derive main perceptual factors. Additionally, an eye-tracking method using a Tobii device was employed to objectively validate the visual effectiveness of proposed alternative designs through fixation duration metrics. PCA yielded three main factors: Ambient Conditions, Spatial Layout & Functionality, and Signs, Symbols & Artifacts. Mean analysis revealed thermal comfort ($V_2=4.54$) and shade perception ($V_9=4.85$) as priority improvement areas. Eye-tracking results showed greater visual attention toward Factor 1 design elements (54.63%) compared to Factor 2 (45.37%). Based on the integration of both analyses, the study recommends natural materials, vegetation, adequate canopies, neutral colors, and large floor tiles to enhance affective comfort and user satisfaction.

Keywords: *affective comfort; affective satisfaction; station waiting area; Kansei Engineering; eye-tracking; design*