



Synergy of Survey Implementation Between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia to Improve the Quality of Survey Services

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Abstract: Ship survey is an implementation of ship inspection carried out by surveyors to maintain or maintain ship performance and to check endurance, strength, and feasibility on ships so that the lifetime of a ship can run optimally . The problem that occurs is conducting a joint survey activity between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia, where both companies have the same services . Then the purpose of this research is to find out the reasons for the company's cooperation and to find out the form of the system for implementing cooperation in survey activities between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia . The method used is descriptive qualitative. From the research results obtained the conclusion that the reason for the company's cooperation is because PT Biro Klasifikasi Indonesia does not have a special marine surveyor to survey offshore vessels . The form of the system for implementing cooperation in survey activities is in the form of a written contract agreement that lasts for 365 days, where PT Makara Jaya Marine as the provider of labor and PT Biro Klasifikasi Indonesia as the provider of survey services . Then Efforts made to improve the quality of survey services in this collaboration are to improve the quality of survey services, increase the number of surveyors and improve the quality of surveyors at PT Makara Jaya Marine.

Keywords: *Synergy, Cooperation, Service Quality, Survey, Surveyor*

INTRODUCTION

There are two activities in the exploitation of oil and gas products, namely onshore and offshore. Onshore is a building or structure built on land to support the exploration and exploitation of oil and gas activities. Offshore is a building or structure built above the sea with a certain depth. The need for offshore construction vessels in Indonesia is predicted to continue to increase every year, supported by a surge in oil and gas exploration activities in the country.

In 2018, the Indonesian National Shipowners' Association sent a letter to the Special Task Force for Upstream Oil and Gas Business Activities regarding "The Obligation to Use the Indonesian Classification Bureau in Shipping Operations in Upstream Oil and Gas Business Activities". Ship survey is an inspection of ships carried out by surveyors to maintain or maintain ship performance and to check the endurance, strength, and feasibility of the ship so that the lifetime of a ship can run optimally.

The scope of the survey includes an examination of the structure, materials/materials used, system, arrangement, installation of connections and equipment used. Surveyors must be given the freedom at any time to board the ship and or enter the workshop to be able to carry out their duties. All parts surveyed must be clean and free of gas. If deemed necessary by the surveyor, the class certificate and other data relating to the classification must be presented to the surveyor. In terms of ship inspections, PT Biro Klasifikasi Indonesia cooperates with several ship survey service companies, one of which is PT Makara Jaya Marine. By doing cooperation, PT Makara Jaya Marine get many benefits. The cooperation system carried out between PT Biro Klasifikasi Indonesia and PT Makara Jaya Marine is a 365 day contract cooperation system. PT Biro Klasifikasi Indonesia is the first party that acts as a provider of ship survey services for the second party , PT Makara Jaya Marine is the second party that serves as the executor of the survey that has been provided by the first party .

In addition to cooperating with PT Biro Klasifikasi Indonesia , PT Makara Jaya Marine also received many requests for ship survey services from several other companies . Requests for surveys can be in the form of direct cooperation contracts with SKK Migas companies , ship construction companies , companies that want to charter ships , and shipowner companies in Indonesia and abroad , and there are also requests for survey services that do not enter into cooperation contracts . With so many requests for surveys , companies requesting survey services must pay more attention to quality than companies conducting surveys . in practice, PT Makara Jaya Marine still has a limited number of surveyors. There is a possibility why this could happen is that PT Makara Jaya Marine is a new company, so that from the beginning of the company's establishment until now, PT Makara Jaya Marine only has 6 permanent surveyors. Often there is an imbalance between the number of survey requests and the number of surveyors which results in delays in processing and sending survey reports to customers. In order for the survey to continue without any problems in the number of permanent surveyors, PT Makara Jaya Marine summoned *freelance surveyors* to carry out other surveys.

METHOD

Data Description

1. Synergy

In the Big Indonesian Dictionary (KBBI) (2014:1332), the meaning of the word Synergy is a joint activity or operation. Synergy is also interpreted as the cooperation of elements or parts or functions or agencies or institutions that produce a goal that is better and bigger than being done alone.

2. Marine Surveyor

Definition or understanding of Marine Surveyor according to wikipedia.org (https://en.wikipedia.org/wiki/Marine_surveyor) is a person who conducts inspections, surveys or inspections of marine vessels to assess, monitor and report on their condition and their products, as well as inspect the damage caused to the ship and cargo.

3. Service quality

According to wikipedia.org (https://id.wikipedia.org/wiki/Service_Quality#Definition) the definition of Service Quality or in English Service Quality (SQ) is the mismatch between expectations (E) of a service and performance (P), $SQ = P - E$. A business with a high quality of service will then meet customer needs while remaining

economically competitive. Improving service quality can also increase economic competitiveness. This goal can be achieved by understanding and improving operational processes; identify problems quickly and systematically; establish accurate and reliable service performance measurement and measure customer satisfaction and other performance results.

Research time

The time of the research was carried out at the time when the author conducted a land practice at the PT Makara Jaya Marine company which was intended to fulfill the requirements for fulfilling the D-IV program taken by the author starting from August 5 , 2021 to August 03 2022 , and continued as long as the author was undergoing semester VII and semester VIII.

Research Place

This research was conducted by researchers at the PT Makara Jaya Marine company in Jakarta Garden City, Rukan Avenue Blok F Number 8-153 , Jalan Raya Cakung Cilincing KM. 0.5 , East Cakung, East Jakarta, DKI Jakarta 13910 .

Approach Method

In this study, the writing used a descriptive qualitative approach. The author uses a qualitative method by analyzing the form of the cooperation implementation system between survey companies, starting from the collaboration to the implementation system.

Data collection technique

The data collection technique used by the author to obtain complete information and data and the research objectives will be used by the author to assist in its completion. There are several data collection methods commonly used in qualitative research. Some of these methods include:

1. Observation

Observation is a data collection technique by making direct observations on the object of study. According to Hasan (2002:86) Observation is the selection, modification, recording, and coding of a series of behaviors and conditions relating to the organization, in accordance with empirical goals. In this case, the authors made observations by collecting information data based on direct observations by the authors conducted during Land Practice (PRADA) at PT Makara Jaya Marine.

2. Interview

The question and answer process in research that takes place orally in which 2 (two) or more people face to face listen directly to information or descriptions. Lexy J. Moleong (1991:135) defines that the interview with a specific conversational purpose. In this method researchers and respondents directly (face to face) to obtain information orally by obtaining objective data that can explain the research problem.

3. Documentation

According to Hamidi (2004:72) Documentation method is information that comes from important records both from institutions or organizations as well as from individuals. Documentation of this research is taking pictures by researchers to strengthen the results of the study. The documentation method according to Arikunto (2006:231) is looking for data on variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, agendas and so on.

Based on the two opinions of the experts above, it can be concluded that data collection by means of documentation is something that researchers do in order to collect data from various print media matters discussing the sources to be studied. This study uses the documentation method to find data about the profiles of the two companies, namely PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia.

RESULTS AND DISCUSSION

Data Description and Analysis

Less Optimal Cooperation in Survey Activities between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia

Of the many companies that use the services of PT Makara Jaya Marine, the author feels that there is an oddity, namely PT Bureau of Classification Indonesia, which we know is a business entity authorized by the Government of Indonesia to classify Indonesian-flagged commercial vessels in which this institution has its own survey division. However, the fact is that PT Bureau of Classification Indonesia has been using survey services from PT Makara Jaya Marine since 2018 by entering into a cooperation contract with PT Makara Jaya Marine for 365 days and has been extended until now.

The author takes one of the forms of cooperation between PT Makara Jaya Marine and PT Bureau of Classification Indonesia which is written in the "Marine Inspection & Consultation Asset 4 PT Pertamina EP Poleng Field Work Cooperation Contract" with No. B.0792/HK.503/ENI/KI-18 dated June 25, 2018. In this agreement, PT Makara Jaya Marine becomes the second party to act as Marine Inspection & Consultation of PT Pertamina EP for 365 days and PT Biro Klasifikasi Indonesia acts as the first party which distributes work from PT Pertamina EP to the marine surveyor workforce of PT Makara Jaya Marine.

As a second party, PT Makara Jaya Marine must complete all work that is included in the scope of work in the contents of the contract agreement, which are as follows:

- a. The suitability & conditional survey or IMCA CMID survey for vessels to be chartered by Pertamina EP is in accordance with the inspection standards used by Pertamina EP to ensure the vessels to be chartered are in accordance with the needs of the work in question.
- b. On/Off Hire survey for vessels before the start of the charter period and after the end of the charter period by Pertamina EP.
- c. Survey of fuel consumption (fuel consumption test) on vessels chartered by Pertamina EP by verifying or ensuring the fuel supplied or transferred from/to vessels chartered by Pertamina EP by assessing the weight, volume and condition of the tanks. Reference meters must be monitored/controlled/checked for certification of renewal and functionality.
- d. Act as Marine Advisor / Marine Specialist as Pertamina EP's representative to provide marine consultation in Pertamina EP's operational activities related to marine operations in Pertamina EP's work area and ensure that work is carried out according to requests from Pertamina EP.
- e. Act as Pertamina EP's representative to provide consultation (including checking the mooring analysis document and AWB and/or Rig movement procedures) in the operation of positioning the AWB and/or Rig to the area determined by Pertamina EP and ensuring the work is carried out in accordance with Pertamina EP's request.
- f. Acting as an Engineering consultant as Pertamina EP's representative to provide Engineering in Pertamina EP's operational activities related to marine operations in Pertamina EP's work area which includes but is not limited to reviewing mooring analysis, motion analysis, structural strength check and sea fastening design work.
- g. Positioning surveys and seabed surveys (Geophysical and/or Geotechnical - Bathymetry) including providing equipment & software packages referring to the "Work Plan & Requirements (RKS) of PT Pertamina EP Asset 4 Marine Inspection & Consultation Work for Poleng Field for 365 Calendar Days" in attachment A4 (Equipment List) or equivalent.

Less Optimal Survey Activity Cooperation System between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia

The cooperation system used is to make a written contract between the two parties, namely between PT Biro Klasifikasi Indonesia and PT Makara Jaya Marine. The scope of

work written in this contract is that the first party submits the work to the second party as the second party accepts the work from the first party as Marine Inspection & Consultation of PT Pertamina EP Asset 4 Poleng Field for 365 calendar days . An explanation of the scope of work that must be carried out is that PT Biro Klasifikasi Indonesia is the party who submits the work and PT Makara Jaya Marine is the party who orders surveyors in his company to carry out the work starting from conducting surveys to making survey reports.

The contents of the cooperation agreement contract for survey activities that have been made are representatives of the first and second parties who have signed, the scope of work that must be carried out by the second party, the costs that have been agreed upon by both parties, the time period & location of the work, payment terms, payment methods, second party responsibilities, warranties, and other terms.

Data analysis

Less Optimal Cooperation in Survey Activities between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia

There is no Marine Surveyor for Offshore vessels at PT Biro Classification Indonesia The Indonesian Classification Bureau provides various types of services , but the author will explain in more detail about one of the Indonesian Classification Bureau's services related to the cooperation contract between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia , namely Floating Offshore . Floating offshore includes FSO , FPU , MODU , FSU , FLNG , Tank Barge , Single Point Mooring , Platform , Rig , Jacket , Pipeline and other supporting facilities . Due to the insufficient human resources for Marine Surveyors owned by PT Biro Klasifikasi Indonesia , PT Biro Klasifikasi Indonesia offered to cooperate with PT Makara Jaya Marine .PT Makara Jaya Marine accepted the offer of cooperation and held an inter-company meeting to discuss the scope of work , inter-company roles , responsibilities and costs agreed upon by both parties . After an agreement was reached regarding the inter-company roles , responsibilities and costs received by PT Makara Jaya Marine , PT Biro Klasifikasi Indonesia immediately issued a cooperation contract agreement signed by both parties . The agreement is made for a period of three hundred and sixty five days since the agreement was signed by both parties with the title “ Marine Inspection & Consultation Asset 4 Work Cooperation Contract Agreement PT Pertamina EP Poleng Field for 365 Calendar Days Between PT Biro Classification Indonesia and PT Makara Jaya Marines ”. In 2018 , the Indonesian National Shipowners' Association sent a letter to the Special Task Force for Upstream Oil and Gas Business Activities following the issuance of SKKMigas Letter No. SRT-0102/SKKMA0000/2018/S6 dated 07 February 2018 regarding the Obligation to Use the Indonesian Classification Bureau in Shipping Operations in Upstream Oil and Gas Business Activities .

With a request from a client and with a letter issued by INSA regarding the obligation to use the Indonesian Classification Bureau in operating ships for offshore purposes , the Indonesian Classification Bureau is obliged to inspect offshore vessels that will be operated through ship survey activities . However , since the beginning of the formation of the offshore division which eventually merged with the survey division , marine surveyors for the purposes of surveying offshore vessels owned by the Indonesian Classification Bureau are still inadequate to date .

PT Makara Jaya Marine suffered a defeat when participating in the PT Pertamina EP tender

When PT Pertamina EP held a tender , PT Makara Jaya Marine also registered to participate in the tender and became a competitor to PT Biro Klasifikasi Indonesia . However , the winner of the tender was PT Bureau of Classification Indonesia . In addition to the bid

price , the assessment for winning the tender is TKDN . For example , if the company uses human resources and/or materials used from within the country, the value obtained will be more than using human resources and/or materials from abroad , because the purpose of holding a tender is to increase the use of domestic products . At PT Makara Jaya Marine , the cause of the tender loss was in terms of price offers . The reason why PT Makara Jaya Marine accepted the offer of cooperation from the Indonesian Classification Bureau is because this company is a new company that still desperately needs business relations from companies or institutions whose names are bigger to develop the company .

Less Optimal Survey Activity Cooperation System between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia

Procedures for Survey Activities in Cooperation between PT Makara Jaya Marine and PT Bureau of Indonesian Classification Less transparent When PT Biro Klasifikasi Indonesia participated in a tender organized by PT Pertamina EP, PT Biro Klasifikasi Indonesia explained that if it wins this tender, the work will be delegated to a third party where the company has human resources that match the work required or can be referred to in terms of subcontract. Thus, when PT Biro Klasifikasi Indonesia won the tender and entered into a cooperation contract with PT Pertamina EP, the Indonesian Classification Bureau provided information that the third party that would carry out the work assigned by PT Pertamina EP was PT Makara Jaya Marine. However, the name made by PT Biro Klasifikasi Indonesia is not stated in the contents of the contract, both the contents of the cooperation contract between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia or the contents of the cooperation contract between PT Biro Klasifikasi Indonesia and PT Pertamina EP. The only thing that was done by PT Biro Klasifikasi Indonesia was in the form of talking to all parties involved that the work would be transferred to PT Makara Jaya Marine starting from the survey implementation to the preparation of the survey report results, but the results of the survey report would remain on behalf of PT Biro Klasifikasi Indonesia.



Figure .1

Sample Cover of Survey Report on behalf of PT Bureau of Classification Indonesia

There is a discrepancy in the contents of the contract The Indonesian Classification Bureau as the first party agreed to appoint PT Makara Jaya Marine as the executor (second party). So that in the contents of the cooperation agreement contract there is the responsibility of the second party in carrying out the work during the cooperation. On the responsibility of the second party (PT Makara Jaya Marine) which is written in the contents of the contract agreement, the author feels that there is a little injustice to the second party. These are the things in question:

1. **The SECOND PARTY** is responsible for managing the Basic Sea Survival (BSS) and carrying out Medical Check Up (MCU) for the personnel concerned at this point. According to the author, this is quite detrimental to the second party, because the second party must

- pay its own costs to take care of the BSS and implement the MCU without being claimed or replaced by the first party.
2. **The SECOND PARTY** will provide PPE equipment (Safety Helmet complete with chain strap, Safety Shoes, Coverall Flame Retardant, Safety Glasses, Gloves, Life Jacket) for all personnel related to the work to be carried out according to HSE standards. The second party must prepare the PPE equipment without being supplied by the first party. Thus, the second party again incurs additional costs to purchase PPE equipment without being claimed/replaced by the first party.
 3. **The FIRST PARTY** is not responsible for providing medical care to the personnel than the **SECOND PARTY** and all possible medical treatment costs incurred. This can be detrimental to the second party if the personnel from the second party happen something undesirable (work accident). Because the first party does not want to bear the burden, the second party bears the cost of media maintenance for the company's own human resources.

Alternative Troubleshooter

Alternative problem solving is a solution that can be used to solve a problem. From the analysis of the problem above, the author tries to provide alternative problem solving that can be used to solve an existing problem .

1. Less Optimal Cooperation in Survey Activities between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia

- a. Optimizing the form of cooperation between PT Bureau of Classification Indonesia and PT Makara Jaya Marine If the form of cooperation is optimized, the benefits between the two parties will increase. How to optimize the form of cooperation carried out by PT Bureau of Classification Indonesia with PT Makara Jaya Marine is to expand the form of cooperation. Expanding the form of cooperation not only in terms of providing surveyors by PT Makara Jaya Marine, but also PT Biro Klasifikasi Indonesia can request services in the form of consulting in the field of *marine surveys* , consulting in engineering/non-construction fields, making *marine survey work procedures* , as well as providing training/ training for surveyors of the Indonesian Classification Bureau. On the other hand, PT Makara Jaya Marine gets services from the Indonesian Classification Bureau not only in terms of providing work, but also being able to cooperate in terms of requesting calibration of ship equipment needed by clients at PT Makara Jaya Marine.
- b. Improving the Quality of Survey Services of PT Makara Jaya Marine The purpose of improving the service quality of a company is none other than to provide satisfaction for users of the company's services. The ways that can be done to improve the quality of PT Makara Jaya Marine survey services are as follows: Doing work in accordance with the time given; Provide a fast and responsive response; Listening to complaints and input from customers If the quality within the company has been improved and the experience is increasing, many companies will be interested in using survey services from PT Makara Jaya Marine. In addition, this can also affect the technical assessment in the tender. When PT Makara Jaya Marine participates in the tender, the company holding the tender will look to PT Makara Jaya Marine because this company has improved the quality of its survey services.

2. Less Optimal Survey Activity Cooperation System between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia

- a. The Second Party (PT Makara Jaya Marine) Shouldn't Make the Little Mistakes at Work Because the cooperation agreement contract has been made and both parties have signed the contract, the contents of the contract cannot be changed. So that the solution to the problems contained in the responsibility of the second party is that all personnel of the second party (PT Makara Jaya Marine) must not make any mistakes in their work. That

way, PT Makara Jaya Marine only needs to pay for managing BSS and conducting MCU for all of its marine surveyors and additional costs in large nominal amounts will not occur and PT Makara Jaya Marine does not feel very disadvantaged.

- b. Addition and Improvement of Surveyor Quality PT Makara Jaya Marine Currently, PT Makara Jaya Marine only has 6 surveyors, so it is necessary to increase the number and improve the quality of surveyors in order to improve the quality of the company and support the smooth cooperation carried out with PT Biro Klasifikasi Indonesia. This quality improvement can be done in several ways, namely: Surveyor recruitment with high terms and standards. The recruitment in question can be done by recruiting human resources to be employed as freelance surveyors or permanent surveyors in the company. The requirements and qualifications given by PT Makara Jaya Marine to recruit surveyors are listed in the Quality Manual of PT Makara Jaya Marine in the Job Requirement Doc section. No. MJM-JR-001. Held Special Training for Surveyors of PT Makara Jaya Marine PT Makara Jaya Marine can also improve the quality of its surveyors by conducting special trainings for each surveyor. The training which was attended by surveyors was held internally and externally.

Internal training organized by the company is usually mentored by a senior surveyor of PT Makara Jaya Marine and is carried out regularly once a year so that the surveyors can continue to improve their quality in carrying out their work. In addition, internal training was also carried out for surveyors newly recruited by PT Makara Jaya Marine, whether they were employed as freelance surveyors or permanent surveyors for the company. The internal training was in the form of training on procedures for conducting surveys at PT Makara Jaya Marine, such as Rig Mover surveys, Suitability, and others.

Figure 2

TRAINING MATRIX		Prepared by:		Approved by:							
Date: 01 January 2014		Jurnal Mubandari		Hardi Teguh Pratiwiawan							
NO	TRAINING TITLE	P.01.11.016									
		DIRECTOR		MARINE MANAGER		SUPERVISOR		SPRANCE		ADMEN	
		Requirement	Status	Requirement	Status	Requirement	Status	Requirement	Status	Requirement	Status
1.	1. PROSET	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
2.	2. BOP	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
3.	3. APP	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
4.	4. MEA	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
5.	5. MLC	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
6.	6. ISO 9001:2015	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
7.	7. SAFETY AWARENESS	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
8.	8. ISO 14001	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
9.	9. OPS CODE	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
10.	10. OPERATIONAL PROFICIENCY	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
11.	11. OPERATIONAL PROFICIENCY	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
12.	12. OPERATIONAL PROFICIENCY	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA
13.	13. MDS	BA	VOSE	MA	VOSE	BA	VOSE	Not required	NA	Not required	NA

Training Matrix PT Makara Jaya Marine

Figure 4 . 2 describes the Training Matrix that must be carried out by surveyors and employees of PT Makara Jaya Marine . This external training is also usually carried out regularly at least once a year by each surveyor . After the surveyors have conducted internal and external training , each surveyor will be given a certificate according to the training they did .

Problem Solving Evaluation

Solution to problem

Less Optimal Cooperation in Survey Activities between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia

The author draws the problem solving as follows: To continue to develop the company so that it can compete in national and international markets, the author provides problem solving in the form of improving the quality of PT Makara Jaya Marine survey services. If the quality improvement has been implemented, then automatically if the company will cooperate or participate in a tender again, the company will optimize the form of cooperation and survey the competitors or competitors among the bidders.

Less Optimal Survey Activity Cooperation System between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia

The author draws the problem solving as follows: Because the cooperation contract agreement has been made and signed by both parties, the solution that can be done is to increase the number of surveyors and improve the quality of surveyors at PT Makara Jaya Marine. With the increase in qualified surveyors, PT Biro Klasifikasi Indonesia feels helped in the ongoing collaboration process with PT Pertamina EP. These companies will be satisfied with the work that has been done by the surveyor PT Makara Jaya Marine. In addition, PT Makara Jaya Marine will also be increasingly recognized for having quality surveyors so that it can attract companies that need ship survey services to use the services of PT Makara Jaya Marine. If the quality improvement of surveyors continues, it is possible that PT Makara Jaya Marine can become a market leader (a company that leads market share in the field of ship survey services) in the national and international regions.

CONCLUSION

Based on the description that the author has conveyed in the previous chapters, the author can draw the conclusion that:

1. Less Optimal Cooperation in Survey Activities between PT Makara Jaya marine and PT Biro Klasifikasi Indonesia

Cooperation in the implementation of survey activities between PT Makara Jaya Marine and PT Biro Classification Indonesia was carried out because PT Biro Classification Indonesia won the tender held by PT Pertamina EP, but PT Biro Klasifikasi Indonesia did not have a marine surveyor to survey offshore vessels that would support the work project of PT Pertamina EP. Thus, PT Biro Klasifikasi Indonesia offered to cooperate with PT Makara Jaya Marine. During the tender, PT Makara Jaya Marine also registered and became a competitor to PT Biro Klasifikasi Indonesia, but PT Makara Jaya Marine lost in terms of price bidding. PT Makara Jaya Marine is a company that is classified as a new company and still needs help from other companies or institutions to develop and introduce PT Makara Jaya Marine in the market share. These things finally made PT Makara Jaya Marine accept an offer of cooperation from PT Biro Klasifikasi Indonesia.

2. Less Optimal Survey Activity Cooperation System between PT Makara Jaya Marine and PT Biro Klasifikasi Indonesia

Implementation of the cooperation system for survey activities of PT Makara Jaya Marine with PT Biro Klasifikasi Indonesia in the form of a written cooperation contract agreement that lasts for 365 days, where PT Biro Klasifikasi Indonesia acts as the first party, namely the survey service provider and PT Makara Jaya Marine acts as the second party, namely the who has a surveyor to carry out the work. The survey implementation procedure starts from the survey request procedure to the survey report submission procedure. The survey report is prepared and signed by the surveyor but under the name of PT Biro Klasifikasi Indonesia. The contents of the cooperation contract include several things that can harm the second party, such as the second party who is responsible for the management of the BSS and MCU, the second party who provides PPE equipment for survey purposes, and the first party who is not responsible for medical care for the surveyor. Second, if there is an accident at work.

REFERENCE

- Ministry of Education. 2014. *Big Indonesian Dictionary Eighteenth Edition IV* . Jakarta : Gramedia Pustaka Utama .
- Mulyana, Yuliati and Yulia Rahmawati. 2020. *Impact of KKG To Improve Teacher Motivation and Innovation in Finding the Right Learning Strategy* . Bandung : Grand Order .
- Pertiwi, R. Dewi. 2021. *Marketing of Tourism Services* . Yogyakarta : Depublish .
- Sugiarto, Endar. 2009. *Service Psychology in the Service Industry* . Jakarta : Gramedia Pustaka Utama .
- Smart Genesis team. 2016. *TOP MODULE: Complete General Knowledge Summary* . Yogyakarta : Genesis Learning .
- Indonesian government. 2008. Law Number 17 of 2008 concerning *Shipping*. State Gazette of the Republic of Indonesia Year 2008 Number 6. Jakarta : Secretariat country .Regulation of the Minister of Trade of the Republic of Indonesia Number 14/M-DAG/PER/3/2006 concerning *Provisions and Procedures for Issuing Survey Services Business Permits* .
- Surveyors Core Services* . http://aisi.info/?page_id=4017 visited on 02 February 2022 .
- Definition of Marine Survey and Marine Surveyor*. <http://marine-surveyor-indonesia.blogspot.com/2014/09/definisi-marine-survey-dan-marine.html> visited on 28 January 2022 .