



Level of fisherman satisfaction with harbormaster services at Belawan Ocean Fishing Port, North Sumatra Province

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Article Info	Abstract
Keyword: Port, Satisfaction level, Syahbandar	Service can cause users a sense of satisfaction or dissatisfaction with the performance. This study aims to determine fishermen's satisfaction level with martyrdom services at the Belawan Ocean fishing port, North Sumatra Province. The method used is a survey method by collecting primary and secondary data. The results showed that the level of satisfaction of users of martyrdom services based on the Customer Satisfaction Index method was 72.564 (satisfied). The importance and Performance Analysis method shows that service speed, certainty of service schedules, and suitability of requirements are considered less satisfying for service users. At the same time, service officer responsibility and security characteristics are considered very satisfying for service users.
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1. INTRODUCTION

North Sumatra Province is a land area with waters bordering the Malacca Strait to the east and the Indian Ocean to the west. About 6.65% of all villages or sub-districts are coastal areas with great potential for marine fisheries. Belawan Ocean Fishing Port (PPS Belawan) is one of the Central Technical Implementation Units (UPT) in the field of Fishing Ports, which is under the guidance of and is responsible to the Director General of Capture Fisheries (DJPT) by the Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia Number:20/PERMEN-KP/2014 concerning Organization and Work Procedures of the Fishery Port Technical Implementation Unit by integrating all programs and activities so that they can be accommodated and carried out correctly and produce outputs by predetermined performance indicators.

Measuring the level of satisfaction is essential in providing better, more effective and more efficient services. The percentage decrease in the number of ship visits at PPS Belawan is 28.5%, which is thought to be due to the presence of anchorage, the length of the pier that has not been fulfilled because the ships that are based are large and insufficient for operations, shallow port ponds, and the application of SOPs to the martyrdom service which has not been known to the level of satisfaction. This study aimed to determine the level of satisfaction felt by service users (fishermen) regarding satisfaction or dissatisfaction with the services of the Belawan Ocean Fishing Port.

2. RESEARCH METHODS

Time and Place

This research was conducted in March 2023 at Belawan Ocean Fishing Port, North Sumatra Province.

Research method

The method used is the survey method, namely direct observation of the field and conducting interviews with respondents of service users of the Belawan Ocean Fishing Port. Furthermore, the level of satisfaction of service users (fishermen) is calculated and analyzed using Importance and Performance Analysis (IPA) and Customer Satisfaction Index (CSI). This research was conducted in two stages: data collection and data processing. Data collection was: a) Primary Data: There are five dimensions to measure service quality: reliability, responsiveness, assurance, empathy, and tangibles. There are five dimensions to measure service quality: reliability (reliability), responsiveness (responsiveness), assurance (assurance), empathy (empathy), and tangibles (tangible evidence). b) Secondary data: Annual reports for 2019, 2020, and 2021, which include the number of boat visits, the number of fishermen, and the number of letters issued.

After primary data is obtained from filling out questionnaires and interviews, the data received will be processed using Likert scale weighting in Microsoft Excel.

3. RESULTS AND DISCUSSION**General Situation of PPS Belawan**

Ocean Fishing Port was established in 1975 through the Belawan Gabion Service Development Project (PK) implemented by the Ministry of Transportation through ADPEL Belawan. However, the implementation of these activities did not run smoothly during its development, so on 16 January 1978, the management of PK Gabion was handed over from the Directorate General of Sea Transportation (Ministry of Transportation) to the Directorate General of Fisheries (Ministry of Agriculture).

The Minister of Marine Affairs and Fisheries upgraded its status to Belawan Ocean Fishing Port on 1 May 2001 through a Decree of the Minister of Marine Affairs and Fisheries No.26/II/MEN/2001. Belawan Ocean Fishing Port (PPS Belawan) is one of the Central Technical Implementation Units (UPT) in the field of Fishing Ports, which is under the guidance of and is responsible to the Director General of Capture Fisheries (DJPT) by the Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia Number; 20/PERMEN-KP/2014, dated 16 May 2014, concerning Organization and Work Procedures of the Fishery Port Technical Implementation Unit by integrating all programs and activities so that they can be accommodated and carried out correctly and produce outputs by predetermined performance indicators (VAT Belawan Annual Report, 2020).

Ship visits at the Belawan Ocean Fishing Port involve landing fish catches, filling supplies, and processing permits. In 2020, the frequency of ship visits was 5,901; compared to 2019, of 8,249 ship visits, there was a decrease of 2,348 visits (28.5%). There was a decrease in ship visits in 2020 due to the COVID-19 pandemic situation and the influence of bad weather, so ship activities at sea were reduced (Table 1).

Implementation of SOPs in Kesyahbandaran Services

Kesyahbandaran at the fishing port to ensure the security and safety of fishing vessel operations, kesyahbandaran officers at PPS Belawan with working hours set 08.00-16.00 WIB and provide services at integrated service offices such as SPB issuance services, STBLKK arrival and departure, SHTI, and fishery logbooks. The application of the SOP to the martyrdom service provided by the martyrdom officer to the service speed attribute is not well implemented because sometimes there is a power outage on the schedule certainty attribute has not been appropriately implemented because some martyrdom officers have not been at the service post at the specified working hours.

The attribute of service requirements has been implemented by the existing SOP because each service provided has different requirements so that fishermen know the documents needed in the desired service and the attribute of ease of service procedures, which are considered as some fishermen are easy to see from the simplicity of the service flow. The attribute of service officers' clarity has yet to be appropriately implemented because there are still officers at the service post who do not come by the specified working hours. Hence, the service at the service post is not by the specified time.

The ability of service officers is good because officers can provide direction if fishermen do not understand the existing procedures or requirements so that officers complete services to fishermen correctly.

Table 1. Number of ship visits at PPS Belawan in 2019-2021

No.	Month	2019	2020	2021
1.	January	598	626	648
2.	February	563	598	517
3.	March	715	619	685
4.	April	795	542	510
5.	May	742	360	524
6.	June	597	314	547
7.	July	789	375	518
8.	August	783	451	493
9.	September	769	520	545
10.	October	769	481	696
11.	November	610	522	530
12.	December	519	493	500
Total		8.249	5.901	6.713

Source: Belawan VAT Annual Report 2021

The attribute of the service officer's discipline has not been carried out properly because the officer has not been at the service post by the predetermined service time. The service officer provides directions politely, kindly, and with mutual respect and respect for fishermen because it relates to the attributes of politeness and friendliness of the officer and for the attribute of the responsibility of the service officer has been carried out properly because the service officer is responsible for organizing and completing the service properly.

According to some fishermen, the attribute of fairness in getting services has not been appropriately implemented because some fishermen feel that service officers still differentiate between groups in the services provided. For the attribute of environmental comfort, the port pool has much garbage, there is also garbage on the dock, and the dock floor is uneven so that there are puddles due to loading and unloading activities of fishing vessels so that some fishermen are uncomfortable with this and at the service security attribute has been appropriately implemented because the port has placed security officers at the entrance and exit of PPS Belawan. According to the Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia Number 3/PERMEN-KP/2013 concerning the syahbandaran at Fishing Ports. Processing SPB can be done by the captain or ship owner by submitting an application to the syahbandar at the integrated service office. The owner, captain, or manager of a fishing vessel submits an application for the issuance of SPB for fishing vessels to the syahbandar at the fishing port by filling out an application letter for SPB issuance attached with the following: a) Fisheries Business License (SIUP); b) Fishing license (SIPI); c) Ship Arrival and Departure Report Certificate (STBLKK); d) Letter of Operation (SLO) of fishery vessel; e) Proof of payment for port services; f) Last sailing approval letter; g) Fishing logbook; h) Measurement letter; i) Certificate of Fitness and Manning; j) Seafarer Competency Certificate; k) Certificate of Nationality; l) Crew list, and m) Skipper's declaration letter.

The Sailing Approval Letter (SPB) that the syahbandar signed will be given to the vessel's captain and is valid for 1 x 24 hours after being issued. The ship's captain must move the fishing vessel by the time specified on the Sailing Approval Letter (SPB), while the time needed to issue a Sailing Approval Letter (SPB) is 44 minutes. The number of SPB issuances at PPS Belawan from 2020-2021 can be seen in Table 2. The number of SPBs issued by Syahbandar PPS Belawan during 2021 is

6,722. In 2021, SPB issuances increased by 857 sheets (12.75%) compared to 2020. This is due to the rise in the number of vessels fishing in WPP 571 and an increase in active vessels in 2021.

Table 2. Number of SPB issuances at PPS Belawan in 2020-2021

No.	Month	2020	2021
1.	January	608	648
2.	February	601	518
3.	March	602	685
4.	April	546	510
5.	May	359	524
6.	June	312	547
7.	July	370	518
8.	August	450	495
9.	September	520	547
10.	October	480	695
11.	November	521	535
12.	December	496	500
Total		5.865	6.722

Source: PPS Belawan Annual Report 2021

Fishing Logbook

Regulation of the Minister of Maritime Affairs and Fisheries No. 48/PERMENKP/2014 concerning Fishing Logbooks, where every Indonesian-flagged fishing vessel has a Fishing License (SIPI) with a size above 5 GT operating in the RI N Fisheries Management Area (WPP) and the high seas must report catches through a fishing logbook. Reporting of fishing logbook data for vessels 5-30 GT through the fishing logbook form and vessels over 30 GT began effectively as of 1 November 2018 through the e-logbook application. This is by the Directorate General of Capture Fisheries Regulation No. 11/PERDJPT/2019 concerning the obligation to use e-logbook for vessels > 30 GT, so starting in 2019, several vessels > 30 GT and vessels < 30 GT have activated e-logbook. The number of Logbook issuances at PPS Belawan from 2020-2021 can be seen in Table 2. The results of implementing fishing logbook data collection upon vessel arrival in 2021 were 2,788 logbooks, an increase (20.6%) from the 2020 period of 2,213 logbooks.

Ship Arrival and Departure Report Certificate (STBLK)

The arrival/departure report certificate (STBLK) is a requirement to obtain a Sailing Approval Letter (SPB). The Certificate of Proof of Report (STBLK) of Arrival and Departure of Fishing Vessels is issued by the Syahbandar at PPS Belawan. The number of STBLK issuances at PPS Belawan from 2020-2021 can be seen in Table 3 and Table 4. Based on the table above, in 2021, the number of SHTIs issued was 1,029 sheets, with a volume of 6,938,919 kg. Compared to 2020, as many as 1151 sheets with a volume of 6,563,692.68 kg, there was a decrease in the number of SHTI sheets to as many as 122 sheets (10.6%). However, the volume has increased by 375,226.32 kg (5.41%).

Fishermen's Satisfaction Level with the Harbormaster

Calculating fishermen's satisfaction level with martyrdom at PPS Belawan requires a validity and reliability test of the questions on the questionnaire sheet. The validity test is a test of research data instruments to determine the accuracy of the measuring instrument used in a study and to find out whether the questions on the questionnaire need to be replaced because they are considered irrelevant, which is calculated using product moment from Karl Pearson with the help of Microsoft Excel software for 39 respondents regarding questions on the questionnaire sheet declared valid because the

r-count value is greater than the r-table value of 0.31. The first thing to do in the validity test is to find the r-count and r-table of the questionnaire sheet that the respondent has filled in. The results of the question attribute validity test can be seen in Table 6.

Table 3. Number of STBLK issuances (Arrivals) in 2020-2021

No.	Month	2020	2021
1.	January	626	648
2.	February	598	517
3.	March	619	685
4.	April	542	510
5.	May	360	524
6.	June	314	547
7.	July	375	518
8.	August	451	493
9.	September	520	545
10.	October	481	696
11.	November	522	530
12.	December	493	500
Total		5.901	6.713

Source: Number of STBLK issuance Annual Report 2021

Table 4. Number of STBLK issuance (Departure) in 2020-2021

No.	Month	2020	2021
1.	January	608	648
2.	February	601	517
3.	March	602	685
4.	April	546	510
5.	May	359	524
6.	June	312	547
7.	July	370	518
8.	August	450	495
9.	September	524	547
10.	October	480	695
11.	November	521	535
12.	December	496	500
Total		5.865	6.721

Source:PPS Belawan Report 2021

Table 5. Number of logbooks issued at PPS Belawan in 2020-2021

No.	Month	2020	2021
1.	January	251	389
2.	February	244	177
3.	March	157	155
4.	April	189	177
5.	May	173	209
6.	June	30	291
7.	July	354	196
8.	August	207	167
9.	September	159	216
10.	October	33	440
11.	November	209	194
12.	December	207	177
Total		2.213	2.788

Source: PPS Belawan Annual Report 2021

Table 6. Question attribute validity test results

Attribute	r count	r table	Decision	r count	r table	Decision
	Performance			Interests		
1	0,5895	0,31	Valid	0,3137	0,31	Valid
2	0,4267	0,31	Valid	0,3462	0,31	Valid
3	0,5384	0,31	Valid	0,5799	0,31	Valid
4	0,4209	0,31	Valid	0,5156	0,31	Valid
5	0,4945	0,31	Valid	0,3457	0,31	Valid
6	0,5903	0,31	Valid	0,5448	0,31	Valid
7	0,4632	0,31	Valid	0,6125	0,31	Valid
8	0,3191	0,31	Valid	0,5326	0,31	Valid
9	0,4967	0,31	Valid	0,4060	0,31	Valid
10	0,3494	0,31	Valid	0,5630	0,31	Valid
11	0,3309	0,31	Valid	0,6098	0,31	Valid
12	0,4618	0,31	Valid	0,5801	0,31	Valid
13	0,4589	0,31	Valid	0,4973	0,31	Valid

Furthermore, a reliability test was carried out to determine the level of consistency of the measuring instrument used in the study using the Cronbach Alpha formula. The test obtained an Alpha value of 1.08 for the performance level and an Alpha value of 0.74 for the level of importance. The reliability value is between 0 and 1; if the instrument tested is close to 1, the instrument tested better (Priyatno, 2009). The level of satisfaction with the service is processed using CSI. The steps for calculating CSI are as follows:

Calculating Weighting Factor (WF). Calculate the Weighting Factor (WF) by converting the average value of importance into a percentage number of the total average level of importance of all attributes tested, so a total WF of 100% is obtained. The weighting factor value is used to determine the service expectations fishermen desire.

Calculating Weighted Score (WS). Weighted Score (WS) is the multiplication value between the average value of each attribute's performance level (satisfaction) and the WF of each attribute. The weighting score value determines whether the quality and performance are satisfactory or unsatisfactory. The results of the calculation of the Mean Satisfaction Score (MSS) and Mean Importance Score (MIS) can be seen in Table 7.

Table 7. MSS and MIS calculation results

Attributes	MSS	MIS	WF	WS
1	3,63	3,66	8,016	29,310
2	3,34	3,88	7,394	28,654
3	3,16	3,47	6,979	24,211
4	2,53	2,94	5,597	16,443
5	3,28	3,75	7,256	27,211
6	3,69	3,91	8,154	31,854
7	3,78	3,81	8,362	31,880
8	3,81	3,84	8,431	32,407
9	3,69	3,84	8,154	31,345
10	3,50	3,31	7,740	25,639
11	3,97	3,88	8,776	34,010
12	3,65	3,47	8,085	28,047
13	3,18	3,09	7,049	21,808

Calculating Weighted Total (WT). The weighted total (WT) is calculated by summing the WS of all service quality attributes. The result obtained from the WT calculation is 362.82. Calculating the Satisfaction Index (SI). The result obtained from the SI calculation is 72.564, which means that the level

of satisfaction of fishermen with martyrdom at PPS Belawan is satisfactory. Customer Satisfaction Index (CSI) analysis is carried out to determine the level of satisfaction of fishermen with the services provided to service users. The result of the calculation using CSI analysis is 72.564, which means that service users are satisfied with the services offered by the martyrdom officers at PPS Belawan.

Importance and Performance Analysis (IPA)

Making Importance and Performance Analysis (IPA) diagrams needs to determine the boundaries of calculating the location of the boundaries of the two lines that intersect perpendicularly at (\bar{X}, \bar{Y}) . The \bar{X} value is 3.56, and the \bar{Y} value is 3.63. The Importance and Performance Matrix diagram can be seen in Figure 1.

The Importance and Performance (IPA) analysis method determines the comparison level between the performance and importance scores. It then produces factors that must be considered in fulfilling their performance. The first to thirteenth attributes are good because they are close to 100%. It is good if the suitability level value is close to 100% (Supranto, 2006). Based on the Importance and Performance Matrix diagram, the question attributes in quadrant I are (5) officer discipline, the question attributes in quadrant II are (1) the presence of officers, (6) officer courtesy, (7) officer friendliness, (8) comfort, (9) ease of service flow, the question attributes in quadrant III are (3) service speed, (4) certainty of service schedule, (13) suitability of requirements, and the question attributes in quadrant IV are (10) officer responsibility (12).

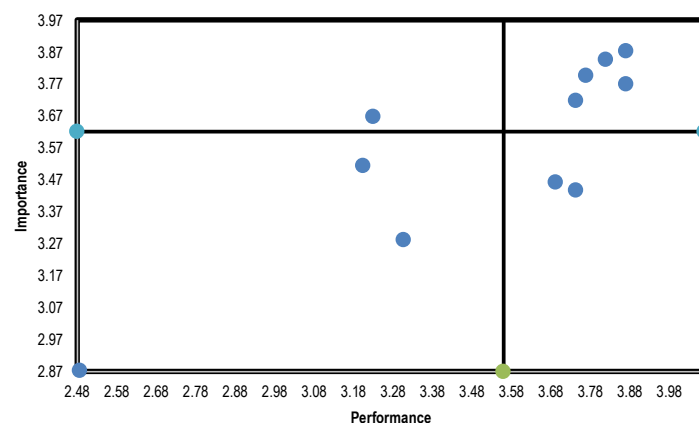


Figure 1. Importance and performance matrix diagram

4. CONCLUSIONS

Services at the PPS Belawan service post include the issuance of SPB, Arrival and Departure STBLK, SHTI, and fisheries logbooks. The level of satisfaction of service users based on the Customer Satisfaction Index method is 72.564, meaning that service users at the service post are satisfied. Based on the Importance and Performance Analysis method, the service officer's discipline is an important attribute that affects user satisfaction but is not desired by service users. The presence of service officers, courtesy of service officers, friendliness of service officers, comfort, and ease of service flow are essential attributes. Officers have successfully implemented them, and they must be maintained because they satisfy service users. Service speed attributes, certainty of service schedules, and suitability of requirements could be more satisfying for service users. The characteristics of service officers are responsibility and security, which are attributes that greatly satisfy service users. Improved service speed, certainty of service schedules, and suitability of requirements are necessary because they do not correspond to what service users want. It is also essential to measure service users' level of satisfaction regularly to find out which services need improvement.

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