

Visitors' Perception and their Experience of Public Open Space of Bhadrakali Premises in Pokhara, Kaski, Nepal

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Abstract

The purpose of this study is to examine the users' perception towards the existing management of public open space (POS) because urban public open space is the significant part of urban landscape. POSs are indispensable as it provides wellbeing, beautify the city and enhance quality of urban life so this case study is related to users' perception about Bhadrakali premises as POS in Pokhara metropolitan city. Exploratory and prediction research design is followed and users' experiences are analyzed on the basis of different groups of visitors inside the study area. It focuses on visitor's perception towards attributes like condition of open space and the situation of infrastructure facilities there. The perception of visitor is scanned through filled up closed questionnaire form to express their perception with eight independent parameters such as accessibility, natural attraction, cultural heritage, safety, sanitation, parking facilities, internal layout and surrounding situation in the study area. The mapping process have been done with the help of ArcGIS. The statistical test revealed that there is a strong statistically significant association between the level of perception with the age, gender, caste, occupation and education status of visitors. The relationship between visitors and existing environment of Bhadrakali site play a significant role to understand visitor's perception which supports in improving places according to their requirement. It is assumed that, positive perceptual indicators refer the popularity and well sophistication of public open space while negative indicators of visitors provide feedback for further space development and proper management of public open spaces.

Keywords: Accessibility, Bhadrakali, facilities, Perception, Premises, Public open space, Visitors.

Introduction

Perception can be defined as the process of organization, identification, and interpretation of sensory information in order to represent and understand the environment of public open space (POS) patches (Grobman & Shemesh, 2015). Successful public open space should promote psychological comfort and safety (Carr, et al., 1992). Regarding the perception, Day (2000) argues that the ethic of care can in fact have a positive impact on public open space by reducing the fear of crime and enhancing the perception of safety highlights that public open space and human perception is determined by the relation between the open space dimensions and peoples' feeling. (2008). Citizen perception of green space park (Giri et al. (2008), The analysis of perception via preference (Kalpan,1985), perception: meaning, definition, nature and Importance (Kashyap, 2018). Community perception on public open space and quality of life (Nasution & Zahrah, 2014). Visual perception of public open spaces (Perovica & Folic, 2012), a gendered analysis of community perceptions and attitudes towards green spaces (Pillay & Pahlad, 2014). are highlighted regarding the perception toward the open space. Thus, there are several perceptions which are impressions about open space such as safety, aesthetic, source of information, place of entertainment, place of social interaction, joyful place, peaceful environment, economic, political, emotional, religious values and so on.

Public open spaces are essential for urban life. "Public open space is space for politics, religious, commerce, sports, space for peaceful, coexistence and important encounter" (Walzer, 1986; Woolly, 2003). Open spaces are fully used by one person or few individuals while other spaces are shared by more people (Woolly, 2003). Public space is defined as "open publicly accessible place" that enables the popular activities necessary for public building (Carr, et al., 1992). 'Metropolitan Open Space Act' made in London in Britain in 1877 and then in 1906, defined the open space as any land, with no or less than 5% of which is occupied with buildings (Wang & Gao, 2012). These public open spaces are fully accessible to everybody to carry out various activities.

However, the public perception is depended upon public open space patches' characteristics in urban area. As very importantly mentioned, a landscape should please the eye (Ryan, Allen and Rand, 2011). It contributes the quality of urban life in many ways (Burke and Evans, 1999). Different shape and size, location, function guides to create different perception to the users (Dewey, 2005). In cities, public open spaces offer residents a potentially better quality of life. Public open spaces are one of the major elements of urban area and it is essential for the purpose of different public functions, recreational and leisure activities of the urban

dwellers (Khan, 2014). The urbanization process of last four decades has brought changes in social and ecological features of Pokhara town including its public properties mainly open space, community orchards and water ponds (Adhikari, 2004).

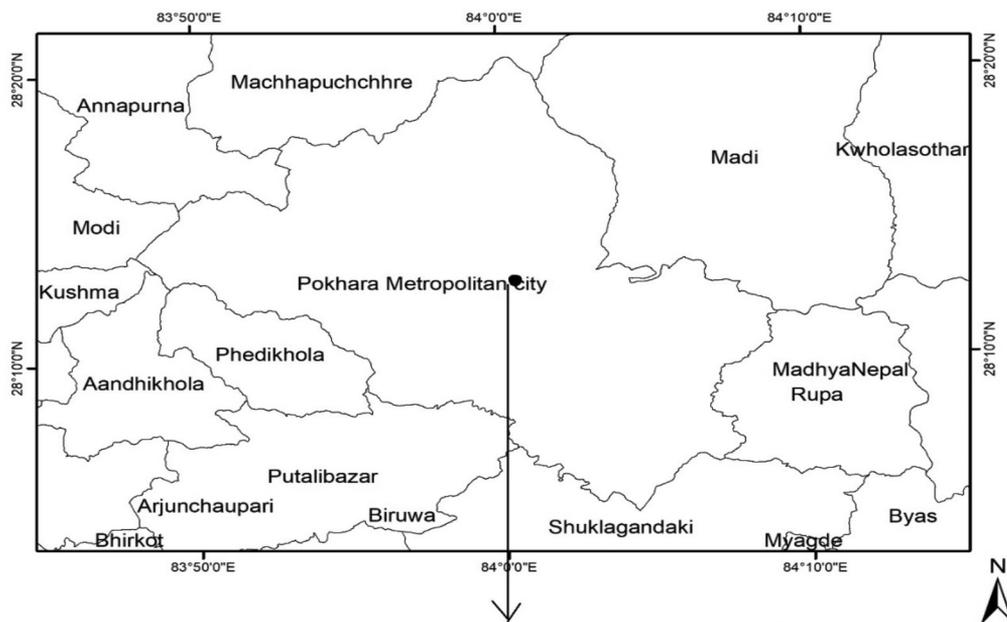
Location, shape, size accessibility, nature of surface, river corridor, dense forest, barren land and cave has its own impression among visitors based on their individual perception. Perception is a psychological power. Several other events like physical factors, socio-cultural situation, religious perception, political scenario, social interaction play significant role to create various perception to each individual. Most of the study focuses on empirical researches on perception relation with price and typology of public open space but not user perceptions toward the existing facilities. As this area lack in detail study, this study is focused on visitor's perception, existing use of public open space and management situation of Bhadrakali premises in Pokhara metropolitan city (PMC). This study tries to understand perception of visitors towards the present situation of Bhadrakali premises. Being a social as well as multi-useful site, it provides interaction with people, exchange each other's idea, and place for public awareness, recreational, religious activities. So, this study is focused to identify user's perception and management situation of public open space in Bhadrakali premises of Pokhara metropolitan city, Nepal. It discusses on the component, user attraction in Bhadrakali as a public open space.

Data and Methods

Among public sites, Bhadrakali is a place which holds religious importance and can be used for both environmental and entertainment purpose as well. This place has potential for several purposes. Presence of isolated hillocks in the middle ground of Pokhara valley has given eye-catching scenario to the city. *Bindhabasini, Banpale, Arghau Dhik, Bhandar Dhik, Bhadrakali* are examples of isolated hillocks without having any human settlement. Almost all hillocks located inside Pokhara have same kind of physical foundations. These physical foundations are similar to other small mounds in Pokhara too. This study covers the area of Bhadrakali premises, which is one of the hillocks in Pokhara and has span across 28° 12' 44" north latitude and 84° 00' 25" east longitude. This hillock falls under 12 and 13 number ward of Pokhara Metropolitan city and lies in 856 to 908-meter-high from mean sea level. This area has Bhadrakali and Ganesh temple, pond, playground, and forest covered areas.

Figure 1

Location Map of Study Area (Bhadrakali Premises)



Source: Topographical, 1998; Google map 2015 and field verification, 2019

Currently, they have built proper sports ground, swimming pool, parking and road in this area. (Figure 1). The total area of this place is 6.432 hectares. Total 17,077 people are

living inside ward no 12 & 13 and total 4,14,141 people are living around Pokhara city (CBS, 2011). Bhadrakali area not only belong to religious activities but famous for recreational activities too. User perceptions play vital role for further management and to make popular recreational destination in Pokhara Metropolitan city (PMC). Considering rapid population growth in surrounding area, along with having religious values and greenery environment all around, it is selected as our subject of study.

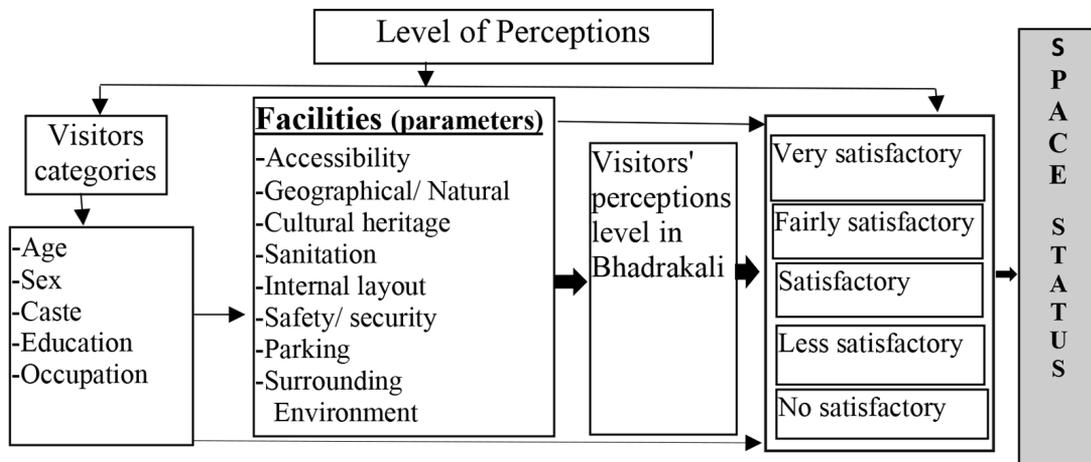
This study is a combination of descriptive and analytical research based on qualitative and quantitative data which were gathered with various procedure from different sources. This research is carried out based on both primary and secondary sources of information with qualitative and quantitative types of data. This study adopts different methods to generate spatial and attribute data with the help of different tools and technology. This study tries to collect visitors' perception, their motivation and need in this study through different methods described below. This study is based on five days' survey in summer season. It focused on visitor's perception towards condition of open space and the situation of infrastructure there. As this was a purposive survey, respondents were selected who fulfilled the criteria of being above twenty years old and education level being SLC passed/above only.

For this research field base data has been collected applying several tools and techniques. The primary data was taken from human participants using survey, interview as well as the structured questionnaires. The questionnaires were checked by taking a sample in the similar areas in PMC after pre testing, some modification was made if necessary. To maintain reliability further test on reliability was computed.

Cafuta (2015) so far reviewed the local situation of the open space and sensed. A conceptual framework was adopted from Cafuta (2015) and slightly modify this study in figure 2. This study is based mainly on following conceptual framework.

Figure 2

Conceptual Framework Visitors' Perception Evaluation



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

Figure 2 reveals the parameters, the interrelationship between the visitor's category and facilities/parameters or variables and how they are interlinked to open space and visitor's perception in Bhadrakali premises.

Field survey and mapping of temple and other physical infrastructure, forest, open space was conducted through Global Positioning System (GPS) on the basis of Toposheet and Google Earth Map. Structured questionnaire and unstructured questionnaire were used to gather required information. ArcGIS 10.3 tools was applied for preparing maps. Necessary information has been collected through field visit to Bhadrakali premises.

Structured questions were asked to the visitors of this place to identify their perception. The researcher has interviewed 105 visitors inside the premises of Bhadrakali. These people were interviewed between 8th to 13th June 2019. Interviews were taken at 7-9 AM, 2-4 PM and 5-6 PM using purposive random sampling method. Among the total 421 visitors only 25 percent from different caste or ethnic groups were asked to fill the closed questionnaire form to express their perception towards this place.

Key Person Interview was conducted to clarify the management issues. Secretary, executive member of *Shree Ganesh and Badrakali Sewa Samittee* and priest were interviewed to collect the details using checklist for the further management.

Data collected through different methods have been analyzed through SPSS software and GIS techniques. And, those data have been interpreted properly. five-point Likert scale is

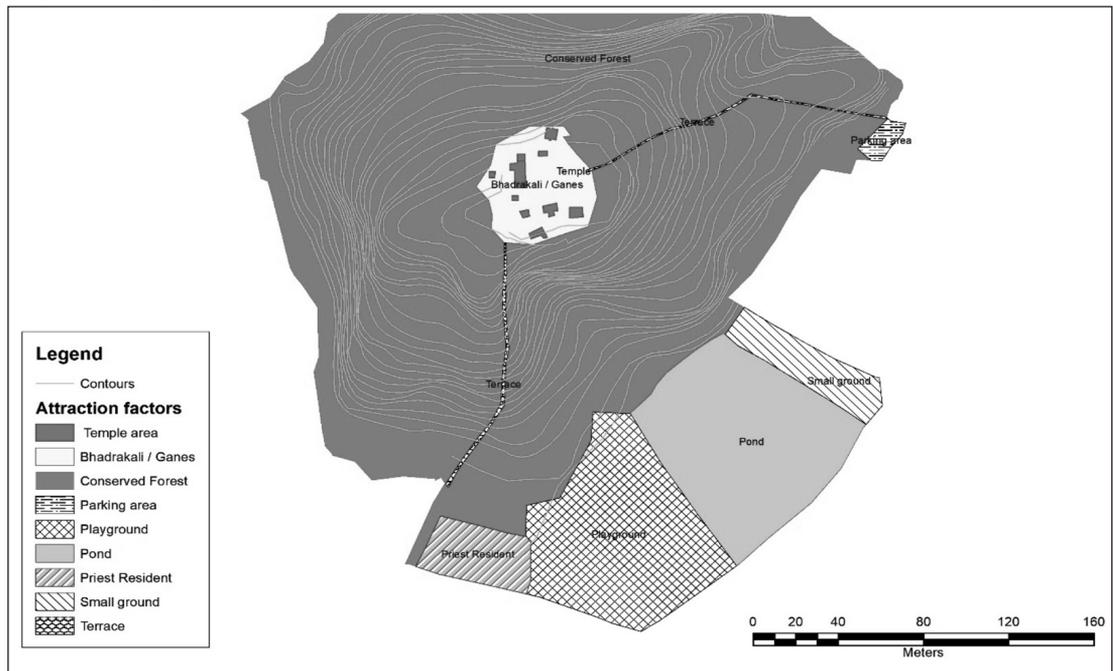
applied and rating from '5' for excellent or strongly satisfied, '4' for better or fairly satisfied '3' for neutral, '2' for unsatisfied (less satisfaction) and '1' for the worst (no satisfaction) site. The level of perception of visitors are analyzed through some factors of POS by using the mean values of the rating scale '3' is considered to be the midpoint.

Result and Discussion

Components of Visitor's Attraction

Figure 3

Map of Components of Visitors' Attraction



Source: Topographical, 1998; Google map 2015 and field verification, 2019.

This hillock has the shape of a cone and lies at the center of human settlement. An open space at the summit has been used for religious purpose. This place holds Bhadrakali temple and several other statues of gods and goddess e.g. Ganesh, Laximinarayan, SuryaNarayan, Hanuman, which are quite popular among Nepali Hindu devotee and have other infrastructures like Yagyamandap, Maulo, Pati etc. This premises covers 6.4324 hectares' total area. Whereas, 67.96 percent area is covered by forest, 13.62 percent is covered by playground, 8.43 percent pond, 4.34 percent is temple area, 2.22 percent green belt, 0.4 percent parking, and 3.03 percent

area covered by others like priest resident, staircase etc (Figure 3). But temple area is generally accompanied by huge flow of visitors for religious view.

Background Characteristics of Respondents

Different group of visitors visit different types of POS with various motive. Visitors survey inside the study area data reveals visitor’s characteristics with different age, sex, caste, marital status, education and occupation. The different groups of visitors coming with various purposes in Bhadarkali from different part of the country using different transportation means. The visitors’ stay duration, repetition and their feelings are presented in table 1.

Table 1

Background Characteristics of Respondents

Visitors/user groups		No Satisfactory N=2	Less Satisfactory N=16	Acceptable N=43	Fairly Satisfactory N=33	Very Satisfactory N=11	Total	
Age	Below 19 N=12	0	16.7	33.3	41.7	8.3	11.4	
	20-9	3	15.2	30.3	33.3	18.2	31.4	
	N=33							
	40-59 N=44	2.3	15.9	50	27.3	4.5	41.9	
Gender	Above 60 N=16	0	12.5	43.8	31.3	12.5	15.2	
	Female N=59	1.7	16.9	42.2	28.8	10.2	52.3	
	Male N=46	2.2	13.0	39.1	34.8	10.9	47.6	
Caste	Brahmin Chhetri N=60	1.7	16.7	43.3	28.3	10	57.1	
	Janajati N=32	3.1	12.5	37.5	37.5	9.4	30.4	
	Scheduled N=13	0	15.4	38.5	30.8	15.4	12.3	
Education	SLC N=21	0	14.3	61.9	23.8	0	20.0	
	Certificated or +2 N=51	3.9	15.7	39.2	31.4	9.8	48.5	
	Bachelor and above N=33	0	15.2	30.3	36.4	18.2	31.4	

Occupation	Employed N=27	0	14.8	37	29.6	18.5	25.7
	Business N=15	0	26.7	33.3	33.3	6.7	14.2
	Agriculture N=8	0	12.5	50	37.5	0	7.6
	Student N=24	0	12.5	33.3	45.8	8.3	22.8
	Unemployed N=14	14.3	14.3	50	7.1	14.3	13.3
	Others N=17	0	11.8	52.9	29.4	5.9	16.1
			1.9	15.2	40.9	31.4	10.4

Table 1 shows that 52.3 percent of the survey attendants are women and 47.6 percent are men.

When ages of visitors are taken into account, it is seen that 11.4 of visitors are 19 years old and below, 31.4 percent between 20-39 years old, 41.9 percent between 40-59 years old, and 15.2 percent above 60 years old. Similarly, the sample data derived from the field study reveals that out of total of 57.14 percent visitors belongs to the Brahmin and Kshetry family whereas 30.48 percent belongs to ethnic groups, 12.38 percent are Dalit. On the basis of the occupation status of visitors, 25.7 percent of visitors are job holders, 14.3 percent are engaged in different businesses, 7.62 percent are from an agricultural background, 22.8 percent are students and 13.33 percent are unemployed persons. While examining the educational background of the visitors of POS, 20.0 percent of visitors have passed SLC, 48.7 percent intermediate or +2 and 31.43 percent have a higher degree with graduate and postgraduate. Therefore, different groups of visitors use this site as a POS in PMC.

Although, data shows that in this study area 71.4 percent urbanities came into the POS as a visitor and remaining from other part of the country. Out of this volume, 36.2 percent of users came on foot, 63.8 percent came by vehicles. Objectives to visit POS are different, among the visitor's 51.4 percent visitors visit the site for religious activities, 30.5 percent come to enjoy the nature, 5.8 percent for spending leisure time, 12.4 percent for sports. The visitor's behavior differs with the duration of time spent in POS. Like, 27.7 percent of visitors spent their time for more than 2 hours. Similarly, 55.2 percent of visitors reported that, they used to come at this premises with friends whereas 21.9 percent of visitors used to come with family and friends and 22.9 percent visit alone.

Level of Satisfaction

The visitor's satisfaction level is measured through their satisfaction perceived after visiting the open space patches. (Coghlan, 2012) Perception is an individual experience and feeling that is created on mind through the visual scene and existing comfort situation of the place.

People's perceptions of open space or social space sites vary on the basis of the inherent features of the place or the visitor's mental expectation. The visitor's perception about the place would be different because of the existing environment of open space and views offered by the space. Visitors who visited social space sites presented either positive or negative perceptions about the place. Visitors develop perception toward space from the inspection of the current existing scenario of the site. So, visitor's perceptions about the public open space has been analyzed on the basis of the outcome that has been attained from the grading out of '5' visitor's attitudes toward the place. Perception is determined by space observation and analysis on the basis of different groups visitors. The Chi-Square test was conducted to examine the association between age and level of satisfaction. The analysis revealed that there is a strong association between age and satisfaction level. (Chi-Square = 55.44 df= 12 and $p < 0.001$).

A Chi-Square test has been performed to assess the association between gender and level of satisfaction. The test showed that there is a strong statistical association between gender and level of satisfaction (Chi-Square =14.48, df =12 and $p < 0.01$). Chi square test was run to observe any association between ethnicity and visitor's perception. The test reveals that there is association between ethnicity and perception of visitors (Chi- Square= 19.09 with 12 df at $p < .01$).

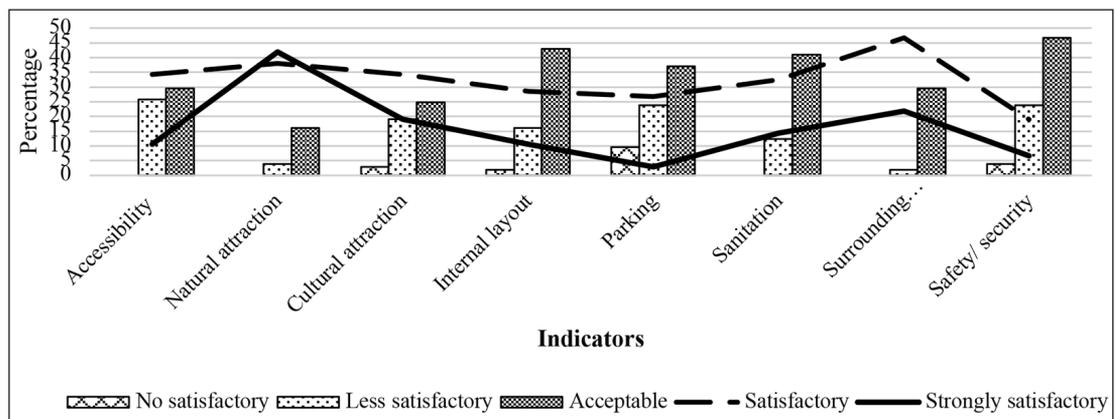
An association was observed using Chi-Square test. The result reveals that there is also a statistically significant association between occupation and level of satisfaction (Chi-Square = 35.55, df = 20 and $p < 0.05$). The test revealed that there is a strong statistically significant association between the level of perception and education level. (Chi-Square = 35.75, df=8 and $p < 0.01$). Therefore, visitors' perception is a strong factor regarding the use and management of the Bhadrakali public open spaces. The perception is found to be significant with age, gender, caste, occupation, education level of the respondents.

The Level of Perception

Perception is an individually developed experience over the existing situation of POS. It is a process to gain knowledge from the public open space by receiving stimuli from the visual image of existing situation through the visitor's senses (Perovica & Folic, 2012). It can be measured through visitor's reason and emotion or motivation. All these feelings are depended on individual perception. Therefore, different groups of visitors respond to the same stimuli in different ways and levels.

Table 2*Visitors' Perception to Stimuli Indicators*

Perception providing Indicators	No satisfactory '1'	Less satisfactory '2'	Acceptable '3'	Satisfactory '4'	Strongly satisfactory '5'
Accessibility	0.0	25.7	29.5	34.3	10.5
Natural attraction	0.0	3.8	16.2	38.1	41.9
Cultural attraction	2.9	19.0	24.8	34.3	19.0
Internal layout	1.9	16.2	42.9	28.6	10.5
Parking	9.5	23.8	37.1	26.7	2.9
Sanitation	0.0	12.4	41.0	32.4	14.3
Surrounding environment	0.0	1.9	29.5	46.7	21.9
Safety/ security	3.8	23.8	46.7	19.0	6.7

Figure 2*Percentage of Visitors' Perception with Stimuli Indicators*

The level of perception of visitors are analyzed through some factors of POS by using a five-point. The value '1' and '2' (27.6 %) is present negative perception of visitors while the mean values of the rating scale '3' (46.3 %) is considered to be the midpoint. Thus, the value above '3' can be considered satisfactory for POS after visiting the site in terms of perception. The grade '4' and '5' (25.7 %) indicates sites being popular and attracting visitors and those

POS patches are also known as successful sites and it contributes to attracting people. The POS can be evaluated with the help of Cafuta (2015) approach. He did a study on open space evaluation methodology and prepared dimensional evaluation model based on sustainable development tracking. So the relationship between visitors and existing environment of POS play a significant role to understand visitor's perception which supports in making better places according to their requirement. Their unsatisfied perception emphasis on making the patches suitable or visitors friendly sites. It may be a better guideline for further suitable plan to develop as a famous site in PMC.

Conclusion

Bhadrakali is regarded as a holy place from religious perspective and beautiful and peaceful from environmental perspective. It has multiple identities like religious place, playing ground for children, place to perform Yoga, etc. This study includes the psychology of visitors of Bhadrakali area and analysis of their opinion upon management of this place. Considering this fact, this study has pointed out some ways to develop this place in the future. This paper has been prepared on the basis of interview with 105 visitors and officials of Bhadrakali management committee. Among the respondent's 46.7 percent of respondents have good feeling, 25.7 percent are satisfactory and strongly satisfied while 23.8 percent are less satisfied and remaining 3.8 percent are dissatisfied within this Bhadrakali premises.

Although, it is suggested that, for making this site one of the unique places of Pokhara metropolitan city, stakeholders of Bhadrakali should take visitors perception as a reference then prepare and follow the master plan immediately because it is the main source of fun, stimulation, refreshment and recurring insight for people in PMC. People have involved in active and passive recreations from the available open space like park, playground, religious sites, water surface, etc. the level of perception depends on people's or visitor's nature of interest. Due to the urban busy life they feel mentally and physically wearisome. Therefore, they are compelled to seek a recreational site for their recovery. People enter open sites for its peacefulness, pleasant environment and direct contact to naturalness. In conclusion, the information of visitors' perception from this study provides valuable information for stakeholder to understand more about visitors' behavior for management of public open space because it has become necessary not only for well-being and quality of life but also for urban beauty.

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