Inclusivity Strategy: Swot Analysis For Disabled-Friendly Batik Solo Trans (BST) Shelter

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ABSTRACT

Batik Solo Trans (BST) is completed with shelter to increase passenger mobility, but it hasn't able to attract people of Surakarta for using public transportation. BST shelter was obtained that the ramp was steep, narrow space for wheelchair users and there were no loudspeakers. It can be seen that the BST shelter is not disabled-friendly and must be analyzed for continuous improvement to become a disabled-friendly shelter. This study aims to analyze the Strengths, Weaknesses, Opportunities and Threats (SWOT) of disabled-friendly BST shelter. Inclusive BST shelters are a vital component of a public transportation system that supports mobility for all levels of society including people with disabilities. Competitive strategies that can be implemented to make a disabled-friendly BST shelter are grouped into innovation strategies, socialization strategies and development strategies. By implementing these strategies, the designed BST shelter will be sustainable and disabled-friendly. It can be concluded that public transportation with comfortable, safe, affordable and disabled-friendly is a must for all user needs.

KEYWORDS Strategy, Disabled-Friendly, Shelter

INTRODUCTION

Smart city form an ecosystem that gives a change of individual, group and the society behavioral (Kashef, Visvizi, and Troisi 2021). Creating of smart city means create a smart, safe and resilient city of each city aspects (Lacinák 2021). Surakarta city was selected as one of the areas to be used as a pilot project for smart cities. "Solo Destination" application is one of smart city implementations that have been implemented by the Surakarta City Government (Rahmawati and Nugroho 2023). This application is actually a digital map where people can access various places in Surakarta, it means this application has a correlation with public transportation.

Traffic congestion problems that occur in urban areas can increase the risk off accidents (Rahmawati, Supratiwi, and Herawati 2023). Therefore, the Surakarta city government implements Batik Solo Trans (BST) as one of public transportation in

Surakarta that has been operating since 2010 and has 90 city buses until 2023 (Statistik 2024). Batik Solo Trans (BST) supports the mobilization of the people of Surakarta which operates every day from 4.30 a.m. to 8 p.m at a cost of Rp 3.700,- with a cashless payment procedure. This public transportation operates up to 6 corridors. Based on results of previous research, it can be concluded that BST have a good performance as a supporter of educational activity mobility in Surakarta. Reviewed from the condition of the main infrastructure, BST shelter and buses is able to reach 80% of educational facilities spread accros Surakarta city (Nugroho, Rahayu, and Istanabi 2022).

BST is completed with shelter to increase passenger mobility, but it hasn't able to attract people of Surakarta for using public transportation (Diansari, Suhardi, and Susanto 2021). Online taxis are the most popular alternative transportation for students and public (Sitorus et al. 2024). The results of Pranata, Rindarjono, and Ajar (2021) on accessibility indicators for people with disabilities and low-income passenger access shows that BST has fulfill the indicators in socially sustainable transportation. From the observation by researchers that shown in figure 1, many information of BST shelter was obtained that the ramp was steep, narrow space for wheelchair users and there were no loudspeakers. It can be concluded that the BST shelter is not disabled-friendly and must be analyzed for continuous improvement to become a disabled-friendly shelter.

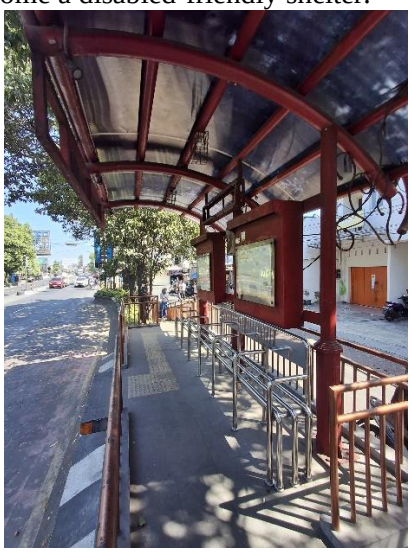

Figure 1. BST Shelter Condition

Analyzing BST Shelter to become disabled-friendly shelter is like analyzing products's quality control so that the products produced meet consumer specifications and company standards (Brillian et al. 2024). Of course, this analysis will apply Industrial Engineering study especially ergonomics. In general definition, ergonomics is the study applied in every time, everywhere, everyone and every condition in social interaction that concerns about the problems among people, tasks and object design that they use (Diansari et al. 2023). Disabled-friendly shelter should be supported within the scope of alternative active employment policies to contribute directly or indirectly to the employability of persons with disabilities (Engellilerin Çalışma Yaşamı Üzerine Kavramsal Bir Değerlendirme 2024).

Previous research by Anisah (2022) on Bus Rapid Transit (BRT) Semarang to determine the strengths, weaknesses, oppurtunities and challenges faced related to BRT Semarang services using SWOT analysis. Another research by Sitohang and Situmorang

(2019) identify bus stops and shelter in Medan not only find factors that influence the use of bus stops but also examine the effectiveness of bus stop in Medan. Putri, Waloejo, and Wicaksono (2023) conducted an importance analysis performance to determine the passengers needs using Quality Function Deployment (QFD) because the very low level of passenger satisfaction, so the performance indicators and BST services really needed to be improved or increased. That's compared to Trans Jogja, only BST's load factor performance doesn't match with the minimum service standards. BST's advantages are large number of buses, shelter, feeder network and the availability of dedicated lane contraflow (Azmi 2024). Another research by Astuti, Alhakim, and Setiawan (2021) on public transportation evaluation concluded that training and education for staffs, bus maintenance and development and provide staff in BST shelter affect passenger satisfaction and their interest to use public transportation. Therefore, the aim of this research is to analyze the needs of all BST users by identifying the strength, weakness, opportunities and threats of BST shelter become a disabled-friendly shelter.

RESEARCH METHOD

The research approach uses qualitative descriptive with a literature study method related to the equality strategy for shelter BST users. The strategy includes minimum policy standards that must be exist to provide special treatment facilities for the disabled. The research was conducted in Surakarta city at the BST shelter. Data collection was carried out using an interview on 50 BST shelter users with a purposive sampling technique using the criteria that users have used at least once in the BST shelter and literature study through the books and journals. The data analysis technique used is narrative and uses SWOT analysis in determining the strategy.

SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis is one of the popular strategy tools. SWOT is an important matching tool that develop in for types of strategies, which consist of the SO strategy (strength-opportunities), the WO strategy (weakness-opportunities), the ST strategy (strengths-threats) and the WT strategy (weakness-threat) strategy (Muhammad Yusuf, Rahma Saiyed, and Josua Sahala 2022). The valuable of SWOT may even enrich the opening strategy movement to date (Puyt et al. 2020). In SWOT analysis, strength is an internal factor that provide an advantage or added value to the organization. The weakness is an internal factor that can harm the organization's performance. The opportunity is an external factor that can be used by the organization to achieve goals or improve performance. The threat is an external factor that can harm the organization's performance. SWOT analysis helps organizations to understand their current position and develop the effective strategies by maximizing strengths and opportunities, and reducing the impact of weaknesses and threats.

RESULT AND DISCUSSION

SWOT analysis not only provides a comprehensive picture of the current situation, but also developing plans that become a bright future for the organization. BST shelter in this case. This method helping to identify the key factors that needs to achieve the goals. Based on the literature and field study, the SWOT analysis can be seen in table 1 below.

Table 1. SWOT Analysis of BST Shelter

Number	Internal and External Factor	Description
1	Strengths	1. Has more complete facilities than other public transportation 2. Relatively safe with the fences surrounding the shelter 3. Located in strategic location 4. The number of BST shelter is adequate 5. Consider the disabled needs by providing ramp and guiding blocks
2	Weakness	1. BST shelters are dirty 2. BST shelters are dark 3. Information boards are not informative 4. Bus access height is not appropriate 5. No space for wheelchair users 6. Shelter width is too narrow 7. Ramp is steep
3	Opportunities	1. Become one of the public transportation favorite 2. People with disabilities can also use it
4	Threats	1. Inconsistency with surrounding infrastructure such as sidewalks and roads 2. Lack of attention to facilities for the disabled needs 3. Lack of maintenance of the BST shelter condition

After knowing the SWOT analysis, the researchers making SWOT strategies. This is the process of integrating the results of SWOT analysis to develop the strategic action plan to maximize strengths and opportunities, while minimizing weakness and threats. This SWOT strategies is divided into four main types that shown in table 2 below.

Table 2. SWOT Strategies of BST Shelter

	Strenghts	Weakness
Opportunities	**S-O Strategies** - Add amenities such as special seat for disabled and audio or visual guidance for users with special needs - Ensure the braille signs and clear directional signs - Launch an education campaign to teach the importance of giving priority to people with disabilities, such as not blocking the ramps or wheelchair areas - Install CCTV at each BST shelter for user safety	**W-O Strategies** - Implement a campaign that highlights the inclusivity and convenience of BST shelter for all users including disabilities - Install an interactive, easy-to-read digital sign that provides real-time information on bus schedules, routes and other important information. These signs should be accessible to people with disabilities with clear and large text and using voice guidance if possible - Ensure an appropriate bus access height - Redesign BST shelter to provide adequate space for wheelchair users
Threats	**S-T Strategies** - Collaborate with local governments to improve and adapt infrastructure around BST shelter such as zebra cross, sidewalks and roads - Create and implement a routine maintenance program for all BST shelter including minor repairs to keep	**W-T Strategies** - Implement a routine cleaning program at each BST shelter - Provide trash bins at the BST shelter and around the area - Socialize to users the important of keeping the cleanliness of the BST shelter

	Strenghts	Weakness
	the BST shelter in good and safe condition - Create an app or digital platform that provides real-time information on BST shelter condition, available facilities and maintenance status. Users can provide direct feedback on BST shelter condition	- Install energy-efficient LED lights to ensure bright and safe BST shelter especially at night - Implement routine maintenance on all facilities at the BST shelter to ensure everything is functioning properly and safe to use especially for the disabled

Every organization ceirtanly has a competitive strategy for responding the competition with similar industries and customer needs. Those are the strategies that can help organizations to identify and manage an internal and external factor needs for redesigning disabled-friendly BST shelter.

CONCLUSION

Based on the results and discussion, it can be concluded that public transportation with comfortable, safe, affordable and disabled-friendly is a must for all user needs. Competitive strategies that can be implemented to make a disabled-friendly BST shelter are grouped into innovation strategies, socialization strategies and development strategies. Innovation strategis, including: 1) Developing information technology to provide real-time information about BST shelter condition in app or digital platform, 2) Install an interactive and easy-to-read digital sign for all users. Socialization strategies, including: 1) Launch and socialize an education campaign with a local influencer to teach and give information for the importance of giving priority to people with disabilities, 2) Implement a campaign that highlights the inclusivity and convenience of BST shelter. Development strategies, including: 1) Collaborate with local government to improve and adapt infrastructure around BST shelter, 2) Create and implement a routine maintenance program for all BST shelter, 3) Add amenities for supporting disabled needs. By implementing these strategies, the designed BST shelter will be sustainable and disabled-friendly.

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