



Visitor characteristics and perceptions of Cadika Park Medan during the COVID-19 pandemic

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ARTICLE INFO

Article history:

Received 31 January 2024

Revised 9 January 2025

Accepted 4 July 2025

Available online 8 July 2025

E-ISSN: 3024-9309

How to cite:

M. M. Harahap, A. G. Ahmad, F. Amnestesia, M. Ulfa, "Visitor characteristics and perceptions of Cadika Park Medan during the COVID-19 pandemic," *Global Forest Journal*, vol. 03, no. 02, July 2025.



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<http://doi.org/10.32734/gfj.v3i02.15570>

ABSTRACT

Cadika Park is a public green space in Medan, North Sumatra, Indonesia. The COVID-19 virus originated in Wuhan, China, in 2019 and spread throughout Indonesia in early 2020. During the pandemic, Cadika Park became a venue where people could engage in their daily activities while enjoying various natural benefits that aid in restoring both physical and psychological health. This study aims to analyze the characteristics and perceptions of visitors regarding the management, services, and facilities of Cadika Park during the COVID-19 pandemic. The number of respondents was determined using the Slovin formula, and a purposive sampling technique was employed to select participants. Data analysis used a descriptive quantitative frequency table to assess visitors' perceptions based on closed questions using the Likert Scale. The results indicated that adult women were the predominant characteristic of visitors to Cadika Park during the pandemic. Most visitors had jobs or were students from outside the Medan Johor sub-district. They typically had an education level between 9 and 18 years and used motorcycles as their primary mode of transportation. Overall, visitors positively perceived the aspects studied, with many returning to the park frequently during the COVID-19 pandemic.

Keyword: Cadika Park Medan, COVID-19, Pandemic, Public Green Space, Visitor Perception

1. Introduction

Cadika Park (*Cabang Pendidikan Kader Pramuka/Scout Cadre Education Branch*) is one of the public green spaces in Medan. Cadika Park is the largest in Medan (25 ha) compared to other public green spaces. This public green space is often used for family recreation, exercise, outdoor learning, providing ecological benefits, and beauty [1]. Like other public green spaces, Cadika Park can provide various environmental services in the form of cool, fresh, and clean air [2], shelter [3], beautiful scenery, absorbing pollutant particles, reduced noise, home to various animals such as birds [4] and providing a microclimate [5]. Therefore, this public green space is crowded with visitors, especially on weekends.

The COVID-19 virus originated in Wuhan Province, China [6], and entered Indonesia in early 2020, resulting in many victims. It requires the government to implement various policies to control the spread of the virus through implementing health protocols. The Health Protocol includes washing hands, wearing masks, keeping distance, avoiding crowds, and limiting mobility. Therefore, people's behavior has changed, such as decreasing mobility, always keeping a distance, wearing masks, washing hands, and looking for cool and beautiful places. In line with that, the pandemic period affects the psychological condition of the community [7], such as fear, anxiety, and excessive worry when they are outside the home or in crowded places.

The pandemic and the implementation of health protocols have impacted the number of visits to Cadika Park. However, some people still visit this location to conduct research activities, learn in nature, and enjoy the fresh

air. This research aims to study, analyze, interpret, and conclude the conditions and circumstances in the field. Based on this, the characteristics and perceptions of visitors to Cadika Park management during the COVID-19 pandemic need to be revealed. The results will be useful as a database for managing public green open spaces in urban areas to mitigate the spread of disease during a pandemic.

2. Research Method

2.1. Research Location

Cadika Park is in Medan, North Sumatra Province, Indonesia (Figure 1). The park is within the administrative area of Kelurahan Pangkalan Masyhur.



Figure 1. Research location (source: field survey and the Agency of Geospatial Information)

2.2. Materials and Methods

The study used a questionnaire to collect information from respondents. Purposive sampling techniques determined the respondents. They are individuals who have ever come to Cadika Park and revisited during the COVID-19 pandemic (December 2021 to February 2022). It was conducted on weekdays, considering how people utilize the park in their daily activities during the COVID-19 pandemic. Determination of the number of respondents using the Slovin formula [8].

$$n = \frac{N}{1 + Ne^2} \quad (1)$$

Information:

n : Number of samples

N : Number of population (192,250 visitors. Source: management of the park)

e : Precision rate 10%

Data was analyzed using Microsoft Excel 2016 software. The Likert Scale (Table 1) was used to measure the respondents' perception using closed questions [9]. These questions allowed them to select important answers [10,23]. The activity was carried out by giving the score a start from 1 to 5 [11] available on the questionnaire [12].

Tabel 1. Scoring criteria of each answer in the questionnaire [13]

Number	Criteria	Score
1	Very agree/Very good/Very often	5
2	Agree/Good/Often	4
3	Neutral	3
4	Disagree/Bad/Seldom	2
5	Very disagree/Very bad/Never	1

The data analysis used in this research is descriptive and quantitative, based on quality scores on a Likert scale. Respondents' perceptions are described using a frequency table [14,15] to explain the condition and characteristics.

3. Results and Discussion

3.1. Respondent Characteristic

There are a hundred respondents in this study based on the Slovin Formula. The respondent characteristics provide a basic description of the respondent's condition and profile. It will affect the answer preference or response to the questions asked in the questionnaire. Reference [16] stated that education, age, and profession determine respondent perception. Several internal and external factors can influence individual perception of an object as well as decision-making, such as interest [17], educational background, age [8], transportation, and distance from the park [18]. The dominant visitors who came to Cadika Park during the COVID-19 pandemic were adults (Table 2).

Table 2. Respondent characteristics of Cadika Park during the COVID-19 pandemic

No	Characteristics	Value	Proportion (%)
1	Maturity	Teenager	25
		Adult	75
2	Address	Medan Johor	28
		Medan Amplas	9
		Deli Tua	7
		Medan Area	6
		Others	50
3	Sex	Male	45
		Female	55
4	Education	Junior High School	22
		Senior High School	45
		Higher Education (Diploma, Undergraduate, and Graduate)	33
5	Job	Corporate Staff	30
		Student	39
		Lecturer	1
		Civil Servant	1
		Others	29
6	Transportation usage	Motorcycle	71
		Car	21
		Public transportation	7
		Pedicab	1

Cadika Park is located in the Medan Johor sub-district. Approximately 72% of respondents came from other sub-districts outside Medan Johor, namely Medan Amplas, Delitua, Medan Area, etc (Table 2). Cadika Park attracted people outside the Medan Johor Sub-district to visit during the pandemic. In contrast, this public green space did not attract the attention of the people of Medan Johor Sub-district during the pandemic. It is because the people of Medan Johor Sub-district have often visited Cadika Park. Thus, they prefer to keep their distance during the pandemic and don't want to visit public places.

The dominant visitors who came to Cadika Park during the pandemic were women (55%). Based on this finding, women are often more interested in visiting Cadika Park than men (Table 2). Reference [19] states that women travel or recreate to bring their children to play and have a holiday. Regarding the education level, the major visitors are senior high school (45%), followed by higher education (33%) and junior high school (26%). Thus, most visitors to this public green space have received an education from 9 to 18 years old. Education level can influence public perception of problems [8]. The higher the education, the better the perception can be gained [16].

Visitors' most dominant employment status is self-employed, 30%, freelance 27%, high school / vocational students, 20% and university students, 19%. The condition is closely related to the pandemic situation that occurred. Self-employed individuals, private employees, and students utilize Cadika Park to carry out work-from-home (WFH) and online lecture activities because it provides cool, comfortable, and fresh air. Additionally, some visitors come for sightseeing.

71% of respondents used motorbikes, while 21% (21% used private cars (Table 2). The others used public transport. The fact illustrates the level of welfare of visitors and the tendency to use private vehicles to reach the location of this public green space. It also indicates that public transport is not yet the prime choice that is effective and efficient in the community. Motorbike transport impacts the cost of travel, being relatively cheap, the time taken is more effective and smoother than using car transport or other public vehicles.

3.2 Visitor Perception of Services, Facilities, and Management in Cadika Park

Respondents gave various assessments of the service aspects of Cadika Park during the COVID-19 pandemic. The aspects are security, comfort, cleanliness, and ticket price. Approximately 45% of respondents gave a good score to the service aspect, very good (27%), and moderate 23%. They like to visit Cadika Park because it can be accessed for free or at no charge with a ticket. It is near Medan and has many trees inside. About 6% of respondents stated that Cadika Park had bad service (Figure 2). Some respondents consider that there is still rubbish scattered in the park. Then the toilets are not clean.

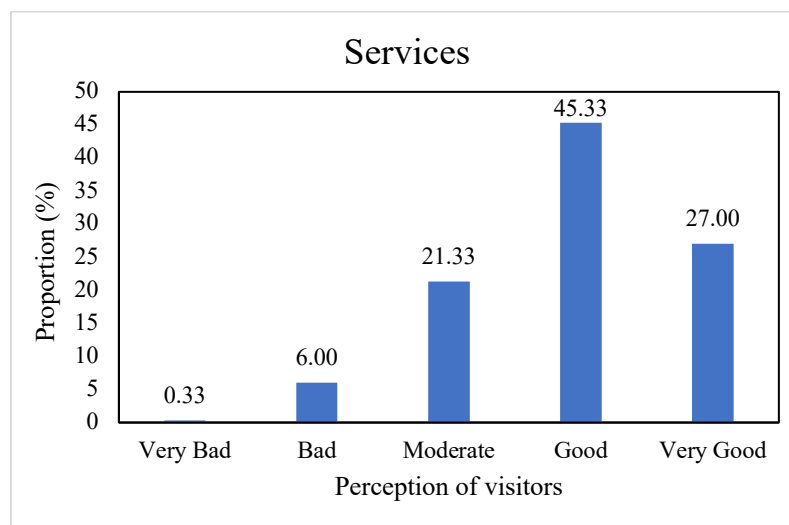


Figure 2. Visitor perceptions of Cadika Park services during the COVID-19 pandemic

The service aspects assessed by visitors are free admission, cleanliness, safety, and comfort (Table 3). These two aspects are important because they influence visitors' choice of green open spaces in urban areas. Most visitors strongly agreed with the free ticket policy provided by the park management (50%). It is a form of service from the Medan City government to the community by providing green open spaces that anyone can enjoy free of charge. The reason is also in line with research [20], which states that visitors are very reluctant to pay for the existence of Cadika Park because it is the government's responsibility. Additionally, there is a concern that the contributions made are not well-targeted.

The safety and comfort of the location are also aspects of service considered by visitors. Around 53% of visitors stated that Cadika Park could provide a sense of comfort [20] and safety when activated. The form of service in the security aspect is the presence of security guards who are ready to be at their posts. With the

security facility, visitors can request first aid during an accident or an unwanted moment while at the location. Visitors are not afraid to exercise, walk, study, and work in this park because the manager requires visitors to keep their distance, wear masks, and wash their hands before entering the area.

Table 3. Visitor perceptions of services in Cadika Park

Services	Visitors' perceptions (%)					Total
	Very Bad	Bad	Moderate	Good	Very Good	
Free (no ticket charge)	0	4	10	36	50	100
Security and comfortability	0	9	20	53	18	100
Cleaness	1	5	34	47	13	100

Cadika Park is a public green space that provides services to the community for tourism, recreation, exercise, and school activities such as camping and scouting. It is also a place for community socialization. As many as 60% of respondents rated the level of cleanliness in Cadika Park as in the good to very good range. Cleanliness is one of the factors visitors consider when enjoying the environmental services of public green space. Reference [11] also includes cleanliness as one of the factors considered in ecotourism.

Around 70% of respondents gave a favorable perception of the supporting facilities at Cadika Park (Figure 3). These facilities include a football field, a basketball court, and a roller skating rink. Observations in the field show that these facilities are still well maintained and maintained so that they can still be used properly. The existence of a place of worship is also a consideration for visitors who come to this location. The prayer room (mushola) is considered quite suitable for Muslim visitors. About 10% of respondents said this worship facility was not in good condition.

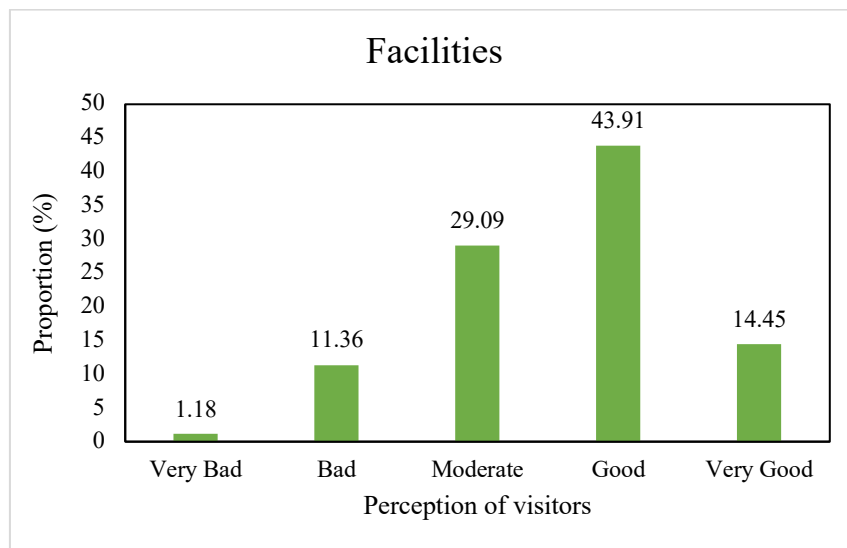


Figure 3. Visitor perceptions of facilities in Cadika Park during the COVID-19 pandemic.

Toilet facilities are considered poor because they are not clean and comfortable for visitors. The quality of dirty toilets certainly affects the health of visitors. Children's playground facilities are considered well-suited for use. A small number of play facilities are damaged. The presence of trees provides visitors with environmental services in the form of fresh air. Thus, it becomes better and more comfortable. Around 43% of respondents also agreed that cleaning facilities such as rubbish bins are sufficient in supporting efforts to maintain cleanliness during the pandemic. However, field observations reveal that some visitors still litter, polluting the Cadika Park area.

Management includes tree and facilities maintenance, health protocol, and activity permits. During the pandemic, school activities such as camping are not allowed. This decision received a positive response from visitors because it reduced crowds, avoiding exposure to the COVID-19 virus. Visitors also appreciate the efforts of management to support preventing the spread of the virus during a pandemic through the implementation of health protocols.

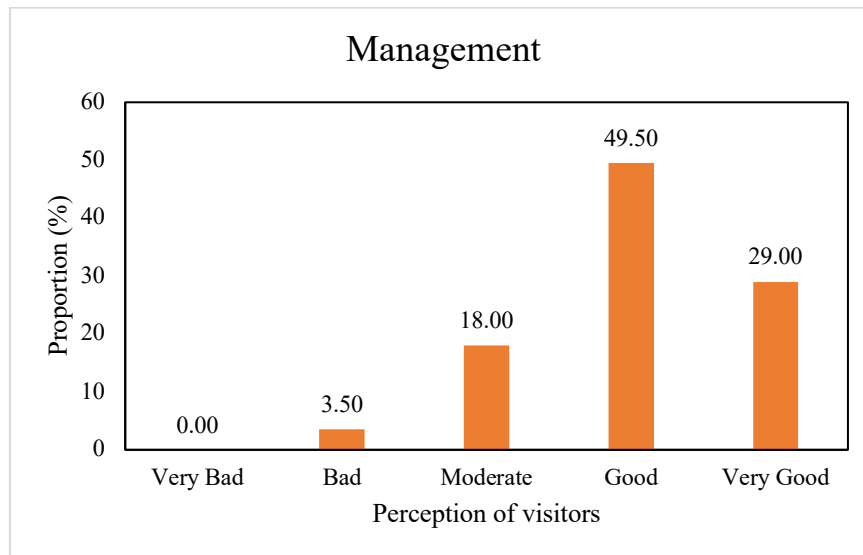


Figure 4. Visitors' perceptions of management in Cadika Park during the COVID-19 pandemic

3.2. The Impact of the COVID-19 Pandemic on the number of visits to Cadika Park

The number of visitors to Cadika Park has decreased significantly during the pandemic. Cadika Park management said visitors reached 336,667 people/year from 2017 to 2019 (before the COVID-19 pandemic). However, in 2020-2021 (COVID-19 pandemic), the number dropped drastically to 192,250 people. This is because people avoid crowds in public places and limit interactions with others. The COVID-19 pandemic situation affects tourism and visitor behavior patterns [7].

The COVID-19 pandemic has caused a downturn in the tourism sector. Tourism demand is changing from urban areas to rural areas [7]. Implementing health protocols to control the spread of the virus directly limits everyone's movement. However, these problems can slowly be overcome as the situation improves and people get used to following health protocols. Although the overall number of visits per year has decreased drastically during the pandemic, some visitors still come to Cadika Park. Public green spaces or urban forests are a means to carry out activities as usual while enjoying environmental services, maintaining social relationships, and reducing psychological stress [21]. Therefore, Cadika Park is one of the most popular public green spaces compared to other public green spaces in Medan city [22].

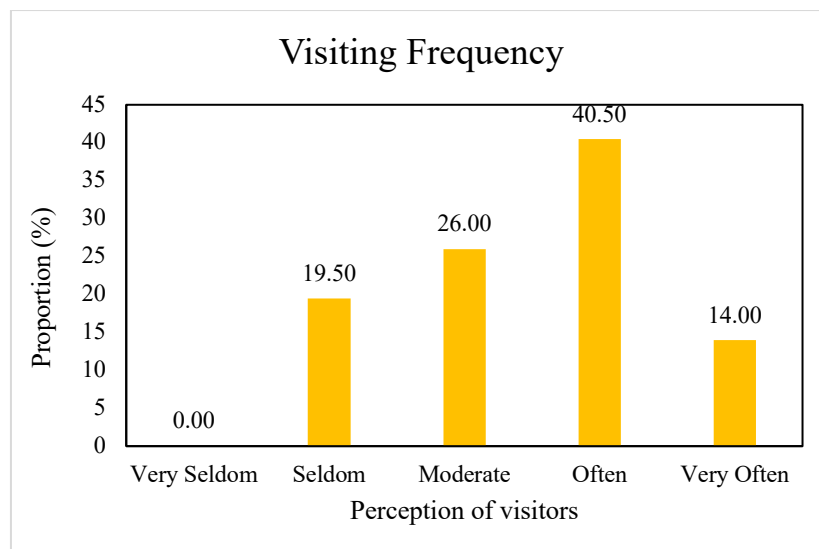


Figure 5. Visiting frequency in Cadika Park during the COVID-19 pandemic

4. Conclusion

The dominant characteristics of visitors in Cadika Park during the COVID-19 pandemic are adult women who come from outside the Medan Johor Sub-district. The visitors are employed or students, have a minimum junior high school education, and use private transportation. The majority of respondents gave a good perception regarding the service aspects, supporting facilities, and management of this public green space. Visitors of Cadika Park during the pandemic are people who come there frequently.

Acknowledgements

The authors would like to thank all those who have helped in the research activity. Thanks to the reviewers who have provided constructive suggestions for improving this paper.

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