

EVALUATION OF PASSENGER SERVICE ON KMP.SENANGIN ON THE KUALA TUNGKAL – DABO SINGKEP LINE

Erli Pujianto¹, Febriyanti Himmatul Ulya², Muhamad Daffa Qodama³

Inland Water Transportation Management Program, Inland Water and Ferries Transport Polytechnic of Palembang, Indonesia

Article Info

Article history:

Received month dd, yyyy

Revised month dd, yyyy

Accepted month dd, yyyy

Keywords:

Service

Level of Compliance

Passenger Perception

ABSTRACT

Kuala Tungkal Ferry Port is located in West Tanjung Jabung Regency, Jambi Province. Kuala Tungkal Ferry Port has four operating ships: KMP.Sembilang, KMP.Citra Nusantara, KMP.Satria Pratama, and KMP. Senangin. KMP. Senangin is the only ship operating on the Kuala Tungkal – Dabo Singkep route. Several services are not in accordance with regulations and are carried out by ship operators, even though services on board have been regulated by the government to provide a sense of safety and comfort during the crossing.

This study aims to determine the level of conformity of passenger services on KMP Senangin with the current Minimum Service Standards and to determine the level of user satisfaction with KMP Senangin passenger service facilities. The method used is an analysis of the level of conformity of the Minimum Service Standards for ferry transportation and *Customer Satisfaction Index* (CSI). To determine the level of satisfaction of service users with the current passenger service facilities, the analysis and calculations showed that KMP.Senangin had a level of suitability for passenger services of 77.4%, and a service user satisfaction score of 64.17%.

This is an open access article under the [CC BY-SA](#) license.



Corresponding Author

Muhammad Daffa Qodama

Maritime Studies Program, Inland Water and Ferries Transport Polytechnic of Palembang

43400 Palembang, South Sumatra, Indonesia

Email: daff.qodama@gmail.com

1. BACKGROUND

KMP. Senangin is a ferry owned by PT. ASDP Ferry Batam Branch, which serves the Kuala Tungkal Port – Dabo Singkep Port route, and only has a trip frequency of two times a week, with trips only twice a week the researcher considers it necessary to evaluate passenger service facilities, because the small number of trips will affect the comfort of passenger service facilities.

Based on the results of a field survey, on KMP Senangin, several passenger services have not met the optimal service standards based on the Minister of Transportation Regulation Number PM 62 of 2019. The existence of passenger services on the ship that are not available and not optimal, such as passenger seats that have not reached the proper size, dirty and smelly toilets and stairs that are not the size specified can have an impact on passenger satisfaction during the trip.

Therefore, research on minimum service standards on ferry services is crucial to ensure that the services provided not only comply with the regulations set out in PM 62 of 2019 but also improve user satisfaction and safety. This aligns with the government's commitment to improving the quality of public transportation in Indonesia, particularly in the ferry sector.

2. METHOD

The method used to collect data as reference material for this research is a descriptive quantitative method that uses structured research instruments such as questionnaires and measurement scales to collect data from representative samples.

This study employed three data collection techniques: passenger service observation, documentation, and questionnaires. The total population consisted of 899 passengers on the KMP Senangin. The population size was determined by the number of passengers departing in March, a time when Eid al-Fitr transportation is common, leading to increased transportation productivity. Determining the sample uses a random sampling technique where each member of the population has the same opportunity to be selected as a sample. This study uses the Slovin formula to determine the sample size with a margin of error of 10%.

The method for calculating the sample in this study is as follows:

$$n = \frac{N}{1 + N \cdot e^2}$$

Information:

n = sample size

N = population (number of passengers in 30 days)

e = significant value (10%)

a. KMP. Lokongbanua

$$n = \frac{899}{1 + 899 (0,01)}$$

$$n = 90$$

Based on the sample size calculation above, the sample size for KMP Senangin is 90 respondents.

Customer Satisfaction Index(CSI)

Customer Satisfaction Index(CSI) is a method used to assess the overall level of user satisfaction by evaluating the performance and importance of the attributes of the product or service to be assessed.

a. Determining the Mean Importance Score (MIS)

MIS is the average of the importance scores of an attribute. MIS can be calculated using the equation:

$$MIS = \left[\frac{\sum_{i=1}^n Y_i}{n} \right]$$

Information :

Y_i : Importance value of attribute Y to i

n : Number of Respondents

b. Determining the Mean Satisfaction Score (MSS)

MSS is the average score for the level of satisfaction derived from the service performance perceived by users. MSS can be calculated using the equation:

$$MSS = \left[\frac{\sum_{i=1}^n X_i}{n} \right]$$

Information :

X_i : Importance value of attribute x to i

n : Number of Respondents

c. Calculating Weight Factor (WF)

Weight Factor or the weighted factor is the percentage of MIS per indicator to the total MIS of all indicators.

$$WF : [X100\%] \frac{MIS_i}{\sum_{i=1}^p MIS_i}$$

Information :

MISSION = Average value of i-th importance

$\sum_{i=1}^p MIS_i$ = total average of interests from i to p

d. Calculating Weight Score (WS)

Weight score the weighted score is the result of multiplying WF by the average level of satisfaction.

$$W_{si} = W_{Fi} \times M_{SS}$$

Information :

W_{Fi} = Z-weighted factor

e. Determining the Customer Satisfaction Index (CSI)

$$CSI = [X100\%] \frac{\sum_{i=1}^p WSI}{HS}$$

Information :

$\sum_{i=1}^p WSI$: Total average importance from i to p

Table1. Satisfaction Index Criteria

No	Mark	Information
1.	81%-100%	Very satisfied
2.	66%-80.99%	Satisfied
3.	51%-65.99%	Quite Satisfied
4.	35%-50.99%	Less satisfied
5.	0%-34.99%	Not satisfied

3. RESULTS AND DISCUSSION

To assess compliance with passenger service standards, there are service indicators that must comply with Minister of Transportation Regulation Number 62 of 2019. These results have a significant impact on the service passengers receive. The following are the survey results:

Table2. Suitability of Passenger Service Conditions

Assessment Aspects	Score	Indicator	Information
SAFETY ASPECTS			
1. Safety and Health facility information			
a. Safety facility information must be available and easy for passengers to read.	1	Availability	In accordance
2. Safety Facilities			
a. Fire extinguisher	1	Function Availability Conditions	In accordance
b. Sprinkler and smoke detector alarm	1	Function Availability Conditions	In accordance
c. Life Boat	1	Function Availability Conditions	In accordance
d. Life jacket	1	Function Availability Conditions	In accordance
e. Life Raft	1	Function Availability Conditions	In accordance
f. Lifeboat	1	Function Availability Conditions	In accordance
g. Evacuation Route Instructions	1	Function Availability Conditions	In accordance

Assessment Aspects	Score	Indicator	Information
h. Evacuation Assembly Point	1	Function Availability Conditions	In accordance
3. Health Facilities			
a. Medical Room Available	1	Availability	In accordance
b. Bed Available	1	Availability	In accordance
c. Stretcher Available	0	Availability	Not yet suitable
d. Stretcher Chairs Available	1	Availability	In accordance
e. Medicines Available	1	Availability	In accordance
f. Oxygen Cylinders Available	0	Availability	Not yet suitable
g. First aid kit available	1	Availability	In accordance
SECURITY ASPECTS			
1. Security Facilities			
a. CCTV available	1	Availability	In accordance
b. Security officers available	0	Availability	Not yet suitable
c. Security breach information available	0	Availability	Not yet suitable
COMFORT ASPECT			
1. Economy passenger space			
a. The maximum designed room height is 1.90 m	1	Conditions and Availability	In accordance
b. Passenger seat is 50 cm wide and 50 cm long	0	Conditions and Availability	Not yet suitable
c. There is a sitting area available	1	Conditions and Availability	In accordance
d. Air conditioning available	1	Conditions and Availability	In accordance
e. TV/Video/Audio Available	1	Conditions and Availability	In accordance

Assessment Aspects	Score	Indicator	Information
f. Trash bins available	1	Conditions and Availability	In accordance
g. 100% clean area	1	Conditions and Availability	In accordance
h. Loudspeakers available	1	Conditions and Availability	In accordance
i. Ventilation available	1	Conditions and Availability	In accordance
2. Non-economy passenger space			
a. The maximum designed room height is 1.90 m	1	Conditions and Availability	In accordance
b. Seat with armrests	0	Conditions and Availability	Not yet suitable
c. Reclining chair with a width of 50 cm and a length of 50 cm	0	Conditions and Availability	Not yet suitable
d. Sofa chair with a width of 50 cm and a length of 50 cm	0	Conditions and Availability	Not yet suitable
e. Air conditioning/AC available	1	Conditions and Availability	In accordance
f. TV available	1	Conditions and Availability	In accordance
g. Trash bins available	1	Conditions and Availability	In accordance
h. 100% clean area	1	Conditions and Availability	In accordance
i. Loudspeakers available	1	Conditions and Availability	In accordance
j. Ventilation available	1	Conditions and Availability	In accordance
3. Toilet			
a. 1 toilet available for 50 people	1	Conditions and Availability	In accordance
b. Clean and odorless area	1	Conditions and Availability	In accordance
4. Worship Facilities			
a. There are ablution places, prayer equipment and carpets available	1	Availability	In accordance
b. Air conditioning available	0	Availability	Not yet suitable

Assessment Aspects	Score	Indicator	Information
c. Clean and odorless area	1	Availability	In accordance
5. Nursing Room			
a. Sofa chairs with armrests are available	0	Availability	Not yet suitable
b. Air conditioning available	0	Availability	Not yet suitable
6. Lighting			
a. 200-300 lux	1	Light Intensity	In accordance
7. Kitchen/Canteen/Cafeteria			
a. Located in the passenger compartment	1	Location and Availability	In accordance
b. Using an electric stove	1	Location and Availability	In accordance
c. Has ventilation	1	Location and Availability	In accordance
CONVENIENCE/AFFORDABILITY ASPECT			
1. Service Information			
a. Visual information	1	Location and Availability	In accordance
b. Sound quality is 20 dB greater than existing noise	1	Location and Availability	In accordance
2. Regular passenger service facilities			
a. Has a room and 1 work desk	0	Availability	Not yet suitable
3. Regular passenger service facilities			
a. There is a safe place for your belongings.	0	Availability	Not yet suitable
4. Alley/Street			
a. Provides access in and out	1	Area and Condition	In accordance
5. Ladder			
a. Width 100cm	0	Area and Condition	Not yet suitable
b. Not Slippery	1	Area and Condition	In accordance
c. Clean Condition	1	Area and Condition	In accordance
EQUALITY ASPECTS			
1. Facilities for disabled passengers			

Assessment Aspects	Score	Indicator	Information
a. Mobile ramp available	1	Convenience	In accordance
b. Wheelchairs available	1	Convenience	In accordance
c. Priority access available	1	Convenience	In accordance
d. Toilet access available	1	Convenience	In accordance
e. There is a special room available for breastfeeding mothers.	1	Convenience	In accordance
Total	48		

Based on the suitability calculations in table 2, the following percentage of suitability is obtained:
KMP. Happy

$$\text{Percentage of Compliance} = \frac{\sum \text{pelayanan yang sesuai}}{\sum \text{Total Jenis Pelayanan}} \times 100\%$$

$$\text{Percentage of Compliance} = \frac{2948}{62} \times 100\%$$

$$= 77.4\%$$

The table below is the attributes that are intended for respondents to answer via the distributed questionnaire.

Table3. Questionnaire Question Items

No	Question	Answer				
		1 (STP)	2 (TP)	3 (KP)	4 (P)	5 (SP)
1.	Health facilities, medicines and first aid					
2.	Oxygen cylinder health facility					
3.	CCTV availability					
4.	Uniformed and certified security officers					
5.	Security disturbance information in the form of stickers with telephone numbers and/or SMS for complaint services					
6.	Spacious seats					
7.	Chair with foam padded armrests and seat backrest					
8.	Reclining seat					
9.	Fan/AC					
10.	Breastfeeding room facilities					
11.	Long sofa chair that has a foam-covered backrest					
12.	Prayer room facilities					
13.	TV/Video/Audio in the passenger compartment					
14.	Adequate lighting on board					
15.	Passenger service facilities to provide ship travel information and complaint reception services					

Paper's should be the fewest possible that accurately describe... (First Author)

No	Question	Answer				
		1 (STP)	2 (TP)	3 (KP)	4 (P)	5 (SP)
16.	Passenger baggage facilities					
17.	Room facilities that have a work desk					
18.	Wide alley/road					
19.	Width and slope of stairs					
20.	Mobile ramp specifically for passengers with special needs					
21.	Priority access					
22.	Easy access to toilets					

3.1. Customer Satisfaction Index (CSI)

The following is data regarding the level of satisfaction of service users, which was obtained by collecting responses from respondents regarding statements related to passenger satisfaction and interests.

3.1.1 KMP. Happy

Question No.	Mean Importance Score (MIS)	Mean Satisfaction Score (MSS)	Weight Factors(WF)	Weight Score(WS)
1	3.4111	2.8111	0.0397	0.1115
2	3.9333	3.1222	0.0457	0.1428
3	3.8333	3.4889	0.0446	0.1555
4	3.6778	2.6778	0.0428	0.1145
5	3.6444	2.7556	0.0424	0.1168
6	4.0556	3.3222	0.0472	0.1567
7	3.3889	2.6778	0.0394	0.1055
8	3.8778	2.5111	0.0451	0.1132
9	3.8333	2.9222	0.0446	0.1302
10	3.6222	3.4333	0.0421	0.1446
11	3.6333	3.1556	0.0422	0.1333
12	4.0889	2.5111	0.0475	0.1194
13	3.4667	3.4667	0.0403	0.1397
14	3.8556	3.8556	0.0448	0.1728
15	3.9222	3.9222	0.0456	0.1789
16	3.6000	3.6000	0.0419	0.1507
17	3.6333	2.9222	0.0422	0.1234
18	4.0222	2.9222	0.0468	0.1367
19	3.4222	3.4222	0.0398	0.1362
20	3.8444	3.0444	0.0447	0.1361
21	3.8427	3.8427	0.0447	0.1717
22	3.6222	3.6222	0.0421	0.1525
23	3.7778	3.7778	0.0439	0.1659
Total	86,0094	55.91	100	3.2085

$$CSI = [X100\%]\frac{3,2085}{5}$$

$$= 64.17\%$$

Based on the Customer Satisfaction Index (CSI) formula, the passenger satisfaction rate at KMP Labuhan Haji is 64.17%, indicating a moderate level of satisfaction.

4. CONCLUSION

From the analysis results, it was concluded that:

- a. Passenger service on KMP Senangin has not met the Passenger Service standards in accordance with the Minister of Transportation Regulation Number 62 of 2019. The percentage of compliance with passenger service standards on KMP Senangin is 77.4%.
- b. The level of user satisfaction with the service, measured using the Customer Satisfaction Index (CSI) at KMP Senangin, was quite satisfied with 64.17%. This indicates that service quality has not yet reached its maximum level.

REFERENCE

- [1] Abubakar, IK, & et al. (2013). An Introduction to Ferry Transportation. Jakarta: PT. Raja Grafindo Persada.
- [2] Abunawas et al., K. (2023). GENERAL CONCEPT OF POPULATION AND SAMPLE IN RESEARCH. GENERAL CONCEPT OF POPULATION AND SAMPLE IN RESEARCH.
- [3] Ciptawardhani, H. d. (2023). Evaluation of Ferry Transportation Services at KMP.Siginjai. Ridwan Institute.
- [4] Herman, A. d. (2025). Designing a “Ferry Check” Website to Improve Daily Minimum Service Standards at Ports. International Water Transport Journal.
- [5] Hidayat et al. (2023). Customer Satisfaction Analysis Using CSI and STP Methods for. Customer Satisfaction Analysis Using CSI and STP Methods for.
- [6] Hidayat, S. d. (2022). Passenger Service Standards for Ferry Transportation
- [7] Savilla, MA, & et al. (2023). Evaluation of KMP Aceh Ferry Transportation Services. UNIDA Scientific Engineering Journal.
- [8] Sutrisno et al., A. (2023). ANALYSIS OF SERVICE USER SATISFACTION TOWARDS QUALITY. Jurnal Tekno Mesin.
- [9] Zahra, M. (2024). Evaluation of the implementation of minimum service standards for ferry transportation at Kmp. Sembilang on the Kuala Tungkal – Telaga Punggur route.