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STRATEGY FOR IMPROVING KESYAHBANDARAN OPERATIONAL PERFORMANCE AT COASTAL FISHING PORT (PPP) TASIKAGUNG, REMBANG

Listya Rimarashinta Eka*, Suherman Agus, Boesono Herry

Faculty of Fisheries and Marine Science, Diponegoro University, Indonesia

*E-mail: rimaraeka25@gmail.com

ABSTRACT

Kesyahbandaran of a fishing port is kesyahbandaran that is specifically placed in a fishing port for administrative management and carrying out the function of maintaining shipping safety. Kesyahbandaran services are one of the important factors for fishing port users and support the operation of capture fisheries. The public service that takes manage of ship documents at the Tasikagung Fishing Port (PPP) is syahbandar in PPP Tasikagung. This study aims to analyze the suitability of the duties and functions of the kesyahbandaran in PPP Tasikagung with minister of marine and fisheries regulations No. 03 of 2013, analyze and formulate strategies to improve the operational performance of the kesyahbandaran in PPP Tasikagung. This research uses SWOT analysis and AHP (*Analytic Hierarchy Process*). The results with SWOT analysis the coordinate position (-0.16; 0.14) was in quadrant III, meaning that this position experienced many obstacles but there was still sufficient time to find solutions and opportunities so that the performance value can increase. AHP (*Analytic Hierarchy Process*) obtained the priority of actors who support the improvement of the operational performance kesyahbandaran in PPP Tasikagung is syahbandar in PPP Tasikagung (0.614), while the priority criteria for improving the operational performance of the kesyahbandaran in PPP Tasikagung, the preferred three priorities, namely budgetary support from the government for the management of the PPP Tasikagung area (0.542), optimizing existing SOP (0.455), and improving the quality of human resources, especially fishermen or captains employing training, and coaching to reporting fishing activity on fish resources to be landed at the port (0.402).

KEY WORDS

Operational performance, strategy, SWOT, AHP.

A fishing port is a public institution that aims to provide the best service for fishermen as one of the elements that have a dominant in fisheries activities. The existence of a fishing port capture fisheries activities will be focused (Lubis, 2012). The aims of development a fishing port to be center for all aspects of fishery activities include increasing production, quality development, and regional development so that the successful development and operation of fishing ports provide services to the fishing community (Suherman *et al.*, 2012).

Tasikagung Coastal Fishing Port (PPP) is the Implementing Unit Capture Fisheries Technical and responsible to the Director General Capture Fisheries based on the Regulation of the Minister of Marine and Fisheries No. 66 of 2020 concerning Organization and Work Procedures of Implementing Units Capture Fisheries Technical. Kesyahbandaran of a fishing port is managing of the duties and functions of the government at the fishing port to ensure the security and safety of the operation of fishing vessels. Syahbandar is a government official at the port who is appointed by the Minister and has the highest authority to carry out and has the highest authority to carry out and supervise the fulfillment of the provisions of laws and regulations to ensure the safety and security of shipping, order, and ship traffic at the port (Regulation of the Minister of Transportation Number: KM 01 of 2010). Kesyahbandaran in PPP Tasikagung the duties and functions regulated in the Minister of Marine and Fisheries Regulation No. 03 of 2013 about Kesyahbandaran in Fishing Ports. There are 16 parameters of the duties and functions of the fishery harbormaster and their suitability was analyzed with the results of research regarding the implementation of the duties and functions of the syahbandar in PPP Tasikagung.



Syahbandar of the fishing port carrying out his duties, coordinates and responsible to the head of the fishing port. Syahbandar in PPP Tasikagung is assisted by 6 (six) officers to assist services in carrying out their duties and functions, the lack of human resources in the field in carrying out the duties and functions of the syahbandar at PPP Tasikagung such as the lack of officers coming and ship departures, regulating movement and departure fishing vessel traffic, as well as frequent problems related to the required documents submitted by the captain or ship owner or the management of the ship applying for ship approval from the syahbandar (Putri *et al.*, 2017).

MATERIALS AND METHODS OF RESEARCH

The research has been conducted from July to August 2022, in the Coastal Fishing Port (PPP) Tasikagung Rembang, Dorang Street No 02, Rembangan, Tasikagung, Rembang City, Central Java, Indonesian. A map of the location can be seen in Figure 1.

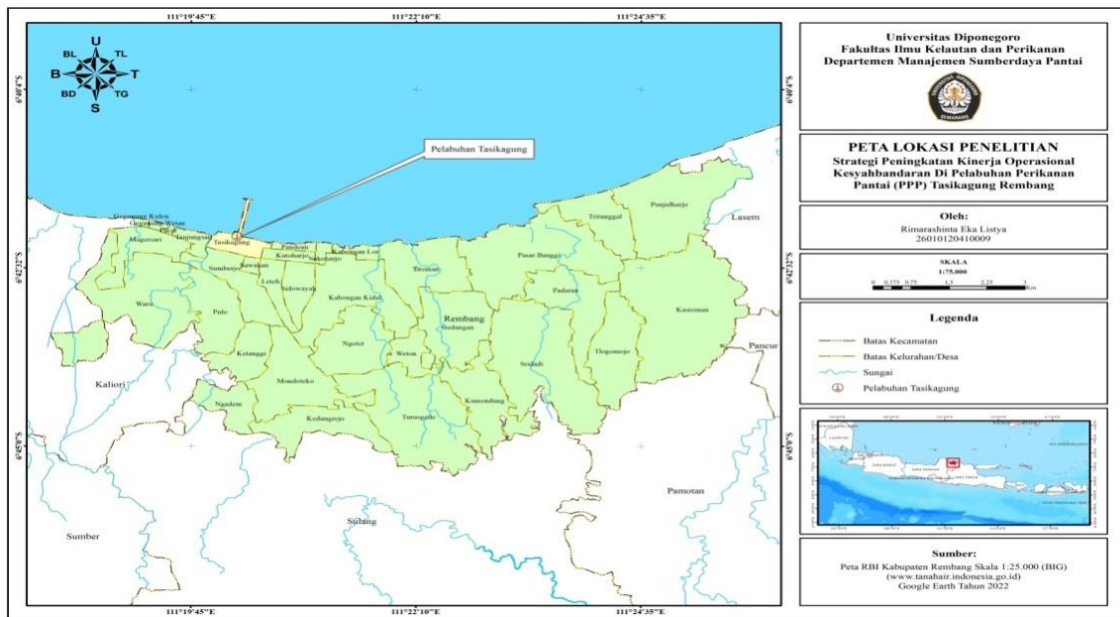


Figure 1 – Map of The Location.

The materials used in this study include questionnaires for direct interview with ship administrator, syahbandar in PPP Tasikagung, Headmaster PPP Tasikagung, academics, Central Java Provincial Government Marine and Fisheries Service and statistical software to process statistical data, Microsoft Excel for process data. Respondent determination method used purposive sampling method. The purposive sampling method is a non-random sampling method that ensures the citation of illustrations through the method of determining respondents who are suitable for the research purposes. According to Arikunto (2006), this sampling is intentionally based on the criteria of the respondents to be taken so that it is by the requirements or research purposes. The sample or respondents used in this study were 30 people. Determination of the number of respondents can be seen in the Table 1.

Table 1 – Determination of the Number of Respondents

No	Respondent	Sample
1.	Ship administrator	25
2.	Headmaster of PPP Tasikagung	1
3.	Syahbandar in PPP Tasikagung	2
5.	Academics	1
6.	Central Java Provincial Government Marine and Fisheries Service	1
Total		30

Sources: Research, 2022.



According to Risab (2017), the respondent to the AHP method for weighting is an expert. The expert here does not have to be someone who is an expert in a particular scientific, but someone who knows very well the problem to be research.

The data taken in this study are primary data and secondary data. Primary data was taken directly to the field using questionnaires and secondary data were obtained from the Coastal Fishing Port (PPP) Tasikagung and Rembang Marine and Fisheries Service. Primary data and secondary data taken in the study are presented in Table 2.

Table 2 – Primary Data and Secondary Data Taken in the Study

No	Data Description	Data source
1.	Questionnaires	Interview with ship administrator, syahbandar in PPP Tasikagung, Headmaster of PPP Tasikagung, academics, and Central Java Provincial Government Marine and Fisheries Service
2.	Port Facilities	PPP Tasikagung
3.	Ship Visits Frequency Data	PPP Tasikagung
4.	Fish Production	Rembang Fisheries and Marine Service
5.	Production Value	Rembang Fisheries and Marine Service
6.	The Duties and Functions of the kesyahbandaran in PPP Tasikagung	PPP Tasikagung and Minister of Marine and Fisheries Regulation No. 03 of 2013 about Kesyahbandaran in Fishing Ports

Sources: Research, 2022.

The questionnaire in this study used a Likert scale. The Likert scale is usually used to measure attitudes through attitude statements (Risnita, 2012). Data has a very important role in research, because the data is a description of variables under investigation and serve as evidence for the hypothesis. Data validity determines data quality. The questionnaire is valid if the questions on the questionnaire can reveal something that will be measured by the questionnaire. The level of validity of the questionnaire is measured based on the coefficient of validity (Gozali, 2006). Validity and reliability test using SPSS software. This depends on the instrument used which meets principles of effectiveness and reliability. Testing research instruments using validity and reliability tests (Riskawati, 2013).

SWOT Analysis based on logic can maximize strengths and opportunities, but at the same time can minimize weakness and threats. Strengths and opportunities are internal factors, while weakness and threats are external factors (Rangkuti, 2006). SWOT analysis is often referred to as situational analysis, classified as internal environmental factors, or direct influence, and external environmental factors, or indirect influence (Rangkuti, 2000). These two factors have a positive impact due to opportunities and strengths and a negative impact due to weaknesses and threats (Nazdan *et al.*, 2008). Process the preparation of strategic planning in the SWOT analysis, three stages, namely data collection stages, analysis stages, and decision making stages.

The data collection stage is an activity of classifying and pre-analysis. This stage, the data is divided into two, namely internal factor and external factor.

Table 3 – Internal Factors Analysis Summary

No	Internal Strategy Factors	Bobot	Rating	Score
Strengths				
1.	The syahbandar office has good office conditions.	a	b	a x b
2.	The syahbandar officer provides good service to fisherman or ship administrator.	a	b	a x b
3.	The syahbandar officer has competent human resources.	a	b	a x b
4.	Socialization to fisherman or ship administrator.	a	b	a x b
Weakness				
1.	The existing SOP's are not working.	a	b	a x b
2.	There is no place for docking or repairing ships and breakwaters.	a	b	a x b
3.	There is no inspection of the fishing logbook yet.	a	b	a x b
4.	Port pond silting	a	b	a x b
Total		1.00		

Sources: David, 2009.



Identify the internal factors that exist in PPP Tasikagung, and then arrange a Table of internal factors or Internal Factors Analysis Summary (IFAS). Based on the results of the preliminary survey through interviews with respondents in PPP Tasikagung found internal strategic factors (strengths and weaknesses) presented in the Table 3.

Based on the results of the preliminary survey through interviews with respondents in PPP Tasikagung found external strategic factors (opportunity and threats) presented in the Table 4.

Table 4 – External Factors Analysis Summary

No	External Strategy Factors	Bobot	Rating	Score
Opportunity				
1.	The desire of business actors/investors to develop a business around the port area.	a	b	a x b
2.	PPP Tasikagung is the largest fishery center in Rembang.	a	b	a x b
3.	Potential for fisheries economic development in ports.	a	b	a x b
4.	Entry of large ships into the port.	a	b	a x b
Threats				
1.	The slighting of fisherman education.	a	b	a x b
2.	The culture of the local fisherman has not complied with the applicable regulations.	a	b	a x b
3.	Lack of budget support for port management.	a	b	a x b
4.	Lack of security and discipline at ports.	a	b	a x b
Total		1.00		

Sources: David, 2009.

After the stage of identifying various factors systematically, the next step is to create a weighted internal external matrix. Then, the decision-making stage of the SWOT matrix is obtained by using external internal matrix. The SWOT matrix can clearly describe strengths, weaknesses (internal) and opportunities, threats (external). SWOT matrix is used to generate alternative strategies (Subaktilah et al., 2018). The SWOT matrix diagram presented in the Table 5.

Table 5 – SWOT Matrix Diagram

EFAS / IFAS	<i>Strength (S)</i> Determine the factors of internal strengths	<i>Weaknesses (W)</i> Determine the factors of internal weakness
<i>Opportunities (O)</i> Determine the factors of external opportunity	Strategy SO Create a strategy that uses strength to take advantage of Quadrant I opportunities.	Strategy WO Create a strategy that minimizes weaknesses to take advantage of Quadrant III opportunities
<i>Threats (T)</i> Determine the factors of external threats	Strategy ST Create a strategy that uses force to overcome threats Quadrant II	Strategy WT Create a strategy that minimizes weaknesses and avoids threats Quadrant IV

Sources: Nugraheni, 2013.

According to Rangkuti (2014), to make decisions in determining the right strategy must know the position of the coordinate points, which are as follows:

- Quadrant I, has opportunities and strengths, so can take advantage of opportunities and strengths which exists. The strategy that must be implemented is to support the policy to develop business;
- Quadrant II, has strength but on the other side has a threat. The strategy implemented is to use strength to resolve threats and minimize the internal problem;
- Quadrant III, has the biggest opportunities, but on the other side has a internal weakness. The strategy implemented is creating strategies that minimize weaknesses to take advantage of opportunities;



- Quadrant IV, Encounter a very bad situation, deal with various threats to deal with internal weakness. The strategy to be implemented minimizes weaknesses and avoids threats.

Decision-Making Steps:

- Determine the score on each element that is on the internal factors and external, after that the values are plotted in the quadrant SWOT diagram analysis consisting of 4 quadrants;
- From the intersection of the four lines formed from the factor scores strengths, weaknesses, opportunities, and threats, the value will be obtained from the coordinates of the calculation results;
- The determination of the coordinate value done in the following way:

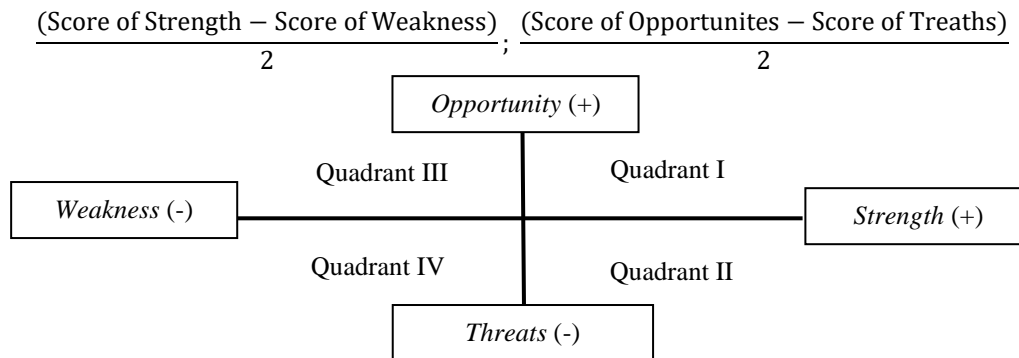


Figure 2 – Quadrant SWOT Diagram Analysis (Sources: Rangkuti, 2014)

AHP (Analytic Hierarchy Process) Method is one of the methods in the decision-making process. Use of this AHP to convince SWOT to make an existing strategy (Anjaryanti and Ramdhani, 2017). AHP will be used after the results of the SWOT analysis are obtained. AHP will function as a tool to determine which strategy should be more prioritized improving kesyahbandaran operational performance in PPP Tasikagung Rembang. AHP in this study uses Expert Choice Software (Rema *et al.*, 2021). According to Marimin *et al.*, (2010), there are three stages in solving problems using the AHP method, namely:

Hierarchical Structure. The hierarchical arrangement of a problem is a defining complex problem that becomes clearer and more detailed. The decision to be taken as a goal, into more detailed elements until reach a measurable stage. The hierarchy of problems will make it easier decision making to analyze and draw conclusions about the problem (Saaty, 1993).

Table 6 – Scale the Value of the Assessment of the Level Importance

Intensity of Interest	Description	Explanation
1	Both elements are equally important.	The two elements have the same effect on goals.
3	One element is slightly more important than the other elements.	Experience and assessment a little support one element compared to other elements.
5	One element is very important compared to the other elements.	Experience and assessment strongly support one element compared to other elements.
7	One element is absolutely more important than the other elements.	One element is strongly supported and dominant in practice.
9	One element is more important than the other elements.	One other element has the highest degree of affirmation that reinforces.
2,4,6,8	The scores between two adjacent considerations.	This value is given if there are two compromises between the two options.

Sources: Marimin *et al.*, 2010.

Priority Determination. The priority of the criteria elements is the weight of the criteria's contribution towards the goal or determining the improvement of elements according to



relative importance. AHP performs priority analysis by comparison method pairs between two elements. Comparing elements using a scale pair-wise comparison which defines the value of 1 to 9 as a comparison number between the criteria used. Scale the value of the assessment of the level importance presented in the Table 6.

Consistency of respondents' answers in determining the priority of elements is the main principle that will determine the validity of the data from the results of decision-making. The value of the consistency ratio ≤ 0.1 or must be 10% or less then decisions taken by the respondents to determine the scale priority is consistent, meaning that the priority scale can be implemented as a policy to reach the target (Marimin, 2004).

RESULTS AND DISCUSSION

Fishing Boat at PPP Tasikagung. Fishing boats are boat that is constructed and used for fishing activities and support fishing operations following fishing gear and fishing catch techniques. Boats that arrive at PPP Tasikagung are not only from Tasikagung but from Juwana. Data on the frequency of ship visits at the Coastal Fishing Port Tasikagung presented in the Table 7.

Table 7 – Data on the frequency of ship visits at the Coastal Fishing Port Tasikagung

No	Category and Size Boats	Units per Year				
		2017	2018	2019	2020	2021
1.	Motorboat					
	< 5 GT	-	-	-	-	-
	5-10 GT	-	-	-	-	-
	10 - 20 GT	2.235	2.779	1.814	1.503	1.541
	20 - 30 GT	3.154	3.606	3.878	3.890	3.415
2.	Outboard Motorboat	-	-	-	-	-
3.	Boat Without Motor	-	-	-	-	-
Total		5.389	6.385	5.692	5.393	4.956

Sources: Coastal Fishing Port Tasikagung, 2021.

The frequency of ship arrivals at PPP Tasikagung decreased in 2019-2021 and increased in 2018. The decrease in ship visits in 2019-2021 was due to the prohibition of dogol and cantrang fishing gear and switching to bagged fishing net fishing gear based on the Minister of Marine and Fisheries Regulation No 18 of 2021 concerning the Placement of Fishing Equipment and Fishing Aids in Fisheries Management Area of the Republic of Indonesia and the High Seas and Arrangement of Fishing Andon. Meanwhile, in 2017-2018 there was an increase because ship owners had not changed their fishing gear and there was no prohibition on using cantrang fishing gear as bagged pull net fishing gear.

Fish Production and Production Value at PPP Tasikagung. Fish production is obtained from the catch of fisherman who landed at PPP Tasikagung, then auctioned at the Fish Auction Place (TPI). Fish production at the Coastal Fishing Port Tasikagung Rembang from 2019 to 2021 has decreased. The decline in fish production in 2019 was 78,393,293 kg with a decrease in production value of Rp 488,192,055,000. In 2020, fish production was 72,605,072 kg with a production value of Rp 476,667,680,000. Meanwhile, fish production in 2021 is 65,424,132 kg with a production value of Rp 358,388,734,600. The decline in production and value of fish production was due to a decrease in the departure of fishing vessels that would go to sea and a ban on fishing using cantrang fishing gear, which switched to bagged pull net fishing gear. Meanwhile, in 2018 fish production at PPP Tasikagung increased by 79,640,154 kg with an increase in production value of Rp 492,789,342,500. This is because there is no regulation on the prohibition of cantrang fishing gear that limits fisherman from carrying out fishing activities. The graph of the total of fish production in the Tasikagung PPP is available in Figure 4 and the graph of the production value in the Tasikagung PPP is available in Figure 5.

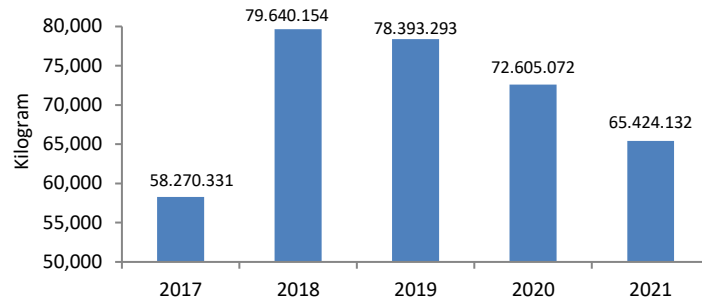


Figure 4 – The Graph of Fish Production (Sources: Coastal Fishing Port Tasikagung, 2021)

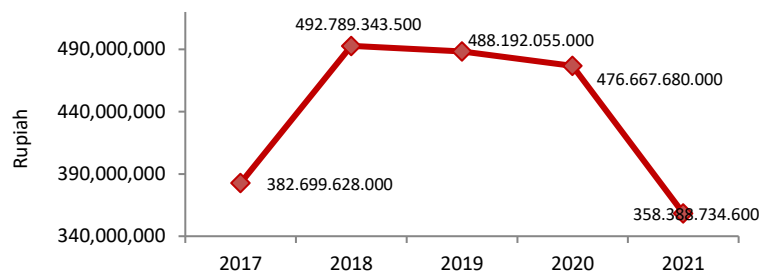


Figure 5 – The Graph of Production Value (Sources: Coastal Fishing Port Tasikagung, 2021)

The Duties and Authorities of The Syahbandar. The duties and authorities of the syahbandar service at PPP Tasikagung are adjusted to the Regulation of the Minister of Maritime and Fisheries Number 03 of 2013 section 5 concerning Kesyahbandaran in Fishing Ports can be seen in Table 8.

Table 8 – The duties and authorities of the syahbandar service at PPP Tasikagung

No	The Duties and Authorities of The Syahbandar Service	Work	Not Work
1.	Publishing Sailing Approval Letter (SPB).	√	
2.	Arranging The Arrival and Departure of Fishing Boats.		√
3.	Checking Completeness of Fishing Boat Documents.	√	
4.	Checking Technical and Nautical Fishing Boats, The Tools of Fishing Gears, and Fishing Gears.	√	
5.	Checking and Validating Marine Employment Agreements.		√
6.	Checking the Fishing Logbook and Fishing Transport.		√
7.	Regulating the Movement and Traffic of Fishing Boats in the Fishing Port.		√
8.	Supervising Guides.		√
9.	Supervise Refueling.	√	
10.	Supervise Fishery Port Facility Development Activities.	√	
11.	Carrying out Search and Rescue Assistance.		√
12.	Leading Pollution Control and Fire Fighting in Fishing Ports.		√
13.	Overseeing the Implementation of Maritime Environmental Protection.		√
14.	Checking the Compliance of Fishing Boat Manning Requirements.	√	
15.	Issuing a Certificate of Arrival and Departure Report for Fishing Boats (STBLKK).	√	
16.	Checking Fish Catch Certificate.	√	

Sources: Research, 2022.

Sailing Approval Letter (SPB) is a document that must be owned by a fishing boat when the boat will sail. The Sailing Approval Letter is issued by the syahbandar and is valid only 1x24 hours since it is issued by the syahbandar. A letter of approval can be issued by the syahbandar of the fishing port after the fishing boat has a letter of operation worthiness issued by the supervisor of marine and fishery resources. The graph of the total of approval letters to sail at PPP Tasikagung is presented in the figure 6.

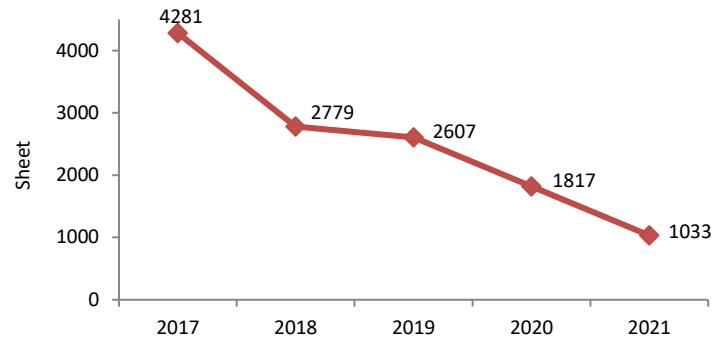


Figure 6 – The Graph of the Sailing Approval Letter (Sources: Coastal Fishing Port Tasikagung, 2021)

Figure 6 shows that during 2017 to 2021 it decreased. This is due to the Regulation of the Minister of Maritime and Fisheries No. 2 of 2015 concerning the prohibition of the use of trawl and seine nets as well as the prohibition of fishing gear and the tools of fishing gear that can damage the environment which is regulated in Regulation of the Minister of Maritime and Fisheries No. 18 of 2021 concerning Placement of Fishing Equipment and Fishing Aids in the Fisheries Management Area of the Republic of Indonesia and the High Seas and Arrangement of Fishing Andon. Based on Ministerial Regulation No. 82 of 2014 concerning Procedures for Issuing Sailing Approval Letters, every ship is required to have a sailing approval letter issued by the harbormaster in public ports or fishing port syahbandar in fishing ports for fishing boats.

The kesyahbandaran at PPP Tasikagung in carrying out services in supervising refueling is carried out by providing a refueling permit for fishing boats at PPP Tasikagung. PPP Tasikagung also serves letters of recommendation for subsidized and non-subsidized fuels. Subsidized fuel recommendation letter for boats <30GT. The requirements that must be completed for the issuance of a letter of recommendation for subsidized fuel are a letter of recommendation for the purchase of subsidized diesel, a photocopy of the ship's arrival letter, a photocopy of a measuring letter, a photocopy of SIUP and SIPI, a photocopy of the sailing approval letter and list of crew members, a photocopy of letter of operation worthiness, a photocopy of the old recommendation letter for the purchase of subsidized diesel. The graph of the total of diesel fuel expenditure at PPP Tasikagung is presented in Figure 7.

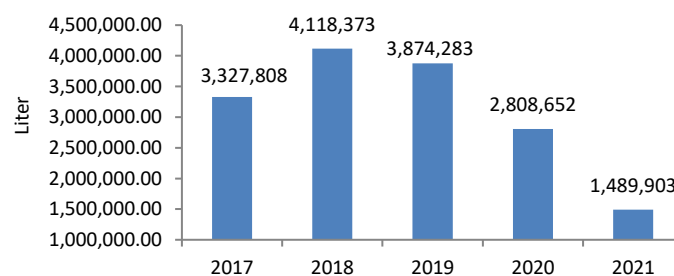


Figure 7 – The Graph of Total Diesel Expenditure Letter
Sources: Coastal Fishing Port Tasikagung (2021)

The syahbandar in regulating and issuing a letter of arrival and departure for fishing boats based on notification of the planned arrival of the captain or boat administrator to the syahbandar officer at the fishing port or via radio communication. Reporting of activities in and out of fishing boats is intended to monitor the conformity of documents with applicable regulations and minimize unlawful activities. The total letters of evidence reporting the arrival and departure of fishing boats during 2017 to 2021 has decreased. The graph of the total of



letters of evidence reporting the arrival and departure of fishing boats at PPP Tasikagung is presented in Figure 8.

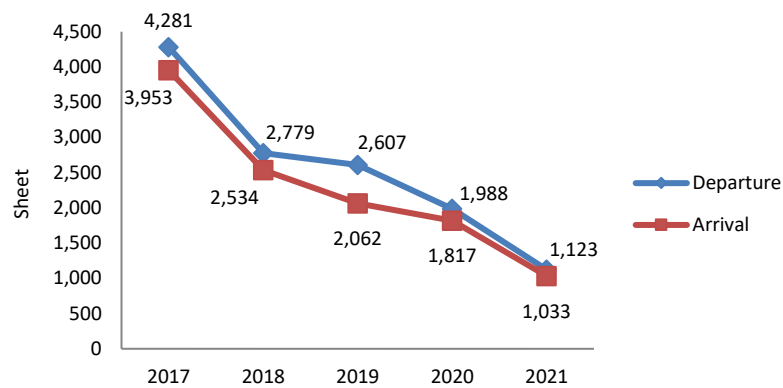


Figure 8 – The Graph of the Total of Letters of Evidence Reporting the Arrival and Departure of Fishing Boats (Sources: Coastal Fishing Port Tasikagung, 2021)

The Internal Factor Evaluation (IFE) matrix is used to evaluate and analyze the internal factors in the strategy to improve the operational performance of the kesyahbandaran at PPP Tasikagung. The internal factor weighting matrix for the strategy to improve the operational performance of the kesyahbandaran at PPP Tasikagung is presented in the Table 9.

Table 9 – The Internal Factor Evaluation (IFE) Matrix

No	Internal Strategi Factors	Bobot	Rating	Score
Strengths				
1.	The syahbandar office has good office conditions.	0.122	3	0.365
2.	The syahbandar officer provides good service to fisherman or ship administrator.	0.107	3	0.320
3.	The syahbandar officer has competent human resources.	0.113	3	0.340
4.	Socialization to fisherman or ship administrator.	0.108	3	0.325
Total		0.450		1.350
Weakness				
1.	The existing SOP's are not working.	0.136	3	0.409
2.	There is no place for docking or repairing ships and breakwaters.	0.143	3	0.429
3.	There is no inspection of the fishing logbook yet.	0.140	3	0.279
4.	Port pond silting.	0.131	3	0.394
Total		0.550		1.511
Total Number		1.00		2.861

Sources: Research, 2022.

The results of the Internal Factor Evaluation (IFE) matrix above show that the assessment of strength factors gets a score of 1,350 and weakness factors a score of 1,511. This means that the score of weaknesses in the strategy to improve the operational performance of the kesyahbandaran at PPP Tasikagung is greater than its strength. The total score of the IFE's strength and weakness factors is 2.861. This shows that overall internal factors are good enough to support the improvement of the operational performance of the kesyahbandaran at PPP Tasikagung. According to Rangkuti (2006), a total score of strength factors and weakness factors below 2.5 indicates a weak internal position, while a total score above 2.5 indicates an internal position is at a strong level. The main strength factor that influences the improvement of the operational performance of the keyahbandaran at PPP Tasikagung is that the syahbandar office has good office condition with a score of 0.365, while the biggest weakness factor is the absence of docking places or ship repairs and breakwaters with a score of 0.429.

The External Factor Evaluation (EFE) matrix is used to evaluate and analyze external factors in the strategy to improve the operational performance of the kesyahbandaran at PPP



Tasikagung. The external factor weighting matrix for the strategy to improve the operational performance of the kesyahbandaran at PPP Tasikagung is presented in the Table 10.

Table 10 – The External Factor Evaluation (EFE) Matrix

No	External Strategi Factors	Bobot	Rating	Score
Opportunities				
1.	The desire of business actors/investors to develop a business around the port area.	0.113	3	0.369
2.	PPP Tasikagung is the largest fishery center in Rembang.	0.105	3	0.345
3.	Potential for fisheries economic development in ports.	0.128	3	0.384
4.	Entry of large ships into the port.	0.130	3	0.389
Total		0.476		1.488
Threats				
1.	The slighting of fisherman education.	0.111	3	0.340
2.	The culture of the local fisherman has not complied with the applicable regulations.	0.113	3	0.345
3.	Lack of budget support for port management.	0.100	3	0.340
4.	Lack of security and discipline at ports.	0.100	3	0.340
Total		0.524		1.345
Total Number		1.00		2.833

Sources: Research, 2022.

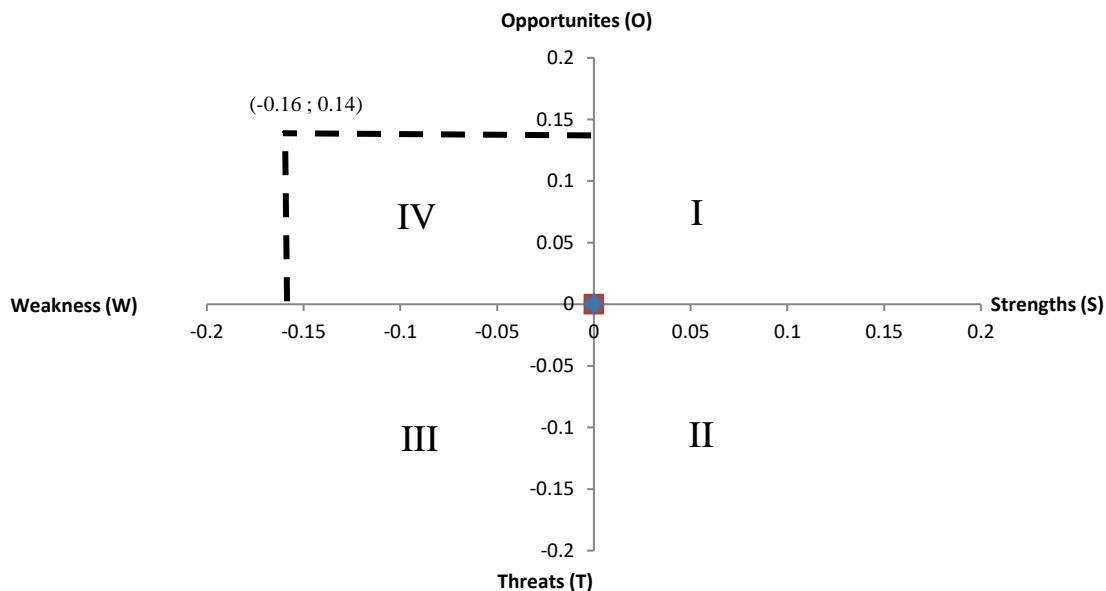


Figure 9 – SWOT Quadrant Operational Performance Improvement Strategy Kesyahbandaran at PPP Tasikagung (Sources: Research, 2022)

The results of The External Factor Evaluation (EFE) matrix above show that for the assessment of opportunity factors a score of 1,488 and threat factors a score of 1,345. This means that the opportunity score in the strategy to improve the operational performance of the kesyahbandaran at PPP Tasikagung is greater than the threat. The total score of the opportunity factors and the EFE threat factors is 2.833. This shows that overall external factors are quite likely to support the strategy to improve the operational performance of the kesyahbandaran at PPP Tasikagung. The main opportunity factor that affects improving the operational performance of the kesyahbandaran at PPP Tasikagung is the entry of large ships into the port with a score of 0.389, while the biggest threat factor is the culture of the local fishing community that has not complied with applicable regulations with a score of 0.345.

Based on the results of the weighting matrix of internal factors (table 9) and external factors (table 10) it can be seen that the quadrant position is in quadrant iii (-0.16; 0.14)



meaning that this position has many obstacles but there is still sufficient time to find solutions and opportunities to performance value can be increased. The strategic position of improving the operational performance of the kesyahbandaran at PPP Tasikagung is presented in Figure 9.

Suci (2015), internal and external positions are in quadrant III, the strategy that must be used is to minimize internal problems so that they can seize existing opportunities (turn-oriented strategy), where the kesyahbandaran in PPP tasikagung is expected to improve operational performance through system improvements existing ones that support the operational performance of the kesyahbandaran in PPP tasikagung by increasing the application of management functions to organizational functions and types of services by the syahbandar at PPP tasikagung.

The SWOT matrix can be constructed after the ife and efe matrices are created. The SWOT matrix is used to assist the development of four (4) types of strategies, namely the SO strategy (strengths-opportunities), WO strategies (weaknesses-opportunities), ST strategies (strengths-threats), and WT strategies (weaknesses-threats). Based on the strategy of each of the IFE and EFE factors in the SWOT matrix, the alternative strategy for improving the operational performance of kessyahbandaran at PPP Tasikagung is formulated as follows:

1. S-O Strategy (Strength-Opportunities):
 - Utilization of the syahbandar office facilities to maximize and improve service activities;
 - Maximizing competent human resources to make PPP Tasikagung the largest fishery center in Rembang;
 - Increase socialization activities for fishermen or ship administrators regularly regarding the development of applicable policies;
 - Development of centralized places of business by taking into the location of the building so as not to mix between activities at the port and other economic activities.
2. W-O Strategy (Weakness-Opportunities):
 - Optimizing existing SOPs to run well;
 - Construction of breakwater and docking facilities or ship repairs in collaboration with relevant agencies on ship operations and repairs;
 - Dredging of harbor ponds with a plan so that ships that are leaning or anchored do not run aground and large ships can enter the port;
 - Increase socialization activities to fishermen or ship administrator on a regular basis about the importance of filling out fishing logbooks that will be landed at the port.
3. S-T Strategy (Strengths-Threats):
 - Conduct socialization or guidance to fishermen or ship management regarding the rules and regulations that apply at the port;
 - There needs to be budget support from the government for the management of the PPP Tasikagung area;
 - Maximizing the performance of human resources at PPP Tasikagung to provide services so that fishery activities continue.
4. W-T Strategy (Weakness-Threats):
 - Improvement of sailing approval letter service standard operating procedure and fishing boat document licensing;
 - Improving port security and order is of course with the support of port staff and port staff;
 - Improving the quality of human resources, especially fishermen or captains by means of counseling, training and coaching to report fishing activities and fish resources that will be landed at the port.

AHP (Analytic Hierarchy Process) is a decision support method that aims to make the best choice from several choices that can be made. The AHP process provides a framework



for group participation in decision making or problem solving (Susilowati, 2008). Based on the results of the analysis of the three actors forming the strategic hierarchy that needs to be decided in order to achieve the goals of the important actors in improving the portability performance at PPP Tasikagung presented in Figure 10.

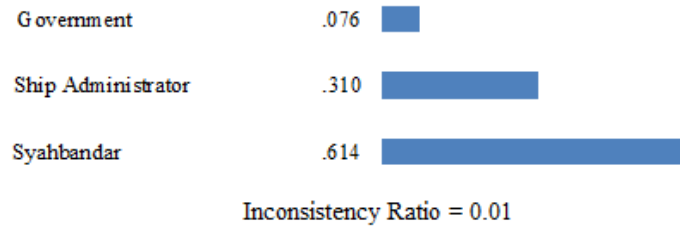


Figure 10 – Actor of Port Service Improvement Performance at PPP Tasikagung (Sources: Research, 2022)

Figure 10, shows that the important actor in improving the performance of the kesyahbandaran at PPP Tasikagung is the porter (value 0.614), fishermen or ship administrator (0.310) and the last actor is the government (0.076). The value of the inconsistency ratio from the analysis shows a number of 0.01 which means that the results of the analysis are acceptable.

Identification of the components in the SO (Strength-Opportunities) strategy, there are 4 (four) components. The SO (Strength-Opportunities) strategy includes maximizing competent human resources to make PPP Tasikagung the largest fishery center in Rembang (score 0.397), utilization of the syahbandar office facilities to maximize and improve service activities (score 0.305), increase socialization activities for fishermen or ship administrators regularly regarding the development of applicable policies (score 0.219), and development of centralized places of business by taking into the location of the building so as not to mix between activities at the port and other economic activities (score 0.079). The value of the inconsistency ratio from the analysis shows a number of 0.02 which means that the results of the analysis are acceptable. The results of the AHP analysis based on the SO (Strength-Opportunities) strategy are presented in Figure 11.

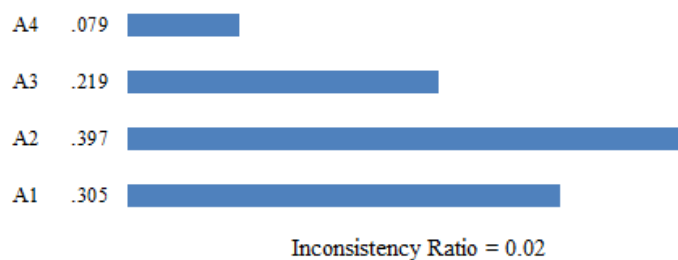


Figure 11 – AHP Analysis Based on SO (Strength-Opportunities) Strategy (Sources: Research, 2022)

The WO (Weakness-Opportunities) strategy, there are 4 components. The WO (Weakness-Opportunities) strategy includes optimizing existing standard operating procedure to run well (score 0.455), increase socialization activities to fishermen or ship administrator on a regular basis about the importance of filling out fishing logbooks that will be landed at the port (score 0.375), Dredging of harbor ponds with a plan so that ships that are leaning or anchored do not run aground and large ships can enter the port (score 0.99), and Construction of breakwater and docking facilities or ship repairs in collaboration with relevant agencies on ship operations and repairs (score 0.071). The value of the inconsistency ratio from the analysis shows a number of 0.05 which means that the results of the analysis are acceptable. The results of the AHP analysis based on the WO (Weakness-Opportunities) strategy are presented in Figure 12.

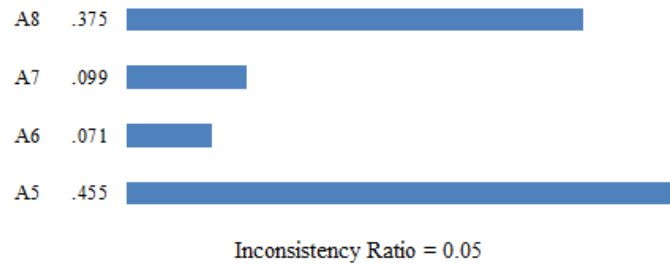


Figure 12 – AHP Analysis Based on WO (Weakness-Opportunities) Strategy (Sources: Research, 2022)

The ST (Strengths-Threats) strategy, there are 3 components. The ST (Strengths-Threats) strategy includes There needs to be budget support from the government for the management of the PPP Tasikagung area (score 0.542), Maximizing the performance of human resources at PPP Tasikagung to provide services so that fishery activities continue (score 0.273), and Conduct socialization or guidance to fishermen or ship management regarding the rules and regulations that apply at the port (score 0.185). The value of the inconsistency ratio from the analysis shows a number of 0.06 which means that the results of the analysis are acceptable. The results of the AHP analysis based on the ST (Strengths-Threats) strategy are presented in Figure 13.

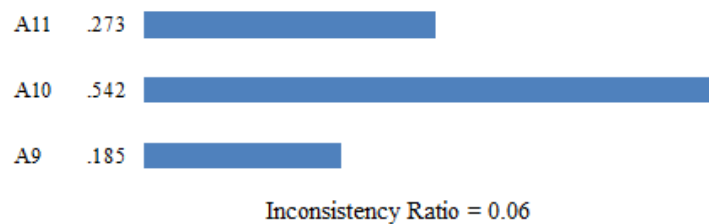


Figure 13 – AHP Analysis Based on ST (Strengths-Threats) Strategy (Sources: Research, 2022)

The components in the WT (Weakness-Threats) strategy, there are 3 components. The WT (Weakness-Threats) strategy includes improving the quality of human resources, especially fishermen or captains by means of counseling, training and coaching to report fishing activities and fish resources that will be landed at the port (score 0.402), improvement of sailing approval letter service standard operating procedure and fishing boat document licensing (score 0.360), and improving port security and order is of course with the support of port staff and port staff (score 0.238). The value of the inconsistency ratio from the analysis shows a number of 0.09 which means that the results of the analysis are acceptable. The results of the AHP analysis based on the WT (Weakness-Threats) strategy are presented in Figure 14.



Figure 14 – AHP Analysis Based on WT (Weakness-Threats) Strategy (Sources: Research, 2022)

The results of the overall analysis using AHP (Analytic Hierarchy Process) show that the three priorities that are prioritized in the strategy to improve the operational performance



of the kesyahbandaran in PPP Tasikagung by looking at all strategies are the need for budget support from the government for the management of the PPP Tasikagung area (value 0.542), optimizing existing standard operating procedure to run well (value 0.455), and improving the quality of human resources, especially fishermen or captains by means of counseling, training and coaching to report fishing activities and fishing activities for fish resources that will be landed at the port (value 0.402).

CONCLUSION

The Regulation of the Minister of Maritime and Fisheries Number 03 of 2013 section 5 concerning Kesyahbandaran in Fishing Ports, of the 16 duties and authorities of the kesyahbandaran there are 8 (eight) duties and authorities that have been carried out and there are 8 (eight) that have not been carried out.

The strategy for improving the operational performance of the kesyahbandaran at PPP Tasikagung with a SWOT analysis is in quadrant III (-0.16; 0.14). Syahbandar is an important factor in improving port performance at PPP Tasikagung (score 0.614). The AHP (Analytic Hierarchy Process) shows that the three priorities that are prioritized in the strategy to improve the operational performance of the kesyahbandaran in PPP Tasikagung by looking at all strategies are there needs to be budget support from the government for the management of the PPP Tasikagung area (score 0.542), optimizing existing standard operating procedure to run well (score 0.455), and improving the quality of human resources, especially fishermen or captains by means of counseling, training and coaching to report fishing activities and fish resources that will be landed at the port (score 0.402).

Suggestions that can be submitted are:

- It is necessary to add competent human resources in their fields, it is necessary to enforce punitive sanctions, and firm leadership;
- The need for increased supervision and support from the government in adding human resources at PPP Tasikagung, especially for human resources in the kesyahbandaran, needs sufficient budget support to support management at PPP Tasikagung;
- It is necessary to improve the quality of human resources, especially fishermen or captains to report fishing activities and fishing activities for fish resources that will be landed at the port.

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