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PERFORMANCE AND FACILITIES EVALUATION AT SURABAYA KOTA TRAIN STATION

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ABSTRACT

Surabaya Kota Station continues to have several facility and service-related issues, thus some improvements must be taken to assess the level of service and station amenities by the Minimum Service Standards mandated by PM 48 of 2015. The purpose of this study, which employs the IPA (Importance Performance Analysis) approach, is to assess and contrast the level of service provided at Surabaya City Station with users' expectations for that level of service. Surabaya Kota Station's facilities have not met the minimum service requirements outlined in PM.48 of 2015, including platforms that are longer than 20 cm, a lack of space for nursing mothers, and a lack of accessible restrooms for the disabled. Customers are also dissatisfied with Surabaya Kota Station's facilities and services, which include the station building's untidy and dirty condition as well as the messy motorbike parking space. However, the station's service is fairly decent. The main contribution of this study is to identify significant gaps between user expectations and the reality of existing facilities, where facilities such as platforms, nursing mother rooms, and disability accessibility toilets require immediate attention. The results show that the cleanliness and management of parking spaces also greatly affect user satisfaction levels, and improvements in these areas are urgently needed to meet the service standards mandated by government regulations.

Keywords: *Importance Performance Analysis; Railway Infrastructure; Train Station Facilities.*

1. Introduction

Railway transportation as a mode of land transportation is a means of transportation that really helps people to move from one place to another. With many comparative advantages that rail transportation possesses, a sufficient level of infrastructure is required, such as a train station that serves as a node of the rail network system [1]. Management of rail transportation in Indonesia, especially Java Island, is divided into nine Operational Areas (DAOP).

The main stations in DAOP VIII consists of Gubeng Station, Wonokromo Station, Surabaya Kota Station, Pasar Turi Station, Sidoarjo Station, Lamongan Station, and Bojonegoro Station. Surabaya Kota train station is located at Jalan Stasiun Kota No.9, Bongkaran, Pabean Cantikan, Surabaya. The train station serves local economy trains for Surabaya-Malang-Blitar, Surabaya-Kediri-Blitar, and also economy commuter trains for Surabaya-Porong, Surabaya-Malang, and Surabaya-Kertosono [2]. The Surabaya Kota train station is a major class station, thus it is constantly crowded with potential passengers, both those purchasing train tickets and those traveling by train

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[3]. The high number of potential passengers at the station will affect the facilities and level of station service provided to potential passengers.

At Surabaya Kota train station, there are still a number of issues, particularly with the area where passengers embark, or the platform. Based on findings of observations, the platform's height and the train's floor differ by more than 20 cm. The height of the platform and the floor of the train cannot differ by more than 20 cm, as per the minimum service standards governed by Minister of Transportation Regulation Number: PM 48 of 2015 [4]. Moreover, there are no accessible restrooms for disabled travelers. The Minimum Service Standards stipulate that passengers with disabilities have access to at least 1 (one) restroom. In response to these issues, some actions must be taken to assess the quality of service and station amenities in compliance with the Minimum Service Standards as prescribed by PM 48 of 2015.

The purpose of this study is to assess and contrast the level of service provided at Surabaya Kota Station in relation to users' expectations for that level of service. It is envisaged that this research will help evaluate the station's level of service and serve as a benchmark for pertinent organizations as they develop policies for assessing the quality of facilities and service at Surabaya Kota Station in the future. The objective is to make Surabaya Kota Station a hub for transportation within Surabaya and to ensure that service users have access to the services and amenities they require while at the station.

Using the Importance-Performance Analysis (IPA) approach, this study identifies the gap between user expectations of station facilities and services and the actual performance provided. The research also looked at important elements that are often overlooked, such as accessibility for people with disabilities, cleanliness of facilities, comfort of waiting areas, and availability of support facilities such as nursing mother rooms, which contribute to user satisfaction. Explicitly, the gaps filled by this research are:

1) Evaluation of the level of gap between user expectations and the real condition of facilities at Surabaya Kota Station, especially in terms of minimum facility standards stipulated in PM 48/2015, which have not been fully met.
2) Analysis of facility improvement needs, such as improving station cleanliness, better parking space arrangement, and providing facilities that are more disability and nursing mother friendly, which often did not receive in-depth attention in previous evaluations.
3) Development of concrete recommendations for improvements that can be directly implemented to improve the quality of station services and facilities, and create a more comfortable environment for transportation users, based on data obtained from the research results.

2. Material and Methods

This research was conducted at Surabaya Kota Station around August 2019 before the covid pandemic. From the results of this study, a similar research can be carried out but with the conditions after the covid pandemic ends.

2.1. Railway Infrastructure

A railway is a cohesive system made up of infrastructure, facilities, human resources, and operational processes for the operation of rail transportation, according to the Regulation of the Minister of Transportation No. PM 48 of 2015. Public services offer the implementation where all service-related operations are carried out in compliance with legal requirements regarding the provision of commodities, administrative services, and services for all citizens. The railway infrastructure includes train stations, railroad lines, and train facilities in order to meet the needs of the public services. Definition of Minimum Service Standards based on PM 48 of 2015 is a minimum service limit that must be met by service providers with benchmarks used as a reference for service delivery and assessment of service quality that is affordable, easy, and fast. Train station service feasibility analysis is carried out for each service indicator based on minimum service standards, including safety, security, reliability, comfort, convenience, and equity.

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2.2. Test of Validity and Reliability

The purpose of a validity test is to determine how accurate an instrument is gathering data, or in other words, whether the tool being used truly collects the anticipated data from the questionnaire [5]. By establishing a link between the total factor values and the factor values (the sum of all the items in a factor), validity is evaluated. The four current quadrants will contain the existing properties, the Importance Performance Matrix will then be used to examine the average ranking of the importance of the company's attributes. This matrix serves a guide in improving performance which can have a significant impact on customer/service user satisfaction. The strategies implemented in the four quadrants will be explained as described in Figure 1. The first quadrant contains aspects that service consumers deem crucial, yet customer satisfaction is still low. To raise the performance of the existing attributes, the attributes in this quadrant must be improved continuously [8]. Service users place a variety of variables in the second quadrant as being crucial, thus it is crucial to maintain the quality of these attributes because the help the product or service appear more valuable to the customer [9]. Because the benefits experienced by service users are very slight or practically nonexistent, the third quadrant is a factor area that is regarded as less essential by service users, and the system's performance is not particularly noteworthy [10]. In this situation, the qualities listed in the third quadrant may be taken into consideration. Factors in the fourth quadrant are viewed as being overly significant and less important. As a result, the qualities listed in the fourth quadrant can be reduced to help the business save money.

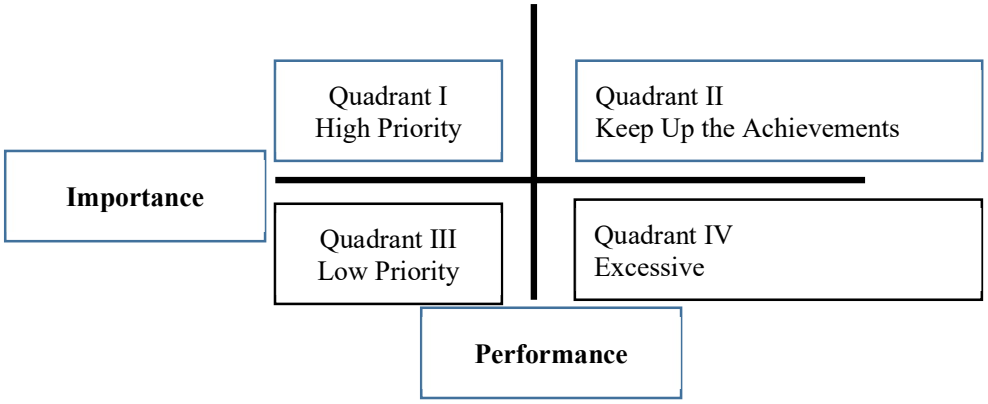

Figure 1. Importance Performance Matrix

2.4 Methodology

Before conducting a survey, it is crucial to do a literature review. This involves reading scholarly works and similar past research findings to build a theoretical foundation for the issue at hand [11]. By conducting a literature study, information will be obtained that will be used as the object of research. After conducting a literature study, the next stage is data collection consisting of primary data and secondary data.

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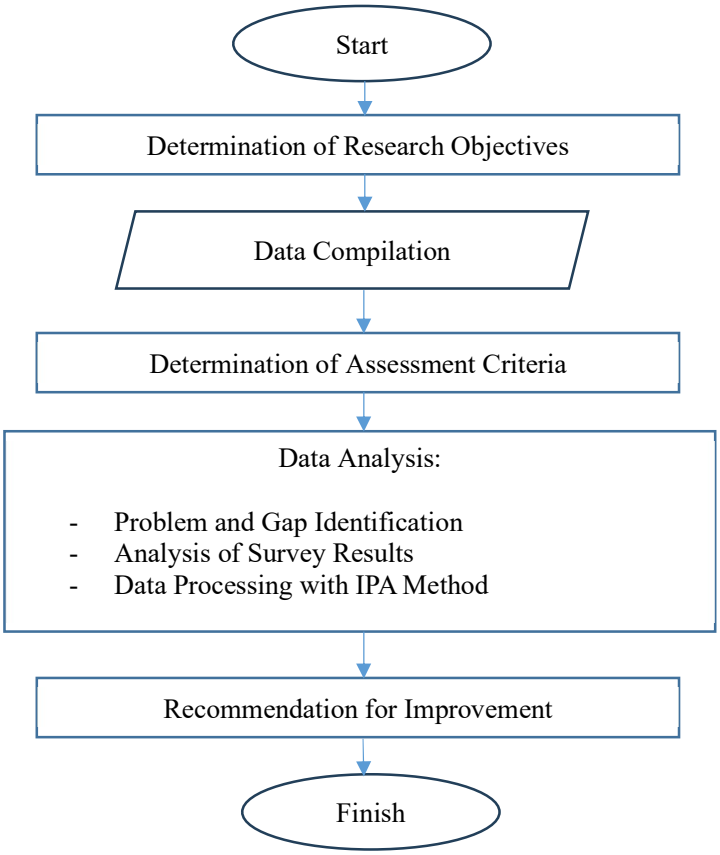

Figure 2. Flowchart of Research Stagess

Primary data is the acquisition of data by taking it directly at the train station boarding room as a source of information according to the needs of data analysis, while secondary data is obtained from various existing sources. Daop VIII Surabaya provided secondary data for this study, including the blueprints of the station that were received from the Building Manager. This map displays where the amenities and services are located at the train station so that customers may quickly reach their desired area. The Daop VIII Commercial Unit provided information on the number of passengers and the number of employees. In this study, random sampling was utilized to gather the data or samples. This method is applied depending on the researcher's conditions, taking the components of the sample obtained into account. Questionnaires were created and distributed to respondents, specifically service consumers at Surabaya Kota Station. The number of respondents is determined using the Slovin formula. It is considered that this research has a 90% level of confidence, making the percentage of leeway (e) is 10% for socioeconomic research. The number of samples is taken by 100 respondents. To process the data, a method was used according to the stages in Figure 2.

3. Result and Discussion

According to the findings of filling out the questionnaire, the respondents at the Surabaya Kota Station were primarily male (up to 52%), older than 40 years old, and in possession of a high school diploma or its equivalent. The majority of respondent' employment (30%) is as private employees. The frequency of the respondent's trips was 0-5 trips, with the aim of recreation or vacation in the destination city of Malang.

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PM 48 of 2015 is the benchmark used to assess the completeness of Surabaya Kota Station's amenities and services. As a result, certain services are not available at the Surabaya Kota Station location. For example, there is not enough space for the breastfeeding moms. Also, because there is a 20 difference in height between the platform and the train floor, it is difficult for people to board and disembark from platforms easily.

Because the criteria that the value of r count must be greater than the value of r table has been met, the validity test on this questionnaire, which consisted of 15 items, was certified valid. The properties of the query therefore have a high validity value. The reliability test, which tries to gauge the consistency (reliability) of survey data, is conducted after the validity test. The reliability test calculation results reveal a very high reliability value in terms of service performance on customer satisfaction as well as in terms of customer interests, making the reliability test values from both sides acceptable.

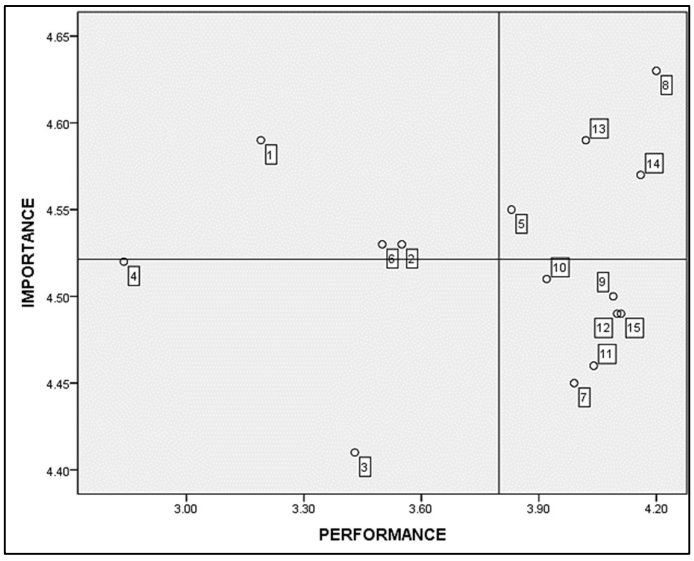

Figure 3. Importance Performance Matrix

With respect to the usage value of these services and facilities, the Importance Performance Matrix seeks to identify the service characteristics of the questionnaire statement items that must be improved, maintained, or reduced. The Importance Performance Matrix for Surabaya Kota Station's services is shown in Figure 3.

Importance Performance Matrix is the final result of the calculation of the Importance Performance Analysis method. The outcome of determining the appropriateness level of the data is represented by this data plot. The mapping from the outcomes of the service aspects plotting in quadrants I, II, III, and IV on the Cartesian diagram is described in Figure 3.

The characteristics in the highest priority in quadrant I are those that are most appealing to service users. Yet, there is little correlation between station service performance parameters and perceived levels of customer satisfaction. Because customers desire better service, the management of Surabaya Kota train station should make efforts to increase customer satisfaction and improve the quality of their services. The station's building structure (No.1), cleanliness of the station (No.2), and the availability of parking spaces (No.3) are the service features covered by Quadrant I.

The level of service is highly valued by customers in the position of quadrant II, therefore the company must continue to provide high-quality station service and good management to ensure that quality of service is improving as well. The station's ability to provide its users with complete, easily legible, and audible information is the primary factor in this quadrant (No.5). the station staff's prompt, accurate, and amiable service, which includes ticket buying and check-in, is the second factor (No.8 and No.13). The railway ticket agent has a neat appearance, is attractive, and speaks in a cordial

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and courteous manner (No.14). Every service offered by the station to customers is done so for their convenience and safety while they are at Surabaya Kota Station.

The importance and performance of the service aspect are rated as less important and inadequate in quadrant III. The layout of the station's interior and the extent of its facilities are listed as service characteristics in quadrant III. The organization of the station's interior at the ticket office, waiting area, and boarding area is not something that customers at Surabaya Kota Station are very concerned with, but they are displeased with the arrangement of the prayer room and restrooms due to the restricted space (No.3). The completion of the amenities at Surabaya Kota Station, particularly the prayer room and restrooms, also dissatisfies the customers (No.4). Although service consumers in quadrant IV do not place as much importance on the service component, they are very satisfied with the level of service quality they receive. These characteristics include the officers' demeanor as professional individuals, their capacity to inform service users, and their receptivity to customer complaints and ideas (No.7, No.9, No.10, No.11, No.12, and No.15).

To strengthen the discussion, it is beneficial to compare the results with previous studies and delve into the practical implications, as follows:

1) A study on property management found that building cleanlinerss significantly impacts user satisfaction, especially for those concerned with health and safety [12]. Understanding specific user concerns, such as health and safety, and addressing them through targeted improvements in cleanliness and management can lead to higher satisfaction levels. This approach ca be tailored to meet the service standards mandated by government regulations. This aligns with the findings that cleanliness in parking spaces is crucial for user satisfaction.
2) Research on parking facilities at the Faculty of Geography indicated that user satisfaction with parking elements was generally good, suggesting that well-maintained parking facilities contribute positively to user satisfaction [13]. This supports the notion that improvements in parking management can enhance user experiences.
3) A study on on-street parking management in Nanning showed that while increased parking prices reduced parking volume and duration, the overall satisfaction increased due to better quality and availability of parking spaces [14]. Adjusting parking policies, including pricing and availability, can influence user satisfaction. Ensuring that parking spaces are well-managed and accessible can mitigate the negative effects of higher costs and improve overall user experiences. This highlight the importance of not just cleanliness but also effective management in improving user satisfaction.
4) An intervention study on motorcycle parking ergonomics demonstrated significant improvements in ease of parking, convenience, and productivity, leading to higher user satisfaction. Implementing structured parking management strategies such as ergonomic designs and efficient space utilization, can lead to increased convenience and productivity for users [15]. This underscores the practical benefits of optimizing parking space management, and particularly beneficial in high-traffic areas.
5) Regular cleaning and maintenance of parking spaces can significantly improve user satisfaction. The presence of cleaning staff, as seen in public transport environments, positively influences perceptions of cleanliness and comfort [16].

4. Conclusions

Surabaya Kota Station has some complete facilities that do not meet the minimum service standards outlined in PM 48 of 2015. These facilities include the ability for passengers to board and disembark trains from platforms that are higher than 20 cm, which is why the station offers facilities in the form of stairs to make this process easier for passengers. Also, there are no rooms designated for nursing moms and no accessible restrooms for those with disabilities, while the service provided by the station is quite good. However the station's service is fairly decent.

The findings of this study should be used as an evaluation material by PT. KAI regarding aspects of service and facilities that are considered unsatisfactory by service users at Surabaya Kota Station. Thus Surabaya Kota Station can have better services and facilities, customers feel more secure and at ease while at the station, and encourage customers to use rail transportation, so Surabaya Kota

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Station deserves to be repurposed as a central station in Surabaya. From this point forward, more intricate research can be conducted across a wider range of scientific fields to address issues arising from the circumstances supporting this study. From the results of this study, it can be seen that there are several limitations of the study, namely: 1) This research was only conducted at Surabaya Kota Station, so the results may not apply to other stations with different characteristics;
2) Data collection is limited to surveys and observations, which may not cover all aspects of service or external factors that affect user satisfaction; 3) The IPA method used relies on users' subjective perceptions, which may vary between individuals.

Thus, from these limitations, some suggestions for further research can be proposed, such as: Expanding the research sample to include users from various stations and backgrounds. Using additional research methods, such as in-depth interviews, to gain a more comprehensive insight into the factors that influence user satisfaction. Conducting a comparative study between large and small stations to understand the differences in service quality. Focus on the social and psychological aspects of users in using station facilities. Conduct regular monitoring of the implementation of recommendations to ensure continuous improvement.

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