



From green infrastructure to green citizenship: A sustainable city marketing model of place attachment in Jakarta's urban green spaces

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Received Date: April 28, 2026

Revised Date: June 15, 2026

Accepted Date: July 30, 2026

ABSTRACT

Background: Urban sustainability is often associated with the provision of green infrastructure, yet the presence of parks, pedestrian areas, and green public spaces does not automatically produce environmentally responsible citizens. This study examines how sustainable city marketing attributes shape green citizenship behavior among users of urban green public spaces in Jakarta. **Methods:** A quantitative explanatory design was employed using survey data from 250 respondents who had used urban green public spaces in Jakarta within the last six months. The study examined the effects of sustainable city branding, urban green space quality, and green city identification on green citizenship behavior, with place attachment positioned as a mediating variable. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS 4. **Findings:** the results show that sustainable city branding, urban green space quality, and green city identification significantly influence place attachment. These three variables also have positive and significant direct effects on green citizenship behavior. Place attachment significantly influences green citizenship behavior and mediates the relationships between sustainable city branding, urban green space quality, green city identification, and green citizenship behavior. The strongest effect on place attachment is found in sustainable city branding, while green city identification emerges as the strongest direct predictor of green citizenship behavior among the three sustainable city attributes. **Conclusion:** The findings indicate that green citizenship behavior is not shaped by green infrastructure alone, but by the interaction between sustainability-oriented city image, green spatial experience, identity alignment, and emotional-functional attachment to place. **Novelty/Originality of this article:** This study contributes to sustainable marketing literature by reframing the city as a branded and experienced sustainability space and by extending the discussion from product-based green consumption to city-based green citizenship behavior.

KEYWORDS: green citizenship behavior; Jakarta; place attachment; sustainable city marketing; urban green spaces.

1. Introduction

Cities are increasingly investing in green public spaces, pedestrian corridors, and revitalized urban facilities, yet greener infrastructure does not automatically produce environmentally responsible citizens. This tension has become a central issue in sustainable urban development (Zarie et al., 2024). Many cities attempt to improve environmental quality through parks, green corridors, inclusive public spaces, and urban revitalization programs, but the long-term value of these initiatives depends on whether residents are

Cite This Article:

Mulina, R., Siahaan, F. S., Suhud, U., Wibowo, S. F., & Haro, A. (2026). From green infrastructure to green citizenship: A sustainable city marketing model of place attachment in Jakarta's urban green spaces. *Journal of Placemaking and Streetscape Design*, 4(1), 23-40. <https://doi.org/10.61511/jpstd.v4i1.2026.4007>

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willing to use, protect, and maintain them as shared ecological assets (Negi, 2026). A green public space may be well designed, accessible, and visually attractive, but its sustainability value remains limited if it is treated only as a recreational facility rather than as part of a collective urban environment that requires care, responsibility, and participation. In this sense, conservation-driven sustainable development cannot be reduced to the protection of natural ecosystems or the expansion of green infrastructure (Aslanoğlu et al., 2025). It also requires the cultivation of everyday environmental responsibility within urban life. Sustainable urban development therefore needs to move beyond an infrastructure-centered logic toward a more human-centered understanding of how residents perceive, experience, identify with, and behave within sustainable urban spaces.

Jakarta provides a relevant empirical setting for examining this issue because it represents a dense metropolitan environment where green public spaces, pedestrian areas, and urban revitalization initiatives are increasingly visible within the city's sustainability agenda (Fitri et al., 2026). These spaces are not merely ecological facilities; they are also social and symbolic places where city users walk, rest, interact, consume, and experience urban life (González-Flores & Organista, 2025). For residents and visitors from the surrounding metropolitan area, green public spaces in Jakarta may shape how they perceive the city, evaluate the quality of its urban environment, and position themselves in relation to the city's green identity (Rahman et al., 2025). However, the increasing visibility of green spaces does not automatically ensure that users will treat them as shared environmental assets (Dietz et al., 2025). Public facilities may be used intensively without being collectively maintained, while sustainability messages may remain symbolic if they are not translated into meaningful experiences and a stronger sense of belonging (Addas, 2023). This makes Jakarta more than a geographical location for this study. It becomes a metropolitan context for understanding whether sustainability-oriented city attributes can strengthen residents' attachment to urban places and encourage voluntary green citizenship behavior.

Placemaking offers a complementary lens for explaining why the same green infrastructure may generate different behavioral outcomes. Rather than treating parks and streetscapes as fixed physical products, placemaking emphasizes the relationships among spatial form, everyday use, social interaction, local meaning, and opportunities for residents to participate in shaping public space. From this perspective, accessibility, comfort, safety, ecological performance, and aesthetic quality are necessary but insufficient unless they allow people to appropriate spaces, interact, and develop a sense of ownership. Recent evidence indicates that public-space design can strengthen people-place connections when spatial qualities support meaningful experience and participation (González-Flores & Organista, 2025; Oetken, 2025; Qi et al., 2026). Public spaces may also function as community infrastructure by sustaining social networks, belonging, and adaptive capacity, linking placemaking with urban resilience (Zarkhah et al., 2025). Accordingly, urban green space quality in this study is interpreted not only as physical performance, but also as the experiential platform through which place attachment and green citizenship can develop.

Public-space activation is the operational side of placemaking. A well-designed space may remain socially thin when programming, maintenance, and governance do not invite repeated participation. Conversely, regular community activities, visible stewardship, and opportunities for co-creation can convert spatial quality into shared meaning and social norms. This matters for green citizenship because care for public space is more likely when residents repeatedly encounter credible environmental cues, observe others acting responsibly, and feel that their participation is recognized. In resilience terms, activated spaces function as everyday platforms for connection and coordination rather than amenities used only for leisure. Integrating public-realm design, activation, and resilience therefore clarifies why place attachment can mediate the effect of city attributes on green citizenship: attachment develops when physical settings support meaningful routines, social interaction, and collective efficacy, and these bonds can subsequently motivate voluntary environmental action (Oetken, 2025).

From a sustainable marketing perspective, the city can be understood not merely as an administrative territory, but as a branded and experienced place that is interpreted,

evaluated, and supported by its residents (Ripoll Gonzalez & Gale, 2023; Sokołowska et al., 2022; Zhao & Seokhyun, 2025). This perspective shifts sustainable marketing from persuading consumers to purchase green products toward encouraging residents to co-create sustainable urban value. In this study, sustainable city marketing is reflected through three key attributes: Sustainable city branding, urban green space quality, and green city identification. Sustainable city branding refers to residents' perception of the city's image and communication as an environmentally responsible, future-oriented, and sustainability-driven place. Urban green space quality reflects residents' evaluation of green spaces in terms of accessibility, comfort, cleanliness, safety, aesthetics, social usability, and ecological function (Wu et al., 2025). Green city identification captures the extent to which residents perceive the city's green identity as consistent with their own values, self-concept, and sense of belonging to an environmentally oriented urban community. Unlike place attachment, which reflects emotional and functional bonds with urban places, green city identification emphasizes the alignment between residents' self-concept and the city's perceived environmental identity (Raji et al., 2024; Shabani et al., 2026). These three attributes represent different but complementary dimensions of sustainable city marketing: branding provides symbolic meaning, green space quality provides direct urban experience, and identification connects the city's environmental identity with residents' personal and social identity (van Bommel et al., 2025).

The influence of sustainable city attributes on residents' green behavior can occur through both direct and indirect pathways. Sustainable city branding may directly encourage green citizenship behavior by making environmental responsibility more visible and meaningful in the city's public image (Chang et al., 2025). Urban Green Space Quality may directly support responsible behavior because well-maintained, accessible, and comfortable green spaces can encourage users to respect and preserve shared urban facilities. Green city identification may also directly influence green behavior because residents who feel aligned with the city's environmental identity are more likely to act consistently with that identity (Chen et al., 2025). In this context, green citizenship behavior refers to residents' voluntary actions to support urban sustainability, such as keeping public spaces clean, reducing waste, respecting green facilities, supporting environmental initiatives, and encouraging others to behave responsibly in shared urban environments (Jankelová et al., 2025). However, these relationships may also operate through place attachment. When residents develop emotional and functional bonds with urban places, they are more likely to protect, support, and maintain those places because they are no longer perceived as ordinary public facilities, but as meaningful parts of their everyday lives. In sustainable marketing, residents are not passive recipients of city branding or users of urban facilities; they are active actors who co-create urban sustainability through responsible and voluntary action (Pan & Cobbinah, 2023). Therefore, this study positions place attachment as a mediating mechanism while also examining the direct effects of sustainable city branding, urban green space quality, and green city identification on green citizenship behavior. This partial mediation logic is important because residents' green citizenship may emerge from direct exposure to sustainable city attributes as well as from deeper emotional and functional attachment to urban places (Wang et al., 2026).

Several gaps remain unresolved in the current discussion on sustainable cities and sustainable marketing. Sustainable marketing studies have largely focused on green products, eco-labels, purchase intention, and sustainable consumption behavior, while the city as a branded and experienced sustainability space has received less attention. Place branding research has often emphasized image, attractiveness, competitiveness, and tourism appeal, but has paid less attention to how sustainable city branding can shape residents' voluntary environmental responsibility. Meanwhile, urban green space studies frequently discuss physical quality, accessibility, recreational benefits, and health-related outcomes, but less often examine how green spaces contribute to identity formation, attachment, and green citizenship behavior (Garanti et al., 2024). More importantly, limited studies have integrated sustainable city branding, urban green space quality, green city identification, place attachment, and green citizenship behavior within one sustainable city

marketing model that simultaneously examines direct and indirect behavioral pathways. The novelty of this study lies in reframing sustainable city marketing as a behavioral mechanism that connects branding, spatial experience, green identity, place attachment, and residents' voluntary environmental responsibility (Galli & Montalto, 2026). This positioning is important because it expands the unit of analysis in sustainable marketing from individual purchase decisions to residents' collective responsibility toward urban sustainability. By doing so, this study extends the logic of sustainable marketing from product-based green consumption to city-based green citizenship behavior.

An additional gap concerns the limited integration of public-realm design and behavioral outcomes. Placemaking and resilience studies explain how spatial configuration and community activation contribute to belonging, but they rarely test whether branded sustainability meanings and green identification operate alongside these design conditions to shape environmental citizenship. Conversely, sustainable marketing research seldom treats public-space activation as a mechanism through which city promises are experienced and verified. Bridging these streams allows the proposed model to connect city marketing with the design, management, and everyday use of the public realm.

Based on this argument, this study aims to examine the direct and indirect effects of sustainable city branding, urban green space quality, and green city identification on green citizenship behavior through place attachment among users of urban green public spaces in Jakarta. Theoretically, this study contributes to sustainable marketing literature by positioning the city as a branded and experienced sustainability space where residents act as co-creators of environmental value. Empirically, this study offers evidence from Jakarta as a metropolitan context in which green public spaces, sustainability-oriented city image, and residents' green identity are increasingly relevant to urban environmental responsibility. Practically, the findings are expected to provide insights for urban managers, policymakers, and sustainability marketers in designing city branding strategies and green public spaces that strengthen residents' attachment and encourage responsible urban behavior. Accordingly, the following hypotheses are proposed:

- H1: Sustainable city branding positively influences place attachment.
- H2: Urban green space quality positively influences place attachment.
- H3: Green city identification positively influences place attachment.
- H4: Sustainable city branding positively influences green citizenship behavior.
- H5: Urban green space quality positively influences green citizenship behavior.
- H6: Green city identification positively influences green citizenship behavior.
- H7: Place attachment positively influences green citizenship behavior.
- H8: Place attachment mediates the relationship between sustainable city branding and green citizenship behavior.
- H9: Place attachment mediates the relationship between urban green space quality and green citizenship behavior.
- H10: Place attachment mediates the relationship between green city identification and green citizenship behavior.

2. Methods

This study employed a quantitative explanatory research design to examine the direct and indirect effects of sustainable city branding, urban green space quality, and green city identification on green citizenship behavior through place attachment. The research was conducted in Jakarta, Indonesia, during June 2026, focusing on users of urban green public spaces such as parks, pedestrian areas, urban forests, green corridors, and other open public spaces. Jakarta was selected because it represents a dense metropolitan context where green public spaces and urban revitalization initiatives are increasingly relevant to the city's sustainability agenda. The population consisted of residents and city users from Jakarta and the surrounding metropolitan area who had visited or used urban green public spaces in Jakarta. The study used purposive sampling with four criteria: respondents were at least 17

years old, lived or regularly engaged in activities within the Jabodetabek area, had used urban green public spaces in Jakarta within the last six months, and agreed to participate voluntarily. The targeted sample size was 250 respondents.

Eligibility was assessed against the four screening criteria before a case entered the analytical dataset. The final analytical sample comprised 250 eligible and usable responses. Sample adequacy was evaluated using the inverse square root method (Kock & Hadaya, 2018). Assuming a minimum standardized path coefficient of 0.20 and a 5% significance level, the method indicates a minimum sample of approximately 155; therefore, $N = 250$ exceeded the requirement for estimating the proposed mediation model.

Primary data were collected through a structured online questionnaire using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The measurement items were developed by adapting construct definitions and prior empirical operationalizations to the context of urban green public spaces in Jakarta. Sustainable city branding was informed by city-branding literature (Ripoll Gonzalez & Gale, 2023; Sokołowska et al., 2022), urban green space quality by public-space evaluation literature (Ghavimi et al., 2025), green city identification and green citizenship behavior by Raji et al. (2024), and place attachment by Pan & Cobbinah (2023) and Qi et al. (2026). The final measurement model comprised four indicators for each of the five constructs: sustainable city branding, urban green space quality, green city identification, place attachment, and green citizenship behavior. Before completing the questionnaire, respondents were informed about the research purpose, voluntary participation, anonymity, and confidentiality. Responses that were incomplete, duplicated, ineligible, showed straight-lining patterns, or had implausibly short completion times been excluded from further analysis.

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS 4. PLS-SEM was selected because the study involved multiple latent constructs, direct effects, and indirect effects within a prediction-oriented model (Hair et al., 2021). The measurement model was evaluated using outer loading, Cronbach's alpha, composite reliability, average variance extracted, and the heterotrait-monotrait ratio. The structural model was assessed using the variance inflation factor, path coefficients, coefficient of determination, effect size, predictive relevance, and mediation analysis. The significance of direct and indirect effects was tested using bootstrapping in SmartPLS 4 based on t-statistics, p-values, and 95% confidence intervals. An effect was considered significant when its bootstrap confidence interval excluded zero. Because this study applied a partial mediation model, place attachment was not assumed to be the only mechanism explaining green citizenship behavior; instead, the model examined whether sustainable city attributes influenced green citizenship behavior both directly and indirectly through place attachment.

3. Results and Discussion

3.1 Respondent characteristics

Table 1 presents the characteristics of 250 respondents who had used urban green public spaces in Jakarta within the last six months. The sample was slightly dominated by female respondents, with most participants coming from young and productive age groups, particularly 17–25 and 26–35 years. In terms of education, the majority held a bachelor's degree, while the occupational profile was mainly composed of private employees, students, and entrepreneurs or self-employed respondents. Most respondents were in the middle to upper-middle income categories, indicating a profile that is relevant to sustainability-oriented urban lifestyles. The respondents also came not only from Jakarta, but also from Bogor, Depok, Tangerang, and Bekasi, reflecting the metropolitan function of Jakarta's green public spaces. In addition, most respondents had used urban green public spaces at least three times within the last six months, indicating that they had sufficient experience to evaluate the research variables.

Table 1. Respondent characteristics

Characteristic	Category	Frequency	Percentage
Gender	Male	108	43.2%
	Female	142	56.8%
Total		250	100.0%
Age	17–25 years	88	35.2%
	26–35 years	83	33.2%
	36–45 years	51	20.4%
	> 45 years	28	11.2%
Total		250	100.0%
Educational background	Senior high school/equivalent	49	19.6%
	Diploma	31	12.4%
	Bachelor's degree	127	50.8%
	Postgraduate degree	43	17.2%
Total		250	100.0%
Occupation	Student	57	22.8%
	Private employee	84	33.6%
	Civil servant/state-owned enterprise employee	28	11.2%
	Entrepreneur/self-employed	43	17.2%
	Lecturer/teacher	15	6.0%
	Other occupations	23	9.2%
Total		250	100.0%
Monthly income	< IDR 2,000,000	24	9.6%
	IDR 2,000,000–4,999,999	55	22.0%
	IDR 5,000,000–7,999,999	79	31.6%
	IDR 8,000,000–10,999,999	56	22.4%
	≥ IDR 11,000,000	36	14.4%
Total		250	100.0%
Domicile	Jakarta	103	41.2%
	Bogor	26	10.4%
	Depok	32	12.8%
	Tangerang	49	19.6%
	Bekasi	40	16.0%
Total		250	100.0%
Frequency of Using Urban Green Public Spaces	1–2 times in the last six months	61	24.4%
	3–5 times in the last six months	109	43.6%
	More than 5 times in the last six months	80	32.0%
	Total	250	100.0%

3.2 Measurement model assessment

Table 2 presents the measurement model assessment for all constructs. Outer loadings range from 0.907 to 0.950 and therefore exceed the recommended threshold of 0.70. Cronbach's alpha values range from 0.941 to 0.958, composite reliability values from 0.958 to 0.969, and average variance extracted values from 0.850 to 0.887. These results satisfy the conventional requirements for indicator reliability, internal consistency, and convergent validity. Nevertheless, reliability coefficients above 0.95 can indicate closely overlapping indicator content. The high composite reliability values were therefore interpreted together with indicator wording and content validity rather than as evidence of measurement quality in isolation. Overall, the measurement results support further structural analysis, while future refinements should continue to examine possible item redundancy.

Table 2. Measurement indicators, reliability, and validity

Construct	Code	Indicator	Loading	CA	CR	AVE
Sustainable city branding	SCB1	The city is perceived as promoting environmental sustainability.	0.940	0.952	0.965	0.874
	SCB2	The city communicates a clear sustainability commitment.	0.926			
	SCB3	The city's image reflects a green urban orientation.	0.931			
	SCB4	The city's sustainability image motivates support for green urban practices.	0.942			
Urban green space quality	UGSQ1	Urban green public spaces are easy to access.	0.921	0.942	0.958	0.851
	UGSQ2	Urban green public spaces are comfortable for daily activities.	0.919			
	UGSQ3	Urban green public spaces are clean for public use.	0.931			
	UGSQ4	Urban green public spaces provide ecological benefits for city users.	0.919			
Green city identification	GCI1	The city's green identity reflects values that are important to me.	0.916	0.950	0.964	0.870
	GCI2	I feel connected to the city through its green public spaces.	0.943			
	GCI3	The city's green development matches my environmental self-image.	0.934			
	GCI4	I feel proud of the city's green urban identity.	0.938			
Place attachment	PA1	I feel emotionally connected to urban green public spaces.	0.930	0.941	0.958	0.850
	PA2	Urban green public spaces are meaningful in my urban life.	0.907			
	PA3	I feel comfortable in urban green public spaces.	0.925			
	PA4	I feel responsible for maintaining urban green public spaces.	0.925			
Green citizenship behavior	GCB1	I keep urban green public spaces clean.	0.950	0.958	0.969	0.887
	GCB2	I place waste in designated bins when using public spaces.	0.943			
	GCB3	I use green public facilities responsibly.	0.939			
	GCB4	I encourage others to maintain green public spaces responsibly.	0.936			

3.3 Discriminant validity assessment

Table 3 shows that all Heterotrait–Monotrait Ratio (HTMT) values are below the threshold of 0.85, indicating that the constructs have adequate discriminant validity. The highest value is between place attachment and green citizenship behavior (0.839), but it remains within the acceptable range. This confirms that all constructs in the model are empirically distinct and suitable for further structural analysis.

Table 3. Discriminant validity – HTMT matrix

Construct	SCB	UGSQ	GCI	PA	GCB
SCB	-	-	-	-	-
UGSQ	0.368	-	-	-	-
GCI	0.405	0.284	-	-	-
PA	0.693	0.618	0.618	-	-
GCB	0.666	0.641	0.655	0.839	-

3.4 Structural model assessment

Table 4 shows that the R-square values for place attachment and green citizenship behavior are 0.666 and 0.740, respectively. This indicates that the model explains 66.6% of the variance in place attachment and 74.0% of the variance in green citizenship behavior. Therefore, the structural model demonstrates strong explanatory power for both endogenous constructs.

Table 4. Coefficient of determination

Endogenous construct	R-square	R-square adjusted
Place attachment	0.666	0.662
Green citizenship behavior	0.740	0.736

Table 5 indicates that sustainable city branding has the strongest effect on place attachment, while urban green space quality and green city identification also show meaningful effects. For green citizenship behavior, green city identification, urban green space quality, and place attachment provide moderate effects, whereas sustainable city branding shows a smaller effect. These results suggest that branding primarily builds attachment, while identity, space quality, and attachment are more directly related to responsible green behavior.

Table 5. Effect size (F-square)

Construct	GCB	GCI	PA	SCB	UGSQ
GCB					
GCI	0.183		0.278		
PA	0.155				
SCB	0.099		0.387		
UGSQ	0.169		0.313		

Table 6 presents the inner model collinearity assessment using variance inflation factor values. All variance inflation factor (VIF) values are below the threshold of 5, with the highest value found in the relationship involving place attachment and green citizenship behavior (VIF = 2.994). This indicates that the structural model is free from serious multicollinearity problems and that the predictor constructs are suitable for hypothesis testing.

Table 6. Inner model collinearity statistics (VIF)

Construct	GCB	GCI	PA	SCB	UGSQ
GCB					
GCI	1.540		1.205		
PA	2.994				
SCB	1.765		1.272		
UGSQ	1.533		1.167		

Table 7 shows that the model has an acceptable fit, as indicated by the estimated standardized root mean square residual (SRMR) value of 0.065, which is below 0.08, and the NFI value of 0.930, which is above 0.90. The d_ULS, d_G, and Chi-square values are

reported as complementary discrepancy measures. Overall, the model fit results support the suitability of the proposed structural model for further interpretation.

Table 7. Model fit

Fit index	Saturated model	Estimated model
SRMR	0.028	0.065
d_ULS	0.165	0.885
d_G	0.219	0.290
Chi-square	333.390	404.449
NFI	0.942	0.930

Table 8 shows that the Q^2 predict values for place attachment and green citizenship behavior are 0.691 and 0.658, respectively. Since both values are above 0, the model demonstrates predictive relevance and is able to predict the endogenous constructs adequately.

Table 8. Predictive relevance

Endogenous construct	Q^2 predict	Decision
Place attachment	0.691	Predictive relevance
Green citizenship behavior	0.658	Predictive relevance

3.5 Hypothesis testing and mediation analysis

Table 9 presents the direct effect hypothesis testing results. All direct relationships are positive and statistically significant, as indicated by t-statistics above 1.96 and p-values below 0.05. Sustainable city branding, urban green space quality, and green city identification significantly influence place attachment, with sustainable city branding showing the strongest effect. In addition, all predictors significantly influence green citizenship behavior, with place attachment showing the strongest direct effect, followed by green city identification, urban green space quality, and sustainable city branding. Therefore, H1 to H7 are supported.

Table 9. Path coefficients and hypothesis testing

Hypothesis	Direct	Original sample (o)	t statistics	p values	Decision
H1	Sustainable city branding → place attachment	0.406	9.290	< 0.001	Supported
H2	Urban green space quality → place attachment	0.349	8.783	< 0.001	Supported
H3	Green city identification → place attachment	0.335	7.829	< 0.001	Supported
H4	Sustainable city branding → green citizenship behavior	0.213	5.015	< 0.001	Supported
H5	Urban green space quality → green citizenship behavior	0.260	6.186	< 0.001	Supported
H6	Green city identification → green citizenship behavior	0.271	6.046	< 0.001	Supported
H7	Place attachment → green citizenship behavior	0.347	5.436	< 0.001	Supported

Table 10 presents the mediation testing results. All indirect effects are positive and statistically significant, as shown by t-statistics above 1.96 and p-values below 0.05. Place attachment significantly mediates the relationships between sustainable city branding, urban green space quality, green city identification, and green citizenship behavior. The strongest indirect effect is found in the path from sustainable city branding to green citizenship behavior through place attachment. Therefore, H8 to H10 are supported.

Table 10. Specific indirect effects

Hypothesis	Indirect path	Original sample (o)	t statistics	p values	Decision
H8	Sustainable city branding → place attachment → green citizenship behavior	0.141	4.576	< 0.001	Supported
H9	Urban green space quality → place attachment → green citizenship behavior	0.121	4.438	< 0.001	Supported
H10	Green city identification → place attachment → green citizenship behavior	0.116	4.613	< 0.001	Supported

Figure 1 summarizes the structural model results. The outer loading values indicate that all indicators adequately represent their respective constructs. The model also shows that sustainable city branding, urban green space quality, and green city identification contribute to the formation of place attachment, with sustainable city branding showing the strongest role. Green citizenship behavior is shaped by both direct city-related attributes and residents' attachment to urban green spaces. This pattern suggests that responsible green behavior is not only influenced by how residents perceive and experience the city's green attributes, but also by the extent to which they develop a meaningful connection with urban green public spaces.

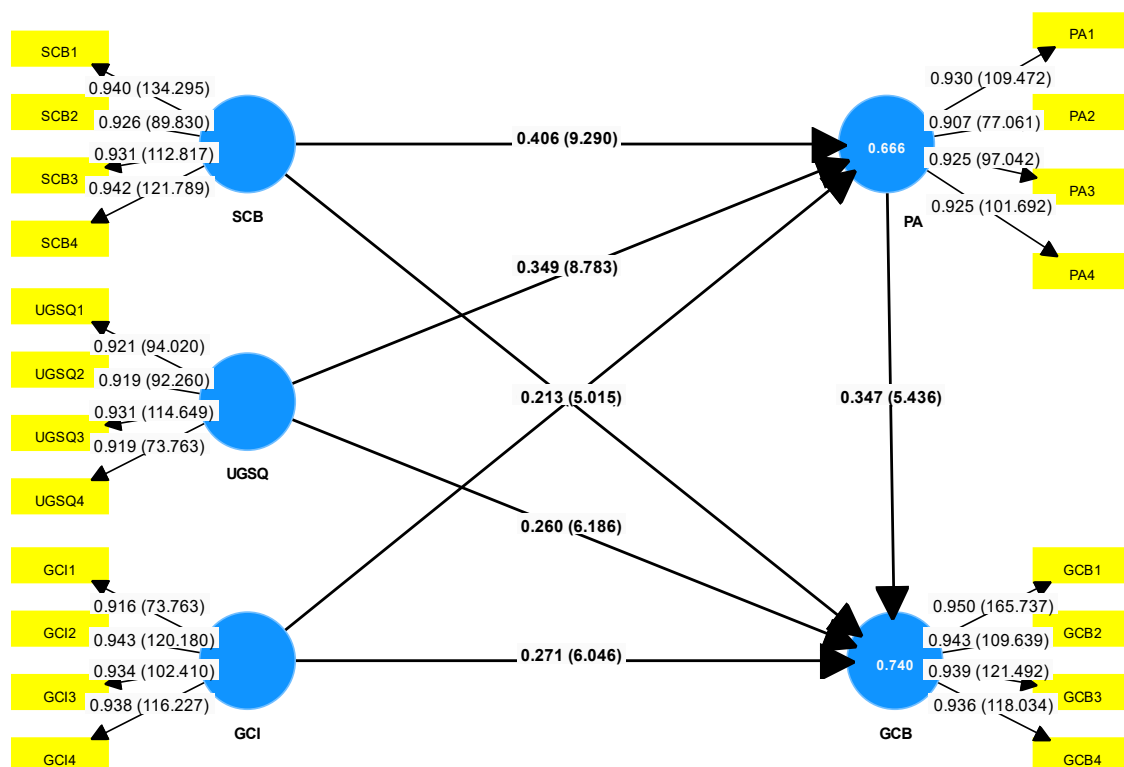


Fig. 1. Structural model results

3.6 Discussion

The supported hypotheses confirm that the proposed sustainable city marketing model explains green citizenship behavior through a complementary combination of direct and attachment-based mechanisms. The findings show that residents' voluntary environmental behavior in urban spaces is not produced by green infrastructure alone. Instead, it emerges from the interaction between symbolic city meaning, lived spatial experience, identity alignment, and emotional-functional attachment to place. Sustainable city branding, urban

green space quality, and green city identification significantly influence place attachment and also directly encourage green citizenship behavior. At the same time, place attachment strengthens these relationships as a mediating mechanism. This pattern supports a complementary partial mediation model, indicating that sustainable city attributes can shape responsible urban behavior both directly and indirectly through residents' attachment to urban green public spaces.

The first group of findings shows that sustainable city branding, urban green space quality, and green city identification significantly influence place attachment. Sustainable city branding has the strongest effect on place attachment ($\beta = 0.406$, $t = 9.290$, $p < 0.001$), followed by urban green space quality ($\beta = 0.349$, $t = 8.783$, $p < 0.001$) and green city identification ($\beta = 0.335$, $t = 7.829$, $p < 0.001$). This pattern indicates that attachment to urban green spaces is not created merely by physical exposure to parks, pedestrian corridors, or public facilities. It is shaped by how the city communicates sustainability, how residents experience the quality of green spaces, and how far the city's green identity resonates with residents' values. Sustainable city branding appears to be particularly influential in forming place attachment because branding gives symbolic meaning to urban green spaces (Chen et al., 2025). When a city is perceived as environmentally responsible and future-oriented, its green spaces are more likely to be interpreted as meaningful parts of the city's sustainability identity rather than ordinary public facilities. Urban green space quality then strengthens this attachment through direct experience, while green city identification deepens it through value congruence between residents and the city's environmental direction (Wan et al., 2021).

The second group of findings confirms that all direct effects on green citizenship behavior are positive and significant. Place attachment has the strongest direct effect on green citizenship behavior ($\beta = 0.347$, $t = 5.436$, $p < 0.001$), indicating that residents who feel emotionally and functionally attached to urban green spaces are more likely to protect, maintain, and use them responsibly. Among the three sustainable city attributes, green city identification shows the strongest direct effect on green citizenship behavior ($\beta = 0.271$, $t = 6.046$, $p < 0.001$), followed by urban green space quality ($\beta = 0.260$, $t = 6.186$, $p < 0.001$) and sustainable city branding ($\beta = 0.213$, $t = 5.015$, $p < 0.001$). This is one of the most important empirical findings of the study. It suggests that green citizenship is not merely a response to urban facilities or sustainability messages, but also an expression of identity consistency (Alizadeh et al., 2026). Residents are more likely to act responsibly when they feel that the city's green identity reflects who they are, what they value, and how they wish to participate in urban life. In this sense, identity-based motivation becomes a central mechanism for encouraging voluntary environmental behavior in shared urban spaces (Bai et al., 2026).

A more critical reading of the direct effects also shows that sustainable city branding has a stronger effect on place attachment than on green citizenship behavior (Mamta et al., 2026). This suggests that branding alone may not be sufficient to directly produce strong green behavior unless the sustainability image becomes internalized through residents' attachment to place or identification with the city's green identity (Butt et al., 2017). In other words, city branding works more powerfully as a meaning-building mechanism than as a direct behavioral trigger. By contrast, green city identification shows the strongest direct effect among the three city attributes on green citizenship behavior, indicating that residents' behavior is more likely to change when sustainability becomes part of their self-concept and social identity (Gilboa & Jaffe, 2021). This distinction is important because it shows that sustainable city marketing should not stop at communicating a green image. It must also create identity relevance and place-based emotional meaning so that residents feel personally involved in the city's green transformation (Namaz & Tvergyák, 2023).

The mediation results provide a deeper explanation of how sustainable city attributes are translated into green citizenship behavior. Place attachment significantly mediates the relationship between sustainable city branding and green citizenship behavior ($\beta = 0.141$, $t = 4.576$, $p < 0.001$), urban green space quality and green citizenship behavior ($\beta = 0.121$, $t = 4.438$, $p < 0.001$), and green city identification and green citizenship behavior ($\beta = 0.116$, $t = 4.613$, $p < 0.001$). The strongest indirect effect is found in the pathway from sustainable

city branding to green citizenship behavior through place attachment. This result indicates that sustainability-oriented city branding does not only influence behavior by communicating a green image; it also works by strengthening residents' emotional and functional bonds with urban places (Chen, 2025). Similarly, the indirect effects of urban green space quality and green city identification show that spatial experience and identity alignment become more behaviorally meaningful when they generate attachment to place. Because the direct and indirect effects are both positive and significant, place attachment functions as a complementary partial mediator rather than a full mediator (Qi et al., 2026).

Overall, the findings extend sustainable marketing by shifting the discussion from product-based green consumption to city-based green citizenship behavior. In this perspective, residents are not merely users of public facilities or passive audiences of city branding; they are active co-creators of sustainable urban value (Oetken, 2025). Sustainable city branding provides symbolic meaning, urban green space quality provides lived experience, green city identification provides identity alignment, and place attachment transforms these elements into stronger behavioral responsibility. This finding is important because it expands the unit of analysis in sustainable marketing from individual purchase decisions to residents' collective responsibility toward urban sustainability (Raji et al., 2024). Therefore, sustainable marketing in an urban context should be understood not only as communication about sustainability, but also as a process of building meaningful relationships between residents, places, and environmental values.

Beyond the statistical significance of the proposed relationships, the findings also highlight the importance of viewing urban sustainability as a resident-centered process. Green public spaces can provide environmental and social benefits, but their long-term value depends on whether residents perceive these spaces as meaningful, accessible, and connected to their everyday urban identity (Paudel & States, 2023). This means that sustainable city marketing should not only communicate a green image, but also strengthen residents' sense of ownership and responsibility toward shared urban environments. When residents see green spaces as part of their personal and collective urban life, they are more likely to move from passive use to active care, support, and protection. This perspective reinforces the idea that sustainable urban behavior is shaped through the interaction between city image, spatial experience, identity, and attachment rather than through infrastructure provision alone (Ghavimi et al., 2025).

Viewed through an urban-design lens, the pattern of coefficients suggests that the physical quality of green spaces and the meanings people attach to them should be addressed as mutually reinforcing dimensions of intervention. The significant paths from urban green space quality to both place attachment and green citizenship behavior indicate that accessible entrances, well-connected pedestrian routes, inclusive design, shade, seating, lighting, cleanliness, biodiversity, and consistent maintenance can enhance users' experiences while encouraging responsible use of public space. However, the strong relationship between place attachment and green citizenship behavior also suggests that physical improvements alone are insufficient. Well-designed spaces need to be brought to life through repeated use, social interaction, and shared experiences. Activities such as community walks, environmental education, local markets, volunteer maintenance, and participatory design workshops can help transform a technically functional green space into a meaningful place that residents recognize as part of their everyday lives. In this way, public-space design can foster not only stronger attachment to place but also a deeper sense of environmental responsibility and citizenship.

The findings also extend placemaking into urban resilience. Public spaces can serve as socio-spatial infrastructure when they sustain community networks, people-place connections, and opportunities for collective action (Zarkhah et al., 2025). In Jakarta, green public spaces should therefore be designed as connected, inclusive, and adaptable components of the wider public realm rather than isolated beautification projects. Streetscape continuity, pedestrian access, flexible activity zones, and participatory management can support routine use while retaining capacity for community gathering and adaptation. Through this lens, public-space activation is not merely an event strategy; it is a

mechanism for reinforcing belonging, shared responsibility, and the collective capability needed to protect urban environmental assets.

For urban managers and policymakers, the findings suggest an integrated implementation sequence. First, protect baseline spatial quality through accessibility, safety, comfort, cleanliness, ecological performance, and transparent maintenance. Second, align city-branding messages with observable design and management practices so that sustainability claims are verified through residents' everyday experience. Third, activate green spaces through community programming, participatory design, citizen reporting, and stewardship partnerships. Finally, monitor not only visitor numbers, but also place attachment, perceived ownership, participation, and green citizenship outcomes. This sequence links branding, public-space design, activation, and behavioral evaluation within one placemaking strategy.

4. Conclusions

This study concludes that green citizenship behavior in urban green public spaces is not shaped by green infrastructure alone, but by how the city is communicated, experienced, identified with, and emotionally connected to by its residents. Sustainable city branding, urban green space quality, and green city identification significantly contribute to residents' responsible environmental behavior, both directly and through place attachment. The findings show that sustainability-oriented city branding is important in creating symbolic meaning, while high-quality green spaces provide positive urban experiences and green city identification strengthens residents' sense of identity alignment with the city's environmental direction. Place attachment functions as a complementary partial mediator, indicating that residents are more likely to protect and maintain green public spaces when these spaces become meaningful parts of their urban lives. This study extends sustainable marketing literature by shifting the focus from product-based green consumption to city-based green citizenship behavior. Practically, the findings suggest that urban sustainability strategies should not only focus on providing green public spaces, but also on building credible green city communication, maintaining spatial quality, strengthening residents' green identity, and encouraging participatory placemaking so that citizens treat green spaces as shared ecological assets. In implementation, planning agencies should coordinate streetscape design, green-space maintenance, sustainability communication, and community activation rather than assigning these responsibilities to disconnected programs. Several limitations define the boundary of these conclusions. The cross-sectional design does not establish temporal causality, the purposive Jabodetabek sample limits statistical generalization, and self-reported measures may differ from observed behavior in public spaces. Future research should employ longitudinal, quasi-experimental, or repeated-visit designs and combine surveys with behavioral observation, mobility traces, or participation records. Comparative studies across Indonesian and international cities should also test whether the model remains stable across parks, pedestrian corridors, neighborhood green spaces, and metropolitan public realms with different governance and socioeconomic conditions. Further work may examine whether public-space activation, perceived inclusion, or community resilience strengthens the transition from place attachment to green citizenship behavior.

Acknowledgement

The authors would like to express their sincere appreciation to all respondents who voluntarily participated in this study and provided valuable information regarding their experiences with urban green public spaces in Jakarta. The authors also acknowledge the constructive academic feedback and support received during the preparation of this manuscript. These contributions were valuable in improving the clarity, relevance, and academic quality of the study.

Author Contribution

Conceptualization, F.S.S. and R.M.; methodology, F.S.S. and R.M.; software, F.S.S.; validation, U.S., S.F.W., and A.H.; formal analysis, F.S.S.; investigation, F.S.S. and R.M.; resources, F.S.S. and R.M.; data curation, F.S.S.; writing – original draft preparation, F.S.S.; writing – review and editing, R.M., U.S., S.F.W., and A.H.; visualization, F.S.S.; supervision, U.S., S.F.W., and A.H.; project administration, F.S.S.; funding acquisition, not applicable. All authors have read and agreed to the submitted version of the manuscript.

Funding

This research received no external funding.

Ethical Review Board Statement

Ethical review and approval were waived for this study because the research involved an anonymous, voluntary, non-interventional survey of adult respondents and did not collect sensitive personal data. All respondents were informed about the purpose of the study, the voluntary nature of their participation, anonymity, and confidentiality before completing the questionnaire.

Informed Consent Statement

Informed consent was obtained from all respondents involved in the study. Before completing the questionnaire, respondents were informed about the purpose of the research, the voluntary nature of their participation, anonymity, confidentiality, and their right to withdraw from the study at any time.

Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request. The raw dataset is not publicly available because the study involved respondent-based survey data and confidentiality was assured during data collection.

Conflicts of Interest

The authors declare no conflict of interest.

Declaration of Generative AI Use

During the preparation of this manuscript, the authors used OpenAI ChatGPT to assist in improving academic language, structure, clarity, and coherence. After using this tool, the authors reviewed, revised, and edited the content as needed and take full responsibility for the accuracy, originality, integrity, and final content of the manuscript.

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References

- Addas, A. (2023). The importance of urban green spaces in the development of smart cities. *Frontiers in Environmental Science*, 11, 1206372. <https://doi.org/10.3389/fenvs.2023.1206372>
- Alizadeh, H., Sharifi, A., & Najafi, H. (2026). Reframing urban sustainability: Toward people-centric development through humanistic and social values. *Peace and Sustainability*, 2(1), 100044. <https://doi.org/10.1016/j.nerpsj.2026.100044>
- Aslanoglu, R., Kazak, J. K., Szewrański, S., Świąder, M., Arciniegas, G., Chrobak, G., Jakóbiak, A., & Turhan, E. (2025). Ten questions concerning the role of urban greenery in shaping the future of urban areas. *Building and Environment*, 267, 112154. <https://doi.org/10.1016/j.buildenv.2024.112154>
- Bai, Y., Luo, B., & Zhang, M. (2026). Urban tourism: How sensory impressions reshape pro-environmental behaviors. *Acta Psychologica*, 262, 106156. <https://doi.org/10.1016/j.actpsy.2025.106156>
- Butt, M. M., Mushtaq, S., Afzal, A., Khong, K. W., Ong, F. S., & Ng, P. F. (2017). Integrating behavioural and branding perspectives to maximize green brand equity: A holistic approach. *Business Strategy and the Environment*, 26(4), 507–520. <https://doi.org/10.1002/bse.1933>
- Chang, W., Li, H., Khamarudin, M., & Khan, W. A. (2025). Influencing eco-conscious travelers: The role of green marketing in promoting sustainable destinations. *Acta Psychologica*, 260, 105506. <https://doi.org/10.1016/j.actpsy.2025.105506>
- Chen, J.-L. (2025). Going green in road races: Enhancing runners' green brand loyalty – the roles of green brand positioning, attitude and identification. *International Journal of Sports Marketing and Sponsorship*, 26(3), 568–586. <https://doi.org/10.1108/IJSMS-06-2024-0143>
- Chen, L., Liang, Q., & Zhao, H. (2025). Exploring the impact of urban green spaces on behavioral and psychological well-being: Based on the context of urban villages and ordinary neighborhoods in Shenzhen, China. *Wellbeing, Space and Society*, 9, 100298. <https://doi.org/10.1016/j.wss.2025.100298>
- Chen, Y., Ying, J., Zhang, Y., Feng, Y., Chen, X., & Zhou, X. (2025). A systematic review of urban green spaces affecting subjective well-being: An explanation of their complex mechanisms. *Ecological Indicators*, 178, 113786. <https://doi.org/10.1016/j.ecolind.2025.113786>
- Dietz, L. W., Šćepanović, S., Zhou, K., Zanella, A. F., & Quercia, D. (2025). Understanding the potential of urban parks to promote well-being. *Nature Cities*, 2(12), 1205–1216. <https://doi.org/10.1038/s44284-025-00345-4>
- Fitri, H., Amri, K., & Sodiri, S. (2026). Assessing spatial indicators in global healthy and sustainable city initiatives: A Jakarta context. *Cities & Health*, 1–19. <https://doi.org/10.1080/23748834.2026.2635851>
- Galli, F., & Montalto, V. (2026). Pride in place in culture-led regeneration: An exploratory case study of Limoges, France. *Cities*, 176, 107193. <https://doi.org/10.1016/j.cities.2026.107193>
- Garanti, Z., Ilkhanizadeh, S., & Liasidou, S. (2024). Sustainable place branding and visitors' responses: A systematic literature review. *Sustainability*, 16(8), 3312. <https://doi.org/10.3390/su16083312>
- Ghavimi, A., Schuessler, F., & Pesch, R. (2025). A framework to evaluate public green spaces with an emphasis on recreational values for sustainable urban and rural areas: A systematic review and content analysis. *Heliyon*, 11(2), e41553. <https://doi.org/10.1016/j.heliyon.2024.e41553>
- Gilboa, S., & Jaffe, E. (2021). Can one brand fit all? Segmenting city residents for place branding. *Cities*, 116, 103287. <https://doi.org/10.1016/j.cities.2021.103287>
- González-Flores, Z. N., & Organista, M. (2025). Exploring the interactions between society, wellbeing and urban spaces: An investigation of safety and morphological attributes focusing on human experiences. *Wellbeing, Space and Society*, 8, 100246. <https://doi.org/10.1016/j.wss.2025.100246>

- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer Nature.
- Jankelová, N., Némethová, I., Dabić, M., & Kallmuenzer, A. (2025). Enhancing organizational citizenship behavior towards the environment. *Review of Managerial Science*, 19(3), 899–930. <https://doi.org/10.1007/s11846-024-00781-x>
- Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. *Information Systems Journal*, 28(1), 227–261. <https://doi.org/10.1111/isj.12131>
- Mamta, Prakash, G., Singhal, A. B., Albishri, N., & Gupta, B. (2026). Psychological drivers of customer citizenship buying behaviour in green cosmetics: Evidence from a mixed-methods approach. *Acta Psychologica*, 264, 106550. <https://doi.org/10.1016/j.actpsy.2026.106550>
- Namaz, L., & Tvergyák, K. K. (2023). Uncovering deep place meanings in the context of urban wellbeing: The case study of Budapest. *City and Environment Interactions*, 17, 100095. <https://doi.org/10.1016/j.cacint.2022.100095>
- Negi, N. (2026). *The impact of urban green spaces on social and environmental sustainability* [Master's thesis, Cardiff University]. <https://doi.org/10.13140/RG.2.2.29517.29920>
- Oetken, K. J. (2025). Unravelling the why: Exploring the increasing recognition and adoption of co-creation in contemporary urban design. *Sustainable Communities*, 2(1), 2477788. <https://doi.org/10.1080/29931282.2025.2477788>
- Pan, Y., & Cobbinah, P. B. (2023). Embedding place attachment: Residents' lived experiences of urban regeneration in Zhuanghe, China. *Habitat International*, 135, 102796. <https://doi.org/10.1016/j.habitatint.2023.102796>
- Paudel, S., & States, S. L. (2023). Urban green spaces and sustainability: Exploring the ecosystem services and disservices of grassy lawns versus floral meadows. *Urban Forestry & Urban Greening*, 84, 127932. <https://doi.org/10.1016/j.ufug.2023.127932>
- Qi, Z., Xu, J., Bai, J., & Duan, J. (2026). Revisiting the effects of the built environment on place attachment: Individual's emotion and perceived built environment as mediators. *Frontiers of Architectural Research*. <https://doi.org/10.1016/j.foar.2025.12.012>
- Rahman, I., Grunwald, A., & Saha, S. (2025). Access to cultural ecosystem services and how urban green spaces marginalize underprivileged groups. *npj Urban Sustainability*, 5(1), 36. <https://doi.org/10.1038/s42949-025-00221-z>
- Raji, R. A., Mohamad, B., & Memon, S. (2024). Exploring the drivers of residents' identification and green citizenship behavior in green cities: A multicountry study. *Journal of Place Management and Development*, 17(4), 502–526. <https://doi.org/10.1108/JPMD-03-2023-0032>
- Ripoll Gonzalez, L., & Gale, F. (2023). Sustainable city branding narratives: A critical appraisal of processes and outcomes. *Journal of Place Management and Development*, 16(1), 20–44. <https://doi.org/10.1108/JPMD-09-2021-0093>
- Shabani, A., Taheri, S., Istrate, A.-L., & Sharifi, A. (2026). Sense of belonging and attachment in urban green spaces: A qualitative study of older adults in Isfahan, Iran. *Urban Studies*, 63(8), 1701–1722. <https://doi.org/10.1177/00420980251396546>
- Sokołowska, E., Pawlak, K., Hajduk, G., & Dziadkiewicz, A. (2022). City brand equity, a marketing perspective. *Cities*, 130, 103936. <https://doi.org/10.1016/j.cities.2022.103936>
- van Bommel, M. N. C., Derkzen, M. L., & Vaandrager, L. (2025). Greening for meaning: Sense of place in green citizen initiatives in the Netherlands. *Wellbeing, Space and Society*, 8, 100240. <https://doi.org/10.1016/j.wss.2025.100240>
- Wan, C., Shen, G. Q., & Choi, S. (2021). Underlying relationships between public urban green spaces and social cohesion: A systematic literature review. *City, Culture and Society*, 24, 100383. <https://doi.org/10.1016/j.ccs.2021.100383>
- Wang, Z., Zhu, T., & Huang, R. (2026). Place attachment, perceived displacement, and tourism support intentions: A dual-mediation model with length of residency as a moderator. *Acta Psychologica*, 263, 106335. <https://doi.org/10.1016/j.actpsy.2026.106335>

- Wu, Y., Azmi, A., Ibrahim, R., Ghafar, A. A., & Salih, S. A. (2025). Creating a sustainable urban ecosystem: The Azheke village model. *Smart and Sustainable Built Environment*, 14(4), 1150–1171. <https://doi.org/10.1108/SASBE-10-2023-0292>
- Zarie, E., Sepehri, B., Adibhesami, M. A., Pourjafar, M. R., & Karimi, H. (2024). A strategy for giving urban public green spaces a third dimension: A case study of Qasrodasht, Shiraz. *Nature-Based Solutions*, 5, 100102. <https://doi.org/10.1016/j.nbsj.2023.100102>
- Zarkhah, S. A. A., Hartevelde, M., Van Dorst, M., & Adlakha, D. (2025). The socio-spatial roles of public space as an enabler for community resilience. *URBAN DESIGN International*. <https://doi.org/10.1057/s41289-025-00288-1>
- Zhao, W., & Seokhyun, L. (2025). Determines factors of cultural city brand equity: From the perspective of a city's integration with residents. *Journal of Asian Architecture and Building Engineering*, 24(6), 5961–5980. <https://doi.org/10.1080/13467581.2024.2445589>

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