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Assessing Public Preferences for Street Furniture Design in the Kayutangan Heritage Corridor, Malang: Toward Context-Sensitive Urban Revitalization

Novia Chusniatul Azizah[1], Herry Santosa[2], Lisa Dwi Wulandari[3]

[1,2,3]Master Program of Built Environment Architecture, Department of Architecture, Faculty of Engineering, Universitas Brawijaya, Malang, 65145, Indonesia

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ABSTRACT

The design of street furniture in urban heritage corridors significantly influences the social and cultural design of its urban life. Kayutangan, a cultural heritage site in Malang city, has undergone several phases of revitalization. However, the suitability of street furniture elements and cultural heritage value remains a concern. This study aims to evaluate public preferences for street furniture elements in the Kayutangan corridor area. This study employs a descriptive quantitative method using a Likert scale questionnaire, involving 115 respondents. The data were analysed using mean scores, ANOVA, independent t-test samples, and multiple regression analysis. The research variables consist of: aesthetics, safety, comfort, accessibility, functionality, suitability, and the historical corridor area appeal. The result shows that the functionality variable becomes an important element of street furniture in assisting users' activity. Lamp design in heritage style is found to have historical regional characteristics, and the shelter does not reach acceptable user preferences. Multiple regression analysis shows that heritage character compatibility is the most important factor for people's preferences. This finding provides evidence-based guidelines for designing street furniture that is historically context-sensitive, thus facilitating the revitalization of urban areas.

Corresponding Author:
Novia Chusniatul Azizah
Universitas Brawijaya
noviaazizah@student.ub.ac.id

ORCID ID:

Desain street furniture pada koridor kawasan bersejarah berperan penting dalam mendukung kenyamanan pengguna, identitas kawasan, dan pelestarian karakter historis. Koridor Heritage Kayutangan di Kota Malang telah mengalami revitalisasi, namun kesesuaian elemen street furniture dan nilai warisan budaya masih menjadi perhatian. Tujuan penelitian adalah mengevaluasi preferensi masyarakat terhadap elemen street furniture di Koridor Kayutangan. Penelitian menggunakan metode kuantitatif deskriptif dengan kuesioner skala Likert yang melibatkan 115 responden. Data dianalisis menggunakan mean score, ANOVA, independent-samples t-test, dan regresi linier berganda. Variabel yang dievaluasi meliputi estetika, kenyamanan, keamanan, aksesibilitas, fungsionalitas, keberlanjutan, dan kesesuaian atau daya tarik di kawasan bersejarah. Hasil penelitian menunjukkan bahwa berdasarkan persepsi masyarakat, fungsionalitas terindikasi menjadi elemen penting dari street furniture dalam mendukung aktivitas pengguna. Desain lampu bergaya heritage dinilai memiliki karakter historis kawasan, sedangkan halte tidak memperoleh kesesuaian dengan keinginan pengguna. Analisis regresi menunjukkan bahwa kompatibilitas terhadap karakter heritage merupakan faktor yang paling berpengaruh terhadap preferensi masyarakat. Temuan ini dapat menjadi dasar perancangan street furniture yang sensitif terhadap konteks sejarah sekaligus mendukung revitalisasi kawasan perkotaan.

1. Introduction

The Kayutangan area is one of Malang's most significant historic districts, situated along Jalan Jenderal Basuki Rahmat. Characterized by Dutch East Indies colonial architecture, the area was officially designated as a cultural heritage site by the Malang City Government on April 22, 2018 (Santosa et al., 2018; Ulfa et al., 2019; Pratiwi et al., 2023). Subsequent revitalization programs have brought considerable physical changes to the corridor, including alterations to building functions and facades, improvements to pedestrian infrastructure, and the introduction of new design elements. While these interventions have enhanced the area's accessibility and visual appeal, they have also raised concerns about the gradual erosion of the corridor's original historic identity.

Within this context, street furniture has emerged as both a visual and functional device in shaping the character of public space. Elements such as benches, street lights, trash bins, information boards, flower pots, bus stops, and traffic signs contribute significantly to the comfort, safety, and aesthetic quality of community social activities. Beyond facade renovation, the quality and configuration of street furniture are critical determinants of pedestrian comfort and walkability in urban public spaces (Akmal et al., 2023). Studies in urban planning have further emphasized public preference for street furniture that prioritizes safety, comfort, and visual attractiveness as key dimensions of quality public space (Terok, 2024). Recent scholarship on urban image and public open spaces also confirms that physical elements such as seating, lighting, and signage interact with social behavior to shape the overall perception and identity of urban environments (Fitrianty et al., 2025; Santosa et al., 2018; Giri et al., 2022).

Prior research on street furniture in historic areas has consistently underscored the importance of preserving historic image and corridor character. Several studies have examined the availability and condition of street furniture in relation to user safety and comfort (Putra et al., 2023; Hasan et al., 2022), while others have focused on user preferences regarding design aesthetics, functionality, and satisfaction in public open spaces and campus environments (Fitriyanto & Zakariya, 2024; Rizal & Prabowo, 2023; Almadina & Marcillia, 2023). In heritage environments specifically, public preferences for street furniture tend to cluster around dimensions such as aesthetics, comfort, safety, accessibility, functionality, desirability, and contextual fit with the historic setting (Nasar, 1992; Hassen & Kaufman, 2016; Allameh & Heidari, 2020).

However, significant gaps remain in the existing literature. Most studies have addressed these dimensions in isolation rather than as an integrated framework. Few have examined them simultaneously within a heritage-sensitive urban design context, particularly in revitalized historic corridors in Indonesia. Comparative evaluations involving multiple stakeholder groups (experts, residents, and tourists) are also notably scarce. As a result, the relationship between street furniture quality, heritage identity, and the spatial character of historic urban corridors remains insufficiently understood.

To address these gaps, this study evaluates public preferences for street furniture in the Kayutangan Heritage Corridor using an integrated multidimensional framework

encompassing aesthetics, comfort, safety, accessibility, functionality, sustainability, heritage compatibility, and tourist appeal. Its novelty lies in combining these indicators within a heritage-sensitive design framework while comparing perceptions across three distinct stakeholder groups. Theoretically, this study contributes to the heritage-sensitive urban design literature through integrated quality evaluation; practically, it offers evidence-based recommendations for context-sensitive street furniture design and revitalization strategies in historic urban corridors.

2. Materials and Methods

This study is grounded in heritage-sensitive urban design and placemaking theories, which emphasize how the physical environment influences user perceptions, place identity, and public space quality (Nasar, 1992; Hassen & Kaufman, 2016). In heritage settings, street furniture should not only fulfill functional requirements but also reinforce the area's historical character and visual identity (El-Ghonaimy, 2020; Köksaldı & Turkan, 2023). Accordingly, public preferences for street furniture are examined through six dimensions: aesthetics, comfort, safety, accessibility, functionality, and desirability. These dimensions are used to explore the relationship between perceived street furniture quality and perceptions of heritage value and tourist attractiveness within the Kayutangan Heritage Corridor.

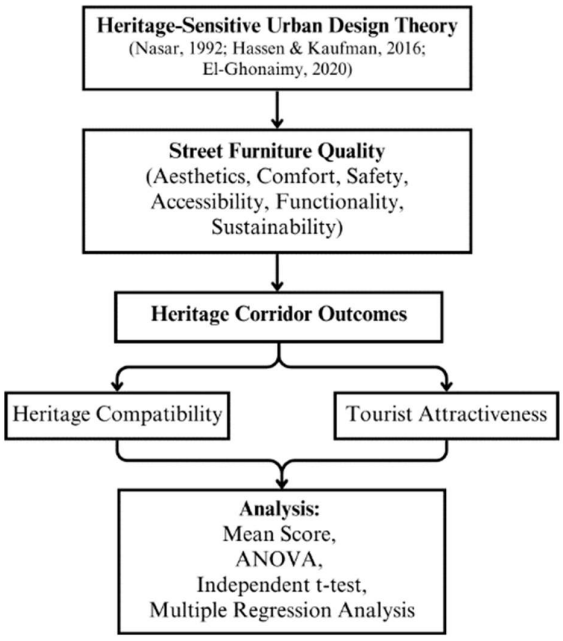

Figure 1. Conceptual framework

The conceptual framework positions the quality of street furniture as a key factor influencing public perceptions of heritage character and tourism appeal (Figure 1). The six dimensions (aesthetics, comfort, safety, accessibility, functionality, and desirability)

serve as indicators for evaluating how street furniture contributes to the overall experience and identity of the Kayutangan Heritage Corridor.

This study used a quantitative descriptive method to examine user preferences for street furniture elements, capturing perceptions and attitudes from a relatively large sample through structured instruments summarized via statistical indicators such as means and frequencies (Hair et al., 2018). In line with studies on walkability and public space quality, data were collected through field observations and questionnaire surveys to obtain systematic, comparative data from corridor users (Agradiana, 2020; Akmal et al., 2023).

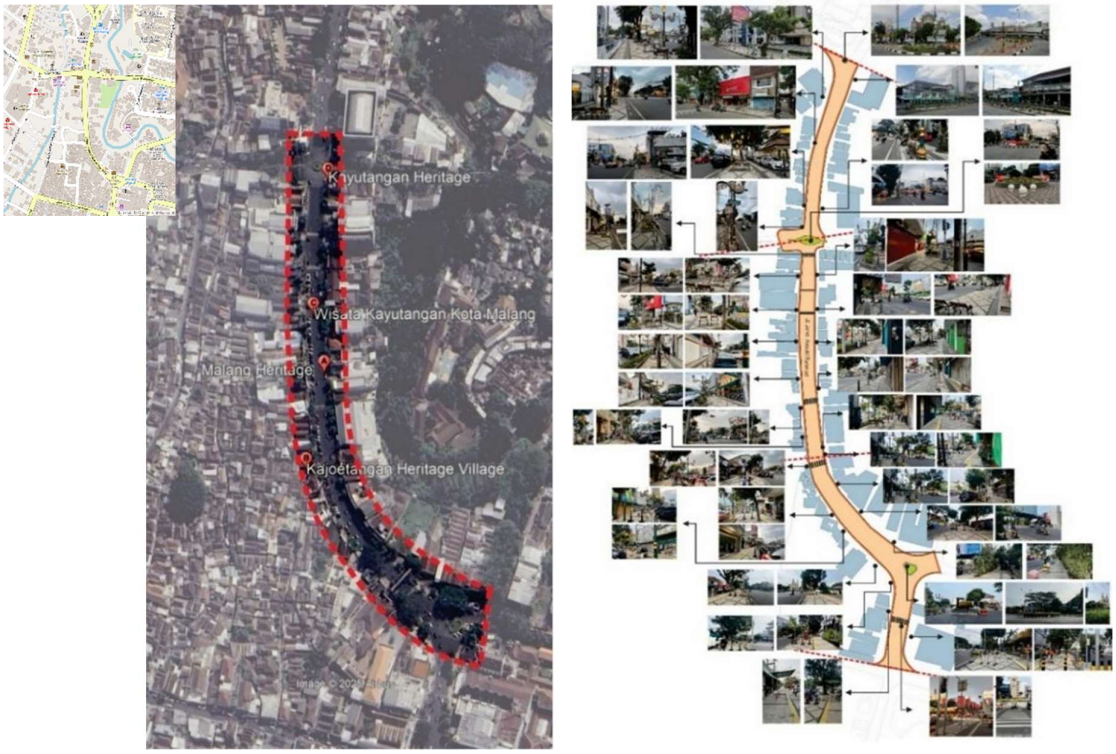

Figure 2. Map of street furniture distribution points along the Kayutangan corridor



Figure 3. Street furniture elements and activities in the Kayutangan corridor

The study area is the Kayutangan corridor in Malang City, a historic commercial street designated as a cultural heritage area (Figure 2 and 3). Observations covered the main stretch from the Avia Store and PLN building to Sarinah Mall and Rich Hotel

Heritage, a continuous pedestrian environment with intensive commercial and tourism activity. Field observations were conducted from November 2024 to February 2025 to identify the existing conditions of street furniture elements, including benches, lighting, trash cans, information boards, flower pots, bus stops, traffic signs, roadblocks, and vegetation, as well as their spatial arrangement and overlay with building facades. These observations followed visual survey procedures commonly used in urban design and streetscape studies to document the physical attributes of public spaces through photographs, field notes, and mapping (Santosa et al., 2018; Giri et al., 2022). Initial observations assessed existing conditions before questionnaire distribution.

The population of this study comprises users of the Kayutangan corridor, including residents of Malang City, domestic and international tourists, and experts (such as planners, architects, and academics) who have visited and engaged in activities in the corridor after its revitalization. A total of 140 respondents participated in the survey, but 25 questionnaires were excluded due to incomplete or inconsistent answers, resulting in 115 valid responses for analysis. This sample size meets the minimum threshold of 100 respondents recommended for multivariate and perception-based analyses (Hair et al., 2018). Experts represent professional perspectives on heritage conservation and urban design quality; residents represent daily users and place attachment; tourists represent visitors whose perceptions influence the attractiveness and image of the heritage destination. The final respondent group is dominated by indigenous residents of Malang, female respondents, and early adults aged 26–35 years, reflecting the typical user profile of the corridor as a daily activity and recreational space (Khakim et al., 2019; Pratiwi et al., 2023).

Table 1. Variables of street furniture element preferences

Preference variables of street furniture elements in Kayutangan Corridor			
Aspect	**Theory/Concept**	**Variables**	**Source**
Street Furniture Quality Preferences	Environmental Aesthetics (Nasar, 1992) Public Space Quality (Carr, 1992) Universal Accessibility Theory Place-Making Theory Sustainable Urban Design	- Aesthetics - Comfort - Security - Accessibility - Functionality - Sustainability	Fitriyanto & Zakariya (2024); Putra et al. (2023); Terok (2024); Rizal & Prabowo (2023); Akmal et al., (2023); Hasan et al. (2022); Agradiana (2020); Zhang et al. (2021); Shahmoradi et al. (2023); Carr (1992)
Heritage Corridor Compatibility and Tourist Attractiveness	Heritage-sensitive Urban Design	- Design in harmony with the corridor area - Influence of street furniture elements on tourist attraction	(Wirastri & Pramudito (2019); Hasan et al. (2022); Rizal & Prabowo (2023)

The questionnaire was developed based on a synthesis of previous studies on street furniture, streetscape quality, and historic urban spaces. Key dimensions include aesthetics, comfort, safety, accessibility, functionality, sustainability, and suitability or attractiveness in historic areas, as identified in the literature (Fitriyanto & Zakariya, 2024; Putra et al., 2023; Terok, 2024; Rizal & Prabowo, 2023; Akmal et al., 2023; Hasan et al.,

2022; Agradiana, 2020; Zhang et al., 2021; Shahmoradi et al., 2023). Additional considerations regarding place identity, urban image, and the relationship between physical elements and social activities draw on environmental aesthetics and public space theories (Nasar, 1992; Hassen & Kaufman, 2016; El-Ghonaimy, 2020; Köksaldı & Turkan, 2023). The resulting variables are grouped into two main aspects:

1. Preference for the quality of street furniture elements (aesthetics, comfort, safety, accessibility, functionality, sustainability), and
2. Suitability and attractiveness of these elements within the historic corridor (Table 1).

Statistical analysis was conducted using SPSS digital technology to examine how preferences for street furniture elements in the Kayutangan area influence this district. Quantitative research allows for the collection of structured data, such as the demographics of public space users and the area's population, which is then statistically analyzed to generate data-driven recommendations. Data analysis includes validity testing, reliability testing, mean score analysis, and demographic analysis to determine the average public preference for street furniture elements.

First, the frequency distribution of respondent characteristics was analyzed to determine the percentage of each category. This categorization aimed to ensure the survey was representative and that respondents understood the condition of the Kayutangan corridor. Next, average scores were analyzed to assess the characteristics of the public open space elements. A seven-point Likert scale, ranging from strongly disagree to strongly agree, was used to evaluate the variables of street furniture preference and suitability to the historic area. The following analysis includes a questionnaire validity test comparing the calculated r value with the r table value. Valid if the calculated r value > r table and invalid if the calculated r value < r table.

The next analysis is a reliability test to verify the reliability and normal distribution of the collected data. Cronbach's Alpha test with a coefficient value > 0.6, while normality testing uses Monte Carlo Sig. (2-tailed) with a coefficient value > 0.05. Before conducting the ANOVA and independent-samples t-test analyses, statistical assumptions were examined to ensure the appropriateness of parametric testing. Data normality was assessed using the Monte Carlo significance test, with a significance value greater than 0.05 indicating a normal distribution. Homogeneity of variance was evaluated using Levene's Test. A significance value greater than 0.05 indicates that the variances among groups are homogeneous. The results showed that the assumptions of normality and homogeneity were satisfied, allowing the use of ANOVA, independent-samples t-test, and multiple regression analysis to compare respondents' perceptions across different demographic groups.

3. Results and Discussion

The questionnaire was administered in February 2025 along the Kayutangan Heritage Corridor. Most respondents were residents of Malang City (44.5%, n = 49),

female (60.0%, *n* = 69), aged 26–35 years (52.2%, *n* = 60), and held a diploma or bachelor's degree (62.6%, *n* = 72). Nearly half (46.1%, *n* = 53) had visited the corridor more than four times, indicating substantial familiarity with the revitalized area. Mean score analysis was used to assess respondents' preferences for each street furniture attribute. Before analysis, validity and reliability tests were performed. All questionnaire items were valid (*r*count > *r*table = 0.1832), and the instrument demonstrated excellent reliability (Cronbach's Alpha = 0.975 > 0.60). Therefore, the data were considered suitable for mean score analysis.

Table 2. Mean score analysis for aspects of suitability for street furniture elements

No	Variables	*Mean Score*
	Aesthetics	4,77
1.	The seating design in the Kayutangan corridor is interesting	4,97
2.	The lighting design in the Kayutangan corridor is interesting	5,30
3.	The design of the trash bin in the Kayutangan corridor is interesting	4,36
4.	The design of traffic signs on the Kayutangan corridor is interesting	4,52
5.	The design of the bus shelter on the Kayutangan corridor is interesting	4,07
6.	The design of the information board in the Kayutangan corridor is interesting	4,70
7.	The design of the plant pots in the Kayutangan corridor is attractive	4,52
8.	The color of the street furniture in the Kayutangan corridor is in harmony with the atmosphere of the area	5,24
9.	Street furniture material in the Kayutangan corridor is interesting	4,97
10.	The layout of street furniture in the Kayutangan corridor is well arranged	5,01
	Comfort	**4,58***
1.	The seats in the Kayutangan corridor are comfortable to use	4,74
2.	The bus shelter on the Kayutangan corridor is comfortable to use	4,19
3.	The presence of trees or canopies in the Kayutangan corridor provides comfortable shade	4,70
4.	Street furniture material in the Kayutangan corridor is comfortable to use	4,70
	Security	**5,09**
1.	The lighting in the Kayutangan corridor is safe to use	5,08
2.	Traffic signs on the Kayutangan corridor are safe to use	5,10
3.	The existence of a safety stand bollard in the Kayutangan corridor is safe as a barrier	5,14
4.	Street furniture materials in the Kayutangan corridor are safe to use	5,03
	Accessibility	**5,05**
1.	The existence of street furniture in the Kayutangan corridor is easily accessible	5,34
2.	The existence of a disabled-friendly path in the Kayutangan corridor is easily accessible	5,01
3.	The number of street furniture in the Kayutangan corridor meets	4,81
	Functionality	**5,15****
1.	The existence of trash bins available in the Kayutangan corridor, in maintaining environmental cleanliness, functions well and adequately	5,03
2.	The existence of information boards or directions available in the Kayutangan corridor for exploring the area functions well and is easy to understand	5,17
3.	Street furniture elements in supporting social activities	5,25
	Sustainability	**4,80**
1.	The materials used in street furniture elements in the Kayutangan corridor are sustainable and environmentally friendly	4,71
2.	Care and maintenance of street furniture elements in the Kayutangan corridor are carried out sustainably	4,90

Remarks:
* Lowest point
** Highest point

The high functionality rating indicates that respondents value street furniture that supports daily activities, orientation, pedestrian comfort, and environmental cleanliness. Information boards improve navigation, while trash bins and seating enhance usability, making functional performance a key determinant of user satisfaction in the Kayutangan

Heritage Corridor. This finding is consistent with Hasan et al. (2022), who identified functionality as a major determinant of urban street quality, and with Hassen and Kaufman's (2016) place-making theory, which emphasizes the role of public space elements in supporting user activities, social interaction, and community engagement.

As shown in Table 2, functionality is reflected in the provision of trash bins, information boards, directional signage, and street furniture that supports social activities. Table 3 further shows that heritage-compatible lighting achieved the highest suitability and attractiveness score, whereas the bus shelter received the lowest mean score (3.81), indicating its limited compatibility with the historic character of the corridor.

According to the respondents, heritage-style lighting (its variation is presented in Figure 4) received the highest suitability score because it visually harmonizes with the architectural character of the Kayutangan Heritage Corridor. Besides enhancing tourism appeal, the lighting reinforces the corridor's identity, which reflects Dutch East architectural heritage.

Table 3. Mean score analysis for suitability and attractiveness of historic areas

No	Variables	Mean Score
	Suitability for the street corridor and attraction	4,61
1.	The seating design is in harmony with the history of the Kayutangan corridor, thus increasing tourist appeal and supporting the preservation of the Kayutangan area	4,52
2.	The lighting design is in harmony with the history of the Kayutangan corridor, thus increasing tourist appeal and supporting the preservation of the Kayutangan area	5,12**
3.	The trash bin design is in harmony with the history of the Kayutangan corridor, thus increasing tourist appeal and supporting the preservation of the Kayutangan area	4,42
4.	The traffic sign design is in harmony with the history of the Kayutangan corridor, thus increasing tourist appeal and supporting the preservation of the Kayutangan area	4,43
5.	The bus shelter design is in harmony with the history of the Kayutangan corridor, thus increasing tourist appeal and supporting the preservation of the Kayutangan area	3,81*
6.	The information board design is in harmony with the history of the Kayutangan corridor, thus increasing tourist appeal and supporting the preservation of the Kayutangan area	4,88
7.	The existence of vegetation is in harmony with the history of the Kayutangan corridor, thus increasing tourist appeal and supporting the preservation of the Kayutangan area	4,72
8.	The design of plant pots is in harmony with the history of the Kayutangan corridor, thus increasing tourist appeal and supporting the preservation of the Kayutangan area	4,63
9.	The design of safety posts is in harmony with the history of the Kayutangan corridor, thus increasing tourist appeal and supporting the preservation of the Kayutangan area	4,97
Remarks:	* Lowest point ** Highest point	

In contrast, the bus shelter received the lowest score, as its design and materials were perceived as incompatible with the historic setting. These findings support El-Ghonaimy (2020), who argued that street furniture in heritage areas should reinforce local identity while maintaining visual harmony with the surrounding historic environment. The low evaluation of the bus shelter indicates that future street furniture design should pay greater attention to form, materials, color, and architectural context to strengthen place identity and visual quality.

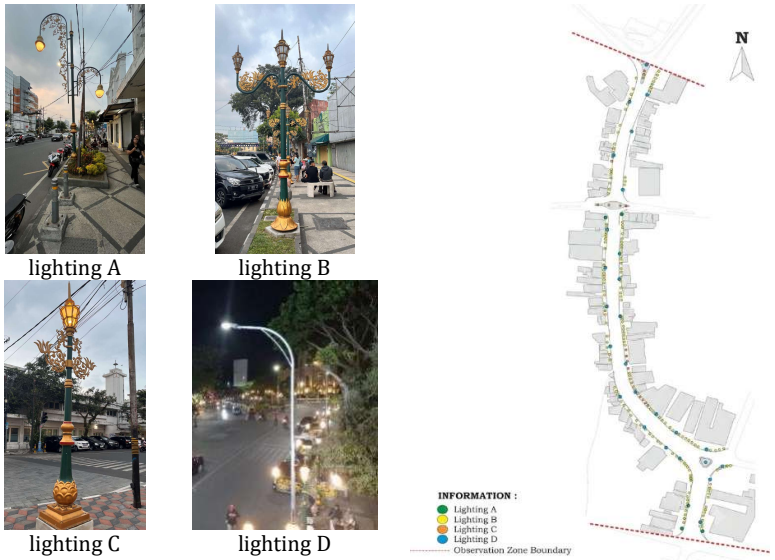

Figure 4. Variations of heritage-style street lighting in the Kayutangan Corridor: (a) Lighting Type A, (b) Lighting Type B, (c) Lighting Type C, and (d) Lighting Type D

According to respondents, heritage-style lighting received the highest suitability score because it harmonizes with the architectural character of the Kayutangan Heritage Corridor, reinforcing both tourism appeal and the corridor's Dutch East heritage identity. In contrast, the bus shelter received the lowest score due to its perceived incompatibility with the historic setting. These findings support El-Ghonaimy (2020), who emphasized that street furniture should reinforce local identity while maintaining visual harmony with the surrounding heritage environment. The low rating of the bus shelter suggests that future designs should better integrate form, materials, color, and architectural context.

Table 2 shows that functionality achieved the highest mean score (5.15), while comfort scored the lowest (4.58). Similarly, Table 3 indicates that heritage-compatible lighting received the highest attractiveness score (5.12), whereas the bus shelter received the lowest. These findings demonstrate that street furniture influences not only functionality but also pedestrian experience, walkability, aesthetic quality, and sense of place. Therefore, revitalization strategies should balance functional performance with architectural contextuality to strengthen local identity.

Perception differences were also examined across respondent background, gender, and age groups (30 respondents per category). Independent sample *t*-tests and ANOVA showed that only respondent background and gender met the analytical assumptions (Table 4). ANOVA results indicate that respondent background significantly influenced perceptions of street furniture suitability, with local residents consistently giving higher ratings than experts for elements such as garbage bins, traffic lights, and bus shelters (Table 5).

Table 4. Distribution of respondents based on background and gender

Background			Gender		
Group	Frequency	Percentage (%)	Group	Frequency	Percentage (%)
Expertise/Practitioner/Academic	32	27,8	Male	46	40
Local Residents of Malang City	49	44,5	Female	69	60
Tourists	34	30,9			
Total	115	100	Total	115	100

Table 5. Analysis based on respondent background

Preference	Descriptive Statistic			ANOVA
	Experts/ Professionals/ Academics	Local Residents of Malang City	Tourists	
	Mean Score	Mean Score	Mean Score	Sig.
Aesthetics				
Seat Design	4,59	5,06	5,21	0,158
Lighting Design	4,81	5,35	5,71	0,039
Trash Bin Design	3,69	4,61	4,62	0,018
Traffic Sign Design	4,00	4,61	4,88	0,052
Bus Shelter Design	3,19 *	4,16	4,76 **	<0.001 ***
Information Board Design	4,44	4,63	5,06	0,219
Flower Pot Design	4,28	4,51	4,76	0,439
Street Furniture Color	5,00	5,18	5,56	0,238
Street Furniture Material	4,50	5,04	5,32	0,045
Street Furniture Layout	4,94	4,86	5,29	0,358
Comfort				
Light Comfort	4,59	4,65	5,00	0,470
Traffic Sign Comfort	3,63	4,29	4,59	0,028
Safety Post Comfort	4,47	4,61	5,06	0,268
Material Comfort	4,31	4,82	4,91	0,142
Security				
Light Safety	4,94	5,08	5,21	0,737
Traffic Sign Safety	4,84	5,00	5,50	0,092
Safety Post Safety	5,06	4,98	5,44	0,199
Material Safety	4,66	4,98	5,44	0,020
Accessibility				
Existence of Street Furniture	5,28	5,22	5,56	0,495
Existence of Disability Paths	5,09	4,86	5,15	0,689
Number of Street Furniture	4,78	4,61	5,12	0,314
Functionality				
Existence of Trash Bins	4,72	5,02	5,32	0,169
Existence of Information Boards	4,97	5,04	5,53	0,133
Supporting Social Activities	5,19	5,14	5,47	0,520
Sustainability				
Material Sustainability	4,19	4,76	5,15	0,024
Care and Maintenance	4,28	4,98	5,35	0.008
Suitability for the street corridor and attraction				
Suitability and attractiveness of Seats	4,6	4,73	4,65	0,151
Suitability and attractiveness of Lights	4,78	5,16	5,38	0,286
Suitability and attractiveness of Trash Cans	3,41 *	4,92 **	4,65	<0.001 ***
Suitability of Traffic Signs	3,50 *	4,84 **	4,71	<0.001 ***
Suitability and attractiveness of Bus Stops	2,69 *	4,41 **	4,00	<0.001 ***
Suitability and attractiveness of Information Boards	4,50	5,10	4,91	0,153
Suitability and attractiveness of Vegetation	4,53	4,80	4,79	0,733
Suitability and attractiveness of Flower Pots	4,47	4,69	4,71	0,794
Suitability and attractiveness of Safety Posts	4,66	5,14	5,03	0,367
Remarks:		* Lowest point ** Highest point *** Have a different point		

The result of gender-based demography analysis on Table 6 using an independent t-test found that the variable gender significantly influenced the preference of residents in evaluating street furniture elements.

Table 6. Analysis by gender

Preference	Descriptive Statistic		independent t-test
	Male	Female	
	Mean Score	Mean Score	Sig.
Aesthetics			
Seat Design	5,00	4,96	0,550
Lighting Design	5,00	5,51	0,594
Trash Bin Design	4,24	4,43	0,785
Traffic Sign Design	4,39	4,61	0,612
Bus Shelter Design	3,72	4,30	0,636
Information Board Design	4,46	4,87	0,981
Flower Pot Design	4,15	4,77	0,609
Street Furniture Color	4,93	5,45	0,545
Street Furniture Material	4,72	5,14	0,999
Street Furniture Layout	4,89	5,09	0,695
Comfort			
Light Comfort	4,76 **	4,72*	0,019 ***
Traffic Sign Comfort	3,93	4,36	0,338
Safety Post Comfort	4,35	4,94	0,658
Material Comfort	4,43	4,88	0,825
Security			
Light Safety	4,74	5,30	0,434
Traffic Sign Safety	4,83	5,29	0,195
Safety Post Safety	5,13	5,14	0,863
Material Safety	5,02	5,03	0,072
Accessibility			
Existence of Street Furniture	5,22	5,42	0,673
Existence of Disability Paths	4,96	5,04	0,579
Number of Street Furniture	4,52	5,00	0,445
Functionality			
Existence of Trash Bins	4,78	5,19	0,331
Existence of Information Boards	5,04	5,25	0,320
Supporting Social Activities	5,07	5,38	0,265
Sustainability			
Material Sustainability	4,41	4,91	0,718
Care and Maintenance	4,87	4,91	0,364
Suitability for the street corridor and attraction			
Suitability and attractiveness of Seats	4,30 *	4,67 **	0,007 ***
Suitability and attractiveness of Lights	4,70	5,41	0,083
Suitability and attractiveness of Trash Cans	4,11	4,62	0,314
Suitability of Traffic Signs	4,24	4,55	0,586
Suitability and attractiveness of Bus Stops	3,41	4,07	0,440
Suitability and attractiveness of Information Boards	4,43	5,17	0,487
Suitability and attractiveness of Vegetation	4,46	4,90	0,868
Suitability and attractiveness of Flower Pots	4,20	4,93	0,284
Suitability and attractiveness of Safety Posts	4,65	5,19	0,795
Remarks:	* Lowest point ** Highest point *** Have a different point		

Significant differences in gender-influenced preferences were found in the comfort and suitability aspects of corridors, namely in terms of comfortable lighting and suitable seating. In terms of comfort, male respondents scored 4.74, slightly higher than female respondents, who scored 4.72. This is consistent with (Shahmoradi et al., 2023), who

stated that male users focus more on elements that facilitate orientation and movement in public spaces, while women show a higher sensitivity to a sense of security, visual comfort, and spatial protection. Similarly, Zhang et al. 2021) found that women linger longer in public spaces equipped with benches and vegetation, while men tend to be more mobile and tolerate open, unprotected areas. Multiple linear regression analysis to determine the suitability of public perceptions of public preferences for street furniture elements in Table 7.

Table 7. Multiple linear regression coefficients predicting preference for street furniture elements

		Unstandard-ized B	Coeffi-cients Std. Error	Standardized Coefficients Beta	t	Sig.	Collinea-rity Tolerance	Statis-tics VIF
1	(Constant)	.425	.359		1.185	.239		
	Aesthetics (X1)	-.001	.012	-.008	-0.077	.939	.233	4.292
	Comfort (X2)	.064	.028	.224	2.295	.024	.256	3.912
	Security (X3)	-.065	.028	-.200	-2.293	.024	.318	3.143
	Accessibility (X4)	.009	.030	.025	0.303	.762	.358	2.794
	Functionality (X5)	.107	.042	.257	2.574	.011	.244	4.095
	Sustainability (X6)	.039	.043	.075	0.904	.368	.354	2.825
	Suitability and Attractiveness in Historic Areas (X7)	.062	.012	.531	5.140	<.001	.228	4.395

a. Dependent Variable: Preference for Street Furniture Elements(Y)

In the summary model of the results of the multiple linear regression analysis with an R Square (R2) value of 0.74 or 74%, it can be said that the variable is influential. The regression coefficient (B) has an influence on the variables of Suitability and Attractiveness in Historic Areas. This is in accordance with research (Ferdinan S R P Terok, 2024), (Rizal & Prabowo, 2023; Akmal et al., 2023), which concluded that street furniture designed with attention to local aesthetics and the use of appropriate materials can strengthen regional identity and improve the image of the city.

4. Conclusion

This study aims to demonstrate that public preferences for street furniture in the Kayutangan Corridor are influenced not only by functional performance but also by the street furniture's compatibility with the corridor's Dutch East Indies architectural character. Among public perceptions of functionality, the highest scores specifically relate to trash cans, information boards, and support for social activities. Conversely, comfort received the lowest evaluations, specifically the design of bus stops, which were deemed incompatible with the corridor's character. These findings indicate that lighting designed in accordance with cultural heritage areas significantly contributes to the corridor's visual appeal and identity, while functional and environmental aspects are also important for the historic corridor environment.

Perceptions based on community groups in the general demographic analysis yielded the highest ratings compared to expert groups. Results of multiple regression

analysis demonstrated that heritage compatibility, functionality, comfort, and safety were significant predictors of public preferences, with heritage well-being being the strongest determinant. Theoretically, these findings enrich the literature on preservation-based urban design by conceptualizing the integration of the physical quality of street furniture and heritage identity into a holistic evaluation framework. Practically, this study recommends evidence-based revitalization strategies and street furniture designs for historic urban corridors, particularly areas dominated by Dutch East Indies colonial architectural characteristics.

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