

URBAN TOURISM INFRASTRUCTURE: COMPARING TRANSPORTATION STATIONS IN KUALA LUMPUR AND TOKYO

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Abstract. Transportation stations increasingly serve as essential nodes for mobility and important infrastructure for urban tourism. Their design, amenities, and interaction with nearby attractions affect visitor movement, comfort, and the overall tourist experience. This study investigates the function of transportation station facilities in facilitating urban tourism via a comparative investigation of certain stations in Kuala Lumpur and Tokyo. Four principal stations were chosen: KL Sentral, Pasar Seni Station, Ueno Station, and Akihabara Station. The study employs qualitative comparative analysis utilizing facility audits, secondary data, and policy documents to assess tourism-supportive facilities, including accessibility, intermodality, information services, retail integration, cultural connection, and user convenience. Research indicates that Tokyo stations exhibit superior integration of tourism-oriented services, multilingual assistance, and cohesive commercial ecosystems, while Kuala Lumpur stations prioritize intermodal connectivity and cultural accessibility, yet reveal deficiencies in wayfinding consistency and tourism-specific facilities. The paper presents a conceptual framework that positions transit stations as gateways for tourism and underscores the policy implications for improving urban tourist competitiveness via transport infrastructure design.

Keywords: *urban tourism, transportation station, tourism, transport infrastructure*

Introduction

Urban transportation systems increasingly influence the quality and competitiveness of tourism destinations. In modern cities, transportation stations have transformed from mere transit points into multipurpose urban places that facilitate mobility, trade, and tourism (Ewing and Cervero, 2010). The quality of facilities at transportation stations substantially impacts travel behavior, destination image, and the overall visitor experience, as tourists depend on public transit to reach attractions, lodgings, and cultural districts (Amir et al., 2017). Urban stations serve as portals that shape initial perceptions, aid in navigation, and enable fluid transit within a city's tourism framework (Robillard et al., 2025). In swiftly urbanizing Asian cities like Kuala Lumpur and Tokyo, rail-based transportation systems constitute the foundation of daily movement and tourism flow. The principal stations in Kuala Lumpur, such as KL Sentral and Pasar

Seni, are strategically located in the metropolitan center, linking travelers to cultural, commercial, and historical districts. Tokyo's station networks, exemplified by key hubs like Ueno Station and Akihabara Station, showcase highly integrated infrastructures that amalgamate transportation, retail, and tourism services within densely populated urban settings. Despite varying municipal histories and degrees of rail system development, both cities exemplify the increasing importance of station facilities in augmenting urban tourist efficacy (Niu et al., 2021).

Current studies on transportation and tourism have predominantly emphasized accessibility and mobility efficiency, with insufficient focus on the station environment as a supportive infrastructure for tourist. This study investigates the role of station facilities in supporting tourism and the impact of various metropolitan environments on facility supply. This study conducts a comparative inventory analysis of selected stations in Kuala Lumpur and Tokyo to examine how infrastructure design, service integration, and user-centric amenities influence visitor experiences. The findings enhance the comprehension of transportation stations as pivotal elements in urban tourist planning and offer insights for the enhancement of station settings in both new and established transit systems.

Literature review

Transportation infrastructure has been acknowledged as a fundamental element of tourism development, since it enhances accessibility, determines mobility patterns, and affects destination competitiveness (Seo and Lee, 2021). Initial research on tourism and transport predominantly concentrated on the operational significance of infrastructure, highlighting travel efficiency, connection, and capacity as essential factors influencing tourist movements. From this viewpoint, transit networks were primarily regarded as facilitative methods for tourists to access locations, rather than as immersive settings. Contemporary studies increasingly emphasizes the significant influence of transportation environments on tourist perceptions, behaviors, and overall travel experiences (Rabiei et al., 2022). Transportation surroundings significantly impact the quality of tourism experiences by influencing comfort, confidence, and mobility, especially in intricate metropolitan settings where navigation and spatial orientation are essential (Lyu et al., 2016). In this emerging viewpoint, transportation hubs like train stations are increasingly regarded as urban gateways linking mobility with consumerism, social contact, and cultural involvement. Stations serve as transitional environments where initial perceptions of a place are established, rendering their architecture, services, and ambiance critically significant to tourism results (Kumar et al., 2020). The station environment impacts wayfinding confidence, perceived safety, and visitor satisfaction, hence influencing tourists' propensity to explore adjacent places. With the expansion of urban tourism and cities vying for global visitors, stations are increasingly regarded not merely as transit hubs but as integral elements of urban experience design (Cucuzzella et al., 2022). This transition corresponds with extensive dialogues in urban studies highlighting the significance of public infrastructure in place-making and destination branding.

The principle of transit-oriented development (TOD) enhances the connection between transportation infrastructure and tourism. Transit-Oriented Development (TOD) advocates for compact, mixed-use landscapes centered around transit hubs, integrating commercial, public, and residential services with transportation networks (Stojanovski, 2020). This integration improves accessibility and creates dynamic urban

spaces that appeal to both inhabitants and tourists. Stations situated inside Transit-Oriented Development contexts frequently become into destinations, providing retail, dining, and recreational options that promote extended dwell durations (Chen and Lin, 2015). Tokyo's rail stations are frequently seen as outstanding instances where transit, business, and cultural activities harmoniously mix, resulting in efficient and immersive surroundings. These stations illustrate how cohesive planning can improve urban mobility and tourism efficacy. Conversely, transportation systems in swiftly rising cities like Kuala Lumpur frequently emphasize the expansion of connectivity and intermodal efficiency, with tourism-supportive services increasing more gradually as the systems evolve (Amini Pishro et al., 2022). Research on tourist-friendly transportation systems highlights several essential characteristics that enhance visitor experiences. Multilingual signs, intuitive wayfinding systems, dependable information services, luggage storage facilities, and transparent ticketing options are often emphasized as critical elements that mitigate travel uncertainty for international tourists (Amir et al., 2014). Accessibility and universal design principles are increasingly prioritized, since inclusive mobility enables varied user groups including senior travelers, families, and individuals with disabilities to navigate metropolitan surroundings with ease. Safety and cleanliness are essential variables affecting travelers' views of destination quality and dependability. The swift progression of smart mobility technologies has introduced digital breakthroughs, including real-time trip information, mobile navigation applications, and integrated payment systems, which greatly improve user convenience in intricate transportation networks.

Comparative analyses of Asian transit systems indicate that established rail networks more effectively include tourism-supportive services than newer systems, attributable to extended durations of infrastructural development and policy coherence between transportation and urban planning. However, current research predominantly emphasizes macro-level examinations of transport networks or tourism mobility trends, with insufficient focus on station-level amenities as direct factors influencing the tourism experience (Amir et al., 2014). A significant deficiency exists in empirical research that systematically evaluates the operational roles of individual stations as tourism-support infrastructure across various metropolitan environments (Yang and Song, 2021). This study fills this gap by employing an inventory analysis framework to assess station facilities in Kuala Lumpur and Tokyo. This research analyzes station-level attributes, contributing to the discourse on transportation infrastructure as both an experiential and strategic component of urban tourism, emphasizing how facility provision and design transform stations into multifunctional urban tourism spaces.

Materials and Methods

This study utilizes a qualitative comparison methodology through inventory analysis to assess tourism-supportive amenities offered at designated transportation stations. Inventory analysis is suitable for assessing physical infrastructure and service delivery as it facilitates systematic comparisons across cases using established criteria. Four principal stations were chosen as case studies: KL Sentral Station and Pasar Seni Station in Kuala Lumpur, together with Ueno Station and Akihabara Station in Tokyo. These stations were selected for their strategic importance in urban transit networks, closeness to tourist attractions, and position as multimodal interchange hubs. The analytical framework was constructed utilizing literature pertaining to transportation

infrastructure, tourism mobility, and station design. Twenty-five criteria were created to evaluate tourism supportiveness, encompassing intermodal integration, wayfinding systems, multilingual services, accessibility, comfort facilities, safety measures, digital infrastructure, retail integration, and cultural identity. Data were acquired via secondary sources, official transportation papers, station information, and observational facility assessments based on available inventories. Each criterion was assessed comparably among the four stations utilizing qualitative descriptors such as high, moderate, or extensive to indicate relative performance. The model emphasizes station-level facilities above the overall transport network performance, facilitating a comprehensive understanding of how physical and service attributes affect tourism experiences. The comparative framework of the study facilitates the identification of similarities and differences between a developing transit environment (Kuala Lumpur) and a mature transit environment (Tokyo). This methodology offers pragmatic insights for planners and politicians aiming to improve station infrastructure within urban tourism initiatives.

Results and Discussion

The inventory analysis indicates significant disparities in the availability and quality of tourism-supportive facilities at the chosen transportation stations, highlighting differing planning philosophies, operational goals, and levels of transit system development. KL Sentral Station functions as a highly efficient multimodal center, adeptly accommodating substantial passenger traffic through robust connectivity among train networks, airport links, buses, and taxis. Its amalgamation with commercial enterprises, hotels, and retail establishments augments convenience for both commuters and guests, establishing it as a principal entry into Kuala Lumpur. Nonetheless, despite its strategic significance, tourism-specific attributes such as prominently displayed tourist information counters, multilingual support, and sophisticated digital wayfinding systems are only modestly progressed. This indicates that although the station excels in efficiency and mobility, experiential and visitor-focused aspects are subordinate within its operational structure. In contrast, Pasar Seni Station has a unique function influenced by its closeness to heritage sites and cultural districts. The station's position offers superior access to tourist attractions, including traditional markets, cultural avenues, and historic landmarks, hence enhancing its significance in Kuala Lumpur's metropolitan center. Nonetheless, the inventory reveals that tourism-supportive infrastructure is quite scarce. Amenities such as rest spaces, convenience services, digital navigation tools, and comprehensive retail integration are underdeveloped, indicating a station design focused mostly on daily commuter transit rather than the destination experience. The connection to its legacy offers significant contextual value; nonetheless, the lack of extensive tourism facilities diminishes its capacity to serve as a fully functional tourism gateway.

Conversely, Ueno Station and Akihabara Station in Tokyo exemplify a very cohesive model of transportation and tourism infrastructure. Both stations have sophisticated digital wayfinding systems, comprehensive multilingual signage, specialized tourist information services, and seamless integration with commercial and recreational areas. The stations function as transit hubs and urban destinations for shopping, dining, and cultural exploration. Ueno Station's association with museums, parks, and cultural institutions solidifies its role as a cultural gateway, whereas Akihabara Station strengthens its thematic branding with robust connections to electronics and popular

culture areas. Exemplary levels of hygiene, safety, passenger comfort, and accessibility are continually upheld, fostering a seamless and reassuring atmosphere for both domestic and international travelers. The analysis delineates two main typologies of station infrastructure. The Kuala Lumpur stations emphasize mobility efficiency, connectedness, and functional transport functions, indicating a developing phase of incorporating tourism elements into transit surroundings. In contrast, Tokyo stations exemplify a comprehensive and sophisticated strategy in which transportation infrastructure enhances urban tourism experiences through integrated services, branding, and place-making. This study emphasizes the transforming function of transportation stations as multifunctional urban tourism support infrastructure and identifies opportunities for improving tourism-oriented amenities within emerging transit systems (*Table 1, Figure 1 and Figure 2*).

Table 1. Comparison of tourism supportive facilities in selected transportation stations.

Criteria	KL Sentral Station, KL	Pasar Seni Station, KL	Ueno Station, Tokyo	Akihabara Station, Tokyo
Intermodal integration (rail, bus, taxi, airport link)	Very high	High	Very high	Very high
Ease of transfer between lines	High	Moderate	High	High
Connectivity to major tourist attractions	High	Very high	Very high	Very high
Dedicated tourist information counter	Moderate	Limited	Extensive	Extensive
Multilingual signage	Moderate	Moderate	Extensive	Extensive
Digital wayfinding / smart navigation systems	Moderate	Moderate	Advanced	Advanced
Clarity of station layout	Moderate	Moderate	High	High
Accessibility (lift, escalator, tactile paving)	High	High	Very High	Very High
Barrier-free design for disabled users	High	Moderate	Very High	Very High
Availability of rest areas / seating	Moderate	Limited	High	High
Cleanliness and maintenance standards	High	Moderate	Very High	Very High
Safety features (CCTV, security staff)	High	Moderate	Very High	Very High
Lighting and perceived safety	High	Moderate	High	High
Integrated retail facilities	Extensive	Moderate	Extensive	Extensive
Food & beverage variety	High	Moderate	Very High	Very High
Convenience stores / daily necessities	Available	Limited	Extensive	Extensive
Luggage storage / lockers	Available	Limited	Extensive	Extensive
Public toilets quality & accessibility	Moderate	Moderate	High	High
Wi-Fi availability	Moderate	Limited	Extensive	Extensive
Ticketing convenience (multilingual machines, cards)	High	High	Very High	Very High
Real-time travel information displays	High	Moderate	Advanced	Advanced
Integration with commercial / mall development	Very High	Moderate	Very High	Very High
Cultural identity / thematic design	Moderate	Strong heritage linkage	Strong cultural branding	Strong thematic branding
Weather protection (indoor linkage, covered walkways)	Extensive	Moderate	Extensive	Extensive
Overall tourism experience orientation	Moderate	Moderate	Very High	Very High

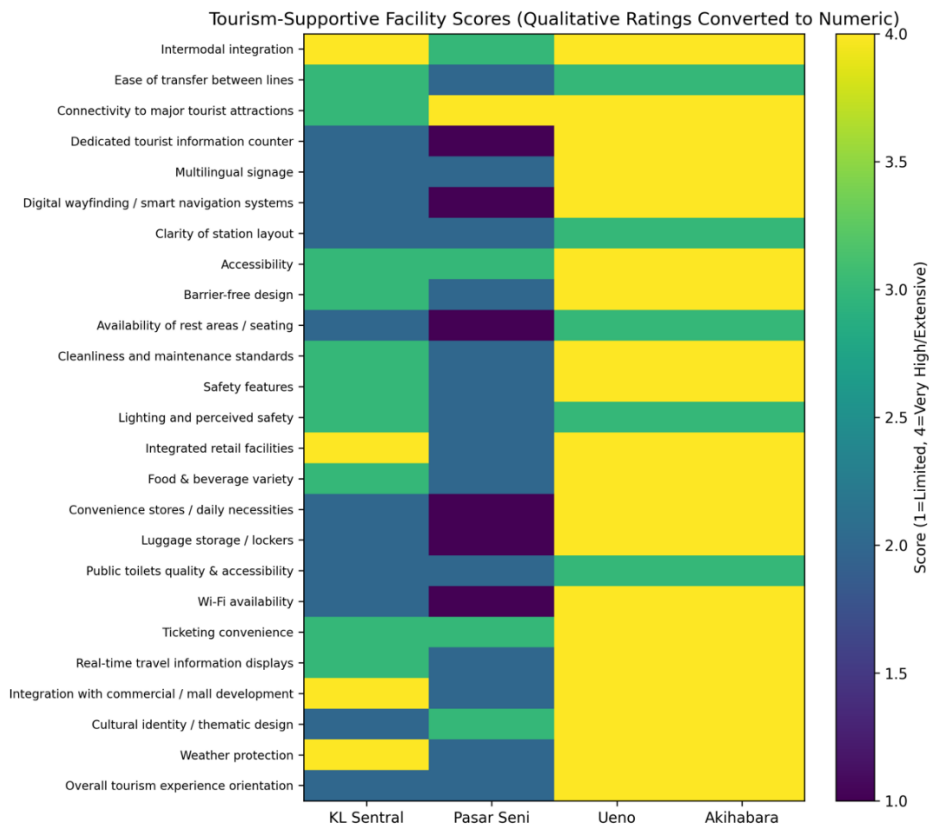


Figure 1. Tourism Supportive Facilities Heatmap.

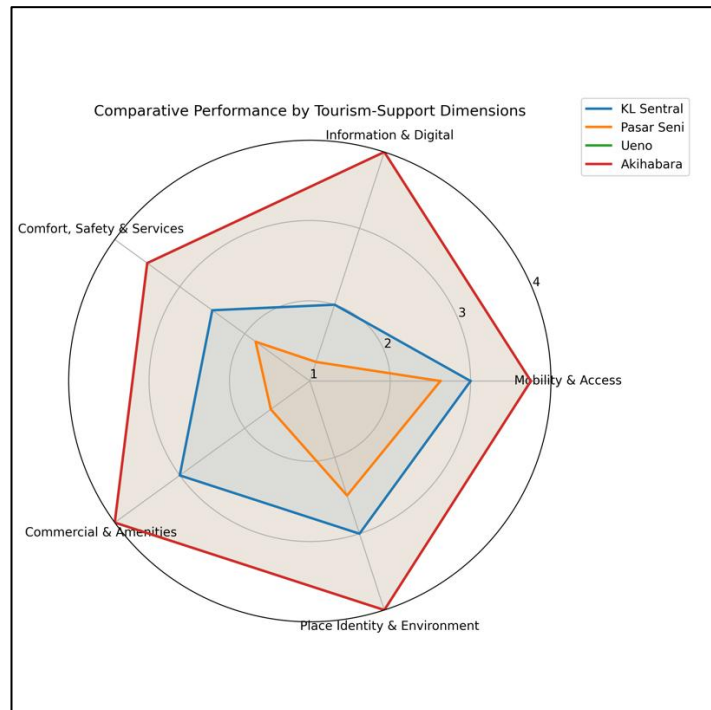


Figure 2. Radar chart of comparative performance by tourism support dimensions.

The comparative results of this study indicate that transportation terminals have a far greater impact on urban tourism than their traditional role as mobility hubs. Modern

stations increasingly function as multifunctional urban environments that impact visitor experiences, affect mobility patterns, and directly enhance destination appeal. Stations with comprehensive tourism-oriented amenities can mitigate travel uncertainty, enhance tourist confidence, and promote exploration by offering clear information, comfortable settings, and smooth access to nearby attractions. In this setting, transportation infrastructure emerges as a pivotal element of tourism growth rather than a mere ancillary utility. The juxtaposition of Kuala Lumpur and Tokyo demonstrates how the sophistication of transport systems and development priorities affect the extent of station integration into comprehensive urban tourist programs. The Tokyo case study illustrates a sophisticated model in which transportation planning, commercial development, and cultural identity have concurrently developed over time. Stations like Ueno and Akihabara exemplify how careful long-term integration can convert transportation hubs into distinct attractions. The presence of bilingual signs, digital wayfinding technology, tourist information centers, and a wide array of retail and dining options establishes a holistic ecosystem that accommodates varied user requirements. These stations offer surroundings where tourists can linger, dine, and immerse themselves in local culture, rather than merely facilitating transit from one location to another. This integration alleviates the cognitive load often linked to navigating unfamiliar transit networks and promotes deeper engagement with adjacent urban environments. The station environment integrates into the tourism experience, enhancing impressions of efficiency, safety, and convenience that influence a tourist's overall assessment of the city.

Conversely, the Kuala Lumpur stations exemplify a developmental phase characterized by robust intermodal infrastructure, whereas tourism-centric amenities are subordinate to mobility efficiency. KL Sentral serves as an exemplary transport hub, providing comprehensive connectivity among rail systems, airport connections, buses, and taxis. Its amalgamation with business establishments and hospitality services establishes a robust framework for tourism assistance. The lack of extensive multilingual support, sophisticated digital navigation systems, and prominent visitor-oriented services suggests that tourism factors are not yet fully integrated into station operations. Pasar Seni Station similarly enjoys close proximity to cultural and history landmarks, however mostly prioritizes commuter-oriented facilities. The findings indicate that station development in Kuala Lumpur has traditionally emphasized the extension of functional mobility to accommodate urban growth and everyday commuter needs, while the integration of tourism remains a developing secondary goal. As Kuala Lumpur aims to fortify its status as a global tourism hub, the improvement of station-based tourism amenities is becoming increasingly vital. Enhancements include clearer multilingual signs, computerized navigation systems, and specialized tourist service counters could substantially improve visitor experiences without necessitating extensive infrastructural renovation. The results demonstrate that minor interventions aimed at user experience and information accessibility can yield significant enhancements in station functionality from a tourist standpoint. This underscores a significant policy implication: boosting soft infrastructure and service design may be as vital as augmenting physical infrastructure in bolstering tourism competitiveness.

A significant finding derived from the study is to the influence of cultural identity and place-making within station surroundings. Stations like Akihabara and Ueno exemplify how thematic branding and cultural connections can enhance place identity, transforming transportation areas into distinctive urban experiences. Akihabara Station

exemplifies the district's renown for electronics and popular culture, whereas Ueno Station corresponds with adjacent museums, parks, and cultural institutions. This thematic consistency enhances destination branding and establishes a sense of continuity between transportation infrastructure and urban setting. The incorporation of cultural elements in station design not only improves visual identity but also fosters emotional connection, enabling visitors to view the station as an integral part of the destination rather than a mere transit area. Kuala Lumpur presents potential to use analogous place-based strategies that embody local heritage and cultural narratives. Stations situated near prominent tourist destinations, like Pasar Seni, could incorporate enhanced cultural storytelling aspects via design, signage, public art, or customized shop experiences that embody local culture. These tactics may enhance the city's tourism branding while establishing unique station environments that appeal to visitors. This method corresponds with overarching trends in urban planning that prioritize experiential design and placemaking as mechanisms for improving urban competitiveness.

The comparison highlights the increasing significance of digitalization and intelligent mobility solutions in facilitating urban tourism. Intricate transit networks may intimidate visitors, especially overseas tourists who are unfamiliar with local languages or transportation norms. Advanced digital navigational systems, real-time trip information, and integrated ticketing platforms, as evidenced in Tokyo stations, facilitate navigation and alleviate anxiety. These technologies improve accessibility and inclusivity by accommodating various user demographics, such as senior travelers and first-time visitors. In Kuala Lumpur, enhancing digital infrastructure and incorporating real-time multilingual assistance could address current deficiencies and markedly enhance the accessibility of transit systems for tourists. The discussion indicates that transportation terminals are transforming into multifunctional urban interfaces that integrate mobility, business, culture, and tourism. The contrast between Kuala Lumpur and Tokyo stations exemplifies not only disparities in physical development but also differing perceptions of the function of stations in urban life. Tokyo's approach illustrates the advantages of integrating tourism support into the operating framework of stations, whereas Kuala Lumpur's experience underscores the possibility for developing transit systems to progress towards more comprehensive, visitor-focused designs. The findings contribute to the discourse on transport infrastructure as a strategic element of urban tourism development and underscore the necessity for integrated planning approaches that account for both mobility efficiency and experiential quality. By perceiving stations as portals that influence urban perceptions and tourist experiences, policymakers and planners can more effectively utilize transportation infrastructure to improve destination competitiveness and the sustainability of urban tourism.

Conclusion

This study analyzed transportation station facilities as infrastructure supporting urban tourism through a comparative inventory assessment of selected stations in Kuala Lumpur and Tokyo. The results indicate that while Kuala Lumpur stations display robust intermodal integration and strategic accessibility, Tokyo stations offer a more developed and holistic model of tourism-oriented infrastructure, wherein mobility functions are intricately linked with commercial activities, cultural expression, and experiential design. The analysis verifies that transportation stations progressively

function as urban gateways that mold tourist perceptions, affect mobility behavior, and directly enhance destination competitiveness, rather than merely acting as transit stops. This study enhances the topic of urban tourism by emphasizing station-level infrastructure as a vital, although under examined, aspect of tourism support systems. This research emphasizes the significance of assessing the quality and variety of amenities at transportation stations, portraying transit spaces as sensory settings that influence visitor confidence, comfort, and interaction with the city. The results indicate that future transportation design must transcend conventional efficiency-focused goals and integrate wider factors, including user experience, cultural identity, inclusion, and tourism service delivery. Incorporating these aspects can enhance the function of stations as multifunctional urban areas that facilitate both mobility and tourist advancement. The findings for Kuala Lumpur reveal considerable potential to improve station performance as tourism gateways with focused interventions instead of extensive infrastructural expansion. Enhancements in multilingual wayfinding, digital navigation systems, visitor-centric information services, and place-based design methods might significantly elevate the tourist experience while strengthening local identity. These activities would correspond with overarching goals to establish the city as an internationally competitive and welcoming destination for visitors.

This paper proposes several avenues for future research to expand upon its findings. Future research might integrate user perception surveys and behavioral observations to examine how visitors experience station surroundings and identify which facilities most significantly impact satisfaction and mobility decisions. Secondly, quantitative methodologies, including visitor satisfaction modeling, performance indices, or statistical comparisons across extensive samples of stations, could offer more robust empirical support of the links revealed in this study. Third, longitudinal studies investigating the impact of station enhancements or policy interventions on travel trends over time would yield significant insights into the efficacy of infrastructure investments. Furthermore, comparison analyses with other Asian or worldwide cities could enhance comprehension of cultural and planning disparities in station development. Future study may investigate the impact of developing technologies, such smart mobility applications, artificial intelligence-driven navigation, and real-time data integration, on improving station usefulness for tourists. Ultimately, multidisciplinary research connecting transport planning, urban design, and tourism experience would facilitate the creation of comprehensive frameworks for assessing transit stations as essential elements of sustainable urban tourism systems. Recognizing transportation stations as more than mere functional transport links underscores their strategic potential in influencing urban tourism experiences. By combining mobility efficiency with experiential quality and cultural identity, cities can utilize station infrastructure to enhance destination competitiveness and foster more inclusive, sustainable urban tourist development.

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Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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