

USER'S SATISFACTION LEVELS TOWARD SADENG COASTAL FISHING PORT SERVICE AT GUNUNGKIDUL REGENCY

Tingkat Kepuasan Pengguna Terhadap Pelayanan Pelabuhan Perikanan Pantai Sadeng Kabupaten Gunungkidul

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ABSTRACT

Ensuring high-quality service is one of the most challenging aspects of managing fishing ports, including Sadeng Fishing Port. Service quality is important because it is one of the success determinants of port management. The port's prosperity is intimately tied to the quality of service given, which supports the port's role and function as a center for fishing activities. The study aimed to measure user satisfaction with service quality and which service indicators needed modification and maintenance to improve service quality in the Coastal Fishing Port (PPP). A survey of 45 port users, including fishermen, ship owners, traders, and fish processors, as well as the Fish Auction Site Manager and the Port Manager, was conducted in PPP Sadeng from August to October 2021. The information was analyzed using the Customer Satisfaction Index (CSI) and the Importance Performance Analysis (IPA). The study showed that the availability of basic, functional, and supporting facilities was 86.84 percent. Port users were satisfied to a degree of 65.20 percent, which is considered relatively satisfactory. To improve service quality, about six service attributes should be prioritized. The port personnel's ability to respond quickly to problems; the port personnel's responsiveness to users' complaints; the personnel's ability to provide security guarantees in using services; the cleanliness, orderliness, and comfort of the port physical condition; and the port facilities' arrangement, completeness, readiness, and cleanliness were among them. It was necessary to improve the provision of amenities, especially for the functional facilities; in the meantime, improving service quality should prioritize personnel reaction to problems and handling user complaints.

Keywords: *Customer Satisfaction Index, Importance Performance Analysis, Sadeng Coastal Fishing Port, Gunungkidul Regency.*

ABSTRAK

Memastikan kualitas pelayanan terbaik menjadi isu penting pengelolaan pelabuhan perikanan, termasuk di PPP Sadeng. Kualitas pelayanan sangat penting karena menjadi salah satu faktor penentu keberhasilan pengelolaan pelabuhan. Kualitas pelayanan tentu berhubungan langsung dengan kinerja pelabuhan dalam menunjang peran dan fungsinya sebagai pusat aktivitas perikanan dengan memberikan kepuasan bagi pengguna. Penelitian ini bertujuan untuk mengukur kepuasan pengguna terhadap kualitas pelayanan dan mengetahui indikator-indikator pelayanan yang harus ditingkatkan dan dipertahankan untuk meningkatkan kualitas pelayanan di Pelabuhan Perikanan Pantai (PPP). Survei dilakukan terhadap 45 orang pengguna pelabuhan diantaranya: nelayan, pemilik kapal, pedagang dan pengolah ikan, pengelola Tempat Pelelangan Ikan, dan pengelola pelabuhan di PPP Sadeng pada Agustus – Oktober 2021. Analisis data dilakukan dengan *Customer*

Satisfaction Index (CSI) dan *Importance Performance Analysis* (IPA). Hasil penelitian menunjukkan bahwa tingkat ketersediaan fasilitas pokok, fungsional, dan penunjang diperoleh sebesar 86,84%. Tingkat kepuasan pengguna pelabuhan diperoleh sebesar 65,20%, termasuk dalam kategori cukup puas. Terdapat 6 atribut pelayanan yang perlu ditingkatkan dan mendapat prioritas perbaikan guna meningkatkan kualitas pelayanan, yaitu kecepatan petugas dalam merespon masalah; kemampuan cepat tanggap petugas dalam penanganan keluhan pengguna; kemampuan petugas dalam memberikan jaminan keamanan dalam memanfaatkan jasa; kebersihan, keteraturan, dan kenyamanan kondisi fisik pelabuhan; penataan fasilitas-fasilitas pelabuhan; serta kelengkapan, kesiapan, dan kebersihan fasilitas pelabuhan. Peningkatan ketersediaan fasilitas perlu dilakukan terutama pada kelompok fasilitas fungsional, sedangkan peningkatan kualitas layanan harus berfokus pada aspek kemampuan cepat tanggap petugas dalam merespon masalah serta penanganan keluhan pengguna.

Kata kunci: *Customer Satisfaction Index, Importance Performance Analysis, PPP Sadeng, Kabupaten Gunungkidul.*

INTRODUCTION

Fishing ports play an essential role in marine fisheries because they are the center of the economy, from when the captured fish lands until it is marketed in fishing ports (Lubis 2011). This strategic role can also increase the competitiveness of fishery products, such as providing the port with proper facilities to maintain quality. Not only providing the fishermen with facilities for landing, processing, and distributing their catches, the fishing ports also provide them with optimal services as the users of available facilities based on their functions (Ikhsan *et al.* 2017). The fishing port is the main base of the captured fishing industry that should ensure business success (Hutapea *et al.* 2017).

Fishing port management must cope with various problems, such as service-quality issues. Creating good service is absolute and must be put in the effort because service is one of the determinant activities for the success of a fishing port development (Guswanto *et al.* 2012). The success of the fishing business depends on whether the service is good. Delivering excellent service quality will create high value as well as customer satisfaction (Manoppo 2013). The port's service quality to its users is essential for increasing its role and function. Based on the Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia Number 8/Permen-KP/2012, fishing ports play both governmental and business functions. The government function includes the implementation of regulation, guidance, control, supervision, operational security, and safety. Meanwhile, the business function is the implementation of business activities by providing and/or

servicing fishing vessels and related services in the fishing ports. Therefore, to improve the role and function of the port, an analysis of service quality is required.

Approaches used to analyze service quality include the *Customer Satisfaction Index* (CSI), *Importance Performance Analysis* (IPA), *Service Quality* (ServQual), *Service Profit Chain* (SPC), *Potential Gain in Customer Value* (PGCV), *Customer Window Quadrant* (CWQ) and *Kano's method*, as suggested and applied by Fornell (1992), Martilla & James (1977), Parasuraman *et al.* (1988), Heskett *et al.* (1994), Hom (1997), Parobek *et al.* (2015) and Kano *et al.* (1984), respectively. Some of these approaches, i.e., CSI and IPA, are used to analyze the service quality of fishing activities, such as those applied by Diniah *et al.* (2012), Nasir *et al.* (2012), Guswanto *et al.* (2012), Nurhayatin *et al.* (2016), Bayyinah *et al.* (2016), Wahyuningsih *et al.* (2017), Supriadi & Meidha (2019), Chaliluddin *et al.* (2021) and Gupta & Prakash (2022) that observed the satisfaction level of fishermen groups towards port services in facilitating their fishing activities. However, with only limited research done before, this research was expected to enrich those previous findings. This study applied CSI and IPA approaches to analyze service quality and combined them with facilities availability analysis that had not been done before.

Service quality analysis is essential for most fishing ports, including Sadeng Coastal Fishing Port (PPP Sadeng). This port is the only active coastal fishing port in the Yogyakarta Special Region (DIY), which supports about 48.7% (4,583 tons) of the province's total marine capture fishery production (BPS 2021). The PPP Sadeng is the most advanced fishing port on the southern

coast of Yogyakarta since the captured fisheries were introduced in the late 1970s or early 1980s (Suadi 2002). This port was constructed in early 1982 and started to operate in 1993 (Lathifah 2018). As a relatively new port serving fishing activities, it required a study on excellent and optimal service quality to stimulate and attract users' interest. Better service would lead to fishermen's higher interest in conducting fish business. Improvements to the service quality and availability of facilities will significantly affect user satisfaction if conditions can be improved to increase fish production at PPP Sadeng indirectly. Therefore, the objective of this study was to answer problems related to the service quality of PPP Sadeng by examining the port infrastructure availability and users' satisfaction level, as well as by mapping service indicators that required priority for improvement and maintenance to improve the service quality.

METHODS

The research was carried out in August – October 2021 in Sadeng Coastal Fishing Port, Girisubo District, Gunungkidul Regency, Special Region of Yogyakarta.

The respondents consisted of 45 persons and were selected based on purposive sampling and accidental sampling approaches. The overall respondents were based on user groups that existed around the port. (see Table 1.)

The method used for collecting data was survey-formed through interview techniques and supported with secondary data analysis. Further data analysis was carried out using the Customer Satisfaction Index (CSI) and Importance Performance Analysis (IPA). Regarding service attributes, this study modified the theory of service quality dimensions, i.e., reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman *et al.* 1988) by developing them into 22 service attributes.

Facility Availability

The availability of port facilities studied in this research referred to Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia Number 8/Permen-KP/2012, which divides port facilities into basic, functional, and supporting facilities. All facilities were valued based on the availability of port facilities, and the availability level was calculated under the following formula:

Availability of facilities:

$$\frac{\text{Numbers of available facilities}}{\text{Total numbers of facilities}} \times 100\%$$

Customer Satisfaction Index (CSI)

According to Supranto (2001), measuring CSI is required to determine the satisfaction level of employees and customers using the service overall. This method includes the following stages of analysis (Supranto 2001):

1. Calculating the Weighting Factors (WF) is the percentage of all tested attributes' total average importance level by transforming the average importance value into percentage; hence the total WF is 100%.
2. Calculating the Weighted Score (WS), which is the function of an average score of each attribute performance level multiplied by the WF of each attribute. The total WS assessment in this research is 3,260.
3. Calculate the Total Median Weight (WMT), the total overall WS value.
4. Calculating the consumer satisfaction index (CSI), which is the calculation of WMT divided by the full scale and then multiplied by 100%. Based on the above calculations, the obtained percentage value of the consumer satisfaction index can be interpreted as the overall satisfaction level.

The satisfaction level of port users overall can be observed by using the criteria referring to the customer and team member satisfaction survey guidelines of PT Sucofindo (Dwiaryani 2016), as follows:

0% – 34%	: Not satisfied
35% – 50%	: Less satisfied
51% – 65%	: Fairly satisfied
66% – 80%	: Satisfied
81% – 100%	: Highly satisfied

Importance Performance Analysis

Importance Performance Analysis was first introduced by Martilla and James (1977). It was known as the quadrant analysis and used for measuring the relationship between consumer perceptions and priorities for improving the quality of products or services. It was established to determine improvement priorities and resource allocation (Matzler *et al.* 2003). The analysis is used to determine the level of comparison of performance and importance level scores, which will produce factors required to fulfill their performance (Supranto 2001). The importance level and performance level were determined by using the scale of assessment scores of 1-5 (not

important, less important, quite important, important, and very important) and 1-5 (not good, less good, moderately good, good, and very good), respectively. Next, the average value of each service attribute was calculated to determine the levels of importance and performance. Based on these calculation results, a Cartesian diagram can be formed.

RESULTS

Facility Availability Analysis

Based on the Regulation of The Minister of Maritime Affairs and Fisheries of The Republic of Indonesia Number 8/Permen-KP/2012, a fishing port should have 22 facilities. The main facilities consist of 7 facilities that, in this study, they were detailed into ten sub-facilities. Functional facilities consisted of 9 facilities and were classified into 19 sub-facilities. Meanwhile, the supporting facilities consisted of 6 facilities divided into nine sub-facilities. Therefore, the port consisted of 38 sub-facilities. Based on the analysis of the facilities available, as presented in Table 2, there were 33 sub-facilities in Sadeng Coastal Fishing Port. Thus the availability level reached 86.84%.

Fishery Production Performance of Sadeng Port

In 2020, 126 fishing vessels were operating at Sadeng Coastal Fishing Port. They were grouped into three types: boats with inboard power, medium to large size, so-called KM Inkamina or *purse seiners* (30-50 GT); boats with inboard power, smaller size, so-called KM Sekoci (5-30 GT); and boats with outboard power, so-called PMT (< 5 GT). Between 2015 and 2020 (the last six years), fishing activities using those fishing vessels aided total Sadeng Port's fishing production. Condition fluctuated with the tendency to decrease, especially between 2017-2020 (see Figure 2, part D), when production was inversely proportional to the increasing total

number of ship trips (productivity decreases). Among these conditions, the highest gap between total production and fishing trips indicated the lowest productivity in 2019 (0.49 tons/trip).

Further studies related to vessel productivity within 2015-2020 are described in Figure 2 (part A: KM Inkamina productivity), (part B: KM Sekoci productivity), and (section C: PMT productivity). It shows that the medium to large fishing vessels (KM Inkamina) exhibited the highest level of productivity among the other two vessels. This condition indicated that Sadeng fishing port needed support from groups of larger vessels. Currently, the port relies on groups of small vessels such as PMT vessels (<5 GT). The increasing growth of small vessels was perceived as more ships meant more trips. By observing the total fish production, the number of fish landed by the KM Inkamina fleet within the 2015-2020 period was 7,480 tons. It contributed to 50,6% of the total production. Meanwhile, fish production by KM Sekoci and PMT fleets was 5,661 tons (38,3%) and 1,637 tons (11.1%), respectively, which indicated KM Inkamina's domination of fish production in Sadeng port.

Figures 3 and 4, respectively, show the average monthly production and average types of ended within the last six years (2015-2020). Based on these data, we can see that the highest average fish production occurred in August (253 tons), September (270 tons), and October (253 tons), with an average of 27 types of captured fish as the primary production. They included Skipjack Tuna (*Katsuwonus pelamis*), Albacore or Yellowfin Tuna (*Thunnus albacores*), Indian Scad (*Decapterus russelli*), Savalai Hairtail (*Trichiurus savala*) and Mackerel Tuna (*Euthynnus affinis*). Their average production volume represented 2,209,174 kg or 90% of the total average production in the last six years (total production: 2,463,281 kg).

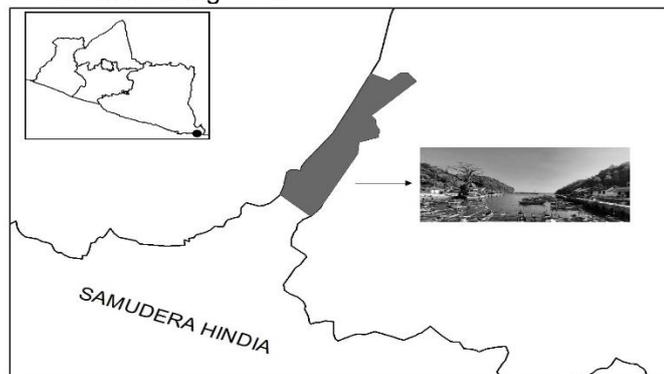


Figure 1 Research Locations of Sadeng Coastal Fishing Port

Table 1 Variety of respondent groups

No	Respondent Group	Number of respondents	Age (years)	Education range
1	Fishermen Inkamina Ship Lifeboat PMT	27	23 – 60	No Education – High School
2	Ship Owners Lifeboat	2	44 – 50	Middle school – high school
3	Fish Traders & Processors Fresh fish traders Fish processor	6	27 – 67	Elementary – High School
4	Fish Auction Site Managers Weigher Boat fillers, cleaners & fish carrier	8	30 – 60	Elementary – High School
5	Manager/Department	2	40 – 43	Undergraduate – Graduate

Source: Primary data analysis, 2022 (processed)

Table 2 Facilities Availability in Sadeng Coastal Fishing Port

Port Facilities	Availability	
	Present	Absent
Basic Facilities	9	1
Functional Facilities	15	4
Supporting Facilities	9	0
Amount	33	5
Percentage (%)	86.84	

Source: Primary data analysis, 2022

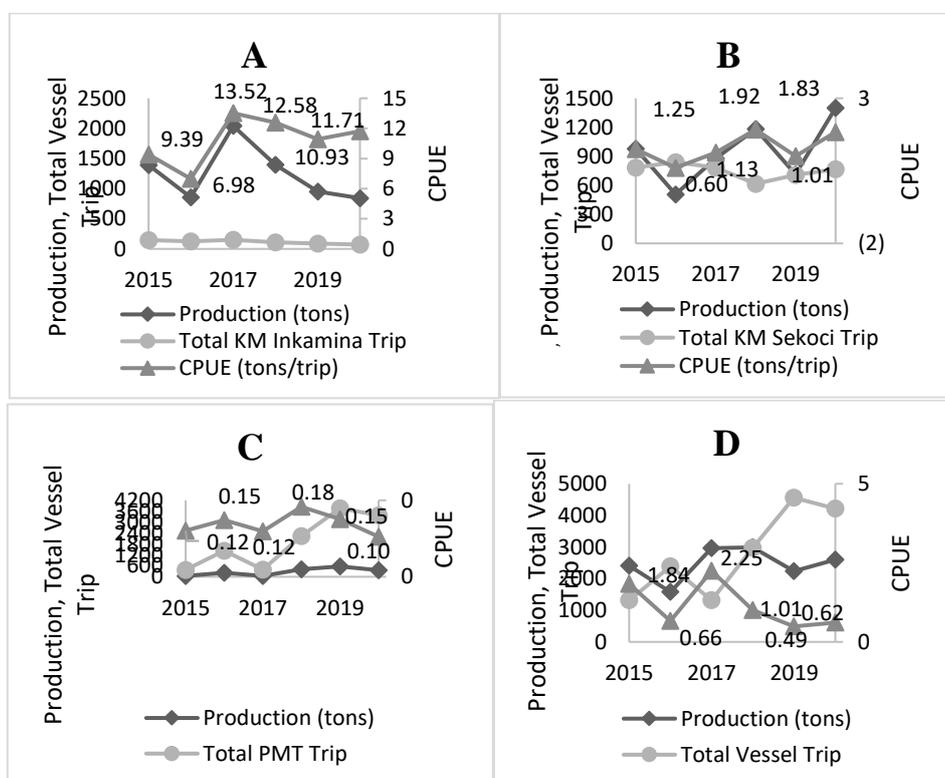


Figure 2 Fishing Productivity of Sadeng Coastal Fishing Port (2015-2020)

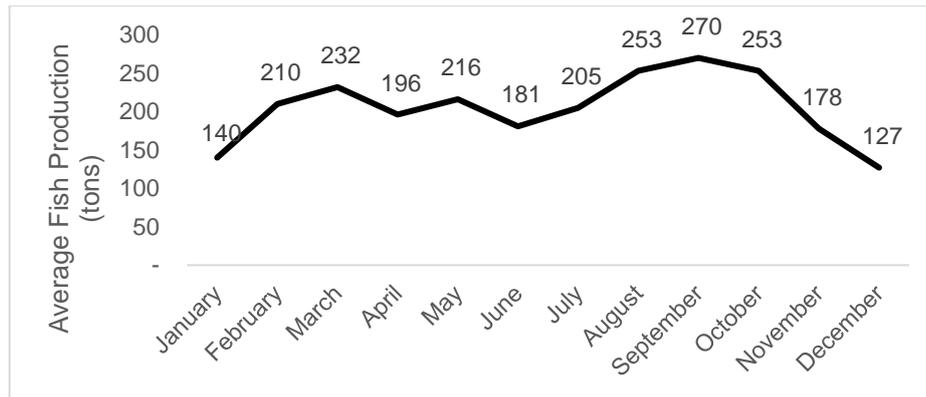


Figure 3 Average monthly fish production in Sadeng Coastal Fishing Port (2015-2020)

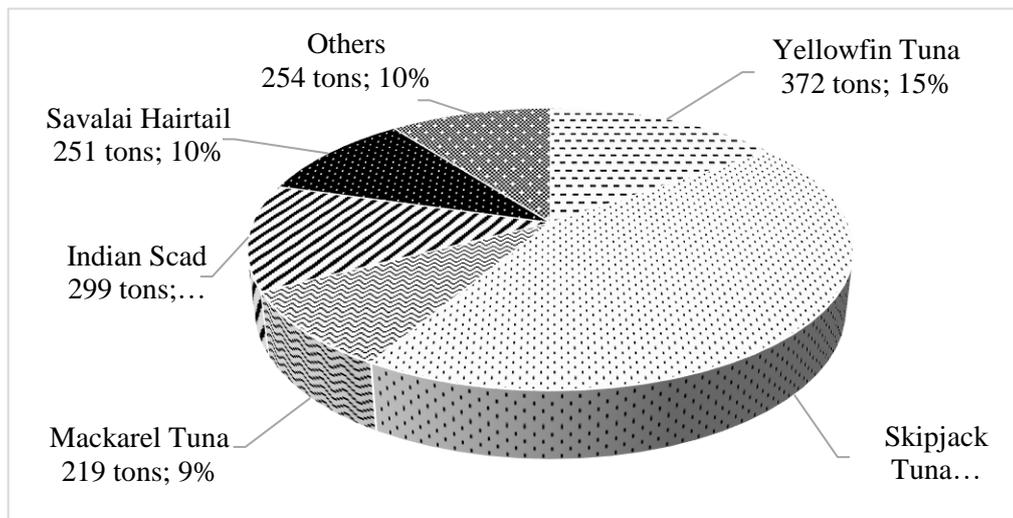


Figure 4 Average production based on fish species in Sadeng Coastal Fishing Port (2015-2020)

User Satisfaction Analysis

Following the satisfaction analysis, the validity and reliability tests of the research questionnaire were carried out. The test applied to 22 question items, including five service quality dimensions (reliability, responsibility, assurance, empathy, and tangibles) that measured the importance and performance value. These question items were asked to initial 25 respondents (sample) within the data collecting period. Based on the validity test, all questions on the importance level and performance level questionnaire were declared valid as indicated by a t-count value more significant than the t-table or Pearson's product moment (0.381). Based on the reliability test, all question items (22 items) of each dimension on the level of importance and performance were declared reliable. Data in Table 3 indicated that some aspects, such as personnel issues (port manager), cleanses, and financial-related issues have relatively low value (less than 3 of 5 scales).

Importance Performance Analysis

The performance position of each service attribute was determined using the IPA method in the form of a Cartesian diagram based on the value of importance and performance levels. Based on calculations in Table 3, regarding columns Y and X, the average value of importance level after analysis using IPA was the center line of the axis Y or 4.30. Meanwhile, the diameter of the axis X, or the average value of the performance level, was 3.27. The two axes divide the Cartesian IPA diagram into four quadrants.

The Cartesian diagram in Figure 5 shows the mapping of service attributes divided into four quadrants of analysis between the level of importance and the level of performance. The main focus of this research was in quadrant 1 (concentrated here), describing users who felt that service attributes provided by the port were highly important. However, their satisfaction

regarding its performance was low. Therefore, the service attributes focusing on this quadrant must be improved and prioritized. There were six service attributes in quadrant 1, including: (7) personnel's quickness to respond to problems; (8) the ability of personnel to give

prompt responses in handling user complaints; (16) paying particular attention to the user; (19) arrangement of port facilities; and (20) completeness, readiness, and cleanliness of port facilities.

Table 3 Calculation of Customer Satisfaction Index (CSI)

No	Dimension	Y	X	WF (%)	WS
A Reliability					
1.	Availability of the number of port personnel providing services	4.07	3.53	4.30	0.15
2.	Availability of straightforward service procedure	4.22	3.62	4.46	0.16
3.	The personnel's ability to provide services as promised	4.18	3.29	4.42	0.15
4.	On-time working service hours	4.24	3.53	4.48	0.16
B Responsiveness					
5.	The personnel's ability to provide clear and understandable service information	4.27	3.49	4.51	0.16
6.	The personnel's quickness and alertness in handling administrative services	4.51	3.40	4.76	0.16
7.	The personnel's responsiveness to quickness to respond problems	4.84	2.24	5.11	0.11
8.	The personnel's ability to fast-respond when handling users' complaints	4.80	2.40	5.07	0.12
C Assurance (Guarantee)					
9.	Service personnel's knowledge and skills	4.04	3.49	4.27	0.15
10.	Service personnel's friendliness, attention, and attitude	4.29	3.62	4.53	0.16
11.	Personnel's ability to provide security guarantees in utilizing services	4.11	3.56	4.34	0.15
12.	Fees applied for services provided by the port	3.76	2.71	3.97	0.11
D Empathy					
13.	User-friendly port facilities	4.11	3.56	4.34	0.15
14.	The personnel's ability to understand what user needs and wants	4.22	3.44	4.46	0.15
15.	Services provided without discrimination (i.e., based on social status)	4.67	4.07	4.93	0.20
16.	Paying particular attention to user complaints	4.51	2.80	4.76	0.13
E Tangibles (Physical Products)					
17.	Neatness and cleanliness appearance of service personnel	3.44	3.31	3.63	0.12
18.	Cleanliness, orderliness, and comfort of the port's physical condition	4.60	2.42	4.86	0.12
19.	Arrangement of port facilities	4.42	2.96	4.67	0.14
20.	Completeness, readiness, and cleanliness of port facilities	4.80	2.58	5.07	0.13
21.	Physical quality of fish products	4.80	4.49	5.07	0.23
22.	Cold storage function to maintain fish quality	3.76	3.42	3.97	0.14
Total		94.6	72.9	100	
		6	3		
Weighted Median Total (WMT)					3.26
Maximum Scale					5
Customer Satisfaction Index (%)					65.2
					0

With: Y= Average level of importance, X= Average level of performance, WF= Weighting Factors, WS= Weighting Score

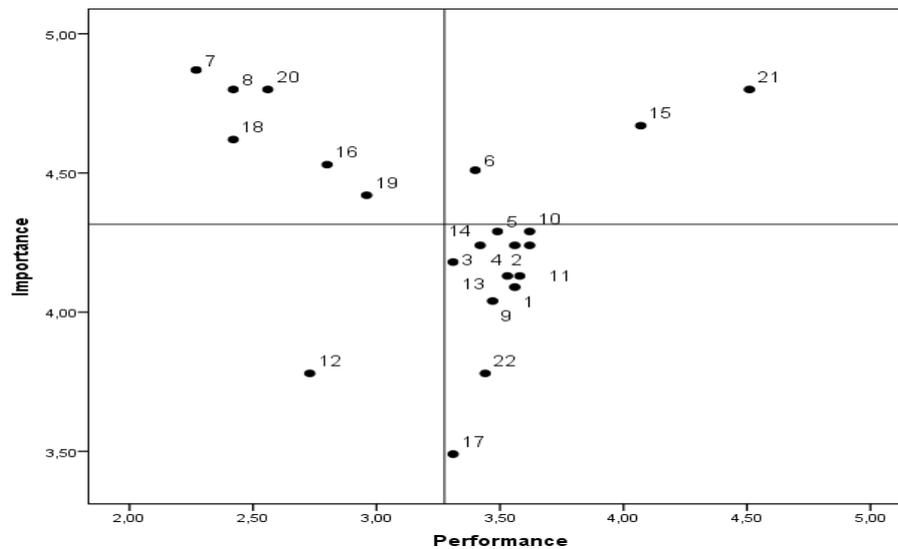


Figure 5 The Diagram of Cartesian Importance Performance Analysis of Sadeng Coastal Fishing Port

DISCUSSION

Not only for production activities, but Sadeng Port also serves for logistics-related activities. Within 2017-2019, various types of logistics were administered, such as ice blocks, diesel, oil, gasoline, three kg-sized gas tube, clean water, and salt. In 2019, as much as 2,470,850 kg of ice blocks were loaded for fishing supplies. This number decreased from previous years. Similarly, the distribution of diesel fuel in 2019 (380,052 liters) and three kg-sized gas tubes (5,204 pieces) experienced a decline. Meanwhile, other supplies such as oil (5,331 liters), gasoline (5,440 liters), clean water (597,080 liters), and salt (4,510 kg) were in fluctuating conditions. The need for related supplies, such as ice blocks and fuel, was fulfilled externally.

It was commonly known that KM Inkamina had dominated fish production performance in Sadeng Coastal Fishing Port. It produced primary commodities such as skipjack tuna and yellowfin tuna with prices that ranged from IDR 14,000 – IDR 17,000/kg and IDR 17,000 – IDR 25,000/kg, respectively. According to Himawan (2019), such high demand for the two types of the commodity was the main factor. Many of these fish were captured by Sadeng Coastal Fishing Port fishermen. In addition, WPP (Fisheries Management Area) 573 waters is a tuna migration area of the world with abundant stock of skipjack and yellowfin tuna. The fish production in Sadeng Coastal Fishing Port used various fishing gear such as purse seines, hand lines, drifting gill nets, bottom longline fishing rods, and traps. In working with

their fishing operations, fishermen in Sadeng used supporting devices in the form of FADs installed at several points in the fishing area.

The CSI method calculation results in Table 3 show the value of the port user satisfaction index of 65.20% (within the range of 51-65%). Therefore, it can be concluded that overall, users were pretty satisfied with the services provided by the port. Several aspects of service, such as the personnel's quickness to respond to problems and their ability to respond promptly in handling user complaints, showed a direct correlation with the availability and condition of facilities, such as arrangement, completeness, readiness, comfort, and cleanliness. These service aspects became the focal point of the port to improve its service quality which required support in the form of port facilities availability and being in good condition.

User complaints related to the service personnel's quickness in responding to problems and handling complaints showed unsatisfactory performance. This indicated the need to prioritize service improvements. Complaints from users, such ship licensing process, were time-consuming due to the involvement of the central government in authorizing and remeasurement of fishing vessels. The personnel of Sadeng port had made reasonable efforts to handle complaints related to the licensing process by following up with the central government. This condition certainly had implications for users to comply with ship licensing. Ariyantono *et al.* (2020) stated that a considered low level of compliance was exhibited by the fishing

business actors in Sadeng Coastal Fishing Port, for example, by not completing themselves with required documents such as SIPI (Fishing Permit), SLO (Letter of Operating Properness), and SPB (Letter of Sailing Approval).

Coastal fishing infrastructure is essential for fishermen catching fish (Nieman *et al.* 2021). Regarding service facilities of Sadeng port, users, especially fishermen, felt the need for additional facilities and repairing and expanding the function of some available facilities that had been managed improperly. Facilities availability in Sadeng Port was quite complete and relatively good. However, some facilities were unavailable such as a jetty (basic facilities), transit sheet, quality development laboratory, banking, and fish transportation (functional facilities).

The existing facilities, such as ship docking, needed reparation and restoration to reach optimum management and utilization. In addition, it was also necessary to provide fishing gear with reparation facilities because fishermen had obtained them from external. Bayyinah *et al.* (2016) argue that ports should provide fishing gear reparation facilities, both in the form of shops for fishing gear and equipment, as well as specific places for making fishing gear. Facilities for fuel filling stations (SPBN) and ice warehouses needed better management so that they would be actively useful for port users. So far, users have obtained fishing supplies (fuel and ice) from external. Wahyuningsih *et al.* (2017) stated that it was necessary to improve the condition of the fuel filling stations at Sadeng Coastal Fishing Port to facilitate the distribution of diesel fuel.

Furthermore, concerning the condition of the ice storage warehouse, improvements were required to enable fishermen to store ice as fishing supplies. Users felt the pond was relatively shallow for other facilities, such as port pools. Thus, it was necessary to dredge the pond periodically. According to Lubis (2011), there were several fishing ports with shallow waters due to sedimentation that would prevent ships from entering the harbor pool. Such conditions resulted in ships having to wait for high tide to be able to lean on the pier (Bayyinah *et al.* 2016). Improvements were needed to enable fishermen to use it as ice block storage for fishing supplies.

Other users, such as traders and fish processors in Sadeng port, wanted management to connect to the Waste Water Treatment Plant facility for solid and liquid

waste. The WWTP facilities were already available but had not been used optimally. Muningggar *et al.* (2016), in their study on PPS Nizam Zachman mentioned that wastewater management activities originating from the fish processing unit were carried out through the WWTP facility, where water in the facility was above the seawater quality standard. This indicated that WWTP could no longer process waste from industrial activities. In general, as a coastal fishing port, the facilities in Sadeng port were considered quite complete and in good condition, thereby minimizing the gap of facilities between ports. The gap in fishing port facilities was due to inadequate availability and condition of facilities (Fatoni *et al.* 2021). One of the standard requirements to ensure adequate port waste reception facilities is that the port authority shall ensure the availability of waste reception facilities adequate to meet the needs of ships typically using the port without causing undue delay to ships (Khondoker and Hasan 2020). Implementing good service at fishing ports is required because one of the criteria that characterize fishermen's satisfaction is the fishermen's impression of service qualities (Chaliluddin *et al.* 2021).

Findings about environmental issues at fishing ports, such as wastewater, can still be found in developing countries. Suspended solids, biodegradable organics (proteins, carbohydrates, and fats), pathogens, nutrients (nitrogen, phosphorus, and carbon), priority pollutants (highly toxic chemicals), refractory organics (pesticides, phenols, surfactants), heavy metals, and dissolved inorganics are all significant water contaminants in fishery harbors (FAO 1999). It is required to establish a green guide, i.e., advice and guidance on environmental management, by developing tools and endorsing procedures for port management and identifying indicators to sense environmental performance changes to save the environment (de Moura and de Andrade 2018). Environmental auditing and regular monitoring are essential during important ports' operating and building phases. These tactics aid in developing waste disposal regulations and procedures for measuring the pollution level in the surrounding environment produced by various port-related operations (Gupta and Prakash 2022).

CONCLUSION

1. The facilities available in Sadeng Coastal Fishing Port (basic, functional, and supporting facilities) were 86.84%,

indicating a complete and relatively good category. As many as 5 out of 38 existing sub-facilities had been unavailable, and 80% were functional facilities. Thus, their provision should be prioritized.

2. The user satisfaction level in Sadeng Coastal Fishing Port resulted from CSI calculations for each service attribute was 65.20%. It indicated that port users were in a reasonably satisfying category regarding provided services.
3. Based on IPA calculation, six service attributes required improvement (priority for improvement), including the personnel's quickness in responding to the problem; the personnel's ability to give a prompt response in handling user complaints; giving special attention to user complaints; completeness, readiness, and cleanliness of port facilities; cleanliness, orderliness, and physical condition comfort of the port; and port facilities arrangement.

RECOMMENDATION

It is required to establish good cooperation and collaboration between stakeholders in managing port facilities to improve the levels of utilization and better utilization. Furthermore, to fully support economic activities, it is necessary to make priority efforts such as providing unavailable facilities and managing available facilities to obtain optimum utilizations such as ship docking, SPBN (gas station), WWTP and ice factories. These are essential to improve the quality of port services and provide users with optimal satisfaction.

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