Assessing Female's Experiences and Perceptions of Public Open Spaces in Pokhara Metropolitan City, Nepal

Ramjee Prasad Pokharel

Prithvi Narayan Campus, Tribhuban University, Pokhara, Nepal. Corresponding email: ramjeepp@gmail.com

Received: 19 November, 2024; Accepted: 18 January, 2024; Published: March, 2025

Abstract

Public open spaces (POS) play a pivotal role in urban environments, offering a many of benefits ranging from recreational to ecological. These spaces are not only essential for the public but also hold particular significance for female users. This study investigates and analyses the experience and perceptions of female users groups toward public open spaces (POS) in a metropolitan area. It explores how users who may experience varying levels of satisfaction perceive the aesthetics of POS. Public open spaces are vital urban sites, and this study aims to identify the perceptions of female POS users within these spaces. Factors such as age, caste, occupation, and level of education in determining the levels of satisfaction are taken into consideration. Attractions that are naturally appealing, culturally significant, psychologically safe, and visually decorative have been considered as parameters for measuring the perceptions of POS. The study concludes with insights drawn from the experiences of female users regarding the current condition of public open spaces in the city. It reveals a strong connection between the POS and its female users. However, the current management of these spaces is inadequate. To better meet the user expectations, it is essential for concerned stakeholders to focus on improving management practices and developing the necessary infrastructure in the POS of Pokhara Metropolitan City.

Keywords: experience, female, visitors, perception, public open space, Pokhara

Introduction

Public open spaces (POS) can, of course, be defined physically by their legal ownership and boundaries, but the perception of who owns a space is also important (Woolley, 2003, p. 3). Regarding POS, Efroymson *et al.* (2009) define it as a place where anyone

can enter or leave without any restriction. POS must provide at least three basic elements: a variety of activities, interest, and accessibility to different groups of people without discrimination (Mahadevia & Lathia, 2019). According to the Project of Open Space (2000), valuable attributes of open space such as comfort, image, access and linkage, usage and activities, and sociability are crucial. Users' perceptions can be changed into an active or passive activity by the situation of the space. A green environment in public open spaces is one of the indicators of healthy cities (WHO, 2012). In addition to promoting physical and psychological well-being, POS contribute to have social representation and interactions among different groups, including gender, age, and caste (Soltanian & Mohamnadi, 2015).

POS are an integral part of the city, initially shaping the urban form and subsequently influencing the people who interact with them (Perovic & Folic, 2012). Lemberg (2010) describes perception as a cognitive process involving the detection and interpretation of sensory information from the surrounding environment. Similarly, Kashyap (2018) views perception as a process by which individuals organize and interpret their sensory impressions to give meaning to their environment. Urban people identified both physical and psychological benefits on the use of public space (Chitrakar, 2016). Addis, *et al.* (2011) described perception as the process of arranging, recognizing, and interpreting sensory information, which helps represent and understand the environment. Secular open spaces are created and organized by the individual behavior of citizens (Sharma, 2016).Citizens derive equal and distinct benefits from both natural and modernly designed spaces (Ozguner & Kendle, 2006).

Different types of public open spaces reflect the social life and interactions of citizens (Okolo & Okolie, 2010), and help create individual perceptions of visitors after visiting POS. For analyzing perception through preference as a method to better understand human-environment interactions (Kaplan, 1985).Interactions in open spaces provide users with creative benefits (Omar, *et al.*, 2015). Ziesel (2006) describes public open spaces as often used by people living in surrounding areas as well as those from a distance. Consequently, the effective design and management of POS are critical in fostering inclusivity and enhancing the quality of urban life. However, the volume of visitors' flow and their socio-demographic characteristics vary with the location and typology of POS. The importance of POS, as well as their use and management, largely depends on how visitors perceive these areas (Giri *et al.*, 2008).

Studies demonstrate that when POS are designed to cater to women's specific needs, there are marked improvements in social cohesion and community well-being (Wesely & Gaarder, 2004).. Unlike men, whose mobility and engagement with public spaces are

often less restricted, women's participation is significantly influenced by perceptions of safety, accessibility, and amenities (Ghel, 2010).

Urban parks or others open spaces are a necessity for urbanities who prefer a more natural environment for recreation and relaxation (Verdu-Vazquezm et al., 2021). Tourism and rapid urban development are transforming the landscape, the design and management of POS can play a crucial role in ensuring that these areas are welcoming and safe for all users, particularly women (Chaudhary et al., 2019). The literature emphasizes the importance of inclusive urban planning that accommodates the needs of diverse population groups, including women. Women's perceptions of safety, accessibility, and amenities in public spaces can differ significantly from those of men, often due to broader social and cultural factors (Loukaitou-Sideris, 2006). According to Halkos and Argyropoulou (2021), ensuring a safe and secure environment is essential for enhancing the entertainment experience. Similarly, POS has accessible, adequate area and suitable location are essential characteristics of public space (Bahriny & Bell, 2020; Cortinovis & Geneletti, 2019). POS in urban areas are vital because they foster socialization, offer play areas for children, provide venues for leisure activities such as yoga and physical health, and act as democratic sites, attracting both male and female users for various purposes.

Female's relationship with POS is multidimensional, involving physical, social, and emotional aspects. While these spaces can offer women opportunities for leisure, socialization, and physical activity, they are also sites where gendered vulnerabilities, such as harassment and cultural restrictions, may be experienced. This dual nature of POS underscores the need for gender-sensitive urban planning to ensure these spaces are safe, accessible, and inclusive for women.

Research indicates that women prioritize specific attributes in POS, such as cleanliness, adequate lighting, and security, reflecting their unique concerns and priorities (Bertram & Rehdanz, 2015). By tailoring these spaces to meet women's preferences, urban planners can encourage their active participation and enhance their quality of life.

Although, POS are intended for universal use, women often encounter distinct challenges that differentiate their experiences from those of men. These challenges include restricted mobility, safety concerns, and limited access due to societal roles and expectations. Women's perceptions and experiences provide critical insights into these barriers and can guide the development of more inclusive and equitable public spaces. Male perspectives, do not fully account for the unique vulnerabilities and requirements that women face in POS. Thus, prioritizing women's voices allows researchers and planners to identify and address gaps in current designs and policies that disproportionately affect female users. Existing research on public open spaces often takes a generalized approach, treating users as a homogenous group and overlooking the specific experiences and perceptions of women.

In Pokhara Metropolitan City, Nepal, the rapid step of urbanization and tourism has further underscored the need for inclusive public open spaces (POS) that accommodate diverse population groups. Women's interactions with POS in Pokhara highlight broader issues of gender equity and urban inclusivity, often revealing critical shortcomings in design, accessibility, and safety. This study addresses a significant gap in the literature by focusing on the gendered dimensions of POS usage. By examining women's experiences and perceptions, it seeks to provide insights that can guide urban planning practices toward greater inclusivity and equity. These findings are vital for enhancing the design and functionality of POS in Pokhara Metropolitan city and contributing to wider discussions on gender-sensitive urban development. Ultimately, this research emphasizes the importance of recommendations for local government, urban planners, and community organizations to ensure that public spaces are thoughtfully designed to meet the diverse needs of all users, with a particular focus on women's unique requirements. Such efforts will foster environments that support the well-being and participation of all citizens.

Materials and Methods

Study Area

Pokhara metropolitan city (PMC), which is growing very fast, was selected for the study. Pokhara is a naturally blessed city nestled in the mid-hill valley of Nepal at the foot of Mount Fishtail and Mount Annapurna. Every corner of PMC offers natural viewpoints for rapturous glimpses of the mountain scenery, complemented by the pleasant climatic conditions prevalent in the city. It is located in the Gandaki Province and Kaski District. It extends from 28° 04' 46" to 28° 20' 28" north latitude and from 83° 47' 55" to 84° 07' 43" east longitude. The elevation ranges from 505 m (Kotre) to 1990 m (Armala northern side) and 2470 m (Panchase hill western side) above sea level. The metropolitan area spans 33.8 km from north to south and 22.9 km from east to west. The total area of PMC is 464.24 km², which constitutes 23.05 percent of the area of Kaski district and 0.31 percent of the country (Figure 1). This metropolitan area has 101,669 households and a population of 250,999 males and 267,453 females.

Figure 1

Location Map of a) Nepal b) Kaski District c) Pokhara Metropolitan City and Study Area



It is naturally beautiful and delightful, culturally adorned and graceful. Due to several factors, the population of Pokhara is increasing rapidly, which increases the demand for recreational spaces for the various well-being needs of urban residents. In PMC, there are eight distinct typologies of public open spaces, each offering a unique environmental character (Pokharel &; Khanal, 2018). These typologies of POS create varied experiences to different user groups.

Study Framework

This study framework (Figure 2) assesses women's experiences in public open spaces by analyzing the impact of specific facilities and individual characteristics on their perceptions and satisfaction levels. It emphasizes the role of key demographic factors such as age, caste, occupation, and education—in shaping women's interactions with and views of these spaces.

Figure 2



Female Users POS and Satisfaction Analysis Process

Source: Adapted from Cafuta (2015) and modified by researcher.

At the core of this framework is the evaluation of essential facilities—such as accessibility, natural and cultural attractions, sanitation, environmental quality, and parking—which together influence the comfort and usability of public open spaces. The questionnaire is structured into five sections, with each construct containing similar questions to ensure internal consistency of responses (Likert, 1932).

Research Design

This study is based on both qualitative and quantitative approaches. Data were collected from both primary and secondary sources. In this respect, the primary data were collected through field surveys of female users, while secondary spatial and attribute data were obtained from topographic sheets, cadastral maps, Google Earth images, and related published documents. For the preparation of digital maps, topographic maps prepared in 1998 at a scale of 1:25,000 were digitized to acquire the required vector data, and Landsat Google Earth images (Landsat/Copernicus dated 08/01/2021) were used.

The questionnaire design is based on the 'Likert scale', ranging from 1 to 5, from 'highly disagree' to 'highly agree', and includes a rating of 1 for 'no satisfaction' to gauge user perceptions of various attributes of public open space. Likert elaborated on the use of quantifiable scales for investigating information about non-mathematical statements such as experiences and attitudinal research, including users' perceptions and their satisfaction. To analyze the information, respondent characteristics, dependent parameters, and the Likert scale are followed (Figure 2).

Sample Survey and its Size

Given the diverse characteristics of POS patches, this study employed a multi-stage sampling method to ensure accurate and representative analysis. There are 275 POS patches in the PMC area and these patches categorized under eight different typologies, each offering a unique environmental experience (Pokhrel & Khanal, 2018). From these, seven patches with the highest visitor numbers were purposively selected for analysis. These selected patches include Basundhara Park, Bhadrakali Temple, KI Sing (Seti Gorge) Park, Mahendra Cave, Phewa Lake, Pokhara Stadium, and Sarangkot View Point. These sites were chosen based on their distinctive characteristics to examine female perceptions regarding accessibility, natural and cultural attractions, sanitation, environment, and parking facilities in POS. Additionally, a random sampling technique was used to conduct interviews with female visitors engaging in various activities at the selected sites. Visitor experiences at these seven patches were analyzed using five key parameters: accessibility, natural and cultural attractions, sanitation, environmental quality, and parking.

Questionnaire Survey

Structured questions were prepared for interviews with visitors to obtain personal input from females of different ages, castes, occupations, and educational backgrounds. The interviews were conducted only within the public open spaces to gain more insight into the users' perceptions of these areas. Interviewees were selected during daytime visits to ensure representation across different age groups, castes, education level and occupation. Visitors were typically chosen at intervals of every fifth person; however, if the selected individual belonged to the same group as the previous interviewee, the interval was adjusted based on the selection criteria (Table 1).

Table 1

Sample Patches	Total Female visitors	Sample female Visitors
Basundhara Park	110	16
BhadrakaliTemple	130	20
KI Sing (Seti gorge) Park	60	9
Mahendra Cave	120	18
Phewa Lake	150	22
Pokhara Stadium	40	6
Sarankot View Point	95	14
Total	705	105

Sample Respondents as POS Users

Table 1 illustrated the number of interviews conducted with sample respondents across the selected patches. The number of respondents from each of the seven patches ranged from a minimum of six to a maximum of twenty-two visitors. In total, 105 respondents were interviewed to gather information on their experiences, providing the data for analysis. The interviews were conducted one day each patches, on the month October 2024.

Data Analysis

To measure user satisfaction based on users' experiences after visiting the POS, the Chi-Square test for independence was used. The Chi-Square test measures the association between two categorical variables and has been utilized to test whether the explanatory variables exhibit a significant and predictable association with the response variables. The mathematical form of the Chi-Square test can be written as follows;

Chi square =
$$x^2 = \sum \frac{(O-E)^2}{E}$$
 (i)

Where O_i = Observed frequencies and E= Expected frequencies

Results and Discussion

Demographic characteristics of female as a POS user, who are females, vary in age, caste, occupation, and education level, which creates different experiences toward the POS. Due to these demographic characteristics, they experience the POS differently. The patterns of age, caste, occupation, education level, and psychological perceptions or attitudes of respondents were analyzed based on their observations of objects within a POS. Figure 3.

Figure 3

Demographical Characteristics of Female POS User



Source: Field Study, 2023.

Figure 3 shows that there are different categories of female users. Among them 58.3 percent are 21 to 40 age group, 59.3 percent are married. The visitors reported that they are involved in different occupations like jobholders, business, agriculture, but some are especially student and some are unemployed but the large number i.e 22 percent female are engaged on house work. Road accessibility is a crucial factor in the utilization of public open spaces (POS). Visitors use various modes of transportation to travel from their residences to the POS. The data shows that 49.5 percent of respondents reported arriving at different POS by public transportation, 29.5 percent came on foot, 12.4 percent traveled by motorcycle, and 8.6 percent used their private cars. Similarly, 58 percent visitors come into POS with friend whereas 34 percent come with family and only eight percent visit the POS as a single. Public open spaces support outdoor activities, so the available facilities and prominent features of the social space also influence the activities of the visitors. However, the duration of stay of visitors varies. Regarding the time duration and visit frequency in public open spaces, 43 percent of visitors reported spending more than one hour in POS, while 34 percent spend around two hours, and 23 percent spend only half an hour in open Spaces.

Public Open Space Patches and Visitor's Experiences

The experiences of female visitors in public open spaces can vary widely based on factors such as location, natural and cultural context, available provisions, of the spaces. Females visit these sites for various purposes such as physical exercise, psychological refreshment, leisure time utilization, religious, meet the friend, morning walk, picnic, meeting friends, and children's play, game, special event etc (Figure 4).

Figure 4



Purpose of Visit POS

Figure 5

Frequency of Respondent by Level of Satisfaction in the Availability of Service Facilities a) Accessibility, b) Natural Beauty and Cultural Attraction, c) Sanitation, d) Surrounding Environment, e) Parking f) Overall Satisfaction Level of Existing Provisions



Figure 4 highlights the varying motivations of visitors for utilizing POS, with a strong emphasis on the aesthetic and recreational benefits provided by these spaces. Therefore,

they visit different types of POS such as parks, playgrounds, religious sites, water surfaces, viewpoints, caves, river strips with different purposes. According to Lefebvre (1991), POS is an urban space shaped by its use. But the visitors' determine the natural settings and infrastructure development in POS or users' basic needs, technical feasibility, economic viability of the metropolitan city, and social acceptability. The users' experiences depend on the state of infrastructure development, such as gardening, footpaths, benches, restrooms, drinking water, lighting, children's play areas, and safety. However, the sources of users' experiences regarding accessibility, natural attraction and cultural heritage, environmental conditions, and parking facilities in POS differ (Figure 5).

Figure 5 reveals different levels of experiences form by available provisions in POS. Among these sites, natural settings are comparatively highly rated, while accessibility, cultural heritage, surrounding environment, and parking facilities are experienced with lower levels of satisfaction. In developed countries, the POS focus on required physical construction through an integrated system of landscape and infrastructure development practices aimed at creating sophisticated sites. Without the development of infrastructure, the attractiveness and popularity of any space cannot be increased. However, in developing countries, cities' POS often have the least developed infrastructure. Therefore, POS users perceive different experiences in various patches in PMC.

Table 2

Sample POS						
Public Open Space	No satisfactory	Less satisfactory	Acceptable	Fairly satisfactory	Very satisfactory	Total
Basundhara Park	0	5 (33.3)	7 (46.7)	3 (20)	0	15 (100)
Bhadrakali Temple	0	1 (6.7)	10 (66.7)	4 (26.7)	0	15 (100)
KI Sing (Seti gorge) Park	0	0	10 (66.7)	5 (33.3)	0	15 (100)
Mahendra Cave	0	1 (6.7)	6 (40)	8 (53.3)	0	15 (100)
Phewa Lake	0	2 (13.3)	11 (73.43)	2 (13.3)	0	15 (100)
Pokhara Stadium	0	2 (13.3)	7 (46.7)	6 (40)	0	15 (100)
Sarankot View Point	2 (13.3)	3 (20)	9 (60)	0	1(6.7)	15 (100)
Total	2 (1.9)	14 (13.3)	60 (57.1)	28 (26.7)	1(1)	105 (100)

Satisfaction of Respondent by Different Level of Infrastructure Development in the Sample POS

Note: Figure in parenthesis shows percentage.

Table 2 shows that among these POS users, only one percent of visitors reported being highly satisfied inside the POS, whereas 26.7 percent are satisfied and 57.1 percent find the available infrastructure in the patches acceptable. However, 15.2 percent of visitors

reported being not satisfied with the current infrastructure. Although religious sites have constructed basic infrastructure compared to other sites, more than half of the POS sites have yet to undergo construction and management. The social, mental, emotional, and therapeutic benefits of urban gardens must be properly recognized and valued (Popoola *et al.*, 2016). Nonetheless, these spaces contribute to the enhancement of urban beauty and make the city full of entertainment. POS are an essential part of urban land use. Therefore, their development condition is guided by urban prosperity.

Determinants of the Level of Satisfaction

People's perceptions of POS vary based on the inherent features of the place or the users' mental expectations. The users' perception of the patches may differ due to the existing environment of the public open space and the views it offers. If the levels of natural attraction, cultural prosperity, decoration of the place, environment, and parking facilities in POS vary, this situation creates different perspectives toward the POS. The level of perception of users is analyzed based on five parameters. Using the mean values of the rating scale, '3' is considered the midpoint. Thus, values above '3' can be considered satisfactory for POS in terms of perception after visiting the site. The demographic characteristics and level of satisfaction inside the POS are analyzed to identify how the public's association with POS varies. By considering and addressing these determinants, urban planners and designers can create public open spaces that are not only aesthetically pleasing but also functional, safe, and inclusive, leading to higher levels of satisfaction among users.

Age Groups and Level of Satisfaction

Different age groups of visitors access the patches, and consequently, their perception differ according to age. The age phase helps to acknowledge the sense of users' information that contributes to a realistic analysis of users' performance toward the patches. Table 3 displays the visitors' age groups and their perception of the visited patches.

Table 3

Perceptions	Age groups					
	Below 20 N=13	21-40 N=70	41-60 N=19	Above 61 N=3	-	
No Satisfactory	0.0	2.9	10.5	0.0	3.8	
Less Satisfactory	23.1	5.7	10.5	0.0	8.6	
Acceptable	23.1	25.7	36.8	33.3	27.6	
Fairly Satisfactory	53.8	48.6	26.3	66.7	45.7	
Strongly Satisfactory	0.0	17.1	15.8	0.0	14.3	
Total Percent	100.0	100.0	100.0	100.0	100.0	

The Percentage of Age Groups and Their Perception

Table 3 shows perceptions of service experiences across different age groups in POS. Fairly satisfactory ratings are the most common, especially among those above 61 years (66.7%) and below 20 years (53.8%), indicating higher satisfaction in these age groups. Strongly satisfactory ratings are highest among individuals aged 21–40 years (17.1%) and 41–60 (15.8%), reflecting a generally positive experience in these groups. Dissatisfaction ("no satisfactory" and "less satisfactory") is most prominent in the 41–60 age group (21%), suggesting this group experienced more issues. The acceptable category sees a steady representation across all age groups, with the highest percentage in the 41–60 age group (36.8%). Overall, satisfaction levels are relatively high, with younger (below 20) and older (above 61) age groups showing the most favorable perceptions, while the middle-aged groups show slightly lower satisfaction, indicating potential areas for service improvement.

Additionally, the Chi-Square test was conducted to examine the association between age and the level of satisfaction. The analysis revealed that there is a strong association between age and satisfaction level (Chi-Square = 55.44 df= 12 and p<0.001). Cramer's V test also indicated that age has a 15 percent influence on satisfaction statistically.

Caste/ Ethnicity and Level of Satisfaction

People from diverse caste groups visit the sites, and their satisfaction of these sites vary, resulting in different feelings within the patches. The caste-wise satisfaction towards the POS is shown in Table 4.

Table 4

Perceptions	Caste	Total			
	Brahmin chhetri	Janajati	Scheduled	Foreigner	· Total
	N=60	N=26	N=13	N=6	
No Satisfactory	1.7	3.8	15.4	0.0	3.8
Less Satisfactory	5.0	11.5	23.1	0.0	8.6
Acceptable	28.3	23.1	38.5	16.7	27.6
Fairly Satisfactory	50.0	46.2	7.7	83.3	45.7
Very Satisfactory	15.0	15.4	15.4	0.0	14.3
Total Percent	100.0	100.0	100.0	100.0	100.0

Caste/ Ethnicity and Level of Perception

Table 4 revels the satisfaction of users from different caste/ethnic groups regarding their experiences at the POS. Among the groups, Scheduled caste visitors reported the

highest dissatisfaction, with 15.4 percent rating the service as "no satisfactory" and 23.1 percent as "less satisfactory." This suggests a need for targeted improvements to address their concerns and enhance their experience. Equally, foreigners overwhelmingly rated the service as "fairly satisfactory" 83.3 percent, but none rated it as "very satisfactory," indicating a generally positive experience with patches for further enhancement to achieve higher satisfaction levels. Similarly, the Brahmin Chhetri group demonstrated a balanced distribution, with 65 percent finding the service either "fairly satisfactory" or "very satisfactory," suggesting a reliable level of satisfaction. The Janajati group showed moderate satisfaction, with 46.2 percent rating the service as "fairly satisfactory" and 23.1 percent as "acceptable," but they also displayed notable percentages in lower satisfaction tiers. Overall, the data suggests disparities in satisfaction levels among the groups, emphasizing the need for targeted improvements, particularly for Scheduled caste visitors, while maintaining and enhancing the service quality for other groups to ensure a mostly positive experience.

A Chi-square test was run to observe any association between ethnicity and visitors' perception. The test reveals that there is an association between ethnicity and the perception of (Chi-Square= 19.09 with 12 df at p<.10).

Occupational Situation and Level of Satisfaction

POS is frequented by people from various occupations, including job holders, businessmen, students, agricultural workers, and the unemployed. Occupation has a direct influence on income levels, which in turn affects their satisfaction of the POS, as illustrated in Table 4.

Table 5

	Occupations						- Total
Perceptions	Employed	Business	Agriculture	Student	Unemployed	Others	Total
	N=23	N=13	N =5	N=42	N=17	N=5	
No Satisfactory	0.0	0.0	20.0	4.8	5.9	0.0	3.8
Less Satisfactory	13.0	0.0	0.0	9.5	5.9	20.0	8.6
Acceptable	26.1	23.1	20.0	26.2	41.2	20.0	27.6
Fairly Satisfactory	52.2	46.2	60.0	50.0	23.5	40.0	45.7
Very Satisfactory	8.7	30.8	0.0	9.5	23.5	20.0	14.3
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The Percentage of Occupation Status and Their Satisfaction

The table 5 presents satisfaction level from available provisions at the POS across different occupational groups. Fairly satisfactory is the dominant perception among most groups, particularly among those in agriculture 60 percent and the employed 52.2 percent, indicating general satisfaction. Very satisfactory ratings are highest among business professionals 30.8 percent and unemployed individuals 23.5 percent, suggesting these groups had the most positive experiences. Dissatisfaction levels (no satisfactory and less satisfactory) are low overall but are notable in students 14.3 percent and others 20 percent, reported areas for improvement in these categories. The acceptable category consistently holds moderate ratings across all groups. Similarly, 41.2 percent reported acceptable among unemployed individuals. The data indicates a generally positive perception across all occupations, with some groups, such as students and others, requiring focused efforts to enhance satisfaction levels further.

An association was examined using a Chi-Square test. The results reveal that there is a statistically significant association between occupation and level of satisfaction (Chi-Square = 35.55, df = 20 and p<0.05 with Cramer's V .107 with p<0.05).

Education and Level of Satisfaction

Extensive knowledge is believed to contribute to a broader view of the space. Therefore, POS users with different levels of education expressed their satisfaction differently. Table 6 reflects the satisfaction of respondents with varying education levels.

Table 6

Perceptions	Education level				
	Literate N=13	High School N=60	Higher education N=32	Total	
No Satisfactory	15.4	3.3	0.0	3.8	
Less Satisfactory	30.8	6.7	3.1	8.6	
Acceptable	15.4	35.0	18.8	27.6	
Fairly Satisfactory	38.5	40.0	59.4	45.7	
Very Satisfactory	0.0	15.0	18.8	14.3	
Total Percent	100.0	100.0	100.0	100.0	

The Percentage of Educational Level and Satisfaction

The table 6 shows the satisfaction level of users based on their education levels. Individuals with higher education reported the highest satisfaction, with 59.4 percent rating the service as fairly satisfactory and 18.8 percent as very satisfactory which is indicating a generally positive experience. In difference, literate individuals showed the

highest levels of dissatisfaction, with 15.4 percent rating the service as nosatisfactory and 30.8 percent as less satisfactory, suggesting a need for improvements of POS. Visitors with a high school education displayed moderate satisfaction, with 40 percent rating the service as fairly satisfactory and 15 percent as very satisfactory. Overall, satisfaction tends to increase with higher levels of education, indicating that individuals that are more educated have a better perception of the service provided.

Chi-Square tests were also conducted to examine the association between the level of education and satisfaction. The test revealed that there is a strong, statistically significant association between the level of perception and education level (Chi-Square = 35.75, df =8 and p < 0.01). Furthermore, Cramer's V indicates approximately a 15 percent variation in the level of satisfaction (p < 0.01).

Implication from the research

Due to the lack of proper development of POS in PMC, the female users' experiences and their associations vary between strong and weak. However, the perception is illustrated based on dependent and independent variables. Among the parameters, natural attraction provides high satisfaction, but the remaining parameters seem comparatively underdeveloped. Therefore, considering the management situations and visitors' experiences, stakeholders should be concerned about further management of POS. The existing management situation of POS and visitors' experiences are interrelated because well-managed sites attract more users, while less developed POS are less frequently used.

Conclusion

Pokhara Metropolitan City is known as one of the most naturally beautiful cities in the world. POS are indispensable to the city's beauty; they provide physical and mental well-being benefits to urbanites and tourists and offer shelter during and after disasters. Public open spaces in urban areas are essential as they contribute to socialization, provide areas for children to play, offer spaces for leisure activities like yoga and physical health, and serve as democratic sites. As the city becomes more urbanized each day, its internal morphology also needs to incorporate the development of the internal aspects of POS, as this helps to enhance the attractions of urban land use and provides enjoyable opportunities for urban citizens, promoting quality of life. Therefore, this study has analyzed users' perceptions regarding the association between POS patches and female user groups. The results show variations based on the differences among the POS users. Well-managed patches provide a high level of positive perceptions, while patches with poor or no management faced negative perceptions from the users. Likewise, POS provides several opportunities for socialization, developing intimacy,

fostering goodwill, and enhancing the beauty of the city. Visitors' perceptions could provide strong feedback for management to improve conditions and make the public open spaces of Pokhara Metropolitan City more user-friendly in the future.

References

- Addis, D. R., Roberts, R. P., & Schacter, D. L. (2011). Age-related neural changes in 666 autobiographical remembering and imagining. *Neuropsychology*, 49(13), 3656-3669.
- Bahriny, F., & Bell, S. (2020). Patterns of urban park use and their relationship to factors of quality: A case study of Tehran, Iran. *Sustainability*, *12*(4), 1560.
- Bertram, C. & Rehdanz, K. (2015). The role of urban green space for human well-being, Ecological Economics, *Elsevier*, *120*(C), 139-152.
- Cafuta, M. R. (2015). Open space evaluation methodology and three dimensional evaluation model as a base for sustainable development tracking. Sustainability ISSN 2071-1050. www.mdpi.com/journal/ sustainability
- Chaudhary, S., Khanal, R., & Thapa, R. J. (2019). Urban open spaces and urban growth: A case study of Pokhara Metropolitan City. Urban Forestry & Urban Greening, 44126411.
- Chitrakar, R. M. (2016). Meaning of public space and sense of community: The case of new neighborhoods in Kathmandu valley. Archnet*IJAR*, *10*(1), 213-227.
- Cortinovis, C., & Geneletti, D. (2019). A framework to explore the effects of urban planning decisions on regulating ecosystem services in cities. *Ecosystem Services*, *38*. https://doi.org/10.1016/j.ecoser.2019.100946
- Efroymson, D., Thanha, T. T. K., & Ha, P. T. (2009). Public Spaces: How they humanize cities. Dhaka: HealthBridge-WBB Trust.
- Ghel, J. (2010). City for people Washington. Cevolo London: Island Press.
- Giri, P., Shrestha, K., Prajuli, B. K., & Suvedi, M. (2008). Citizen perception of green space park in Pokhara, Nepal. *Himalayan Journal of Sociology and Anthropology*, 3, 34-45.
- Halkos, G., & Argyropoulou, G. (2021). Modeling energy and air pollution health damaging: A two-stage DEA approach. *Air Quality, Atmosphere & Health, 14*, 1221-1231.
- Kaplan, R. (1985). The analysis of perception via preference: A strategy for studying how the environment is experienced. *Landscape Planning*, *12*, 161-176.

110

- Kashyap, D. (2018). Perception: Meaning, definition, Nature and importance. http://www.yourarticlelibrary.com/organization/perception/perceptionmeaning-definition-nature-and-importance/63796. Accessed: 10.11.2024.
- Lefebvre, H., (1991). The production of space. Oxford: Blackwell Publishers.
- Lemberg, D. (2010). Environmental perception. Thousand Oaks, CA: Sage.
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 22(140), 1-55.
- Loukaitou-Sideris, A. (2006). Is it safe to walk? 1 neighborhood safety and security considerations and their effects on walking. *Journal of Planning Literature*, 20(3), 219-232.
- Mahadevia, D., & Lathia, S. (2019). Women's safety and public spaces: Lessons from the Sabarmati Riverfront, India. *Urban Planning*, 4(2), 154–168. https://doi.org/10.17645/up.v4i2.2049
- Okolo, N. & Okolie, A. O. (2010). Revitalizing urban public spaces in Nigeria through vegetation enclaves. *Journal of Environmental Management and Safety, 1*(1), 124-130.
- Omar, D. B., Ibrahim, F. I. B., & Mohamad, N. H. B. (2015). Human interaction in open spaces. Social and Behavioral Sciences, 201, 352-359.
- Ozguner, H., & Kendle, A. (2006). Public attitudes towards naturalistic versus design landscapes in the city of Sheffield (UK). *Landscape and Urban Planning*, *74*, 139-157.
- Perovic, S., & Folic, N. K. (2012). Visual perception of public open spaces in Niksic. Social and Behavioral Sciences, 68, 921 – 933.
- Pokharel, R. P.& Khanal, N. R. (2018). Open space: Typology and distribution in Pokhara Lekhnath Metropolitan City. *The Geographical Journal of Nepal*, 11, 25-44.
- Popoola, A. A., Medayese, S. O., Olaniyan, O. M., Onyemenam, P., & Adeleye, B. M. (2016). Users' perception of urban parks and green networks in Ibadan Singaporean. *Journal of Business Economics, and Management Studies, 4*(10), 16-30.
- Sharma, B. (2016). Morphology of Open Space: Study of roles of traditional open space in safeguarding urban environment of Kathmandu, (Unpublished doctoral dissertation). Kathmandu: Central Department of Geogra+6phy, T. U., Nepal.

- Soltanian, F. & Mohammadi, A. (2015). Study of characteristics of urban public open spaces based on social interaction (Case study: Salavatabad's 3-kilometer route). European Online Journal of Natural and Social Sciences, 4(3), 553-564.
- Verdú-Vázquez, A., Fernández-Pablos, E., Lozano-Diez, R. V., & López-Zaldívar, Ó. (2021). Green space networks as natural infrastructures in PERI-URBAN areas. Urban Ecosystems, 24, 187-204
- Wesely, J. K., & Gaarder, E. (2004). The gendered "nature" of the urban outdoors: Women negotiating fear of violence. *Gender & Society*, 18(5), 645-663.
- WHO, (2012). Health Indicator of sustainable cities: In the context Rio+20 Conference of the UN on sustainable development. https://www.who.int/docs/default-source/ World Health Organization. environment-climate-change-and-health/sustainable-development-indicatorcities.pdf?sfvrsn=c005156b 2. Accessed: 10.11.2024.
- Woolley, H. (2003). Urban open spaces. London: Spon Press
- Ziesel, J. (2006). *Inquiry by design: Environment/behavior/neuroscience in architecture, interiors, landscape, and planning.* W. W. Norton.