



Performance Analysis and Development Strategy of Coastal Fisheries Ports (PPP)

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Abstract. *This research focuses on evaluating the performance and development strategy of the Coastal Fisheries Port (PPP) in Kota Agung, located in Tanggamus Regency, Lampung Province. The results reveal that both internal and external elements influence the port's activities and overall effectiveness, with organizational aspects emerging as a key determinant. Hypothesis testing confirms that the organizational factor (X2) has a significant effect on port performance (Y). Through the application of USG and SWOT analysis, several critical challenges were identified: (1) the need to optimize supporting facilities to enhance service quality and fish catch, (2) the necessity for funding to rehabilitate and revitalize existing land for better usage, and (3) the importance of improving fishermen's skills to support environmental sustainability around the port area. In light of these insights, the study recommends a more systematic management approach for PPP Kota Agung, emphasizing organizational improvements, efficient use of facilities, and capacity-building programs to boost performance and strengthen the port's competitiveness.*

Keywords: Performance, Development Strategy, Coastal Fishery Port, SWOT Analysis, Organization.

Abstrak. Penelitian ini berfokus pada evaluasi kinerja dan strategi pengembangan Pelabuhan Perikanan Pelabuhan Perikanan Pantai (PPP) di Kota Agung yang terletak di Kabupaten Tanggamus Provinsi Lampung. Hasil penelitian menunjukkan bahwa elemen internal dan eksternal mempengaruhi kegiatan pelabuhan dan efektivitas secara keseluruhan, dengan aspek organisasi organisasi muncul sebagai penentu utama. Pengujian hipotesis menegaskan bahwa faktor faktor organisasi (X2) berpengaruh signifikan terhadap kinerja pelabuhan (Y). Melalui penerapan analisis USG dan SWOT, beberapa tantangan kritis diidentifikasi: (1) kebutuhan untuk mengoptimalkan fasilitas pendukung untuk meningkatkan meningkatkan kualitas pelayanan dan hasil tangkapan ikan, (2) perlunya pendanaan untuk merehabilitasi merehabilitasi dan merevitalisasi lahan yang ada untuk penggunaan yang lebih baik, dan (3) pentingnya meningkatkan keterampilan nelayan untuk mendukung kelestarian lingkungan di sekitar lingkungan di sekitar kawasan pelabuhan. Berdasarkan pandangan-pandangan tersebut, studi ini merekomendasikan pendekatan pengelolaan yang lebih sistematis untuk PPP Kota Agung, dengan menekankan pendekatan manajemen yang lebih sistematis untuk PPP Kota Agung, dengan menekankan organisasi, penggunaan fasilitas yang efisien, dan program peningkatan kapasitas untuk untuk meningkatkan kinerja dan memperkuat daya saing pelabuhan.

Kata kunci: Kinerja, Strategi Pengembangan, Pelabuhan Perikanan Pantai, Analisis SWOT, Organisasi.

1. INTRODUCTION

Coastal Fisheries Ports (Pelabuhan Perikanan Pantai or PPP) play a crucial role in supporting the livelihoods of coastal communities, enhancing food security, and contributing to the national fisheries economy (Fuller et al., 2017; Wenger et al., 2018). These ports serve as hubs for fish landing, storage, distribution, and logistical support, enabling efficient fisheries management and trade (Newton et al., 2020). Despite their strategic importance, many PPPs across various regions continue to face challenges such as limited infrastructure,

suboptimal port management, lack of integration with supply chains, and environmental degradation. In recent years, the demand for improved fisheries port performance has intensified due to increased fishing activities, climate change impacts, and the need to meet international standards for fish handling and traceability. Therefore, assessing the current performance of PPPs and formulating appropriate development strategies is vital to enhance their operational efficiency, sustainability, and contribution to regional development (Newton et al., 2020; Wijayanto et al., 2021).

Lampung province, there is a fishing port whose function is still running well to this day and has an important role as a basis or fishery base in supporting the development of the fishing business, namely the Kotaagung Coastal Fisheries Port (PPP), Tanggamus Regency. Based on the Decree of the Minister of Maritime Affairs and Fisheries No. 12/MEN/2004 concerning the Coastal Fisheries Port (PPP) Kotaagung was upgraded to a port with type C. PPP Kotaagung has facilities to support the implementation of the development of capture fisheries activities, namely with a pond with a capacity to accommodate ships with a size of <30 GT, there is also a fishing fleet with an operational range to inland and archipelago waters, territorial seas, and those included in the ZEEI, have areas for infrastructure and marketing (Thoya et al., 2022; Wenger et al., 2018). However, in reality, in carrying out the functions and duties of PPP Kotaagung in its operations, it is inseparable from several problems related to the role and function of PPP and performance of port management or management such as suboptimal service levels (service for issuing important ship documents), functional facilities that have been damaged such as TPI buildings, non-running waste disposal installations, TPI drainage conditions that are not suitable, port pools are not in accordance with the ship's mooring capacity, and facilities such as the Fishermen's Fuel Filling Station (SPBN) that have not run properly, one of which is caused by limited fuel availability, inadequate ice depots and several other problems in the field (Newton et al., 2020; Thoya et al., 2022).

Due to the development of the problems that occur and the importance of the Kotaagung PPP in the future will support the development of fishing activities in the Tanggamus Regency area and there is still a lack of research on port performance PPP, it is necessary to conduct research on the Performance Analysis and Development Coastal Fisheries Port (PPP). Based on the potential of the capture area, the operational performance in the Kotaagung PPP should be able to run well and develop. However, the fact that PPP Kotaagung as a Fishing Port, until now still does not fully show its performance as a PPP as stated in the Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of

Indonesia Number 08 of 2012 concerning Fishing Ports. PPP Kotaagung plays an important role in supporting capture fisheries, because the port is the basis of capture fisheries activities in Lampung Province, more specifically in the Tanggamus Regency area. The development of fishing business in Tanggamus Regency has an impact on the development of fishery activities in the production of landed capture fisheries. From 2018 to 2019, there was an increase from 26,488 tons/year to 27,018 tons/year and there was an increase in the number of fishing boats from 2018 to 2019 which initially increased from 1,550 units to 1,841 units of boats (Dinas Peternakan dan Perikanan Kabupaten Jombang, 2020). The role and function of the Kotaagung PPP in the performance of port management or management such as suboptimal service levels, damaged functional facilities such as TPI buildings, non-running waste disposal installations, inappropriate TPI drainage conditions and port columns that are not in accordance with the ship's mooring capacity. Fishing ports have an important role as infrastructure to support fisheries development in an area. Fishing port is a public organization that serves the general public, especially fishermen. Fishing ports need good institutional support in managing the facilities available to support capture fisheries businesses. The management of the organization will determine the level of service and performance of the fishing port. The satisfaction of port users can be seen from the port's performance. Therefore, the performance of the port greatly determines the success of a port.

Performance is a result obtained from a person or institution when carrying out a certain job or activity. Performance in more general is also interpreted as a relationship between real or physical results (goods/services) and an input, meaning it is a comparison between the output results and the inputs given (Magel et al., 2020). The definition of port performance is the achievement of success or output in service during a certain period, then the determination is based on the size of time, weight, or comparative ratio (Fordensia, 2020). This means that in this case, the measurement of the performance of the fishing port is required to be possible to measure and be found and conveyed that there is a relationship with the direction of achievement of the port in the future which is contained through its mission and vision. The definition of a Fishing Port is an area or meeting place between the ocean and the land which is useful for the base of all activities such as fishing and there are also various facilities, from the catch to the distribution (N'Souvi et al., 2023). If the function of the fishing port can run well, it can be used as a terminal point or meeting point that will provide benefits both to economic activities on land and at sea (Suherman et al., 2020).

The development and performance of Coastal Fisheries Ports (*Pelabuhan Perikanan Pantai* or PPP) play a critical role in supporting the sustainability and productivity of the fisheries sector, particularly in coastal communities that rely heavily on marine resources for their livelihoods. As national fishery production increases and global demand for seafood rises, PPPs must evolve into efficient, modern, and well managed infrastructures. However, many existing PPPs face challenges such as inadequate facilities, poor port management, limited infrastructure capacity, and environmental degradation. These limitations can lead to inefficiencies in fish landing, post harvest handling, and distribution, which ultimately affect the income of small-scale fishers and the competitiveness of local fisheries. Therefore, conducting a performance analysis and formulating strategic development plans is an urgent step to revitalize PPPs so they can function optimally as economic hubs, centers of marine product distribution, and enablers of regional development in coastal areas. The novelty of this research lies in its integrated approach, combining both performance analysis and strategic planning tailored specifically to the unique context of Coastal Fisheries Ports (PPP). Unlike previous studies that often focus solely on infrastructure or policy, this research offers a comprehensive evaluation that includes operational efficiency, stakeholder engagement, environmental sustainability, and socio-economic impacts. Furthermore, the study introduces a strategic development framework based on empirical data, field observations, and stakeholder input ensuring the solutions are context-sensitive and practically applicable. This research also highlights the need for adaptive, data-driven port management practices that align with modern fisheries governance and blue economy principles. By bridging performance metrics with forward-looking strategies, the study provides a fresh perspective on how PPPs can be transformed into resilient and competitive nodes within the national fisheries supply chain. This study aims to analyze the existing conditions and performance of selected coastal fisheries ports, identify the main challenges and opportunities, and propose strategic development plans that are economically viable, environmentally sustainable, and socially inclusive.

2. RESEARCH METHOD AND MATERIALS

The research design applied is a design through a survey and is a quantitative research method. The research design used multiple linear regression analysis in testing the X and Y variables. In the stage of analyzing internal and external factors that occur in the Kotaagung PPP using calculation analysis using the SWOT (Sugiyono, 2020).

3. RESULTS AND DISCUSSION

The location of this research is in Pasar Madang Village/Village, Kota Agung District, Tanggamus Regency, Lampung Province. The results of interviews with relevant officers within the PPP. Based on the results of the respondent's interview, according to him, the problem of landing the ship is not getting a place to dock the ship and when there is a certain time the water around the port occurs seawater discharge so that the ship has to wait or use a boat to lower their catch, with this incident resulting in delays in the entry of fishery products to the Fish Auction place. In addition, if there is an increase in demand, many new ships sail so that when they are about to dock, the pier is not able to accommodate all incoming ships at the same time, so a ship queuing system is implemented that will carry out loading and unloading activities at the port. Ships that have not loaded and unloaded at the port carry out mooring activities for a while around Break Water. According to Anggreani (2022), the operational performance of the PPP of the city of Agung is running quite well with an achievement of 58%, Fatoni explained that the results of the study show that the supporting infrastructure criteria have the lowest average gap value of 61%, while the facility criteria have the highest average gap value of 81%. Thus, the facility criteria are the criteria with the highest gap compared to the operational criteria and supporting infrastructure.

A. Alternative Problem Solving

Based on the identification of the problems that have been determined, several alternative solutions have been proposed to address the main issues occurring at Kota Agung Port. First, port officers should actively socialize and provide information about the tidal schedule in the port area. Tidal conditions occur twice a day, from 00.30 WIB to 02.00 WIB and from 12.30 WIB to 14.00 WIB. By being informed, fishermen can avoid these times when planning to load or unload their catch. In addition, port officers can offer education or skills training to fishermen to help them adapt to conditions when the sea water recedes. Second, officers or relevant agencies can plan to deepen the fishing pond to ensure that the port pond remains operable during low tide. Third, the relevant officers must regulate the arrangement of docked ships so they are organized in a way that allows other vessels to dock without obstruction. Fourth, there should be a clear plan for the use and loading of the pier as a dedicated facility for fishing boats, which can help resolve issues related to delays in loading and unloading catches. Lastly, it is essential to improve communication between port officers and fishermen so that both parties can coordinate more effectively and be better prepared for future

challenges.

B. SWOT Analysis Results

The SWOT analysis is intended to determine the right strategy in development, especially the management of PPP in Kota Agung, namely by identifying external and internal factors. Internal factors include strengths and weaknesses, while external factors are opportunities *and* threats. SWOT analysis regarding the location of PPP in Kota Agung, Tanggamus Regency is as follows:

a. Stern.

1. Supporting Facilities in Supporting Service Activities
2. Strategic and Accessible Kotagaung PPP Location
3. Optimal human resources
4. Easy Access to PPP Areas
5. Large Land Area
6. Good Neyalan Education and Skill Level
7. The Auction Process at TPI is always crowded

b. Weakness

1. The security of the PPP area is still lacking
2. Siltation of the Port Pond hinders landing
3. PPP Environmental Sanitation and Hygiene is still not optimal
4. Unstable Production Development
5. Excessive number of ships and fishing gear

c. Opportunity

1. PPP has an influence on society
2. Getting funds for PPP repair and revitalization
3. Growing fisheries economic group
4. Fishermen who are aware and do not use tools are not environmentally friendly
5. The environmental damage of PPP is not too great because the community takes good care of it

d. Threat

1. Frequent occurrence of horizontal conflicts in fishing communities
2. Market demand for fishery products is unstable
3. The purchase price of the catch that at any time does not match the market price
4. Uncertain weather factors can be a threat to fishermen
5. Rare entry of investors to PPP Kota Agung

The SWOT analysis was conducted to formulate the appropriate development strategy, particularly for improving the management of the Coastal Fisheries Port (PPP) in Kota Agung, Tanggamus Regency. By identifying internal and external factors, this analysis provides a comprehensive understanding of the port's current condition. Internal factors include both strengths and weaknesses. Among the strengths, Kota Agung's PPP benefits from adequate supporting facilities for port services, a strategic and easily accessible location, optimal human resources, large land area, and a relatively high level of education and skills among fishers. Additionally, the regular crowding of the fish auction process at the Fish Auction Place (TPI) indicates high transaction activity, further supporting its role as a vital fisheries hub. However, several internal weaknesses hinder the port's full potential. These include inadequate security in the port area, siltation in the port pond which disrupts landing operations, poor sanitation and hygiene in the PPP environment, unstable fish production, and an excessive number of vessels and fishing gear that can lead to inefficiencies and environmental pressure.

From an external perspective, there are significant opportunities that can be leveraged. PPP Kota Agung holds substantial influence in the local community, and there are opportunities to obtain funding for repairs and revitalization. The emergence of fisheries economic groups, along with a growing awareness among fishermen to avoid environmentally harmful fishing practices, adds to the port's developmental potential. Moreover, the relatively preserved environmental condition of the PPP, maintained by community efforts, offers a good foundation for sustainable development. Nevertheless, several external threats need to be addressed. Frequent horizontal conflicts among fishing communities pose social challenges, while unstable market demand and fluctuating purchase prices of fish catches can affect income stability. Additionally, unpredictable weather conditions often disrupt fishing activities, and the low frequency of investor interest in Kota Agung's PPP hampers its potential for broader economic development. Overall, this SWOT analysis serves as a strategic reference for determining targeted development policies, focusing on maximizing strengths and opportunities while minimizing weaknesses and mitigating threats. Strengthening institutional management, improving infrastructure, and building collaborative partnerships with stakeholders are essential to support the sustainable development of the Kota Agung Coastal Fisheries Port.

C. Matrix Analysis

a. IFAS (*Intenal Strategy Factors Analysis*)

Based on the results of the analysis contained in the internal variables, strengths and weaknesses in the development of the Kota Agung PPP are as follows:

Table 2. Calculation of *Strenght – Weakness* of PPP Kota Agung

Kuisoner	Rating	Weight	Rating x Weight
S1	3.5	0.10	0.35
S2	3.0	0.09	0.26
S3	3.0	0.09	0.26
S4	3.1	0.09	0.28
S5	4.0	0.11	0.45
S6	3.8	0.10	0.38
S7	3.7	0.10	0.37
Total S			2.35
W1	2.5	0.06	0.16
W2	2.6	0.08	0.21
W3	1.6	0.08	0.12
W4	3.1	0.06	0.18
W5	1.3	0.05	0.06
Total W			0.73

Source : Olahdata Ms.excel, 2024

According to Barusman & Yoshua (2014) explained that IFAS (*Intenal Strategy Factors Analysis*) is an analysis that regulates internal factors into categories regarding strengths and weaknesses and measures how influential management is to respond to these factors with the level of importance for a company. The table above explains that S (*Strenght*) is at 2.35 while W (*Weakness*) is at 0.73 which means that the difference between strength and weakness is (S-W) 1.62. It can be concluded that in increasing the PPP of Kota Agung, the variable strength is more influential than the variable of weakness.

b. EFAS (*External Strategy Factors Analysis*)

Based on the results of the analysis contained in the external factors, variables, opportunities and threats in the development of PPP Kota Agung as follows:

Table 3. Calculation of *Opportunity – Threat* PPP Kota Agung

Kuisoner	Rating	Weight	Rating x Weight
O1	3.3	0.12	0.41
O2	2.8	0.11	0.31
O3	3.4	0.12	0.42
O4	2.9	0.11	0.32
O5	3.0	0.12	0.36
Total O			1.81
T1	1.4	0.07	0.10
T2	2.0	0.09	0.18
T3	1.8	0.11	0.19
Q4	2.3	0.06	0.15
Q5	2.1	0.08	0.17
Total T			0.79

Source : Olahdata Ms.excel, 2024

EFAS (*External Strategy Factors Analysis*) is an analysis that aims to organize external strategic factors into generally accepted categories of opportunities and threats and measure how much and feasible it is for management in terms of the level of importance of a company. Based on the table above, it is explained that O (*Opportunity*) is at 1.81 and T (*Threats*) is at 0.79 which means that the difference between opportunity and threat is (O-T) 1.02. So it can be concluded that the opportunity variable has a great influence on the support for officers, fishermen, and the community around the KotaAgung PPP, and it can be said that the opportunity variable is more influential in improving the development of the Kotaagung PPP than the threat variable.

D. SWOT Matrix Analysis

Based on the identification of internal and external factors, it is then carried out on a SWOT matrix to obtain alternative strategies. Data as follows:

Table 4. Alternative Strategy

IFAS	Strength (S)	Disadvantages (W)
	1. Facilities in support of service activities	1. The security of the PPP area is still lacking
	2. Strategic and Accessible Kotagaung PPP Location	2. Siltation of the Port Pond hinders landing
	3. Optimal human resources	3. PPP Environmental Sanitation and Hygiene is still not optimal
	4. Easy Access to PPP Areas	4. Unstable Production Development
	5. Large Land Area	
	6. Good Neyalan Education and Skill Level	

EFAS	7. The Auction Process at TPI is always crowded	5. Excessive number of ships and fishing gear
Odds (O)	SO (Aggressive) Strategy	WO (Turn Around) Strategy
1. PPP has an influence on society 2. Getting funds for PPP repair and revitalization 3. Growing fisheries economic group 4. Fishermen who are aware and do not use tools are not environmentally friendly 5. The environmental damage of PPP is not too great because the community takes good care of it	1. The use of facilities to support service activities will affect the community around the Kota Agung PPP. 2. Utilizing the PPP repair and revitalization fund to maximize the use of large land areas. 3. Improving the skills of fishermen to maintain the PPP environment of Kota Agung.	1. The addition of officers to maintain the security of the Kotaagung PPP. 2. Improving the knowledge and skills of fishermen or the community in maintaining the cleanliness and sanitation of the Kotaagung PPP environment. 3. Evaluating the Facilities and Infrastructure used by Fishermen in mutual coordination between officers and fishermen in the Kotaagung PPP environment.
Threat (T)	ST strategy (differentiation)	WT Strategy (Defensive)
1. Frequent occurrence of horizontal conflicts in fishing communities 2. Market demand for fishery products is unstable 3. The purchase price of the catch that at any time does not match the market price 4. Uncertain weather factors can be a threat to fishermen 5. Rare entry of investors to PPP Kota Agung	1. The need to maintain the harmony of the fishing community by holding regular group meetings with each other. 2. There are efforts to carry out activities/events involving investors so that they can enter the Kotaagung PPP environment. 3. There are efforts by fishermen to see weather conditions when going to sea.	1. The need for education and activities that build community solidarity in the surrounding environment. 2. There is a need for open auction activities

So that when a SWOT analysis is carried out, the results are described in the SWOT matrix and the position of the Kota Agung PPP in the matrix is known as follows:

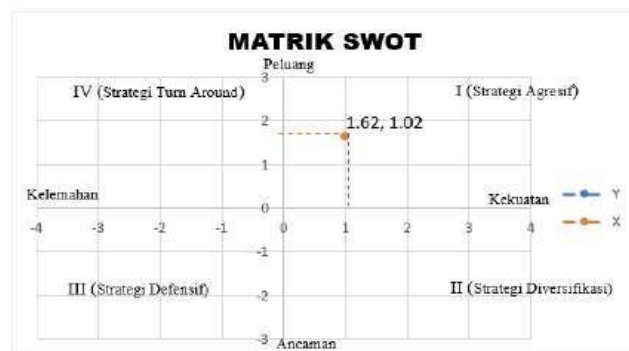


Figure 1. Agug City PPP Position in the SWOT Matrix Source: Ms. Excel Data, 2024

In the picture above, it is explained that the PPP of Kota Agung is in the position of quadrant I which means that it shows a very favorable situation because the port has opportunities and strength, so in this position the port must support an aggressive growth policy and it can be concluded that the location of the PPP which is strong has the opportunity to increase PPP growth and the strategy recommendations given are progressive which the PPP of Kota Agung is very likely to continue expansion, magnifying its influence for the community and fishermen to achieve maximum progress. The situation applied based on the SWOT matrix obtained is using *the Strategic Opportunities* (SO) strategy which reads as follows:

1. The use of facilities to support service activities will affect the community around the Kota Agung PPP, especially the fishing community.
2. Utilizing the PPP repair and revitalization fund to maximize the use of large land areas.
3. Improving the skills of fishermen to maintain the PPP environment of Kota Agung.

E. Instrument Validity Test

Table 5. Validity Test Results

Port Performance				Social Factors				Organizational Factors			
Yes	rx _y	r _{table}	Status	Yes	rx _y	r _{table}	Status	Yes	rx _y	r _{table}	Status
Y.1	0,863	0,443	Valid	X1.1	0,622	0,443	Valid	X2.1	0,850	0,443	Valid
Y.2	0,581	0,443	Valid	X1.2	0,769	0,443	Valid	X2.2	0,775	0,443	Valid
Y.3	0,940	0,443	Valid	X1.3	0,610	0,443	Valid	X2.3	0,740	0,443	Valid
Y.4	0,940	0,443	Valid	X1.4	0,546	0,443	Valid	X2.4	0,740	0,443	Valid
Y.5	0,940	0,443	Valid					X2.5	0,740	0,443	Valid
Y.6	0,940	0,443	Valid					X2.6	0,850	0,443	Valid
Y.7	0,947	0,443	Valid					X2.7	0,775	0,443	Valid
Y.8	0,581	0,443	Valid					X2.8	0,740	0,443	Valid
Y.9	0,581	0,443	Valid					X2.9	0,453	0,443	Valid
Y.10	0,581	0,443	Valid					X2.10	0,652	0,443	Valid
Y.11	0,780	0,443	Valid					X2.11	0,783	0,443	Valid
Y.12	0,812	0,443	Valid					X2.12	0,652	0,443	Valid
Y.13	0,688	0,443	Valid					X2.13	0,783	0,443	Valid
Y.14	0,659	0,443	Valid					X2.14	0,740	0,443	Valid
Y.15	0,688	0,443	Valid					X2.15	0,740	0,443	Valid
Y.16	0,659	0,443	Valid					X2.16	0,850	0,443	Valid
Y.17	0,666	0,443	Valid					X2.17	0,775	0,443	Valid
Y.18	0,940	0,443	Valid					X2.18	0,740	0,443	Valid
Y.19	0,581	0,443	Valid					X2.19	0,453	0,443	Valid
Y.20	0,940	0,443	Valid					X2.20	0,697	0,443	Valid
Y.21	0,940	0,443	Valid					X2.21	0,702	0,443	Valid
Y.22	0,812	0,443	Valid					X2.22	0,591	0,443	Valid
Y.23	0,688	0,443	Valid					X2.23	0,850	0,443	Valid
Y.24	0,725	0,443	Valid					X2.24	0,850	0,443	Valid
Y.25	0,725	0,443	Valid					X2.25	0,775	0,443	Valid
Y.26	0,516	0,443	Valid					X2.26	0,740	0,443	Valid
								X2.27	0,655	0,443	Valid

X2.28	0,655	0,443	Valid
X2.29	0,802	0,443	Valid

Source: Data Processing, 2024

The results of the validity test of the questionnaire items showed that all statement items on all variables in this study had a value above 0.443 (r-table) so that it can be concluded that the research questionnaire items can be used and accepted.

Reliability Test

Table 6. Reliability Test Results

Variable	Cronbach's Alpha	N of Items
Port Performance	.970	26
Social Factors	.497	4
Organizational Factors	.967	29

Source: Data Processing, 2024

Based on the table above, it shows that all variables in this study have an alpha *Cronbach* value of > 0.70 which means that the respondents' answers about all indicators for all variables in this study are declared reliable with very high values.

F. Normality Test

The normality test of the data in this study used the *Kolmogorov-Smirnov* (K-S) non-parametric statistical test. By making a hypothesis, if the significant value is greater than 0.05 then H_0 is accepted, while if the significant value is less than 0.05 then H_0 is rejected.

Table 7. Normality Test

One-Sample Kolmogorov-Smirnov Test		And total	X1 Total	X2 Total
N		20	20	20
Normal Parameters, b	Mean	109.00	10.90	100.80
	Std. Deviation	16.733	2.337	25.109
Most Extreme Differences	Absolute	.131	.181	.100
	Positive	.105	.134	.098
	Negative	-.131	-.181	-.100
Test Statistic		.131	.181	.100
Asymp. Sig. (2-tailed)		.200c,d	.085c	.200c,d

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: Data Processing, 2024

Based on the table above, the results of the normality test showed an Asymp. Sig. (2-tailed) value of $0.200 > \alpha 0.05$ for power Y (Port Performance) and X2 (Organizational Factor). The data X1 (Social Factors) shows the value of Asymp. Sig. (2-tailed) $0.085 > 0.05$. From all these results, the significant value with the *one sample Kolmogorov-Smirnov* test for all variables is greater than 0.05, so it can be concluded

that the data in this study are normally distributed and the research can be continued using parametric tests.

Table 8. Multiple Regression Test

Standardized Type	Coefficient		
	U n s t a n d a r d i z e d C o e f f i c i e n t s		
	Coefficients		Beta
	B	Std. Error	
(Constant)	153.388	24.820	
X1	-.213	1.468	-.030
X2	-.417	.137	-.626

a. Dependent Variable Y

Source: Data Processing, 2024

Based on the table above, the coefficient results are to look at multiple linear regression equations and test hypotheses with t-statistics for each independent variable.

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

$$Y_i = 153,388 - 0.213(X_1) - 0.417(X_2) + e$$

From the results of the regression above, it is found that:

- The regression coefficient for social factors (X_1) = -0.213 states that every addition of one to the social factor unit decreases port performance by -0.213.
- The regression coefficient for organizational factors (X_2) = -0.417 states that every addition of one to the organizational factor unit reduces port performance by -0.417.

The coefficient of determination (R^2) is essentially used to measure how far the model's ability to explain variations in dependent variables. The value of the coefficient of determination is between zero and one. Where (R^2) the value ranges from $0 < R^2 < 1$, the greater the R^2 , the more the independent variable the closer the relationship is to the non-free variable and in other words the model is considered good (Ghozali, 2013).

Table 9. Coefficient of Determination Test (R^2)

Model Summary				
Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.616a	.379	.306	13.936

a. Predictors: (Constant), X2 Total, X1 Total

Source: Data Processing, 2024

An R value of 0.616 was obtained, which shows that the dependent variable with the independent variable bound is quite high by 61.6%. Adjusted R square (R^2) obtained a value of 0.306, meaning that 30.6% of port performance is influenced by social factors and organizational factors. While the rest were influenced by other variables that were not studied in this study.

G. Test F

Simultaneous tests (F tests) are performed to illustrate whether independent variables have an influence that is significant simultaneously with the dependent variable. The basis for decision-making is:

1. If the significant value is <0.05 , then it can be said that there is a significant influence between the free variables and the bound variables simultaneously.
2. If the significant value is >0.05 , then it can be said that there is no significant influence between the free variables and the simultaneously bound variables.

Table 10. F Test Results

NEW ERA						
Type		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2018.242	2	1009.121	5.196	.017b
	Residual	3301.758	17	194.221		
	Total	5320.000	19			

a. Dependent Variable: Y (Port Performance)

b. Predictors: (Constant), X2(Organizational Factors), X1(Social Factors)

Source: Data Processing, 2024

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From the table above, it shows that the value of F is calculated as 5.196 with a significance level of 0.017. While the F table is 3.52 with a significance level of 0.05. This indicates that simultaneously the variables of social factors (X1) and organizational factors (X2) affect the performance of the port (Y).

H. T Test

The t-test differential test is used to test how much influence independent variables are used

In this study, it is individual (partial) in explaining the dependent variables. The basis for t-test decision-making is as follows:

- a. By looking at the significance (sig.) of 5%. If the significant (sig.) < 0.05 then H_a is accepted H_o is rejected which means that the model is suitable for use in this study, and vice versa if the significant value (sig.) > 0.05 then H_o is accepted and H_a is rejected which means that the model is not suitable for use.
- b. Compare the T value of the calculation with the T value according to the table. If T is calculated $>$ from the value of the table, then H_o is rejected and H_a is accepted.

Table 11. T Test Results

Coefficient		
Type	t	Sig.

1	(Constant)	6.180	.000
	X1 (Social Factors)	-.145	.886
	X2 (Organizational Factors)	3.053	.007
a.	Dependent Variable Y		

Source: Data Processing, 2024

Based on the results of hypothesis testing, the first hypothesis (H1) stated that social factors do not have a significant influence on port performance. The analysis results support this hypothesis, as the t-value (-0.145) is smaller than the critical t-table value (2.093), and the significance level is 0.886, which is greater than the threshold of 0.05. Therefore, the null hypothesis (Ho) is accepted and the alternative hypothesis (Ha) is rejected. This indicates that social factors (X1), such as community perceptions, relationships among stakeholders, or social cohesion around the port, do not have a statistically significant impact on the overall performance of the port (Y). This finding suggests that while social dynamics may be relevant to stakeholder relations or informal support networks, they do not directly influence measurable performance indicators of the port, such as efficiency, service delivery, or operational capacity. In contrast, the second hypothesis (H2) posits that organizational factors have a significant influence on port performance. The test results show that the calculated t-value (3.053) is greater than the t-table value (2.093), with a significance level of 0.007, which is below the 0.05 threshold. This leads to the rejection of Ho and the acceptance of Ha, indicating a significant relationship between organizational factors (X2) and port performance (Y). Organizational factors may include management quality, internal coordination, administrative procedures, and workforce competence all of which are critical to operational effectiveness. These results highlight the importance of strengthening internal organizational systems and structures as a key strategy in improving port performance. Consequently, efforts to develop the port should prioritize organizational improvements, including human resources, planning systems, and institutional governance.

The findings of this study reveal differing impacts of social and organizational factors on port performance at the Coastal Fisheries Port (PPP) in Kota Agung. The first hypothesis (H1), which tested the effect of social factors on port performance, was not supported by the data. The statistical results showed that social factors do not have a significant influence, as indicated by a t-value of -0.145 and a significance level of 0.886 (> 0.05). This suggests that although social dynamics—such as local community engagement, stakeholder relationships, and public perception—play a role in the

broader context of port activities, they do not directly affect operational performance indicators such as efficiency, productivity, or service delivery at PPP Kota Agung. This finding is consistent with research which found that social cohesion and community participation, while important for social acceptance and conflict resolution, did not significantly influence technical performance metrics in port operations (Long et al., 2017). That community involvement in fisheries ports often lacked formal mechanisms and remained symbolic rather than functional, thus limiting its direct impact on measurable outcomes (Yulisti et al., 2024).

In contrast, the second hypothesis (H2) was supported, demonstrating that organizational factors have a statistically significant influence on port performance. With a t-value of 3.053 and a significance level of 0.007 (< 0.05), the analysis confirms that internal organizational elements such as management structure, human resources, communication flows, and decision-making efficiency play a vital role in determining the success of port operations. This is aligned with studies such as those which highlighted that organizational readiness and administrative competence are central to improving port service quality and operational consistency (Hasiholan et al., 2023). Moreover, research emphasized that ports with well-established internal governance systems are more adaptable, responsive to challenges, and capable of maximizing both economic and logistical performance (Darasi et al., 2020; Powell et al., 2024).

These findings underscore the critical need for capacity-building within the port's organizational framework. Improvements in human resource development, implementation of standardized operating procedures, and investment in digital port management systems are all strategic interventions that could significantly enhance port performance. In addition, the alignment of internal goals and coordination among departments within the port authority is essential for responding effectively to external challenges such as fluctuating market demands or unpredictable weather patterns. Interestingly, while social factors did not demonstrate a significant effect in this study, it would be premature to disregard them entirely. Social dynamics often play a supporting role in fostering a stable and collaborative environment, which is necessary for the smooth implementation of organizational policies (Utami et al., 2021). In this regard, social and organizational factors should not be seen in isolation but as complementary forces where strong organizational performance may be reinforced by community trust and support, especially in the fisheries sector, which heavily depends on local actors. In summary, the research reinforces the argument that while social

engagement remains important for long-term sustainability and stakeholder alignment, the core driver of immediate and measurable port performance lies in the strength and effectiveness of internal organizational systems. For PPP Kota Agung, this suggests that development strategies should prioritize organizational improvements while continuing to cultivate social harmony and community involvement as a foundation for inclusive growth.

4. CONCLUSION

The activities and performance of PPP in Kota Agung are influenced by internal and external factors, among which organizational factors are one of the factors that can affect the performance of the Kota Agung Coastal Fisheries Port activities. In accordance with the testing of the hypothesis where the organizational factor (X2) has a significant influence on the performance of the Port (Y). The results of the ultrasound and SWOT analysis were obtained the main problems so that the Kotaagung PPP could carry out development strategies between the use of supporting facilities for service activities can affect performance and catches, especially for the community within the scope of the Kota Agung PPP, utilizing the PPP repair and revitalization fund to maximize the use of large land areas and improving the skills of fishermen to maintain the PPP environment of Kota Agung.

REFERENCES

- Anggreani, N. (2022). Pengaruh Struktur Modal Terhadap Profitabilitas Dengan Ukuran Perusahaan Sebagai Variabel Moderasi Pada Perusahaan
- Barusman, A. R. P., & Yoshua. (2014). Analisis Strategi Bauran Pemasaran Terhadap Kepuasan Konsumen di Bubur Gabe Bandar Lampung. *Jurnal Manajemen Dan Bisnis*, 4(2), 179–196.
- Darasi, F., Mehanna, S., & Aksissou, M. (2020). The coastal fisheries in tangier port: Catch assessment and current status. *Egyptian Journal of Aquatic Biology and Fisheries*, 24(2). <https://doi.org/10.21608/EJABF.2020.85737>
- Dinas Peternakan dan Perikanan Kabupaten Jombang. (2020). Data Produksi Perikanan Tahun 2019. Dinas Peternakan Dan Perikanan Kabupaten Jombang.
- Fordensia, D. W. W. (2020). Kinerja Operasional Bongkar Muat Pada Perusahaan Pelayaran Pt. Berlian Jasa Terminal Indonesia Surabaya. [Http://Repository.Unimar-Amni.Ac.Id/](http://Repository.Unimar-Amni.Ac.Id/), 5(1), 1–8.

- Fuller, E. C., Samhour, J. F., Stoll, J. S., Levin, S. A., & Watson, J. R. (2017). Characterizing fisheries connectivity in marine social-ecological systems. In *ICES Journal of Marine Science* (Vol. 74, Issue 8). <https://doi.org/10.1093/icesjms/fsx128>
- Hasiholan, V. M., Fauzi, A., & Kinseng, R. A. (2023). The Effect of Fishermen's Income Factors on Fishermen's Poverty on The North Coast of Jakarta. *Jurnal EMT KITA*, 7(2). <https://doi.org/10.35870/emt.v7i2.1161>
- Long, R. D., Charles, A., & Stephenson, R. L. (2017). Key principles of ecosystem-based management: the fishermen's perspective. *Fish and Fisheries*, 18(2). <https://doi.org/10.1111/faf.12175>
- Magel, C. L., Lee, E. M. J., Strawn, A. M., Swieca, K., & Jensen, A. D. (2020). Connecting Crabs, Currents, and Coastal Communities: Examining the Impacts of Changing Ocean Conditions on the Distribution of U.S. West Coast Dungeness Crab Commercial Catch. *Frontiers in Marine Science*, 7. <https://doi.org/10.3389/fmars.2020.00401>
- N'Souvi, K., Sun, C., & Rivero Rivero, Y. M. (2023). Development of marine small-scale fisheries in Togo: An examination of the efficiency of fishermen at the new fishing port of Lomé and the necessity of fisheries co-management. *Aquaculture and Fisheries*. <https://doi.org/10.1016/j.aaf.2023.07.009>
- Newton, A., Icely, J., Cristina, S., Perillo, G. M. E., Turner, R. E., Ashan, D., Cragg, S., Luo, Y., Tu, C., Li, Y., Zhang, H., Ramesh, R., Forbes, D. L., Solidoro, C., Béjaoui, B., Gao, S., Pastres, R., Kelsey, H., Taillie, D., ... Kuenzer, C. (2020). Anthropogenic, Direct Pressures on Coastal Wetlands. In *Frontiers in Ecology and Evolution* (Vol. 8). <https://doi.org/10.3389/fevo.2020.00144>
- Powell, F., Levine, A., & Ordonez-Gauger, L. (2024). Fishermen's perceptions of management in the California spiny lobster and California market squid fisheries. *Marine Policy*, 161. <https://doi.org/10.1016/j.marpol.2024.106015>
- Sugiyono, D. (2020). Metode Penelitian Kuantitatif, Kualitatif, dan R&D.
- Suherman, A., Boesono, H., Kurohman, F., & Mudzakir, A. K. (2020). Kinerja Pelabuhan Perikanan Nusantara Kejawanan Cirebon Jawa Barat. *Marine Fisheries: Journal of Marine Fisheries Technology and Management*, 11(1), 23–38. <https://doi.org/10.29244/jmf.v11i1.31803>
- Thoya, P., Horigue, V., Möllmann, C., Maina, J., & Schiele, K. S. (2022). Policy gaps in the East African Blue economy: Perspectives of small-scale fishers on port development in Kenya and Tanzania. *Frontiers in Marine Science*, 9. <https://doi.org/10.3389/fmars.2022.933111>
- Utami, R. S., Budimawan, & Kurniaty. (2021). Policy Evaluation of Central Government and Local Governments in Untia Fishing Port Development. *IOP Conference Series: Earth and Environmental Science*, 921(1). <https://doi.org/10.1088/1755-1315/921/1/012052>
- Wenger, A. S., Rawson, C. A., Wilson, S., Newman, S. J., Travers, M. J., Atkinson, S., Browne, N., Clarke, D., Depczynski, M., Erftemeijer, P. L. A., Evans, R. D., Hobbs, J. P. A., McIlwain, J. L., McLean, D. L., Saunders, B. J., & Harvey, E. (2018). Management strategies to minimize the dredging impacts of coastal development on fish and

fisheries. In Conservation Letters (Vol. 11, Issue 5). <https://doi.org/10.1111/conl.12572>

Wijayanto, D., Wibowo, B. A., & Setiyanto, I. (2021). The strategy of capture fisheries development in rembang regency. *AACL Bioflux*, 14(3).

Yulisti, M., Hidayat, A. S., Firdausy, C. M., Mu'awanah, U., Kurniasari, N., & Nurjati, E. (2024). Effects of eco-friendly fishing gears on fishermen's welfare and sustainable fisheries: Lessons learned from Indonesia. *Marine Pollution Bulletin*, 198. <https://doi.org/10.1016/j.marpolbul.2023.115888>