



Analysis of Sales Marketing Margins and Marketing Efficiency of Gillnet Fisherman in Nusantara Fishery Port Palabuhanratu, Sukabumi

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

The marketing process of gillnet fishing catch sales in Palabuhanratu is not balanced. Gillnet fishing catch sales are not through auction due to the small catch. So that fishermen have no other way than to sell the catch to middlemen because of the consequences of capital borrowing. This study aims to determine marketing activities and marketing margins, costs and profits fisherman gillnets at the Palabuhanratu Nusantara Fishing Port, Sukabumi. This research was conducted from February 2022 to June 2022. The method used is a descriptive method with a case study approach. The types of data used is primary data by using a questionnaire. The sampling technique used in this research is snowball sampling. A snowball sampling technique is a step in selecting sources at the time in the field or based on previous informants' instructions so that researchers get complete and in-depth data. Based on the data analysis, The biggest cost are on channel II range from IDR 3.800- IDR 15.500 Followed by channel IV range from IDR 6.150- IDR 14.000 and the lowest is channel III range from IDR 3000- IDR 7.000. The highest profit is channel II range from IDR 8.200- IDR 17.970 and the lowest profit is channel III range from IDR 1.200- IDR 6.000. The marketing channel that has the smallest marketing margin and the largest share margin is channel type 3, with a margin value of between IDR. 10,000-IDR.5,000 with an average of IDR. 6,700,- and share margins ranging from 64.28% - 77.78% with an average of 71.6% followed by type 1 channels with marketing margins ranging from IDR.7,000-IDR.20,000 with an average of

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IDR.11,800, - and share margin ranging from 63.3% - 72% with an average of 67.28%.The results showed that there are 4 patterns of marketing channels, where the most efficient marketing channel is through channel type three followed by channel type one. However, it should be underlined that marketing efficiency is not only seen from marketing margins and share margins, although type 3 channel is the most efficient channel, but when viewed from the quality and freshness of fish, type 1 channel is better. To be able to increase the income of fishermen should process abundant fish products into frozen food so that it can be absorbed by the market. In addition, there is a need for government agencies that are able to fight for fishermen in obtaining capital and reactivating existing cooperatives.

Keywords: Marketing activities; marketing margins; share margin; cost; profits.

1. INTRODUCTION

Palabuhanratu is one of the largest ports on the southern coast of Java and even in West Java [1]. The Palabuhanratu Nusantara Fishery Port (PPN) is a capture fisheries sector or area that has abundant natural resources as evidenced by varied catches. The catch of course has a direct effect on the level of welfare of fishermen because it is the main source of income for fishermen [2]. The catch is a product that is sold by capture fisheries business. The increase in sales from the catch is certainly closely related to marketing activities. Marketing activities can run smoothly if they are driven by a balance of purchasing power from consumers [3]. According to Arbi et al. [4] marketing channels are a series of interdependent institutions or organizations involved in the process of making a product acceptable to consumers. The larger the marketing margin, the smaller the percentage of the share received by fishermen [5]. Fishermen need marketing agencies to be able to distribute their catches for sale more quickly and efficiently. This phenomenon can be seen from the low selling price obtained by fishermen [6]. Therefore, information related to what type of catch provides the highest profit margin can certainly increase the income of the fishermen themselves, because the increase in income is also related to welfare level, so that the marketing margin has a big influence on the welfare of fishermen in Palabuhanratu. This study aims to describe the background above regarding the analysis of marketing activities from the catch of gillnet in Palabuhanratu, Sukabumi.

2. MATERIALS AND METHODS

This research was conducted at the Fisheries Port of the Archipelago, Palabuhanratu, Sukabumi Regency, West Java Province, Indonesia, in February 2022 – June 2022. The

method used for this research is a descriptive method with a case study approach. This method has a purpose in making a description, and an accurate picture in accordance with the existing facts and the phenomenon being investigated. The type of data used is primary data by using a questionnaire. The sampling method used is snowball sampling. The snowball sampling method was carried out to trace the institutions involved in the marketing process of fish caught by drift gillnet fishermen, there are, 1 ownerhip, 1 collectors, 2 agents and 2 retailers, and so on.

2.1 Marketing Analysis

The data analysis to answer the objectives of this research is as follows:

1. To find out the marketing channels of fish caught by gillnets observations of the marketing institutions involved ranging from fishermen, retailers. The income received by marketing agencies will vary.
2. To analyze the marketing used quantitative analysis and marketing margins at the agency level in channels and marketing efficiency by calculating the costs, profits and marketing margins for each intermediary agency in various channels [7].

2.1.1 Marketing costs

According to Sudiyono [7] Marketing costs are the sum of the costs of each marketing agency formulated as follows:

$$Bp = Bp1+Bp2+Bp3....+Bpn$$

Description:

Bp : Marketing Costs
 Bp1, Bp2, Bp....Bpn : Marketing costs per marketing agency

2.1.2 Marketing profit

Profit is the sum of the profits received by each marketing agency that is passed in a marketing channel, according to Sudiyono [7] which is formulated as follows:

$$Kp1+Kp2+Kp3.....+Kpn$$

Description:

Kp : Marketing advantage

Kp1 , Kp2, Kp3..Kpn : Marketing profit of each marketing agency

2.1.3 Marketing margin

Margin The marketing margin is the difference between the price at the producer level and the final consumer level. According to Sudiyono [7] it is formulated as follows:

$$MP = Pr - Pf$$

Description:

MP : Marketing Margin (IDR/kg)

Pr : Consumer Price (IDR/kg)

Pf : Producer Price (IDR/kg)

2.1.4 Presentage marketing margin

Percentage Margin or Share margin is the percentage of the price received by fishermen to the price paid by consumers.

$$Mp: (Pf/ Pr) \times 100\%$$

Description:

Mp : Marketing Margin

Pf : Price at producer level (IDR/kg)

Pr : Price at consumer level (IDR/kg)

3. RESULTS AND DISCUSSION

Marketing system of marine caught landed at PPN Palabuhanratu carried out through two channels. First, through the TPI and some without going through the TPI. Marketing through TPI is carried out based on the results of the auction with system highest bidding. Meanwhile, marketing without going through the TPI is intended for fish to be exported and also fishermen with fishing gear with small catches. The marketing institutions in PPNP include fishermen, baskets, ship owners, middlemen, retailers and agents. Most of the fishermen have not used the existing facilities, namely TPI, to

market their caught. According to interviews, fishermen are more attached to boat owners, resulting in the low contribution of fishermen in selling their fish at TPI. The low number of catch production and ship owners who double as baskets and fish collectors are also a factor not carrying out fish auctions at TPI. Some fishermen, especially gillnet fishermen, think that TPI marketing is detrimental. This is because the catches of drift gillnets are small catches [8].

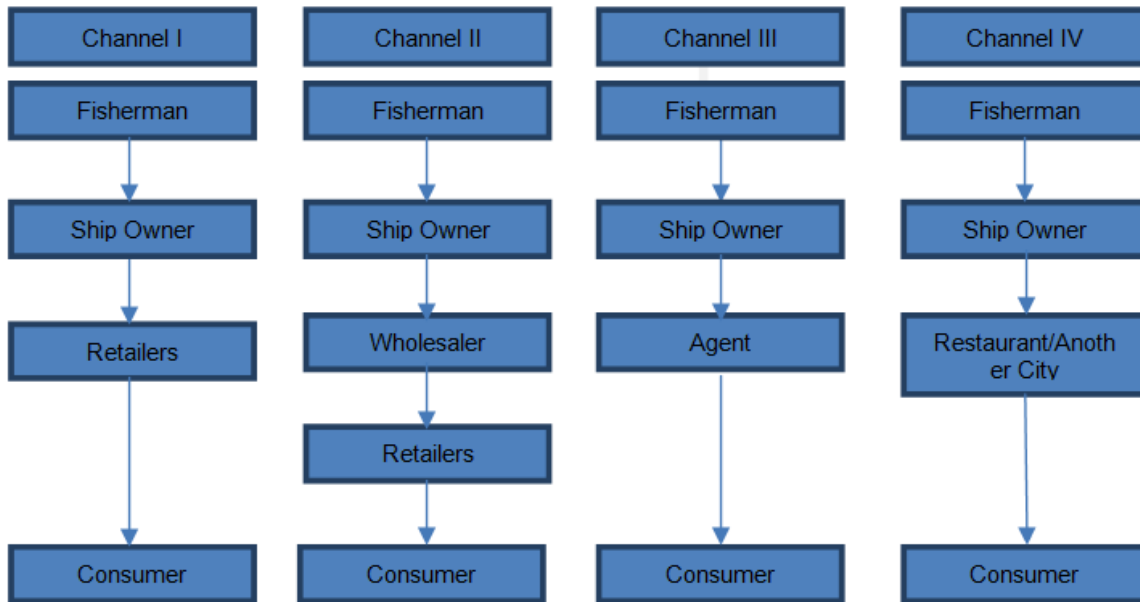
3.1 Marketing Distribution of Fisherman's Catches of Drift Gillnets in Palabuhanratu

There are no distribution channels for fish catches from fishermen who are respondents who sell their catches to other marketing institutions. The price of fish is determined by the owner of the ship as well as the first collector according to the type, quality of fish, as well as the number and size of the fish brought by the fishermen. Before going to sea, fishermen are provided with provisions such as food, drink and cigarettes. In addition, ship owners will also provide fishing capital such as fuel, ice cubes, oil and other equipment that supports fishing activities. So that the fishermen only need to catch fish and hand over the catch to the ship owner and it can be said that the fishermen here are only laborers. Fishermen cannot determine their own prices.

3.2 Distribution Channel Pattern of Fish Caught By Fishermen in Drift Gillnet

The pattern of marketing channels can be created by the association of marketing institutions ranging from producers (fishers) to consumers. Based on the results of the research that has been carried out, it can be described about the pattern of marketing channels for fish caught by drift gillnet. The following is an illustration of the types of marketing channels traversed by drift gillnet at PPN Palabuhanratu:

- 1) Fishermen - Ship Owners - Retailers - Consumers
- 2) Fisherman - Ship Owners - Wholesaler-Retailers - Consumers
- 3) Fishermen - Ship Owners - Agents - Consumers
- 4) Fishermen - Ship Owners - Restaurants/entrepreneurs-Consumers



Graph 1. Marketing channels

Based on fish marketing channels the above catchment, fish marketing is carried out through four channels, namely:

- a. Channel I: In channel 1, fishermen sell their catch to ship owners. Sales are made by waiting or visiting the fishermen shortly after going to sea. Then from the ship owner/collector, the fish is directly sold to the retailer in a way of the retailer coming to the ship's owner/collector, then the retailer will wait for consumers who will call or send messages to the retailer because they have subscribed. From the interviews, it can be seen that this marketing channel is the most widely used channel by marketing fishery business for drift gillnet catches in PPNP.
- b. Channel II: This channel is the longest channel compared to other channels. Starting from the fishermen selling their catch to the ship owner who acts as the first collector, then the fish is bought by the wholesaler then the fish is bought by retailers who then sell the fish to consumers.
- c. Channel III: If the sales proceeds from the ship owner/owner are not sold or purchased by retailers and collectors, the catch will be wholesaled by agents and earn high profits, because of the low price. Furthermore, the fish are purchased by retailers and the fish will be sold to consumers. Consumers who buy fish directly from agents will be reprocessed into processed fish such as fish balls, fish nuggets, as well as for the supply of

business materials such as restaurants. So that the third channel can be systematically described as follows: fisherman – ship owner/ – agent – consumer.

- d. Channel IV: In this last channel, marketing continues through fishermen as producers, followed by ship owners/collectors. Furthermore, this ship owner/collector sells to restaurants who want very fresh quality fish directly from the sea and are willing to pay a high price compared to buying fish from an agent that has been frozen. Ship owners/collectors also cooperate with entrepreneurs outside the city who want fresh quality fish.

3.3 Types and Prices of Fresh Fish

The types of fish caught are divided into two types, namely the main catch fish and by catch.

The Table 1 shows that mackerel has a higher price compared to other types of fish, that is equal to IDR. 40,000/kg. Mackerel at a price of IDR. 40.000 is mackerel which has a large size with good quality. Then followed by the price of tuna type Kuwe with the offered price of IDR. 35.000/kg with a big size. Then Marlin fish or commonly called jangilus with a price of IDR. 30.000/kg with large size and good quality, Cengker fish at a price of IDR. 13,000/kg small size, Talang-talang fish at a price of IDR 13,000/kg with a small size, baby tuna, which is a fish that has a local name jabrig, has a price of

IDR. 18.000/kg with small size. The main catch in Palabuhanratu is skipjack tuna which has a price of IDR. 18.000/kg which have medium size tend to small.

Table 2 shows that Waho fish or male mackerel has a price of IDR. 18.000/kg. Furthermore, stingrays or cawang have a price of IDR. 6,000/kg. Several years ago, stingray/cawang was a by-catch that was very popular in Palabuhanratu. This causes massive exploitation which has an impact on the scarcity of this marine biota. In order to prevent extinction, the government has set a policy. That is the prohibition of catching stingrays/cawang fish as a conservation effort. Fishermen who dare to carry out trading activities and are monitored by units from government officials will be given a sanction in the form of a fine of IDR. 2,000,000 With this policy, the price of stingrays has declined in the market. Another by-catch is Mackerel (kembung) which has a selling price of IDR. 30,000/kg. Then Semar fish with a selling price of IDR. 28.000/kg, balida fish at a price of IDR. 10,000/kg. In addition, Layur fish has a selling price of IDR. 55,000-60,000/kg. The determination of the price of Layur is based on the quality and size of the fish when it lands. The last by-catch is

squid with prices ranging from IDR. 28.000-30.000/kg.

3.4 Margins, Marketing Costs, and Profits Marketing

The Table 3 shows that the costs incurred by the ship owner ranged from IDR. 1,150 - IDR. 7,500,- per kilogram the costs were used for transportation and ice blocks as well as risk costs, while at retail institutions the costs incurred ranged from IDR. 850 - IDR. 4,010, - per kilogram the costs were used for transportation, ice and also packaging. The marketing agency for ship owners gets quite a large profit, which ranges from IDR. 850- IDR. 7500 per kilogram, while retailers earn around IDR. 1,000- IDR. 5.990,- per kilogram. Retailers only take small advantage in this channel because usually the number of catches obtained by fishermen is large, so that there is also a lot of fish circulating in the community. Furthermore, the marketing margin of the ship owner ranges from IDR.2000 - IDR15.000,- per kilogram while the retailer ranges from IDR.2000-IDR.10,000 per kilogram. It can be seen that in this channel the highest marketing margin is found in the marketing agency of the ship owner.

Table 1. Prices and Types of the main catches fish (The selling price fisherman)

No	Main catch Type of Fish	Price (IDR/kg)
1	Mackerel (<i>Scomberomorus commerson</i>)	40,000
2	Mackerel Kuwe (<i>Charanx ignobilis</i>)	35,000
3	Marlin/ Jangilus (<i>Istiophoridae</i>)	30,000
4	Cloves / gray tuna (<i>Thunnus tonggol</i>)	13,000
5	Talang talang (<i>Chorinemus tala</i>)	13,000
6	Baby tuna/ jabrig (<i>Thunnus albacares</i>)	18,000
7	Skipjack tuna (<i>Katsuwonus pelamis</i>)	18,000

*Main Catch Primary data 2022

Table 2. Prices and Types of the by catches fish (The selling price fisherman)

No	By Catch Type of Fish	Price (IDR/kg)
1	Waho/male mackerel (<i>Acanthocybium solandri</i>)	18.000
2	Pari/Cawang (<i>Dahsyatis sp</i>)	6,000
3	Bloating (<i>Rastrelliger kanagurta</i>)	30,000
4	Semar (<i>Lampris guttatus</i>)	28,000
5	Balida (<i>Chitala lopis</i>)	10,000
6	Layur (<i>Trichiurus lepturus</i>)	55,000-60,000
7	Squid (<i>Loligo sp</i>)	28,000-30,000

*By catch Primary data 2022

Table 3. Margins, Marketing Costs, and Profits Marketing Channel I (Main catch)

		Main Catches						
No	Description	Fish species (Rp/kg)						
		Mackerel	Kuwe	Marlin/ jangilus	Cengker	Talang- talang	Baby Tuna	Skipjack
1.	Fisherman							
a.	Selling Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
2.	Ship Owner							
a.	Purchase Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
b.	Marketing Margin	10.000	15.000	10.000	5.000	5.000	5.000	2.000
c.	Cost	5.010	7.500	5.000	2250	2250	2.250	1.150
d.	Profit	4.990	7.500	5.000	2.750	2.750	2.750	850
e.	Selling Price	50.000	50.000	40.000	18.000	18.000	23.000	20.000
3.	Retailers							
a.	Purchase Price	50.000	50.000	40.000	18.000	18.000	23.000	20.000
b.	Marketing Margin	10.000	5.000	5.000	2.000	2.000	2.000	5.000
c.	Cost	4.010	4.000	4000	850	850	850	2.150
d.	Profit	5.990	1.000	1.000	1.150	1.150	1.150	2850
e.	Selling Price	60.000	55.000	45.000	20.000	20.000	25.000	25.000

* Primary data 2022

Table 4. Margins, Marketing Costs, and Profits Marketing Channel I (by catch)

		By catch						
No	Description	Jenis Ikan (Rp/kg)						
		Tenggiri laki	stingray	Kembung	Semar	Balida	Layur	Cumi
1.	Fisherman							
a.	Selling price	18.000	6.000	30.000	28.000	10.000	55.000- 60.000	28.000- 30.000
2.	Ship Owner							
a.	Purchase Price	18.000	6.000	30.000	28.000	10.000	55.000- 60.000	28.000- 30.000
b.	Marketing Margin	5.000	2.000	5.000	4.000	8.000	10.000- 20.000	2.000
c.	Cost	2.250	1.050	3.000	1.300	4.000	6.300	1.200
d.	Profit	2.750	950	2.000	2.700	4.000	3.700- 13.700	800
e.	Selling price	23.000	8.000	35.000	32.000	18.000	70.000- 75.000	30.000
3.	Retailers							
a.	Purchase Price	23.000	8.000	35.000	32.000	18.000	70.000- 75.000	30.000
b.	Marketing Margin	2.000	1.000	3.000	2.000	4.000	2000- 7000	3.000
c.	Cost	1.650	800	2.400	1.100	3.000	5.400	1.150
d.	Profit	350	200	600	900	1000	1.600	1.850
e.	Selling Price	25.000	9.000	37.000	34.000	22.000	77.000	33.000

* Primary data 2022

The Table 4 show that in channel I, with by catch the costs incurred by ship owners ranged from IDR. 1,050 – IDR. 6,300,- per kilogram while the costs incurred by retailers ranged from IDR. 800 - IDR 5,400 per kilogram so that is the most costs incurred by the ship owner. The highest profit is for the ship owner with a price range of IDR.800 - IDR.13,700 per kilogram, while the profit for retailers is between IDR.800-IDR.5,400 per kilogram. Furthermore, the marketing margin for channel I with the highest by catch is the ship owner/, which ranges from IDR. 2000 - IDR. 20,000 per kilogram, while the marketing margin at retailers ranges from IDR. 1000 - IDR. 7000 per kilogram.

The Table 5 shows that in Channel II, the main catch of the highest cost is in the marketing agency is ship owners, which ranges from IDR. 1,150-IDR. 7,500,- per kilogram followed by retailers, which is IDR. 850-IDR. 4010 per kilogram and the lowest cost is in collector 2,

which is between IDR. 700-IDR.4000, this is because collector 2 only pays for transportation. The biggest profit is the retailer's, which is in the range of IDR. 750-11,000 per kilogram, although the lowest marketing costs are with the wholesaler, the biggest profit is still in the hands of the retailer because it is the last institution that directly deals with consumers so that they can determine the most profitable price, besides that marketing channel II is usually used if the catch obtained by fishermen is small so that marketing agencies can increase the selling price of fish. The next profit is for wholesaler which is in the range of IDR.700-IDR.11.000- per kilogram and the lowest profit is the ship owner, which is in the range of IDR.850-IDR.7,500 per kilogram. The marketing margin in marketing channel II is at the retailer's marketing agency, which ranges from IDR.3000-IDR. 15,000 per kilogram followed by ship owners and wholesaler with marketing margins ranging from IDR.2000-IDR.15,000 per kilogram.

Table 5. Margins, Marketing Costs, and Profits Marketing Channel II (Main Catch)

No	Description	Main catch						
		Fish Species (IDR/kg)						
		Mackerel	Kuwe	Marlin/ janguilus	Cengker	Talang- talang	Baby Tuna	Skipjack
1.	Fisherman							
a.	Selling Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
2.	Ship Owner							
a.	Purchase Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
b.	Marketing Margin	10.000	15.000	10.000	5.000	5.000	5.000	2.000
c.	Cost	5.010	7.500	5.000	2250	2250	2.250	1.150
d.	Profit	4.990	7.500	5.000	2.750	2.750	2.750	850
e.	Selling Price	50.000	35.000	40.000	18.000	18.000	23.000	20.000
3.	Wholesaler							
a.	Purchase Price	50.000	35.000	40.000	18.000	18.000	23.000	20.000
b.	Marketing Margin	10.000	15.000	5.000	2.000	2.000	2.000	5.000
c.	Cost	3.010	4.000	3.000	700	700	700	1.550
d.	Profit	6.990	11.000	2.000	1.300	1.300	1.300	3.450
e.	Selling Price	60.000	55.000	45.000	20.000	20.000	25.000	25.000
4.	Retailers							
a.	Purchase Price	60.000	55.000	45.000	20.000	20.000	25.000	25.000
b.	Marketing Margin	10.000	10.000	15.000	5.000	5.000	3.000	3.000
c.	Cost	4.010	4.000	4000	850	850	850	2.150
d.	Profit	5.990	6.000	11.000	4.150	4.150	4.150	750
e.	Selling Price	70.000	65.000	60.000	25.000	25.000	28.000	28.000

* Primary data 2022

Table 6. Margins, Marketing Costs, and Profits Marketing Channel II (by catch)

No	Description	By Catch						
		Fish Species (IDR/kg)						
		Mackerel	Stingray	Kembung	Semar	Balida	Layur	Squid
1.	Fisherman							
a.	Selling Price	18.000	6.000	30.000	28.000	10.000	55.000-60.000	28.000-30.000
2.	Ship Owner							
a.	Purchase Price	18.000	6.000	30.000	28.000	10.000	55.000-60.000	28.000-30.000
b.	Marketing Margin	5.000	2.000	5.000	4.000	8.000	10.000-20.000	2.000
c.	Cost	2.250	1.050	3.000	1.300	4.000	6.300	1.200
d.	Profit	2.750	950	2.000	2.700	4.000	3.700-13.700	800
e.	Selling Price	23.000	8.000	35.000	32.000	18.000	70.000-75.000	30.000
3.	Wholesaler							
a.	Purchase Price	23.000	8.000	35.000	32.000	18.000	70.000-75.000	30.000
b.	Marketing Margin	2.000	1.000	2.000	2.000	2.000	2000-7.000	3.000
c.	Cost	1.000	350	1.800	900	2.000	4.500	900
d.	Profit	1.000	650	200	1.100	-	2.500	2.100
e.	Selling Price	25.000	9.000	37.000	34.000	20.000	77.000	33.000
4.	Retailers							
a.	Purchase Price	25.000	9.000	37.000	34.000	20.000	77.000	33.000
b.	Marketing Margin	2.000	6.000	3.000	1.500	5.000	8.000	2.000
c.	Cost	1.650	800	2.400	1.100	3.000	5.400	1.150
d.	Profit	350	5.200	600	400	2.000	2.600	850
e.	Selling Price	28.000	15.000	40.000	35.500	25.000	85.000	35.000

* Primary data 2022

The Table 6 shows that in Channel II, with by catch costs incurred by ship owner, which ranges from IDR. 1,050-IDR. 6,300 per kilogram followed by institutions retailers in the range IDR 800-IDR5,400 per kilogram and the marketing agency with the lowest cost is wholesaler with ranges from IDR 350-IDR 4,500 per kilogram. The advantage of by catch in this channel is that the marketing agency for the first ship owner ranges from IDR.800-IDR.13,700 per kilogram. Layur fish gets high profit because it is favored by the people of Palabuhanratu. Followed by retailer marketing agencies ranging from IDR.800-IDR.5,400 per kilogram and the lowest profit on this channel is owned by wholesaler

which is in the range of 200-2,500 per kilogram. Furthermore, the highest marketing margin in this channel is owned by the marketing agency of the ship owner, ranging from IDR. IDR.1,000-IDR.7,000 per kilogram.

The first ship owner/collector will usually sell fish to agents if the fish are not sold in the market either by wholesaler or other retailers. So that the ship owner will sell the catch as low as possible to the agent and then the fish will be stockpiled and then stored in cold storage and will be released when the fish is not in season. The Table 7 shows that the costs incurred by agents ranged from IDR. 1,500-IDR. 7000 per kilogram

with profits between IDR. 1,500-IDR. 6000 per kilogram and marketing margins ranging from IDR. 5000-IDR. 15,000 per kilogram. Profits range from 1,500-6000 and marketing margins range from 5,000-13,000.

The chain by channel IV is only through two marketing institutions, there are ship owners and restaurants/ other cities. The Table 8 shows that the highest costs are in restaurant marketing agencies/other cities, which range from 1,500-7,500 because restaurants have to pay for labor and rent. Furthermore, the profits obtained by marketing agencies for ship owners and restaurants are more or less the same, ranging from IDR. Ranged from IDR.7,000-IDR.15,000 per kilogram.

3.5 Marketing Efficiency

Marketing margin or marketing margin consists of costs to perform marketing functions, usually the functions used will be different so that the share margin obtained for each marketing institution involved will also be different.

Based on the analysis results presented Table 9 shows that the highest marketing margin for marketing institutions passed by drift gillnet fishermen in Palabuhanratu is channel type II because it is the channel with the longest marketing chain compared to other types of channels. This is in line with the expression [9] which states that the longer the marketing channel (the more commercial institutions involved), the less efficient the marketing margin will be. Then followed by channel type 4, fish sold by culinary entrepreneurs. Furthermore, to determine marketing efficiency, it can be seen from the margin and share received by fishermen (share margin). According to Mubyarto (2002) in Sudana [10], marketing can be said to be efficient if the goods sold from producers can be delivered to consumers at the lowest possible prices. Based on the data analysis, The biggest cost are on channel II ranging from IDR 3.800-IDR 15.500 Followed by channel IV range from IDR 6.150- IDR 14.000 and the lowest is channel III range from IDR 3000- IDR 7.000. The highest profit is channel II range from IDR 8.200- IDR 17.970 and the lowest profit is channel III range from IDR 1.200- IDR 6.000. The marketing channel that has the smallest marketing margin and the largest share margin is channel type 3, with a margin value of between IDR. 10,000-IDR.5,000 with an average of IDR. 6,700,- and share margins ranging from 64.28% - 77.78%

with an average of 71.6% followed by type 1 channels with marketing margins ranging from IDR.7,000-IDR.20,000 with an average of IDR.11,800, - and share margin ranging from 63.3% - 72% with an average of 67.28%. Thus, it can be concluded that the most efficient channel is a type 3 channel followed by a type 1 channel and the least efficient channel is a type 2 channel. The most efficient channel marketing channel that has the largest marketing margin and the smallest farmer share is the inefficient marketing channel. However, it should be underlined that the efficiency of the marketing channel is not only seen from the marketing margin and share margin, although the channel type 3 is the channel analyzed is the most efficient, but when viewed from the quality and freshness of the fish channel type 1 is better fresh because it is sold on the same day. Same as catch day. While the type 3 channel sells fish that have been frozen and are usually released during certain seasons.

3.6 Marketing Strategy

The community must increase creativity in the field of fish processing so as to increase market opportunities. Another condition in the fishing community in Palabuhanratu that makes it difficult to increase the income of the fishermen themselves is the lack of capital owned by the ship owner or middleman. Most (90%) of Palabuhanratu PPN fishermen use middlemen, especially to obtain fishing capital [8]. So that there is a need for government institutions that are able to fight for the interests of fishermen, especially in obtaining capital on light conditions. As long as fishermen continue to depend on ship owners and there are no fish auctions, the ship owners or the second marketing agency get more profit than fishermen. The local institution that regulates the operation of the auction must also be able to monitor and supervise individuals who ask for a retribution fee that is too large so that fishermen can sell their catch at auction without feeling aggrieved. It is hoped that this strategy will have an impact on increasing the prices received by fishermen and their families, so as to increase marketing efficiency and fishermen's income. In addition, Indonesia should begin implementing certification schemes such as in Europe to address market segmentation and support small-scale capture of the most influential fishery actors. This product certification is carried out to track and respect the work environment and workers ' rights [11]. In addition, the use of online platforms needs to be

done to expand the sales system that can tighten Fisheries to consumers with difficulty accessing urban distancing and complete the provision of fresh and frozen fish.

Table 7. Margin, Marketing Cost, and Profit Marketing Channel III (Main Catch)

No	Description	Main catch						
		Fish Species (IDR/kg)						
		Mackerel	Kuwe	Marlin/ jangler	Cengker	Talang- talang	Baby Tuna	Skipjack
1. Fisherman								
a.	Selling Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
2. Ship Owner								
a.	Purchase Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
b.	Marketing Margin	-	-	-	-	-	-	-
c.	Cost	-	-	-	-	-	-	-
d.	Profit	-	-	-	-	-	-	-
e.	Selling Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
3. Agent								
a.	Purchase Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
b.	Marketing Margin	13.000	10.000	10.000	5.000	5.000	5.000	5.000
c.	Cost	7.000	7.000	7.000	3.500	3.000	3.000	3.000
d.	Profit	6.000	3.000	3.000	1.500	2.000	2.000	2.000
e.	Selling Price	53.000	45.000	40.000	18.000	18.000	23.000	23.000

* Primary data 2022

Table 8. Margins, Marketing Costs, and Profits Marketing Channel IV (Main Catch)

No	Description	Main catch						
		Fish Species (IDR/kg)						
		Mackerel	Kuwe	Marlin/ jangler	Cengker	Talang- talang	Baby Tuna	Skipjack
1. Fisherman								
a.	Selling Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
2. Ship Owner								
a.	Purchase Price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
b.	Marketing Margin	10.000	15.000	10.000	5.000	5.000	5.000	5.000
c.	Cost	5.010	7.500	5.000	2250	2250	2.250	1.150
d.	Profit	4.990	7.500	5.000	2.750	2.750	2.750	3.850
e.	Selling Price	50.000	50.000	40.000	18.000	18.000	23.000	20.000
3. Restaurant/ another city								
a.	Purchase Price	50.000	50.000	40.000	18.000	18.000	23.000	20.000
b.	Marketing Margin	15.000	10.000	10.000	7.000	7.000	7.000	10.000
c.	Cost	7500	6500	6500	4500	4500	4500	5000
d.	Profit	7.500	3.500	3.500	2.500	2.500	2.500	5000
e.	Selling Price	65.000	60.000	50.000	25.000	25.000	30.000	30.000

* Primary data 2022

Table 9. Marketing Margin and fisherman's share in Marketing Agencies

Channel	Description	Type of catch (Rp/kg)						
		Mackerel	Kuwe	Marlin/ jangilus	Cengker	Talang- talang	Baby Tuna	Skipjack
I	Selling price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
	Cost	9.020	11.500	9.000	3.100	3.100	3.100	3.300
	Profit	10.480	8.500	6.000	3.900	3.900	3.900	3.700
	Purchase Price	60.000	55.000	45.000	20.000	20.000	25.000	25.000
	Marketing Margin	20.000	20.000	15.000	7.000	7.000	7.000	7.000
	Share Margin	66,67%	63,63	66,67%	65%	65%	72%	72%
	Share Margin							
II	Selling price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
	Cost	12.030	15.500	12.000	3.800	3.800	3.800	4850
	Profit	17.970	14.500	18.000	8.200	8.200	8.200	8.200
	Purchase Price	70.000	65.000	60.000	25.000	25.000	28.000	28.000
	Marketing Margin	30.000	30.000	30.000	12.000	12.000	10.000	10.000
	Share Margin	57%	53,84%	50%	52%	52%	64,28%	64,28%
	Share Margin							
III	Selling price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
	Cost	7.000	7.000	7.000	3.500	3.000	3.000	3.000
	Profit	6.000	3.000	3.000	1.500	2.000	2.000	2.000
	Purchase Price	53.000	45.000	40.000	18.000	18.000	23.000	23.000
	Marketing Margin	7.000	10.000	10.000	5.000	5.000	5.000	5.000
	Share Margin	75,47%	77,78%	75%	72,2%	72,2%	64,28%	64,28%
	Share Margin							
IV	Selling price	40.000	35.000	30.000	13.000	13.000	18.000	18.000
	Cost	12.010	14.000	11.500	6.750	6.750	6.750	6150
	Profit	12.990	11.000	8.500	5.250	5.250	5.250	5.850
	Purchase Price	65.000	60.000	50.000	25.000	25.000	30.000	30.000
	Marketing Margin	25.000	25.000	20.000	12.000	12.000	12.000	12.000
	Share Margin	61,53%	58,33%	60%	52%	52%	60%	60%
	Share Margin							

*Analysis data primer2022

4. CONCLUSION

The conclusion that can be drawn from this research is There are 4 patterns of marketing channels traversed by drift gillnet fishermen at PPN Palabuhanratu including: (1) Fishermen – Ship owners/Gatherers – Retailers – Consumers; (2) Fishermen – Ship Owners/ Collectors – Collectors 2- Retailers – Consumers; (3) Fishermen – Ship Owners/Gatherers – Agents – Consumers; (4) Fisherman - Ship owner/Gatherer – Restaurant / entrepreneur outside the city. Based on marketing margin and share margin, the most efficient

channel is channel type 3 followed by channel type 1.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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