

Comparative study scent quality or smells, cleanliness and beauty to RPTRA user satisfaction in Denpasar City

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ABSTRACT

Open space is created to socialize with other humans. One of the existing open spaces, there is a Child-Friendly Integrated Public Space (RPTRA) as one of the programs to create a child-friendly city. The existence of this RPTRA helps the people in Denpasar City in carrying out activities in open spaces such as sports, children's play, education and as a green space because in the RPTRA there is greenery. This RPTRA is located in the center of Denpasar City so it is easy to reach by the community. This research was conducted to compare whether or not there is a difference between the two RPTRAs based on the comfort of the smell or smell, cleanliness and beauty from the user's point of view of each RPTRA, because one of these RPTRAs, namely the Lumintang Traffic Park RPTRA, has a TPS (Temporary Garbage Disposal Site) which is located approximately 100 meters from the RPTRA. With the research method used, namely the quantitative research method by distributing questionnaires to the people who are active in each RPTRA, it is found that the RPTRA Traffic Park has a lower percentage level of comfort compared to RPTRA Janggan Park. This is due to the fact that the temporary garbage dumps are located not far from the Taman Traffic RPTRA with the condition that waste often accumulates, which is the main factor for the discomfort of the people who are active in this RPTRA.

Key words: RTH; RPTRA; convenience; air; public area.

INTRODUCTION

Open space has an important role in a city that functions as a place for interaction, a place for children to play, cools the city, beautifies the city, reduces pollution, and absorbs rainwater. Open space has benefits from all aspects of life (Mashur and Rusli, 2018; La Ode Anhusadar, 2018). These aspects include social, economic, and environmental aspects. Like the concept of sustainable development, urban development is also included in the concept of sustainable development (Rizani et al., 2017). The sustainable development paradigm with these three basic pillars makes development in cities also pay attention to these three aspects.

Environmental problems often occur in Indonesia, especially in the city of Denpasar, which are related to the decreasing presence of green open space due to the development process being carried out without regard to the existence of the environment, because it must always be taken into account, both the positive impacts that need to be increased, or the negative impacts that must always be controlled. (Lee et al., 2021). Issues related to the environment include green open space in general, related to several typical urban challenges, such as the declining quality of the urban environment, one of which is air pollution (Lestari and Prima, 2019). Air has a very important role for human life and other living things. Air is a natural resource that must be protected for the future. Air is one of the most important factors in life. However, along with the times and technology, now the air quality in the environment has decreased. The causes of air pollution usually come from human activities, increasing urban development and industrial centers and so on (Budiyantri, 2018).

Currently there are many arenas or park facilities that provide a playground for children. Especially in urban communities or residential communities. Playing together with other children in the park will certainly have a different value when compared to playing alone at home without the company of many friends, especially children. The stimulation provided by the environment will be more beneficial, especially when it is done outside the home (Vliet and Van., 2019). Because the point

will affect the social aspects and emotional aspects for children. Of course, you won't get this if you just stay at home (Lestari and Prima, 2019; Rizani et al., 2017).

The application of open space is the embodiment of green open space. Open space is one of the constituent elements of urban space needed by the community. As an open space, it is understood as a space that contains natural elements and views caused by a variety of vegetation, activities, and artificial elements that are provided as social and recreational facilities, as well as a source of urban breathing (Budiyantri, 2018).

Denpasar City organizes a Child-Friendly City Program by the Mayor of Denpasar through Denpasar City Regional Regulation Number 7 of 2021 concerning Implementation of Child-Friendly Cities, one of the indicators is that the City of Denpasar invites the community to participate together in fostering and supporting various children's activities and creativity and creating a conducive environment friendly and appropriate for the growth and development of children by providing adequate space for public interaction for children (Kristiawan and Rozalena., 2017).

One type of city park implemented in Denpasar City is RPTRA (Child-Friendly Integrated Public Space). RPTRA is an example of green open space in an urban environment that is most likely to be applied due to limited urban land. According to (Hernowo, E., & Navastara, 2017) Child-Friendly Integrated Public Space (RPTRA) is a public space that has characteristics as a public open park, a vehicle for children's play and development, part of child-friendly city infrastructure and facilities, green open space, and facilities for social activities equipped with various interesting games, CCTV surveillance, library room, lactation room, and others. RPTRA aims to provide a place where various activities and functions of integrated public space occur, such as playing and learning for children, a place for social interaction for residents, a place for consultation and an information and education space for residents (Herllina and Nadiroh., 2018).

The RPTRAs in Denpasar City are Lumintang Traffic Park and Janggan Renon Denpasar Park. These two parks are used by the community as a place for family recreation and as a vehicle for games, for the growth and development of children, as a means of partnership between the local government, schools and the community in fulfilling children's rights and as a means of social activities for residents, including the development of knowledge and skills. However, one of these RPTRAs, namely the Taman Traffic Lumintang RPTRA, has a TPS (Temporary Garbage Disposal Site) which is located approximately 100 meters from the RPTRA which sometimes during certain times such as the rainy season, windy conditions and when garbage piles up, around the RPTRA there is an unpleasant smell that disturbs the smell of RPTRA users and the surrounding community who are active in the Lumintang Field. Therefore, the condition of this RPTRA has not been analyzed in terms of user comfort in terms of aroma or smell, cleanliness and beauty so that researchers are interested in knowing the response of each user who is active in RPTRA as a facility and infrastructure that supports community activities, especially children. children to feel comfortable and safe while playing in the RPTRA.

RESEARCH METHODS

The research method used in this study is a quantitative analytic method with a cross-sectional study design which aims to determine a Comparison Study of Air Comfort Quality, Cleanliness and Beauty on RPTRA User Satisfaction in Denpasar City. The main method is survey because the external climatic conditions are always changing and the site configuration varies (Ochoa and Marincic, 2005). The target population of this study is all people who have used RPTRA, while the reachable population is those who visit the Lumintang Traffic Park and Janggan Renon Park, Denpasar (Lwanga, S. & Lemeshow, 1997).

The research instrument used a questionnaire containing questions about public perceptions regarding comfort factors, namely aroma or odors, cleanliness and beauty. Then the questionnaire will be distributed to visitors who are in the Child-Friendly Integrated Public Space (RPTRA) at Lumintang Traffic Park and Janggan Renon Park as respondents to assess the level of visitor comfort to community satisfaction in the two RPTRAs that are the object of research. The sampling technique used is accidental sampling, which is a method of determining a sample by taking respondents who happen to be available or available somewhere according to the research context

(Notoatmodjo, 2010). Subjects who were interviewed as respondents were subjects who were met directly at the two RPTRAs using the questions provided via the Google form. To make it easier to collect data, the google form link is formed into a Qris so that people can scan Qris to fill out the google form. The variables studied were aroma or odors, cleanliness and beauty of the RPTRA and its influence on RPTRA user satisfaction. The research time was determined, namely in the morning (08.00-10.00), afternoon (12.00-14.00) and afternoon (17.00-19.00). The variables to be tested are the comfort of the air and cleanliness sub-variables.

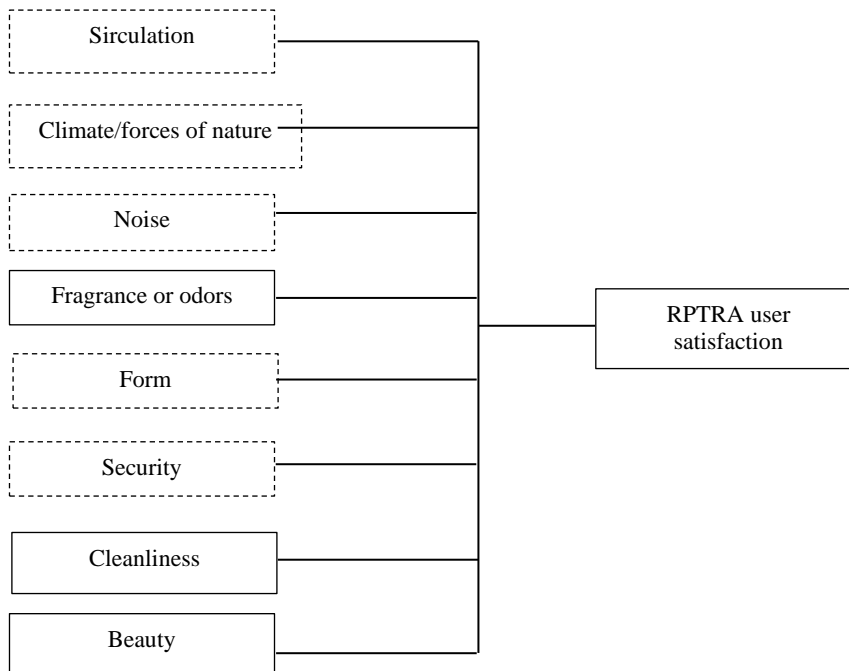


Figure 1. Adapted from Hakim and Utomo (2008) Factors Affecting Comfort

Information:

: Researched

: Not researched

Research sites

This research was conducted at the Lumintang Traffic Park which is on Jalan Mataram No.3, Dauh Puri Kaja, North Denpasar District and Janggan Park which is on Jalan Raya Puputan, Sumerta Kelod Village, East Denpasar District.

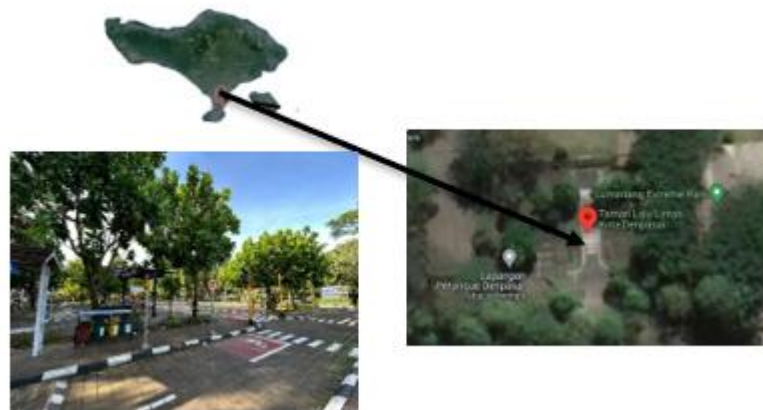


Figure 2. Lumintang Traffic Park

Lumintang Denpasar traffic park, is a miniature traffic or highway. The Lumintang Traffic Park functions as an educational venue for the public regarding safety and order in traffic.



Figure 3. Janggan Park

Janggan Park has a fairly large play area as well as many choices of rides for visiting children, namely: game palaces, climbing areas, slides, swings, hide and slides, and seesaws. The slide rides in Janggan Park are colored with colorful paint so that the playground area can attract children's attention.

Data analysis

Online questionnaires that have been filled in by respondents via Google Forms will be recorded on Google Drive and then downloaded in the form of Microsoft Excel. The data will then be imported into the data processing software. Data were analyzed using univariate and bivariate analysis. Univariate analysis was used to describe the frequency distribution of the perceptions of the public visiting the RPTRA. To compare the perceptions of the public who visited the RPTRA Lumintang Traffic Park and Janggan Renon Park, an independent sample T-test was used on the variables of aroma or smell, cleanliness and beauty (Sugiyono, 2016). After analysis and observation, the literature review stage will be carried out which is a research method for identifying, evaluating and interpreting all relevant research results (questionnaire survey) (Siswanto, 2010).

RESULTS AND DISCUSSION

Based on the results of the questionnaire distribution, there was a total sample of 108 respondents, namely from RPTRA Taman Traffic Lumintang as many as 58 people with a total percentage of women as much as 38.9% and men as much as 61.1% then from RPTRA Janggan Renon Park as many as 50 people with a total the percentage of women is 55.6% and men are 44.4%. Based on the age of the respondents, they were grouped into three groups. At RPTRA Taman Lintas, the age group of 17-25 years was 29.6% of the total respondents, ages 26-35 years were 59.3%, ages 36-45 years were 11.1%. RPTRA Taman Janggan for the age group of 17-25 years was 20.4% of the total respondents, aged 26-35 years was 57.4%, aged 36-45 years was 22.2%. Visitors who came to the two RPTRAs had different educational backgrounds, namely the Taman Traffic RPTRA who came from junior high school education levels as much as 1.9%, high school education as much as 64.8% and tertiary education as much as 33.3%. Then in the Taman Janggan RPTRA, the educational background of SMP was 5.6%, SMA was 51.9% and University was 42.6%.

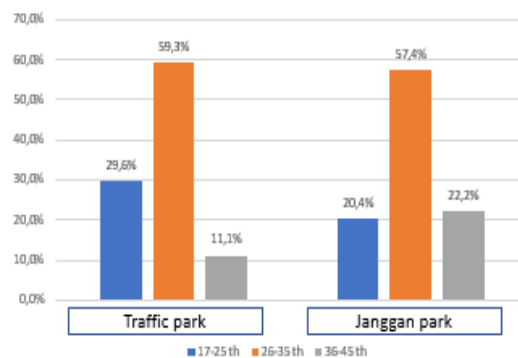


Figure 4. Age of Respondents at RPTRA Traffic Park and Janggan Park

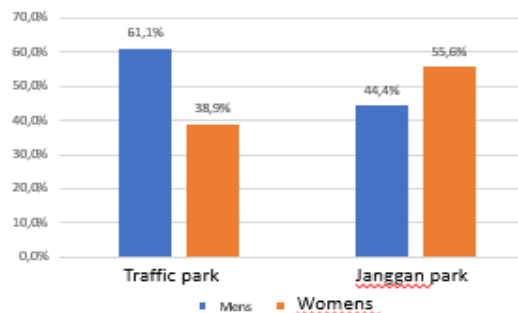


Figure 5. Gender of Respondents at RPTRA Traffic Park and Janggan Park

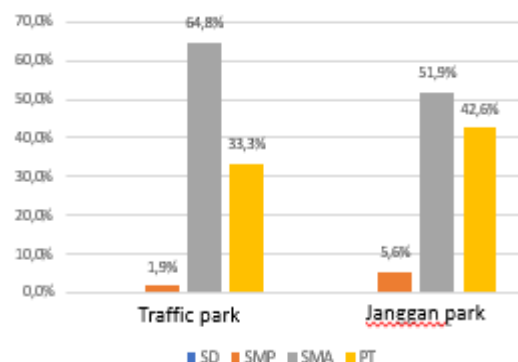


Figure 6. Educational Background of Respondents at RPTRA Traffic Park and Janggan Park

From the conclusions of the questionnaire, it can be stated that the most visitors were men at RPTRA Taman Lintas, namely 61.1% and at RPTRA Janggan Park, which was dominated by women, 55.6%. From these conclusions the researcher wants to know the level of comfort in each RPTRA by using a comparison of the variables of aroma or smell, cleanliness and beauty at the RPTRA Lumintang Traffic Park and Janggan Park:

A. Fragrance/smell

The sub-variable aroma or air comfort with parameters measured from the questionnaires distributed to each RPTRA is the condition of the garden towards the smells coming from landfills (TPS), the condition of the park towards the smells coming from dirty water (gutters) in the park, the condition of the park against the smell of vehicle fumes, and the condition of the park against the smell of hawker vendors outside the park. Based on the results of field observations and questionnaires at the Traffic Park RPTRA, the community chose very unfavorably as much as 27.8% in the condition of the park for the smells coming from the landfill (TPS). to the east of the RPTRA, the condition of the garbage that has piled up and is not well organized and the moci (mini garbage trucks) lining up on the side of the field makes the smell of garbage even more pungent so that it disturbs the comfort of the community when doing activities in the field. Then on the aroma or odors that come from dirty water (gutters) the respondents chose not good as much as 38.9%. Then as much as 44.4% chose not good for the smell or smell of vehicle fumes in the park and as much as 48.1% chose good for the smell or smell of smoke from snack traders outside the park because snack traders are prohibited from selling in the Lumintang Field area but there are not a few who violate to sell so it doesn't really disturb the comfort of RPTRA users.

It is a different matter with RPTRA Taman Janggan, based on the results of questionnaires distributed by the community on aromas or odors coming from landfills (TPS) respondents chose good as much as 46.3% due to the absence of TPS around the location of the park and landfills in the park it is well laid out. Then choose either as much as 42.6% of the aroma or odors that come from dirty water (gutters) in the park. Then as much as 40.7% chose good enough for the smell or smell of vehicle exhaust in the park and as much as 46.3% chose good for the smell or smell of smoke from hawker traders outside the park. In general, the respondents stated that they were comfortable doing activities at RPTRA Taman Janggan because the conditions of the plants or vegetation were shady and shady so that people felt comfortable even during the day, apart from that there were no aromas or smells that bothered the community when doing activities at RPTRA Taman Janggan.

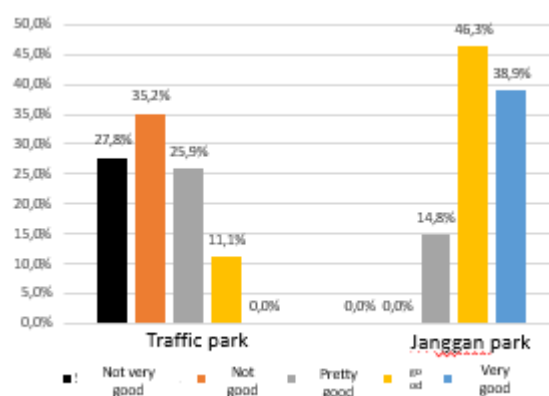


Figure 7. Aromas or smells coming from the landfill (TPS)

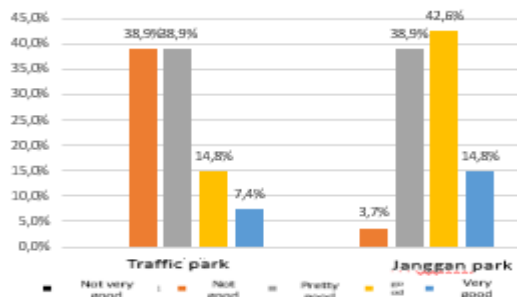


Figure 8. Aroma or odors coming from dirty water (gutters) in the garden

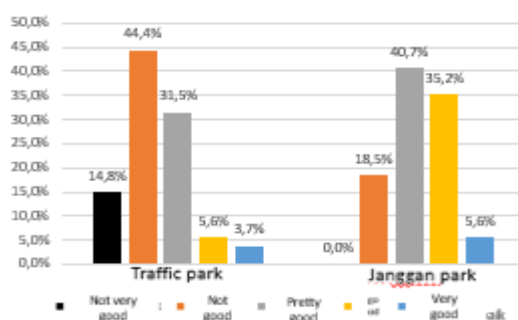


Figure 9. The smell or smell of vehicle exhaust in the park

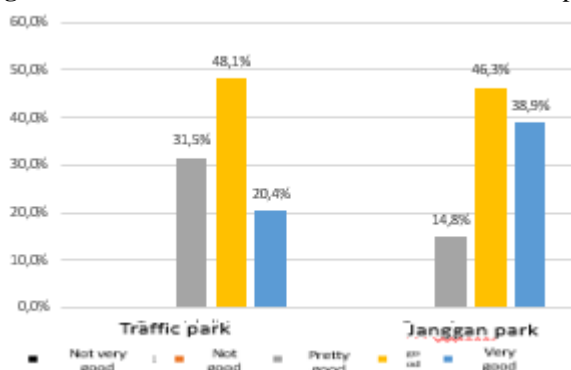


Figure 10. Smell or smell of smoke from hawker traders outside the park



Figure 11. The condition of the mini garbage trucks queuing to dispose of garbage at TPS which is located close to the Traffic Park RPTRA and TPS conditions

B. Cleanliness

The cleanliness sub-variable from convenience to cleanliness is measured from the parameters of the availability of park cleaning facilities (trash cans), the condition of park cleanliness, the condition of dirty water channels (gutters) in the park and the ease of reaching park cleaning facilities. Based on the results of the questionnaire from RPTRA Traffic Park, the community chose quite well, as much as 40.7% of the availability of park cleaning facilities (trash cans). Then as much as 46.3% chose good enough for the cleanliness of the park, 51.9% chose good enough for the condition of dirty water channels (gutters) in the park and as much as 35.2% chose good enough for easy access to park cleanliness facilities. While the results of respondents at Janggan Park RPTRA as much as 55.6% chose good enough for the availability of park cleaning facilities (trash bins), as much as 44.4% chose good for the cleanliness of the park, as much as 55.6% chose good enough for the condition of dirty water channels (gutters) in the park and as many as 37% chose very good for the ease of reaching park cleaning facilities. Overall, for the convenience of cleanliness in both RPTRAs, they are categorized as quite good or comfortable because trash cans with various colors have been provided according to the type of waste (organic and inorganic) and the community complies with disposing of garbage in its place due to the availability of trash bins that are scattered at several points so that easy for people to reach. For the cleanliness of the garden space at RPTRA Taman Traffic and RPTRA Taman Janggan it can be said to be clean because there are janitors who keep the park clean every morning.

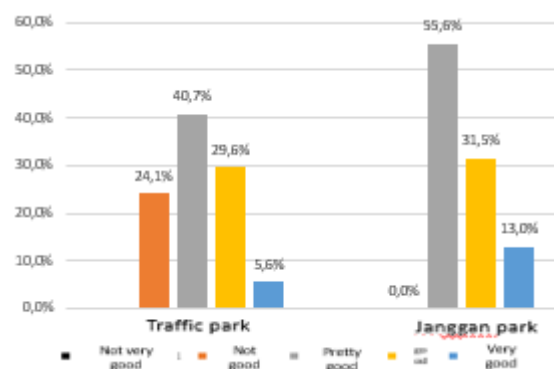


Figure 12. Availability of park cleaning facilities (trash bins)

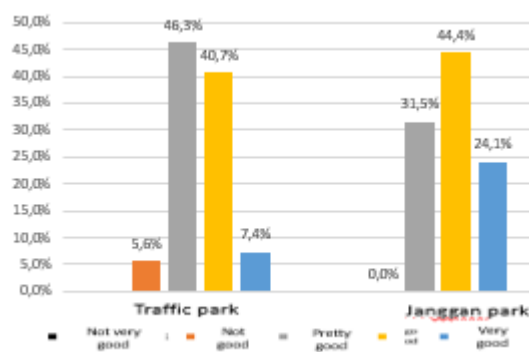


Figure 13. Park cleanliness conditions

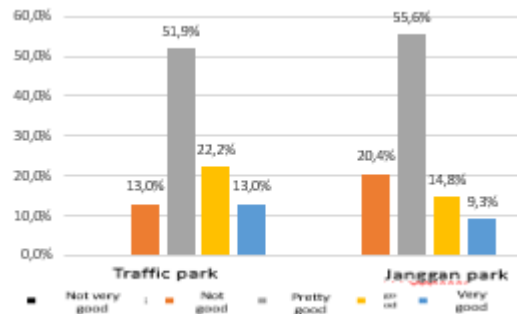


Figure 14. Condition of dirty water channels (gutters) in the park

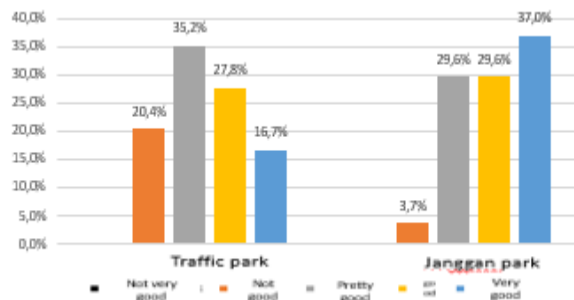


Figure 15. Ease of access to park cleaning facilities



Figure 16. Garbage disposal facilities at the Traffic Park RPTRA



Figure 17. Waste disposal facilities at RPTRA Taman Janggan

C. Beauty

The beauty sub-variable from comfort to beauty is measured from the condition parameters and the availability of lighting (garden lights), the beauty of the existing facilities in the garden area, the beauty of the plants in the garden area and the atmosphere while in the garden area. Based on the results of a questionnaire from the Traffic Park RPTRA for the condition and availability of lighting (garden lights) the community chose quite well as much as 46.3%, as much as 38.9% chose both for the beauty of the existing facilities in the park area, as much as 50% chose both for the beauty of plants in the garden area and as much as 57.4% chose good for the atmosphere while in the garden area. Then at Janggan Park RPTRA for the conditions and availability of lighting (garden lights) the community chose quite good as much as 74.1%, as much as 57.4% chose very good for the beauty of the existing facilities in the park area, as much as 87% chose very good for beauty plants in the garden area and as much as 64.8% chose good for the atmosphere while in the garden area. It can be concluded that for the beauty in the comfort variable in these two RPTRAs they are categorized as good or comfortable because of the

beauty of the colors, shapes, diversity of species, and the beauty of the arrangement of each existing vehicle/facility, the combination of colors in the play area and the beauty of the shapes and motifs of park benches and According to the respondents, the path is quite good besides the condition of the vegetation or plants that are neatly arranged and shady so that it looks visually beautiful.

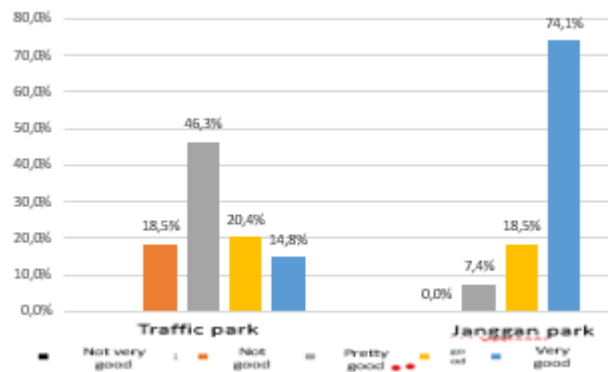


Figure 18. Conditions and availability of lighting (garden lights)

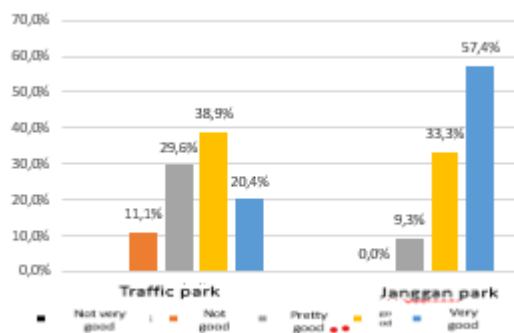


Figure 19. The beauty of plants in the garden area

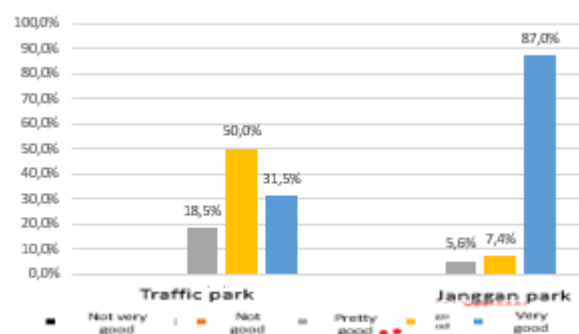


Figure 20. The beauty of plants in the garden area

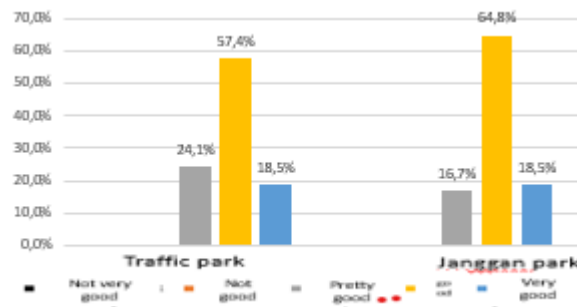


Figure 21. The atmosphere while in the park area



Figure 22. The atmosphere at the Traffic Park RPTRA in the Morning



Figure 23. The atmosphere at Janggan Park RPTRA in the morning

Based on the results of the Independent T test on the average aspects of beauty, cleanliness and aroma/smells in RPTRA Traffic Park and Janggan Park, 4 components were found that had significant differences in mean, namely: condition and availability of lighting (park lights) ($p=0.001$), the beauty of the facilities in the park area ($p=0.018$), the beauty of the plants in the park area ($p=0.006$) and the condition of the park to the smells coming from the landfill (TPS) ($p=0.013$). For more details, see table 1.

Table 1. Average comparison between RPTRA Traffic Park and Janggan Park

No	Variable	Menu		P Value
		Trafficpark	Janggan Park	
Beauty				
1	Lighting conditions and availability (garden lights)	3,31	4,67	0,001*
2	The beauty of the facilities in the park area	3,69	4,48	0,018*
3	The beauty of plants in the garden area	4,13	4,81	0,018*
4	The atmosphere while in the garden area	3,94	4,02	0,317

Cleanliness				
1	Garden cleanliness	3,17	3,57	0,459
2	Availability of garden cleaning facilities	3,50	3,93	0,552
3	Condition of sewage (gutter) in the park	3,35	3,13	0,289
4	Ease of reaching the park cleaning facilities	3,40	4,00	0,226
Fragrance/smell				
1	The condition of the park against the smells coming from the landfill (TPS)	2,20	4,24	0,013*
2	The condition of the park against the smells coming from dirty water (gutters) in the park	2,90	3,69	0,615
3	The condition of the park against the smell of vehicle smoke	2,39	3,28	0,549
4	The condition of the garden against the smell of garden snack smoke	3,89	4,24	0,694

(Author Analysis, 2022)

CONCLUSION

From the results of the research and discussion, it was found that the RPTRA Taman Lintas has a lower percentage of comfort levels compared to the RPTRA Janggan Park. This is due to the fact that the temporary garbage dumps are located not far from the Taman Traffic RPTRA with the condition that waste often accumulates, which is the main factor for the discomfort of the people who are active in this RPTRA. For Janggan Park RPTRA as a whole, visitors' perceptions of smells, cleanliness and beauty show comfortable criteria. The recommendation from this study is to evaluate the placement of TPS located near RPTRA Taman Traffic or by means of air filtration by utilizing tree and shrub vegetation which functions as a pollutant reducer and scented vegetation. Vegetation or trees that are scented and at the same time pollutant reducers are Cempaka and Melati trees (Nurshendi, 2004), these trees besides functioning as pollutant reducers and are also useful as furniture or ornamental plants so that apart from increasing comfort but adding beauty to the RPTRA Traffic Park. Broadly speaking, for these two RPTRAs to maintain their comfort is to improve supervision, maintenance, and cleanliness or add to the existing facilities by the management so that the RPTRA Traffic Park and Janggan Park can function more optimally.

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