THE HANDLING OF ROUND SCAD ON MINI PURSE SEINE BOATS, REGENCY OF REMBANG REVIEWED BASED ON THE DECREE OF MINISTER OF MARINE AFFAIRS AND FISHERIES NUMBER 52A/KEPMEN-KP/2013

PENANGANAN IKAN LAYANG DI ATAS KAPAL MINI PURSE SEINE, KABUPATEN REMBANG DITINJAU BERDASARKAN KEPUTUSAN MENTERI KELAUTAN PERIKANAN NOMOR 52A/KEPMEN-KP/2013

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ABSTRACT
The round scad produced will have the best quality if the catching and handling method onboard and at the port is carried out quickly, precisely and carefully. The entire handling activity has been regulated in the Decree of the Minister of Marine Affairs and Fisheries (KEPMEN KP) number 52A/KEPMEN-KP/2013. This research aimed to determine the level of conformity between the handling carried out onboard with the standard handling regulated in the KEPMEN KP number 52A/KEPMEN-KP/2013. The analysis results will be used as the basis for developing alternative strategies for the standard implementation of Round scad on the mini purse seine boats in the Regency of Rembang. The data collecting was carried out by observation and interviews with respondents. Data were analyzed using gap analysis, which is looking for the difference between standard handling and the handling carried out during the research. The elements analyzed were boat facilities, onboard hygiene, human resources, tools and equipment for handling fish, as well as fishing technique and catching unit. The research results showed that the average score of the conformity of handling on the five elements are 69.52%, which means that the round scad handling on mini purse seine boat in the Regency of Rembang is not reaching the standards regulated in the KEPMEN KP number 52A/KEPMEN-KP/2013. This is caused by the low level of conformity in the element of human resources of 38.56%.

Keywords: round scad, handling, mini purse seine, gap analysis

ABSTRAK
Ikan layang yang dihasilkan akan mempunyai kualitas terbaik jika cara penangkapan dan penanganan di atas kapal maupun di pelabuhan dilakukan dengan cepat, tepat dan hati-hati. Keseluruhan aktivitas penanganan telah diatur dalam Keputusan Menteri Kelautan Perikanan (KEPMEN KP) nomor 52A/KEPMEN-KP/2013. Penelitian ini bertujuan untuk menentukan tingkat kesesuaian antara penanganan yang dilakukan di atas kapal dengan penanganan standar yang diatur dalam KEPMEN KP nomor 52A/KEPMEN-KP/2013. Hasil analisis tersebut akan digunakan sebagai dasar untuk menyusun alternatif strategi penerapan standar penanganan ikan layang di atas kapal mini purse seine di Kabupaten Rembang. Pengambilan data dengan metode observasi dan wawancara terhadap responden. Analisis data menggunakan gap analysis, yaitu mencari selisih antara penanganan standar dan penanganan saat dilakukan pada saat penelitian. Elemen-elemen yang dianalisa adalah fasilitas kapal, higiene di atas kapal, sumberdaya manusia, peralatan dan perlengkapan penanganan ikan, serta teknik penangkapan dan unit penangkapan. Hasil penelitian menunjukkan bahwa rata-rata nilai kesesuaian penanganan terhadap lima elemen tersebut sebesar 69,52%, artinya penanganan ikan layang di atas kapal mini purse seine di Kabupaten Rembang kurang sesuai dengan standar yang ada dalam KEPMEN KP nomor 52A/KEPMEN-KP/2013. Penyebab penanganan kurang sesuai standar yaitu masih rendahnya tingkat kesesuaian pada elemen sumberdaya manusia, yaitu sebesar 38,56%.

Kata kunci: ikan layang, penanganan, mini purse seine, gap analysis

I.   INTRODUCTION

The round scad *Decapterus* sp. as one of the pelagic fish that has economic value and provide a major contribution to the production of mini purse seine fisheries in the Regency of Rembang. Round scad is one of the dominating fishes in the Regency of Rembang, with a total production of 17,228,710 kg (28.24%) (BPSKR, 2017). The round scad in the Regency of Rembang is the catch of mini purse seine fishing (Nugraha *et al.,* 2014*),* where mini purse seine is fishing gear suitable for pelagic fish (Tanjov *et al.,* 2016). The quality of the round scad from the mini purse seine in the Regency of Rembang is considered as not good since most of the round scad produced are used raw material for pindang fish processing, not consumed fresh and is not an export quality. The poor quality of the round scad is due to the condition of the ship's facilities, the condition of boats hygiene, the quality of Human Resources (HR) or crew members (ABK) on boats, the condition of equipment and equipment for fish handling. The problem that occurs at this time is that the mini purse seine facilities that not according to standards, the higiene conditions of tool and equipment fish handling that not according to standards, the higine of ABK when fish handling that not according to standards, the limited knowledge, skills, and lack of awareness of the boat crews about a good method of fish handling, which still slams or throws roughly the basket containing the catch, and still doing eating, drinking and smoking activities when fish handling (demolition of catches). Another influential factor is the method of storing catches in hatches that still use traditional/manual cooling of crushed ice blocks by bulking system. The bulking system causes the round scad to have a high risk of declining quality due to the high piling.

The quality of the round scad produced by the mini purse seine boat will have the best quality if the catching and handling method onboard and at the port is carried out quickly, precisely and carefully. The entire handling activity has been regulated in the Decree of the Minister of Marine Affairs and Fisheries (KEPMEN KP) number 52A/KEPMEN-KP/2013. This Ministerial Decree contains requirements for quality guarantee and safety of fishery products in the production, processing and distribution process (Nurani *et al.,* 2011). The purpose of this ministerial decree is to obtain fishery products that meet the quality guarantee and safety of fishery products. This requirement should be implemented by every fishery business actor who conducts production, processing and distribution activities, either as individuals or business entities (KKP, 2013).

Based on the background above, it is necessary to analyze the factors that influence the quality of round scad catch by mini purse seine in Rembang Regency, as stated in Kepmen KP no 52A / KEPMEN-KP / 2013 which includes elements of the boats facilities, onboard hygiene, human resources, tools and equipment for handling fish, as well as fishing technique and catching unit. The analyze factors by using gap analysis, so that it is obtained gap value and level of conformity standard handling as regulated in the Kepmen KP number 52A/KEPMEN-KP/2013 and the handling conducted during the research. The analysis results will be used as the basis for developing alternative strategies for the standard implementation of round scad on the mini purse seine boats in the Regency of Rembang.

II.   RESEARCH METHODS

2.1.   Time and Place of Research

This research was carried out in March to August 2018. Researchers conducted direct observations on mini purse seine boat carrying out unloading activities in the Tasik Agung fishing port, Regency of Rembang, Central Java.

2.2. Data Collection Technique

The data collection in this study was carried out by observation and interviews. An observation was carried out by direct observation of the round scad handling process onboard of mini purse seine boat when they were unloading the catches at the Tasik Agung port. Researchers also conducted in-depth interviews with resources/respondents using questionnaires. Respondent determinations were carried out by purposive sampling methods. There are 41 respondents consists of the business owner of mini purse seine boat (20 people), masters of mini purse seine boat (20 people) and head of Public Fish Markets (TPI) of Tasik Agung (1 person).

2.3. Data Analysis Technique

The data analysis of conformity of fish handling onboard was conducted by using gap analysis, namely by finding the difference between standard handling as regulated in the Kepmen KP number 52A/KEPMEN-KP/2013 and the handling conducted during the research. The handling at the time of research was in the form of a quantitative score, which was calculated from the questionnaire results, while the standard handling has been regulated in the Kepmen KP number 52A/KEPMEN-KP/2013.

According to Anugerah *et al.* (2016) and Nurani *et al.* (2017), the gap analysis in fish handling consists of several stages:
1) Analyzing the elements of round scad handling system onboard.

It is consists of five elements, namely: (1) Boat facilities (consists of eight factors), (2) onboard hygiene (consists of twelve factors), (3) Human resources (consists of nine factors), (4) Fish handling tools and equipment (consists of nine factors), (5) Fishing technique and catching unit (consists of six factors). These elements are made based on the requirements in the KEPMEN KP number 52A/Kepmen-KP/2013.

2) Assessing each factor in the five main elements.

The assessment used likert scale (1-5) with the help of assessment check sheet. The score criteria are as follows: score 5 (highly conform), score 4 (conform), score 3 (adequately conform), score 2 (does not conform), score 1 (highly does not conform). The assessment was carried out by researchers based on observations directly onboard and the results of in-depth interviews with the respondents, using a questionnaire form of the conformity of fish handling onboard.

3) Looking for the gap value and the conformity level of each element.

According to Palan (2007), Anugerah *et al.* (2016) and Nurani *et al.* (2017), the following is the equation to find the gap score (Equation 1) and the equation to find the conformity level score (equation 2):

$$\text{Gap} = (\text{RCL} - \text{CCL}) \dots\dots\dots\dots\dots\dots (1)$$

Gap = Standard handling – Current handling

$$\text{Conformity Level} = \frac{\bar{x}\,\text{CCL}}{\bar{x}\,\text{RCL}} \times 100\,\% \dots\dots (2)$$

$$\text{Conformity Level} = \frac{\text{mean of current handling}}{\text{mean of standard handling}} \times 100\%$$

Information: CCL (Current Competency Level) = handling score during research (the score obtained from the assessment results of the element of Round scad handling onboard. RCL (Required Competency Level) = maximum score of fish handling onboard in accordance with the handling standard stipulated in KEPMEN KP number 52A/KEPMEN-KP/2013.

4) Decision making on the level of conformity of each and overall handling elements.

This decision was made by comparing the conformity level score of the research results and the criteria provisions as follows:

0% - ≤ 34% → Handling highly does not conform to the standard in KEPMEN KP no 52A/KEMPEN-KP/2013; 34% - ≤ 50% → Handling does not conform to the standard in KEPMEN KP no 52A/KEMPEN-KP/2013; 50% - ≤ 65% → Handling almost conform to the standard in KEPMEN KP no 52A/KEMPEN-KP/2013; 65% - ≤ 80% → Handling a little conform to the standard in KEPMEN KP no 52A/KEMPEN-KP/2013; and 80% - ≤ 100% → Handling conform to the standard in KEPMEN KP no 52A/KEMPEN-KP/2013.

III. RESULTS AND DISCUSSION

Round scad cathced by mini purse seine during the research, has a length of approximately 14 cm and weight 45-50 grams / head, shown in Figure 1.

Figure 1. Round scad.

Based on the calculation results using Gap analysis, it was found that there is a gap between the handling carried out during research and standard handling stipulated in the KEPMEN KP no. 52A/KEPMEN-KP/2013.

The gap score and the conformity levels score were carried out on five elements, including boat facilities, onboard hygiene, human resources, tools and equipment for fish handling, fishing technique and catching unit.

3.1. The Element of Boat Facilities

The element of boat facilities consists of 8 (eight) factors. The gap score and the conformity level score of boat facilities on mini purse seine boat in Regency of Rembang are shown in Table 1.

Based on the data on Table 1, the average gap score was 1.00 with a conformity level of 80.00%, which means that the boat facilities of mini purse seine in Rembang Regency conforms with the standard in KEPMEN KP number 52A/KEPMEN-KP/2013. The elements to be improved are the automatic temperature recorder that should be placed in an easily read place and the boat needs to be equipped with a Chilled Sea Water/CSW cooling machine.

Table 1. The gap score and the conformity level score of boat facilities on mini purse seine boat in Regency of Rembang.

No	Element of Boat Facilities	RCL	CCL	GAP
1.	The boat is equipped with equipment to maintain the freshness of the fish during catching with a storage time of more than 24 hours, such as hatch, tanks, or containers to store fish and maintain the cooling temperature.	5.00	5.00	0.00
2.	The hatch for storing catches is equipped with an ice melt removal system.	5.00	5.00	0.00
3.	The hatch must be separated from the engine room and the crew's room (to prevent contamination).	5.00	5.00	0.00
4.	The boat is equipped with a hatch for ice storage.	5.00	3.00	2.00
5.	The hatch is equipped with an automatic temperature recording device put in an easy to read place.	5.00	3.00	2.00
6.	There is a wheelhouse, a machine room, a resting room for the	5.00	5.00	0.00

No	Element of Boat Facilities	RCL	CCL	GAP
	crew (ABK) and a kitchen room.			
7.	Have a clean water supply for cooking and personal needs.	5.00	5.00	0.00
8.	The boat is equipped with a Chilled Sea Water (CSW) cooling machine.	5.00	1.00	4.00
	Average	5.00	4.00	1.00
	Conformity Level		80.00%	

RCL : Standard handling score; CCL : Current handling score; and GAP : The gap score of round scad handling onboard of mini purse seine boat, Rembang Regency during research and the handling standard based on KEPMEN KP number 52A/KEPMEN-KP/2013.

3.2. The Element of Onboard Hygiene on Mini Purse Seine

The element of onboard hygiene consists of 12 (twelve) factors and all factors have not met the standard. The gap score and the conformity level score of onboard hygiene on mini purse seine boat in Regency of Rembang are shown in Table 2.

Table 2. The gap score and the conformity level score of onboard hygiene on mini purse seine boat in Regency of Rembang.

No	Element of Onboard Hygiene	RCL	CCL	GAP
	a) Sanitation			
1.	When used, parts of boats or containers for fish storage must be kept clean and in good condition, to avoid contamination of fuel and dirty water.	5.00	4.08	0.93
2.	Watering or cleaning the deck before and after use.	5.00	4.85	0.15
3.	The catch must be protected from contamination, immediately after being lifted to the deck.	5.00	2.50	2.50
4.	Water/ice used for washing and cooling the fish must meet the requirements of drinking water, clean.	5.00	2.65	2.35
5.	After being caught, the fish must be handled quickly and carefully and stored immediately.	5.00	3.38	1.63
6.	Fish should not be stepped on and should not get other rough treatment to avoid physical damage (bruising).	5.00	3.78	1.23
7.	If the handling is using a hook/shovel, it must be maintained so as not to injure fish meat.	5.00	4.88	0,13
	b) Cold chain			
8.	After being caught the catch must be immediately put into a storage container (hatch) and given ice (cooled) to maintain the temperature of the fish.	5.00	4.15	0.85
9.	The catch must be avoided from the sun's heat and other heat sources.	5.00	3.74	1.26
10.	The fish storing method in the hatch should not be put in a high pile.	5.00	2.00	3.00
11.	The fish storing in the hatch should be according to the size, type, and quality of the fish.	5.00	4.00	1.00
12.	Regular temperature monitoring and control are carried out.	5.00	1.00	4.00
	Average	5.00	3.42	1.58
	Conformity Level		68.31%	

Based on Table 2, the average gap score of onboard hygiene element was 1.68 with conformity level of 68.31%, which means that the onboard hygiene element of mini purse seine in Rembang Regency a little conform to the standard in KEPMEN KP number 52A/KEPMEN-KP/2013.

Things that make the hygiene elements on mini purse seine boat do not conform to the standards are: (1) the catch is not maintained from contamination, immediately after being lifted to the deck. During the unloading of the catch, the fish are often left exposed to the open air (without cover) and without ice. The unloaded catch and placed in a basket container are left for a long time without basket cover and was placed directly on the dirty pier floor. Before the unloaded fish are transported to the TPI, the fish are left to wait for too long, without ice and without heat protection. (2) The fish storing in hatches are often left in a high pile. This way of storing makes the fish vulnerable to physical damage (flat) because they are pressed by the fishes and ice from the layers above. (3) the crews do not monitor and control the temperature, so the temperature in the hatch is unknown whether it is still within a safe limit for bacterial growth or not. The Crews only control the ice in the hatch. If they run out of ice in the ice, they add more ice.

Some things need to be done so that the onboard hygiene element conforms to the standards are: (1) the unloaded fish from the hatch and stored in a basket should be covered with ice on the bottom and top layer of the fish before they are carried to the TPI. The bottom of the basket should be layered with a cover as well. The purpose of this method is to maintain the fish temperature and prevent contamination. A basket filled with fish also should not wait too long to be carried to the TPI. There should be a time limit on how long it can wait. (2) Fish storage in the hatch should not be piled too high with a maximum height of 50 cm (Suprayitno, 2017). If there is a huge amount of fish to be cooled, the hatch should be given a life screen (a screen that is easily assembled and disassembled) made of wood. This is to minimize the physical damage to the fish. (3) Temperature control monitoring should be carried out regularly to achieve a good quality of catch since storage temperature of the catch is an important factor that must be considered.

3.3. The Element of Human Resource on Mini Purse Seine Boat

The element of human resources consists of 9 (nine) factors and all factors have not met the standard. The gap score and the conformity level score of human resource element on mini purse seine boat in Regency of Rembang are shown in Table 3.

Table 3. The gap score and the conformity level score of human resource element on mini purse seine boat in Regency of Rembang.

No	Element of Human Resource	RCL	CCL	GAP
1.	The person in charge must have a Fish Handling Skills Certificate (SKPI).	5.00	1.00	4.00
2.	The crews have the knowledge and skills to handle fish.	5.00	2.80	2.20
3.	Ship crews handling fishery products must be healthy and not sick, do not have hand injuries, infection or contract other infectious diseases.	5.00	2.98	2.03
4.	The crews who handle fishery products are subject to periodic health checks at least 1 (one) time a year.	5.00	1.00	4.00
5.	The crews who handle fishery products use clean work clothes, work helmets, rubber boots, and gloves.	5.00	1.63	3.38

No	Element of Human Resource	RCL	CCL	GAP
6.	The crews who handle fishery products wash their hands before starting work.	5.00	1.70	3.30
7.	The crews who handle fishery products receive training on how is the good way to handle catches.	5.00	1.00	4,00
8.	The ship crews should not smoke, spit, eat and drink in the area of handling and storing of the catch.	5.00	2.48	2.53
9.	The crews work carefully, avoiding harsh treatment to the fish such as dragging, slamming and so on that can damage the fish.	5.00	2.78	2.23
	Average	5.00	1.93	3.07
	Conformity Level		38.56%	

The entire human resource element obtained an average gap of 3.16 with a conformity level of 38.56% (Table 3), meaning that the human resource element on a mini purse seine boat in Rembang Regency does not conform to the standard of KEPMEN KP number 52A/KEPMEN-KP/2013. The things that cause the human resource element does not conform to the standards, includes: the person in charge does not have a Fish Handling Skill Certificate (SKPI), the crew who handle fishery products have never been subjected to periodic health checks at least 1 (one) time a year, the crews who handle fishery products have never received training on how is the good way to handle the fish, and the crews still smoke, spit, eat and drink in the area of handling and storing the catch.

Some things need to be done so that the human resource element meets the standards, includes: (1) It is necessary to conduct socialization and training for the ship master and crew personnel on how to handle fish properly, by cooperating between the shipowner and the Rembang Regency fisheries service. It is expected that this activity will foster awareness of the crew on how to handle fish properly to achieve a good quality of catch which leads to increasing prices. (2) Periodic health checks need to be carried out at least 1 (one) time in a year. This aims to determine the health condition of the crew, whether the crew suffer from chronic or contagious diseases that which may cause contamination to other employees and the catch. (3) It is necessary to emphasize to the crew about the prohibition of smoking, spitting, eating and drinking in the area of handling and storing catches. This aims to prevent contamination of the catch.

3.4. The Element of Tools and Equipment for Fish Handling on Mini Purse Seine Boat

The element of tools and equipment for fish handling consists of 9 (nine) factors. The gap score and the conformity level score of tools and equipment of fish handling on mini purse seine boat in Regency of Rembang are shown in Table 4.

Table 4. The gap score and the conformity level score of tools and equipment of fish handling on mini purse seine boat in Regency of Rembang.

No	Element of Tools and Equipment of Fish Handling	RCL	CCL	GAP
1.	Tools and equipment used in direct contact with fish must be designed and made of materials that are rust resistant, non-toxic, non-absorbent, easy to clean and do not cause contamination of fishery products.	5.00	4.30	0.70

No	Element of Tools and Equipment of Fish Handling	RCL	CCL	GAP
2.	Tools and equipment must be arranged in such a way at each stage of the process to ensure smooth operation, prevent cross-contamination and easy to clean.	5.00	3.88	1.13
3.	Tools and equipment must be kept clean, in good condition and ready to use.	5.00	3.75	1.25
4.	Protectors/tarps are available to avoid fish from the heat of the sun.	5.00	1.00	4.00
5.	Materials and tools are available for sanitation activities to facilitate sanitation activities onboard.	5.00	4.75	0.25
6.	Availability of enough ice to meet fishing requirements and post-catch handling.	5.00	4.13	0.88
7.	Containers used in handling fish can be in the form of barrels or baskets and are made of plastic, aluminum or fiberglass and are easy to clean.	5.00	4.25	0.75
8.	Equipment for handling fish caught must be properly maintained.	5.00	3.95	1.05
9.	Water/ice used for washing and cooling the fish must meet the requirements of drinking water, clean.	5.00	2.43	2.58
	Average	5.00	3.60	1.40
	Conformity Level		72.06%	

Based on the data in Table 4, the average gap value of the fish handling tools and equipment elements is 1.23 with a suitability level of 72.06%, which means that the elements of tools and equipment for handling fish on mini purse seine boat in Rembang Regency does not conform with the standards in KEPMEN KP number 52A/KEPMEN-KP/2013. Things that cause elements of fish handling tools and equipment do not conform to the standards included no protective/tarpaulin to protect fish from the heat of the sun. The main reason for mini purse seine boat is not equipped with tarps or protector is because fishing operations are always carried out at night or in the morning (before sunrise). But for the unloading of the catches in the port have been carried out in the morning until noon. Therefore, the catch is exposed to direct sunlight, this results in an easy deterioration in the quality of the catch.

To increase the conformity score of the elements of onboard fish handling tools and equipment, the boat should be equipped with a protective/tarpaulin to protect fish from being exposed to direct solar heat. Therefore, the temperature of the fish caught does not increase significantly. According to Zhang *et al.* (2011), a significant increase in temperature can accelerate the process of quality deterioration of fish. Gram and Dalgaard (2002) also state that some microbes found in marine fish will be hampered using low-temperature storage. Taher (2010) emphasizes that good and correct low-temperature storage will also increase the shelf life of fish.

3.5. The Element of Fishing Technique and Catching Unit of Mini Purse Seine Boat

The element of fishing technique and catching unit consists of 6 (six) factors. The gap score and the conformity level score of fishing technique and catching unit on mini purse seine boat in Regency of Rembang are shown in Table 5.

Table 5. The gap score and the conformity level score of fishing technique and catching unit on mini purse seine boat in Regency of Rembang.

No	Element of Fishing Technique and Catching Unit	RCL	CCL	GAP
1.	Do not use fishing technology that can damage fish physically.	5.00	4.55	0.45
2.	Do not use fishing gear that can accelerate the decline in the quality of fish and cause the fish to be contaminated, for example by using poisons.	5.00	5.00	0.00
3.	Not fishing in contaminated areas.	5.00	5.00	0.00
4.	Not fishing in the area and spawning season, thereby reducing the quality of fish.	5.00	3.60	1.40
5.	Fishing boats must be designed according to existing standards so as not to cause product contamination from external factors, including dirty water, waste, smoke, oil, grease or other materials.	5.00	4.00	1,00
6.	Hatch of fishing boats must be designed according to standards so as not to cause contamination of catches	5.00	4.45	0,.5
	Average	5.00	4.43	0.57
	Conformity Level		88.67%	

Based on the data in Table 5, the average gap value of the fishing technique and catching unit element is 0.57 with a suitability level of 88.67%, which means that the elements of fishing technique and catching unit on mini purse seine boat in Rembang Regency conform to the standards in KEPMEN KP number 52A/KEPMEN-KP/2013. The problem that occurs is that the mini purse seine boats sometimes still catch fish in the spawning area and season so that the catches are easily deteriorated.

The overall gap value and suitability of the five elements of round scad handling on a mini purse seine, Rembang Regency is shown in Table 6.

Table 6. The calculation results of the gap score and conformity of round scad handling on a mini purse seine, Rembang Regency.

No	Elements	Standard Handling Score	Current Standard Handling	GAP Score	Conformity Level (%)
1.	Boat facilities	5.00	4.00	1.00	80.00
2.	Onboard hygiene	5.00	3.42	1.58	68.31
3.	Human Resources	5.00	1.93	3.07	38.56
4.	Fish handling tools and equipment	5.00	3.60	1.40	72.06
5.	Fishing technique and catch unit	5.00	4.43	0.57	88.67
	Average	5.00	3.48	1.52	69.52

Based on the data in Table 6, it is found that the average score of the conformity of the five handling elements is 69.52%, meaning that the handling of round scad on a mini purse seine in Rembang Regency does not conform to the standards in KEPMEN KP number 52A/KEPMEN-KP/2013. The element that has the highest gap score is human resources of 3.07 with the lowest level of conformity of 38,56%. Human resources onboard have a very important role in maintaining the quality of fish .aught because they are the first people to be directly involved with the quality of fish caught. They are directly handling the catches from the storage of the catch to the unloading of the catch. The lack of knowledge and skills of the crews about how to handle catches properly is because they have never received special training, this makes the crews still not realize that good handling will lead to the maintained quality of the catch (Furqan, 2017).

The average level of conformity of round scad handling on a mini purse seine, Rembang Regency are shown in Figure 2.
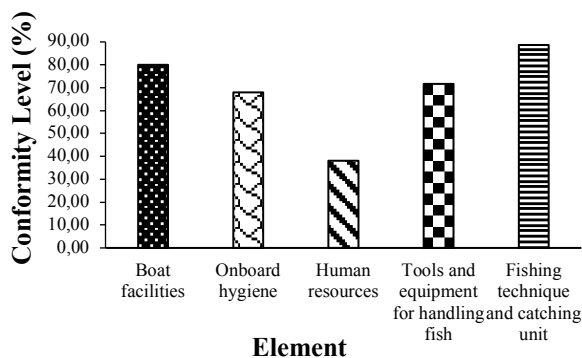

Figure 2. The average level of conformity of round scad handling on a mini purse seine, Rembang Regency.

Based on KEPMEN KP number 52A/KEPMEN-KP/2013, the factors that cause the human resource element are not in accordance with the standards, are : (1) The person in charge does not have a Fish Handling Skill Certificate (SKPI); (2) The crews who handle fishery products have never been subjected to periodic health checks at least 1 (one) time a year ; (3) The crews who handle fishery products have never received training on how is the good way to handle catches; (4) The crews who handle fishery products use clean work clothes, work helmets, rubber boots, and gloves; (5) The ship crews still smoke, spit, eat and drink in the area of handling and storing of the catch; (6) The crews who handle fishery products have not wash their hands before starting work.

To increase the conformity score of the elements of of human resource element on mini purse seine boat in Regency of Rembang, based on KEPMEN KP number 52A/KEPMEN-KP/2013 : (1) Training of the person in charge of the ship needs to be done on how to handle fish properly so that the respondent has a certificate and understands how to handle good catches; (2) Periodic health checks need to be carried out at least 1 (one) time in a year. This aims to determine the health condition of the crew, whether the crew suffer from chronic diseases or diseases that are prone to infectious and cause contamination of other employees and cause contamination of the catch; (3) It is necessary to carry out socialization and training on how to handle fishes to the responsible of ships and crew who handle the catch, by cooperating between the ship owner and the local fisheries service; (4) It is necessary to emphasize to the crew that handling catches to use handling equipment completely, clean and well (work clothes, work helmets, rubber boots, and gloves); (5) It is necessary to emphasize to the crew about the prohibition of smoking, spitting, eating and drinking in the area of handling and storing catches. This aims to prevent contamination of the catch; (6) It is necessary to emphasize to the crew about the prohibition of the crews who handle fishery products wash their hands before starting work. This aims to prevent contamination of the catch.

IV. CONCLUSION

The average gap score and the level of conformity of the five handling elements is 69.52%, meaning that the handling of round scad on a mini purse seine in Rembang Regency does not conform to the standards in KEPMEN KP number 52A/KEPMEN-KP/2013. This is due to the low level of conformity in the element of human resources of 38.56.%.

ACKNOWLEDGEMENT

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