



Analysis of the Satisfaction Level of Ferizy Service Users at Kayangan Crossing Port West Nusa Tenggara Province

Wim Benhard Manurung¹, Driaskoro Budi Sidharta², Paulina M Latuheru³,
Rana Aulia Salsabila⁴

¹Universitas Tridinati Palembang, Indonesia

^{2,3,4}Politeknik Transpostasi Sungai, Danau dan Pennyberangan, Indonesia

Email: ranaaulia1912@gmail.com

This research is motivated by changes in services at the Kayangan Crossing Port, which has been selling tickets electronically since 2023. To be able to find out the level of satisfaction of Kayangan Port service users and the priority of service improvement, it is necessary to make observations based on the perception of Kayangan Port service users. This study uses the Customer Satisfaction Index (CSI) method to measure the level of satisfaction of service users and map attributes that are the main priority for improvement in the electronic ticket booking system using the Importance Performance Analysis (IPA) method. Based on the results of the Customer Satisfaction Index (CSI) analysis, service users have felt quite satisfied with the performance of the online ticket booking system carried out by the management of the Kayangan Crossing Port. This can be seen from the results of the CSI value obtained, which is 63.65%. The results of the Importance Performance Analysis (IPA) quadrant mapping have improvement attributes with ease of access and use of the ferizy website.

Keyword: *Tickets, Customer Satisfaction Index (CSI), Importance Performance Analysis (IPA), Satisfaction.*

1. INTRODUCTION

The Kayangan Crossing Port has a crucial role in connecting Lombok Island with Sumbawa Island [1]. As the main sea transportation route, this port serves dozens of service users every day. With many users of the Kayangan – Poto Tano crossing service, the ferry electronic ticket booking system has been implemented since 2023 [2]. It is also intended to improve the quality of internationally competitive transportation services [3]. However, in the last two years, the implementation of this system has caused various complaints from the public, who consider it to be difficult and hinder their journey, thus affecting the satisfaction of service users [4].

The online *ticket booking system* at crossing ports has been stipulated in the Regulation of the Minister of Transportation of the Republic of Indonesia Number 19 of 2020 concerning the Implementation of Electronic Crossing Transportation Tickets aimed at ensuring service quality. The use of electronic tickets is expected to provide ease in schedule planning, purchase transparency, reduce queues, and allow bookings anytime and anywhere [5]. However, in fact, this benefit has not been fully felt by service users. Therefore, analyzing the level of satisfaction of service users with *the online ticketing system* is very important to identify problems and find the right solution. By using several methods, one of which is *the Customer Satisfaction Index (CSI)* and *Importance Performance Analysis (IPA)* methods. This method is used to determine the level of satisfaction of service users as a whole with the results of service performance by paying attention to the level of importance of the service attributes [6].

2. METHODOLOGY

This study employed a quantitative descriptive research method to analyze and describe the existing conditions in the research field based on empirical data collected from service users. The research focused on evaluating user satisfaction toward service performance using a structured questionnaire distributed through Google Forms and accessed via QR codes. The sampling technique applied in this study was random sampling to ensure that each respondent had an equal opportunity to be selected. The sample size was determined using the Isaac and Michael formula with a 10% error tolerance level. Based on the population size of 272 respondents, the minimum required sample was 100 respondents selected randomly.

Data analysis in this study consisted of validity testing, reliability testing, Customer Satisfaction Index (CSI) analysis, and Importance Performance Analysis (IPA). The validity test was conducted using the Pearson Product Moment Correlation method by correlating each attribute score with the total score. An instrument was considered valid when the calculated correlation coefficient (*r-count*) exceeded the *r-table* value at a significance level of $\alpha = 0.05$ or $\alpha = 0.10$. Reliability testing was performed using Cronbach's Alpha coefficient, where a value greater than 0.70 indicated that the instrument was reliable and consistent.

Furthermore, the Customer Satisfaction Index (CSI) method was employed to measure the overall satisfaction level of service users by analyzing the relationship between the level of importance and the level of satisfaction for each service attribute. The CSI calculation involved several stages, including determining the Mean Importance Score (MIS), Mean Satisfaction Score (MSS), Weighted Factor (WF), Weighted Score (WS), Weighted Total (WT), and Satisfaction Index (SI). The CSI results were then classified into satisfaction criteria ranging from "very dissatisfied" to "very satisfied."

In addition, Importance Performance Analysis (IPA) was used to identify service attributes requiring improvement and to determine priority areas for service enhancement. IPA analysis was conducted by comparing the average importance and performance values of each attribute and mapping them into a Cartesian diagram consisting of four quadrants: Quadrant I (high priority for improvement), Quadrant II (maintain performance), Quadrant III (low priority), and Quadrant IV (excessive

performance). The results of the IPA provided strategic information regarding service attributes that should be prioritized to improve overall customer satisfaction.

3. DISCUSSION

Based on the collection and analysis of data carried out in this study, the following research results were obtained.

To conduct a validity test, the researcher requires as many as 30 respondents, which will then be tested for validity, if it has been declared valid, it will be redistributed with as many as 272 respondents. Data processing for validity test using SPSS software version 27. The validity test in this study is said to be valid if the value of Pearson Correlation (r calculated) is greater than the r table. To obtain the value r of the table of df (degrees of freedom) is to use the formula:

$$df = N - 2 \quad (1)$$

N is the number of samples, which is as many as 100 samples. R table shows that $df = N - 2 = 28$, meaning that the table r is 0.306 with a significance level of 0.10. The following are the results of a questionnaire validity test regarding the satisfaction of service users in the implementation of the online ticket booking system at the Kayangan Crossing Port which consists of ten questions on the Likert scale.

Table 1. Validity Test Results

Question Item	r count	R table	Results
1	0,882	0,306	VALID
2	0,854	0,306	VALID
3	0,899	0,306	VALID
4	0,921	0,306	VALID
5	0,864	0,306	VALID
6	0,895	0,306	VALID
7	0,876	0,306	VALID
8	0,866	0,306	VALID
9	0,838	0,306	VALID
10	0,798	0,306	VALID

Based on the table above, it is known that the results of the calculation of r are calculated ranging from 0.798 – 0.921 with the number used as a comparison or r of the table is 0.306. Then the results of the calculation above are declared VALID.

The reliability test in this study was using the Cronbach's Alpha formula contained in SPSS software version 27. If Cronbach's Alpha value is more than 0.7, then the questionnaire is declared reliable. The following are the results of the questionnaire reliability test regarding the satisfaction of service users in the implementation of the online ticket booking system at the Lembar Crossing Port.

Table 2. Reliability Test Results

<i>Cronbach's Alpha</i>	Number of Instruments	Results
0,964	10	RELIABEL

The results of the reliability test showed that Cronbach's Alpha value was 0.964. This shows that the value $\alpha > 0.7$ and can be said to be reliable.

Based on the results of the calculation of respondent characteristics, it was found that the most respondents in this study were male with an age range of 26 – 35 and with the purpose of tourist trips.

The calculation of CSI data can only be done after obtaining the targeted number of respondents, which is 272 respondents. The calculation of the CSI method is expected to measure the extent of satisfaction felt by service users in the implementation of the online ticket booking system at the Lembar Crossing Port based on the question indicators that have been made.

The following are the steps to calculate the Customer Satisfaction Index (CSI): determine the Mean Importance Score (MIS), Mean Satisfaction Score (MSS), Weighted Factor (WF), Weighted Score (WS), and the last one determines the Customer Satisfaction Index (CSI). The CSI score in this study is divided into five criteria from Very Dissatisfied to Very Satisfied.

Table 3. Customer Satisfaction Index Calculation

Question Item	PUT	MSS	WF	WS
1	4,88	3,19	10,13	32,30
2	4,80	3,21	9,97	32,02
3	4,83	3,22	10,03	32,28
4	4,83	3,22	10,03	32,28
5	4,82	3,18	10,01	31,80
6	4,83	3,19	10,03	31,96
7	4,80	3,14	9,97	31,35
8	4,78	3,13	9,94	31,05
9	4,79	3,18	9,95	31,61
10	4,78	3,18	9,94	31,60
Total	48,14	31,82		32,30

Based on table 4, the results of the calculation of the Customer Satisfaction Index, which is 318.24, were obtained and then the results were reprocessed using the CSI formula as follows.

Based on the results of the calculation above, it can be seen that the user satisfaction index was obtained with a value of 63.65% Based on the criteria of the satisfaction level of 63.65%, it is in the range of values between 51% – 65.99% which indicates that service users are QUITE SATISFIED with the services provided by ferizy.

The results of the above satisfaction level calculation will then be described in four quadrants or four parts in the Cartesian diagram using the Importance Performance Analysis (IPA) method. This is done to determine the priority of attributes that need to

be improved first to increase user satisfaction. The following is a diagram of the Cartesian method of science.

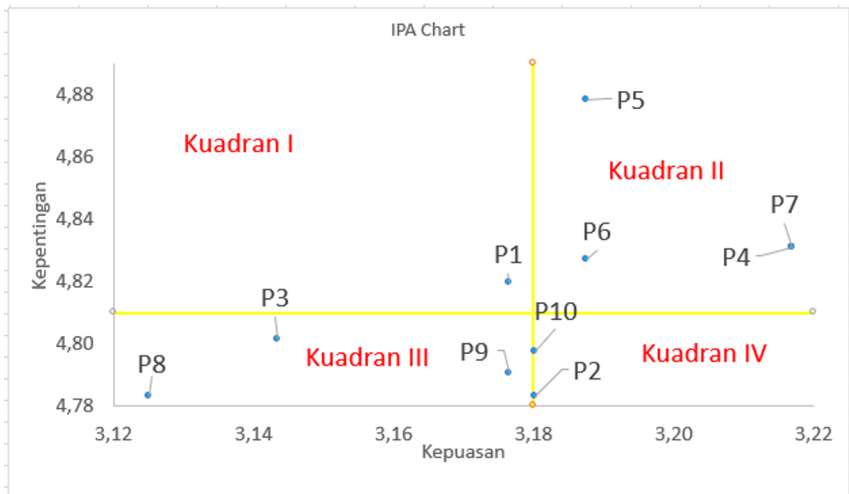


Figure 1. Importance Performance Analysis (IPA)

In this Importance Performance Analysis (IPA) diagram, the results of a survey that compares the importance and satisfaction of various aspects of service. The graph is divided into four quadrants, as follows:

- 1) Quadrant I, in this case the discovery of P1 in the form of ease of access and use of the ferry website by users.
- 2) Quadrant II, in this case it was found that
 - P4 (Ferizy provides detailed and complete information)
 - P5 (Excellent presentation of information regarding ticket purchase and departure schedule)
 - P6 (Ferizy has an attractive appearance that is easy to understand and use)
 - P7 (responsiveness in responding to all forms of passenger complaints regarding the online ticket purchase system)
- 3) Quadrant III, in this case it was found that
 - P2 (Respond quickly to ticket booking requests as well as required departure information)
 - P3 (Ferizy is reliable and not prone to damage/error)
 - P8 (Satisfied with the online ticket purchase system through ferizy)
 - P9 (Recommend ferizy to others)
- 4) Quadrant IV, in this case the discovery of P10 in the form of ferizy meets expectations according to the required format..

4. CONCLUSION

Based on the analysis that has been described, conclusions can be drawn, namely. The satisfaction level of ferry service users at the Kayangan crossing port is 63.65% and is categorized as quite satisfied. attribute that is a priority for improvement is the ease of access and use of the Ferizy website by service users.

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