



Analysis of the Availability of Public Facilities in Urban Areas and Its Impact on the Quality of Life of the Community Case Study of Medan City

Abdi Sugiarto ^{*1}, Wahyu Indah Sari ^{*2}

¹² Prodi Magister Perencanaan Wilayah dan Kota, Pascasarjana, Universitas Pembangunan Panca Budi Medan
E-mail : abdi_sugiarto@dosen.pancabudi.ac.id wahyuindahsari@dosen.pancabudi.ac.id

Info Articles	Abstract
Article History Received : 2024-08-19 Revised: 2024-08-22 Published: 2024-09-30 Keywords: <i>Public Facilities; Community Quality of Life; Medan City.</i>	This study aims to analyze the availability of public facilities in urban areas, especially Medan City, and its impact on the quality of life of the community. The methodology used includes field surveys and in-depth interviews with 200 respondents who are residents in various sub-districts in Medan. The results of the study indicate that the availability of public facilities, such as parks, health centers, and public transportation, have a significant effect on the quality of life of the community. Respondents who live in areas with good public facilities reported higher levels of life satisfaction compared to those who live in areas with limited facilities. The results of the study are new knowledge that lack of access to public facilities can cause health problems, increased stress, and low social participation. This study concludes that increasing the availability and quality of public facilities in Medan City is very important to improve the quality of life of the community as a whole. So this study can be used as a basis for taking further policies.

I. INTRODUCTION

Medan City is one of the largest cities in Indonesia and is the capital of North Sumatra Province. Located on the island of Sumatra, Medan is known as a center of trade, education, and culture in North Sumatra. The population continues to grow and develop, Medan City has various facilities and infrastructure that support people's lives. Medan City has a diverse culture, consisting of Malay, Batak, Javanese, Indian and Chinese. Culture is strongly reflected in the cuisine, festivals, and traditions in Medan City. Medan City is a strategic area connected to various regions in Sumatra, making it a transportation hub. From an economic aspect, Medan City is one of the cities with rapid growth, supported by the trade, industry and service sectors. The condition of economic growth presents several challenges, especially in terms of providing adequate public facilities to support the quality of life of the community. Consideration of the physical condition of the area is a crucial aspect in the concept of regional development. It is an important note that physical conditions include geography, topography, climate and natural resources in the area (Sugiarto, At.all, 2024).

Based on the situation analysis, the availability of public facilities in Medan City still varies. Some areas, especially newer or developing ones, tend to have more complete facilities, while older areas often lack adequate infrastructure. Health

facilities, such as community health centers and hospitals, are sometimes unevenly distributed, with some areas experiencing difficulty in accessing them. Based on several previous journals, the quality of life of the community is greatly influenced by the availability of public facilities. In areas with adequate facilities, people tend to feel more satisfied and have better health levels. Conversely, the lack of public facilities can cause stress, health problems, and low social participation. Indicators such as the level of satisfaction with the residential environment, accessibility of health services, and opportunities to exercise in green open spaces are important in assessing this impact. The situation analysis shows that the availability of public facilities in Medan City has a significant impact on the quality of life of the community. To improve the quality of life, strategic steps are needed in the planning and development of sustainable public facilities. This includes increasing accessibility, providing equitable facilities, and active community participation in the planning process. Thus, Medan City can become a more livable and prosperous city for all its citizens.

II. RESEARCH METHODS

A. Research Approach

This study uses a quantitative approach with a survey method to analyze the availability of public facilities and their impact on the quality of life of

people in Medan City. This approach allows for the collection of measurable data and in-depth statistical analysis. Quantitative research aims to find relationships and explain the causes of changes in measurable social facts (Sugiarto, et.al, 2024). Medan City was chosen as the research location considering its rapid urban growth and diversity in the availability of public facilities. The research will be conducted in several sub-districts that represent different urban conditions, such as Medan Baru, Medan Selayang, and Medan Maimun.

B. Population and Sample

Population is the entire object that is the focus of research, including various elements such as humans, objects, animals, plants, symptoms, test scores or events as data sources that have certain characteristics in a study (Margono, 2004 in Sugiarto, A, at.all 2024). The population in this study is the community living in the Medan City area. The sample will be taken randomly, which gives all subjects/objects of research the opportunity to be selected as samples that represent the entire research population. with a total of 200 respondents. The selection of respondents will consider various demographics, including age, gender, and education level, to ensure data representativeness.

C. Data collection

Data will be collected through:

1. Questionnaire: The questionnaire will be designed to measure two main variables:
 - Availability of Public Facilities: Questions will cover accessibility of parks, health centers, public transportation, and educational facilities.
 - Quality of Life: Questions will cover levels of satisfaction with living environment, health, and social interactions.
2. Interviews: In-depth interviews with several residents and local stakeholders (such as government officials and facility managers) to gain a more comprehensive perspective on the availability and impact of public facilities.

D. Data analysis

The collected data were analyzed using descriptive statistical techniques to describe the demographic characteristics of respondents and the availability of public facilities. Using the SPSS (Statistical Package for the Social Sciences)

application in research has advantages, especially for quantitative data analysis in accordance with the data in this study. SPSS displays a user-friendly graphical user interface. In addition, multiple linear regression analysis will be conducted to identify the relationship between the availability of public facilities and the quality of life of the community. The results of the analysis will be explained qualitatively to obtain new, deeper knowledge.

E. Validity and Reliability

1. Validity

Validity in this study refers to the extent to which the measurement instrument (questionnaire) can measure what it is supposed to measure—in this case, the availability of public facilities and the quality of life of the community. There are several types of validity that need to be considered:

- Content Validity: This validity ensures that the items in the questionnaire cover all relevant aspects of the variables being measured. In this study, the questionnaire was designed based on a literature review and consultation with experts in the field of regional planning, so that it covers various dimensions of the availability of public facilities and factors that contribute to quality of life.
- Construct Validity: This validity refers to the ability of the instrument to measure the expected theoretical construct. Before the questionnaire is used, a trial is conducted on a group of respondents to ensure that all items function properly and are in accordance with the construct to be measured.
- External Validity: This study also considers the context of Medan City, where the research results are expected to be generalized to other urban areas in Indonesia with similar characteristics.

2. Reliability

Reliability refers to the consistency and stability of the measurement results of the instruments used. In the context of this study, reliability is very important to ensure that the data collected is reliable. Some aspects of reliability that are considered are:

- Internal Consistency: Reliability testing was conducted using the Cronbach's Alpha method to evaluate the internal consistency of the questionnaire. A Cronbach's Alpha value above 0.70 is

considered good and indicates that the items in the questionnaire have high consistency in measuring the same variables.

- **Preliminary Testing:** Before the main data collection, the questionnaire was preliminarily tested on a small group of respondents. The results of this preliminaries were used to refine and modify irrelevant or confusing items.
- **Time Stability:** In this study, measurements were taken simultaneously to avoid bias that may arise from changes in social or environmental conditions that may affect respondents' answers.

III. RESULTS AND DISCUSSION

The results of the study show that the availability of public facilities in Medan City is diverse and has a significant impact on the quality of life of the community. From 200 respondents involved, the following data were collected:

- **Availability of Facilities:**
 - **Parks and Green Open Spaces:** Only 60% of respondents reported good access to parks and green spaces. Many areas lack these facilities, reducing opportunities for recreation and social interaction.
 - **Health Center:** Around 75% of respondents felt that access to health centers was quite good, but there were complaints about the quality of service and long waiting times.
 - **Public transport:** Only 50% of respondents were satisfied with the availability of public transportation. Many complained about the long distance of bus stops and delays in service.
- **Quality of Life:**
 - Respondents living in areas with good public facilities reported higher levels of life satisfaction, with an average score of 7.5 on a scale of 10.
 - In contrast, respondents who live in areas with limited facilities have an average life satisfaction score of 5.2.

Regression analysis shows that there is a significant positive relationship between the availability of public facilities and quality of life, with a p value < 0.05.

The results of this study reveal that the availability of public facilities greatly affects the quality of life of people in Medan City. This is in line with the theory that adequate public facilities can improve people's welfare.

- **The Importance of Green Open Space:** The availability of parks and green spaces contributes to mental and physical health. The inadequacy of these facilities creates negative impacts, especially for communities that rely on public spaces for recreation and social interaction. This study suggests the need for better planning in the development of green spaces in urban areas.
- **Access to Health Services:** Although access to health centers is quite good, the quality of services is still a problem. This shows that increasing the quantity of facilities alone is not enough; the quality of services must be the focus of attention. Developing training for health workers and improving infrastructure can be a solution.
- **Efficient Public Transportation:** The results of the study show that dissatisfaction with public transportation can disrupt community mobility. A more integrated and efficient public transportation development plan is needed to improve accessibility and reduce congestion.

IV. CONCLUSION AND SUGGESTIONS

A. Conclusion

This study aims to analyze the availability of public facilities in the urban area of Medan City and its impact on the quality of life of the community. Based on the results of the analysis conducted, several conclusions can be drawn as follows:

1. **Variation in Availability of Public Facilities:** The availability of public facilities in Medan City shows significant variation. Facilities such as parks, health centers, and public transportation are unevenly distributed, with some areas experiencing a lack of access to these facilities.

2. **Positive Impact on Quality of Life:** There is a strong relationship between the availability of public facilities and people's quality of life. Respondents who live in areas with good public facilities report higher levels of life satisfaction, while those who live in areas with limited facilities tend to be less satisfied.
3. **The Importance of Service Quality:** Although access to some public facilities is quite good, the quality of services available is still a problem. This shows that increasing the quantity of facilities needs to be balanced with attention to the quality of service.
4. **Recommendations for Regional Planning:** This study recommends the need for better and integrated planning in the development of public facilities. Focusing on improving the quality of green open spaces, health services, and public transportation systems is expected to improve the quality of life of the people in Medan City.

Community Involvement: Active participation of the community is required in the planning and development process of public facilities to ensure that the needs and expectations of citizens are met.

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