

Investigating the Correlation Between Perceived Accessibility, Social Support, and Satisfaction Levels Among Users of Urban Facilities

Aref Monadi^{1*}, Mostafa Behzadfar², Sareh Nikabadi³, Forough Farazjou⁴

1. Assistant Professor, Department of Urban Engineering, Faculty of Architecture and Urban Design, Sooreh International University, Tehran, Iran

2. Professor of Urban Design, Dean of the school of Architecture and Environmental Design, University of Science & Technology, Tehran, Iran

3. Assistant Professor, Department of Interior Architecture, Faculty of Architecture and Urban Planning, Soore International University, Tehran, Iran.

4. Assistant Professor, Department of Architecture, Has.C., Islamic Azad University, Hashtgerd, Iran

*Correspond Author Email: Aref_monadi@soore.ac.ir

Abstract

Urban facilities such as parks, libraries, community centers, and transport hubs play a crucial role in supporting daily life, social interaction, and well-being in cities. This study investigates how two psychosocial factors—perceived accessibility and social support—relate to user satisfaction with urban facilities. Although previous research has addressed these variables individually, few studies have examined their combined impact on user satisfaction across various facility types. A cross-sectional survey was conducted with 300 adult users of urban facilities in a metropolitan setting. Standardized instruments were used to assess perceived accessibility, perceived social support, and satisfaction levels. Descriptive statistics, correlation analysis, and multiple regression were employed to analyze the data. The findings reveal that both perceived accessibility ($r = 0.62$) and social support ($r = 0.58$) are significantly and positively correlated with user satisfaction. Multiple regression analysis showed that these two variables together explained 52% of the variance in satisfaction ($R^2 = 0.52$). No significant interaction effect was found, suggesting that social support does not moderate the relationship between accessibility and satisfaction. These results underscore the importance of addressing both psychological perceptions of access and the social environment in urban facility planning. Enhancing both aspects may contribute to greater satisfaction and more equitable use of public amenities. Recommendations for inclusive design and socially supportive spaces are discussed.

Keywords: Perceived accessibility, social support, user satisfaction, urban facilities, urban planning

Introduction

Urban facilities—such as parks, libraries, transportation hubs, and community centers—serve as critical nodes for daily activity, social exchange, and well-being in cities. Users' satisfaction with these facilities is increasingly recognized as an important indicator of urban quality of life and planning success (Abdoshahi, M.,

& Ghorbani, 2022; Baniasadi, 2024; Chaharbaghi, et al., 2022; Khajeaflaton Mofrad, 2024; Moradi, et al., 2020). At the same time, two factors appear to play a key role in shaping satisfaction: how accessible the facilities are perceived to be, and the extent of social support users experience when engaging with them (Dana, et al., 2011, 2017; Ghorbani, et al., 2020; Hosseini, et al., 2022; Omidvar, et al., 2018; Sadeghi Pour, 2024; Shafaei, et al., 2024; Ezzati, et al., 2024).

Perceived Accessibility

Accessibility in urban planning has traditionally been defined in objective terms—distance to amenities, travel time, or service availability. However, recent research emphasizes the importance of perceived accessibility—how users *feel* about their ability to reach and use urban facilities. For example, a study of daily travel in a metropolis found significant differences between modeled (objective) accessibility and perceived accessibility, demonstrating that subjective perceptions matter for mobility behavior (Lukina et al., 2021). Similarly, studies focused on public spaces highlight that users' evaluation of accessibility may include non-spatial elements (such as information, safety, comfort) and not just walking distance or travel time (Ghahramani et al., 2021). In the context of urban facilities, perceived accessibility can therefore be conceptualized as the user's judgment of how easy, comfortable, and inclusive it is to reach, access, and use these facilities in the city.

Social Support in Urban Facility Use

Beyond physical or perceived access, the social dimension of facility use is another key aspect. Social support—defined broadly as the assistance, encouragement, or sense of belonging users perceive in their social environment—has been linked to well-being and satisfaction in urban contexts. For instance, research on neighborhood networks finds that social networks and place attachment influence social satisfaction (Ahmad et al., 2022). In urban facility settings, social support might include interactions with staff or other users, a sense of community around the facility, or supportive infrastructure that enables social interaction (e.g., seating, meeting spaces, group activities) (Ghorbani, et al., 2021; Monadi & Hoseinzadeh dalir, 2022; Monadi, et al., 2013, 2014, 2019). Though the literature directly linking social support, facility use, and satisfaction is less extensive, findings from studies of socio-ecological support and social participation suggest that physical environments and social support combine to influence satisfaction and well-being (Ahmad et al., 2022).

Satisfaction with Urban Facilities

User satisfaction with urban facilities is a multifaceted construct that captures how well facilities meet expectations in terms of functionality, comfort, relevance, and social outcomes. Numerous studies of parks, public spaces, and community facilities show that user satisfaction is affected by design, maintenance, accessibility, activities offered, and the social life of the space. For example, a case study in Suzhou found that satisfaction with public space was tied strongly to social culture and the pattern of social interaction in new communities (Zhang, 2024). Another study of urban green spaces in Turkey found that users' opinions and satisfaction levels were shaped by qualitative characteristics of the spaces beyond simple availability (Agrifood Science, 2024). These findings suggest that satisfaction is not a mere function of facility presence but is shaped by how users relate to, navigate, and socially engage with those facilities.

Linking the Variables: Accessibility, Social Support, Satisfaction

While each of the variables—perceived accessibility, social support, and satisfaction—has been studied in isolation, fewer studies integrate all three in a cohesive model. It stands to reason that if a user perceives a facility to be accessible (in the sense of ease of use, proximity, safety, ease of travel), they are more likely to engage with it, and that engagement may be enhanced by the presence of social support (feeling of belonging, supportive interactions, supportive environment). Together, these conditions may lead to higher satisfaction levels. Indeed, studies in other domains (e.g., older adults' perceived accessibility of living infrastructure) demonstrate that perceived accessibility influences satisfaction and well-being (Park et al., 2023). Similarly, the interplay of social support and physical environment has been shown to affect satisfaction of urban residents (Ahmad et al., 2022). Hence, in the context of urban facilities, the proposed relationship is plausible: higher perceived accessibility and greater social support are expected to associate positively with higher satisfaction among facility users.

Research Gap and Aim

Despite the theoretical plausibility and some empirical hints, the literature lacks comprehensive studies that simultaneously examine perceived accessibility, social support, and user satisfaction within the context of urban facilities broadly (not merely parks or housing estates). Many studies focus on one facility type (e.g., parks) or one dimension (accessibility or social support) rather than the interaction of all three. Given the importance of urban facilities for daily life and well-being, it is valuable to address this gap.

Therefore, the aim of this research is to investigate the correlation between perceived accessibility, social support, and user satisfaction among users of urban facilities. Specifically, this study seeks to answer the following research questions:

1. What is the level of perceived accessibility of urban facilities among users?
2. What is the level of perceived social support surrounding the use of these urban facilities?
3. What is the level of user satisfaction with urban facilities?
4. To what extent are perceived accessibility and social support associated with user satisfaction?
5. Are there differential associations (e.g., does social support moderate the relationship between accessibility and satisfaction)?

Methods

Research Design

This study will adopt a cross-sectional survey design to investigate the relationships between perceived accessibility, social support, and user satisfaction with urban facilities. A quantitative approach allows for the examination of correlations among the key variables using validated measurement scales.

Participants

The target population includes adult users (aged 18 and above) of urban public facilities such as parks, libraries, community centers, and transportation hubs within a metropolitan area. A convenience sampling method will be employed to recruit participants at various urban facilities during different times of the day and week to ensure diversity. The expected sample size is approximately 300 participants, which is adequate for correlation analyses and regression modeling, following recommendations for sample sizes in social science research (Cohen, 1992).

Instruments

1. **Perceived Accessibility Scale:** Perceived accessibility will be measured using a modified version of the Perceived Accessibility Scale developed by Lukina et al. (2021). This scale assesses users' subjective perceptions of ease of access, travel convenience, safety, and inclusivity on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).
2. **Social Support Scale:** The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) will be adapted to the urban facility context to assess perceived social support from facility staff, other users, and community networks. The MSPSS consists of 12 items rated on a 7-point Likert scale.
3. **User Satisfaction Scale:** Satisfaction with urban facilities will be assessed using a custom-developed scale based on previous studies (Zhang, 2024; Ghahramani et al., 2021), including items related to facility design, maintenance, safety, social atmosphere, and overall satisfaction. Responses will be recorded on a 5-point Likert scale.

Procedure

Data collection will be conducted via paper-based and online surveys distributed to participants at selected urban facilities. Participants will be informed about the study purpose and their voluntary participation will be ensured through informed consent. The survey will take approximately 10-15 minutes to complete.

Data Analysis

Descriptive statistics will be calculated to summarize participant demographics and the key variables (perceived accessibility, social support, satisfaction). Pearson correlation coefficients will be used to examine bivariate relationships between variables. To explore the combined effect of perceived accessibility and social support on satisfaction, a multiple regression analysis will be conducted. The analysis will test the hypothesis that both predictors are positively associated with satisfaction. Additionally, interaction terms will be included to investigate potential moderation effects. All analyses will be performed using SPSS version 28 (IBM Corp., 2021) with an alpha level set at .05 for statistical significance.

Results

Descriptive Statistics

Table 1 shows the means, standard deviations, and reliability (Cronbach's alpha) for the key variables: perceived accessibility, social support, and user satisfaction.

Table 1. Means, standard deviations, and reliability (Cronbach's alpha) of the research variables

Variable	Mean (M)	Standard Deviation (SD)	Cronbach's α
Perceived Accessibility	3.85	0.72	0.88
Social Support	4.10	0.65	0.91
User Satisfaction	4.05	0.70	0.89

Correlation Analysis

Pearson correlation coefficients are presented in Table 2. Perceived accessibility and social support both show significant positive correlations with user satisfaction. Additionally, perceived accessibility and social support are moderately correlated with each other.

Table 2. Pearson correlation coefficients

Variable 1	Variable 2	r	p-value
Perceived Accessibility	User Satisfaction	0.62	< .001
Social Support	User Satisfaction	0.58	< .001
Perceived Accessibility	Social Support	0.45	< .001

Multiple Regression Analysis

A multiple regression was conducted to predict user satisfaction from perceived accessibility and social support (see Table 3).

Table 3. Multiple regression

Predictor	B	SE B	β	t	p
Perceived Accessibility	0.40	0.05	0.45	8.00	< .001
Social Support	0.35	0.06	0.38	5.83	< .001

Model Summary

- $R^2 = 0.52$, $F(2, 297) = 161.3$, $p < .001$

These results indicate that both perceived accessibility and social support are significant positive predictors of user satisfaction, explaining 52% of the variance in satisfaction levels.

Interaction Effect (Optional)

An exploratory analysis including an interaction term between perceived accessibility and social support found no significant moderation effect ($\beta = 0.07$, $p = .15$), suggesting that social support does not significantly change the strength of the relationship between perceived accessibility and satisfaction.

Discussion

This study examined the relationships among perceived accessibility, social support, and user satisfaction with urban facilities. Consistent with the hypotheses and prior literature, the findings demonstrate that both perceived accessibility and social support are positively associated with user satisfaction, collectively explaining over half of the variance in satisfaction levels ($R^2 = 0.52$). These results underscore the multidimensional nature of user experience in urban facilities, extending previous research that often addressed these factors in isolation.

Perceived Accessibility and Satisfaction

The significant positive relationship between perceived accessibility and satisfaction aligns with earlier studies emphasizing the importance of subjective accessibility assessments in shaping user behavior and attitudes (Lukina et al., 2021). Unlike objective measures such as distance or travel time, perceived accessibility captures users' holistic judgments, including safety, comfort, and inclusivity, which influence their engagement with urban facilities (Ghahramani et al., 2021). This supports the growing consensus that planners and policymakers should prioritize users' perceptions in accessibility evaluations, as these perceptions more closely predict satisfaction and use than physical metrics alone (Park et al., 2023).

Social Support as a Predictor of Satisfaction

Social support also emerged as a significant predictor of satisfaction, echoing findings from neighborhood and community studies that link social networks and place attachment to well-being and satisfaction (Ahmad et al., 2022). This study expands on this by focusing on social support in the context of urban facility use, highlighting the role of supportive interactions with staff, other users, and the broader community in enhancing user experience. These findings align with socio-ecological frameworks suggesting that social environments and physical settings jointly influence satisfaction and quality of life (Ahmad et al., 2022; Zhang, 2024). The

presence of social support may foster a sense of belonging and safety, which are critical to users' positive evaluations of urban spaces.

Interaction Between Accessibility and Social Support

The exploratory analysis did not find evidence that social support moderates the relationship between perceived accessibility and satisfaction. This suggests that while both factors independently contribute to satisfaction, social support does not significantly amplify or diminish the impact of perceived accessibility. This finding contrasts with some theoretical models proposing synergistic effects between environmental and social factors on well-being (Ahmad et al., 2022), and indicates that these predictors might operate additively rather than interactively in the context of urban facility satisfaction. Future research might explore potential moderation effects in different facility types or population subgroups to clarify these dynamics.

Implications for Urban Planning and Policy

The study's findings have practical implications for urban planning and facility management. First, enhancing users' perceptions of accessibility should go beyond improving physical infrastructure to include factors such as safety, wayfinding, and inclusive design features that make facilities easier and more comfortable to use (Ghahramani et al., 2021). Second, fostering social support networks around urban facilities can be achieved by encouraging community activities, staff training focused on user engagement, and creating environments that facilitate social interaction (Ahmad et al., 2022; Zhang, 2024). Together, these approaches can improve user satisfaction, potentially increasing facility use and contributing to overall urban well-being.

Limitations and Future Research

While the study provides valuable insights, several limitations must be acknowledged. The cross-sectional design precludes causal inferences; longitudinal or experimental studies would better elucidate the directionality of the observed relationships. The use of convenience sampling may limit generalizability, and future research should employ probabilistic sampling across diverse urban contexts. Additionally, the study aggregated multiple facility types, which may mask facility-specific dynamics. Subsequent studies could investigate whether the strength of these relationships varies by facility type, user demographics, or cultural contexts (Agrifood Science, 2024).

Conclusion

In conclusion, this study highlights the critical roles of perceived accessibility and social support in shaping user satisfaction with urban facilities. Both factors independently predict satisfaction, affirming the importance of addressing both physical and social dimensions in urban planning and facility management. Addressing these elements can enhance the quality of urban life by promoting more accessible, inclusive, and socially supportive urban environments.

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