Channels and Marketing Margins of Tuna (*Euthynnus Sp*) Catches of Fishermen in Karangasem District, Karangasem Regency, Bali

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Abstract

This study aims to examine the forms of marketing channels and assess the value of marketing margins at each marketing institution involved in the marketing process of fishing tuna caught in Karangasem District, Karangasem Regency, Bali. This study uses a survey method using a questionnaire tool. Sampling techniques for fishermen have used proportional random sampling techniques or sample selection based on certain elements and categories while for intermediary traders and consumers the snowball sampling method, or the method of taking samples from a population. Data analysis was performed descriptively and cost margin analysis. The results showed that there were 4 marketing channels for tuna fish caught by fishermen in Karangasem Subdistrict, Karangasem Regency, Bali, namely marketing channel I from Fishermen to Retailers to Final Consumers with a margin of Rp.1,500 where retailers bought at Rp.2,000 then sold to consumers for Rp.3,500 marketing channel II from fishermen to brokers to collectors to processors to stall traders and to end consumers with a margin of Rp.4.131 marketing channel III from fishermen to brokers to collectors to market traders to stall traders to end consumers with a margin of Rp.3.131 marketing channel IV from fishermen to brokers to collectors to market traders to consumers with a margin of Rp.2,131. Marketing margins in each marketing channel, namely in the marketing channel I retailer margin Rp.1,500. In the marketing channel II, the middleman received a margin of Rp.681 collectors Rp.200- processing Rp.1,500, and stall traders Rp.1,750. In channel III the middleman gets a margin of Rp.681 collectors Rp.200 market traders Rp.750 and at the level of a stall trader Rp.1,500. In channel IV the middleman gets a margin of Rp.681 at the level of collectors Rp.200 at the market trader level Rp.1,250. From the four channels, it is known that the largest margin distribution is at retailers reaching 100 percent and the smallest margin distribution at collectors reaches 4.8 percent. This is driven by the desire to seek high profits at a small cost.

Keywords: *Marketing Channels, Marketing Margins, Fishermen*

1. Introduction

The fisheries sector is a promising sector for the community if managed properly and gets special attention. Karangasem District, Karangasem Regency of Bali as an area with quite a lot of tuna fish caught in Bali. Tuna catches in Karangasem Regency increased in 2015 by 20,278.20 tons and in 2016 amounted to 20,952.10 tons. The abundance of fisheries sector results must be accompanied by a good marketing system. So far the shortage in the fisheries sector that can weaken the position of fishermen is a poor marketing system that is only profitable in some marketing institutions.

According to [1] Marketing is the main key in the success of business including in the fishing business because it will affect the size of the income of fishermen. Fishermen as producers are more often in the position of receiving prices because they do not have a strong bargaining position

compared to intermediary traders. This is due to scattered fishing areas, far from market centers, lack of market information and insufficient marketing facilities.

Marketing in Karangasem Subdistrict is mostly done by some marketing agencies, both large and small, before the product reaches the consumers, thereby reducing the price at the fishermen level. A long marketing channel will cause marketing costs to be high because each intermediary wants to get profits to cover the marketing costs incurred and cause a large price difference between what fishermen receive and what consumers pay.

The inability of fishermen to market directly and determine prices is influenced by the limited infrastructure, information, technology, and weakness in the capital sector so that fishermen can only surrender submitting the results to marketing institutions such as middlemen and retailers who buy catches at low prices.

A long marketing channel will result in high marketing costs because each intermediary wants to make a profit to cover the marketing costs that have been incurred. The magnitude of marketing profits and marketing costs at the intermediary level is a component informing the final price (retail price) at the consumer level. This will affect the price at the producer level [1,2].

Based on the description above, it was conducted to identify the forms of marketing channels for tuna fishing caught by fishermen in Karangasem District, Karangasem Regency, Bali, and to analyze marketing margins, distribution of margins and efficiency in the marketing channels of tuna fish produced by fishermen in the Karangasem District, Karangasem Regency, Bali.

2. Material and Methods

2.1 Place and time of research

This research was conducted in five villages in Karangasem Subdistrict, Karangasem Regency namely, Seraya Timur Village, Seraya Tengah Village, Tumbu Village, Subagan Village, and Bugbug Village. The study was conducted in the fish transition season, namely from May to June 2019.

2.2 Research Materials
2.2.1 Tools and Materials

The tools and materials used in this study were stationery, the questionnaire as a data collection tool in the field, calculator, cellphone camera and GPS.

2.2.2 Research Methods

The method used in this study is the Survey method. The survey method was carried out using questionnaires and interviews as a tool for fishermen and those who were directly involved in the fish marketing process. The technique of determining respondents using proportional random sampling method is sampling taking into account the consideration of elements or categories in the study population, namely by selecting respondents involved in fish marketing in Karangasem Regency equally and representing all villages to be sampled as much as 5% of the total fishermen in each village.

The respondents consisted of 48 fishermen, six middlemen, two traders, one retailer, two market traders, one fish processor, and one warung trader. Data taken in the form of primary data include conditions of the form of the marketed product, marketing costs used, fish marketing system, and description of marketing channels that occur in Karangasem Regency and secondary data in the form of data on the number and identity of fishermen obtained at the Fisheries Service Office of Karangasem Regency. After the data is collected then the data analysis is done. The data analysis used is a descriptive qualitative method. The amount of marketing margin obtained is calculated using the margin analysis cost formula.

According to [3], to calculate marketing margins the following formula can be used:

$$M = He - Hp$$

Where :

    M = Marketing margin for Tuna (Rp / head)
    He = Selling price at merchant level (Rp / head)
    HP = Selling price at the fishermen's level (Rp / head)

3. Results and Discussion

3.1. Marketing channels

According to [4] marketing channels are interdependent organizations involved in the process that makes products or services available for use or consumption. They are the pathways that the product or service follows after production, which culminates in the buyer and use by the end-user. Marketing channels are supported by marketing institutions that function as intermediaries for goods/services from producers to consumers.

According to [5], a marketing institution is a person or business entity or institution that is directly involved in transporting goods from producers to consumers. These marketing institutions can be in the form of middlemen, collectors (collectors), wholesalers and retailers.

From the results of the study, the marketing channels for tuna (Euthynnus sp) caught by fishermen in Karangasem District, Karangasem Regency, Bali consist of four marketing channels, as follows.

    a.   Marketing Channels 1. Fishermen to Retailers and End Customers


 Retailers buy tuna at a fish landing for Rp. 2,000 The average fisherman sells tuna fish to 300 retailers per trip and then the retailer sells the fish to consumers at Rp. 3,500 per head. From this data can be explained as Table 1. below:

Table 1.
Marketing Channels I

No.	Marketing Institution	Number of fish (tails)	Fish purchase price (Rp)	Fish selling price (Rp)	Margin (Rp/tail)	Gross income/ TR (Rp)	Fixed costs/ investment / TC (Rp)	Operational costs/TC (Rp)	Net income (Rp)
1.	Fisherman	300	-	2,000	-	600,000	49,167	383,000	167,833
2.	Retailer	300	2,000	3,500	1,500	375,000	4,722	110,000	260,278

Source: processed primary data, 2019

    b. Marketing Channel 2. Fishermen to Brokers to Traders to Fish Processors to Traders Stalls to Consumers.
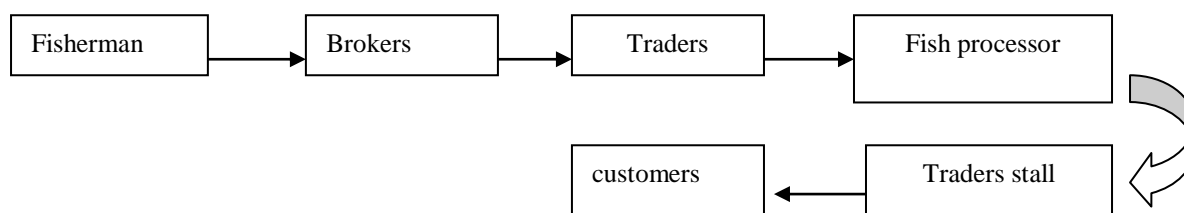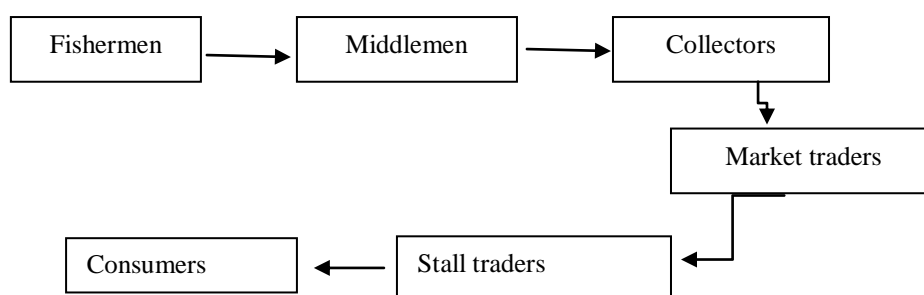

The second marketing channel, fishermen sell fish caught to middlemen then to collectors from collectors to pindang fish processors to warung traders and consumers.

Table 2.
Marketing Channels II

No.	Marketing Institution	Number of fish (tails)	Fish purchase price (Rp)	Fish selling price (Rp)	Margin (Rp / tail)	Gross income / TR (Rp)	Fixed costs / investment / TC (Rp)	Operational costs / TC (Rp)	Net income (Rp)
1.	Fishermen	540		1,869		1,009,260	58,610	625,916	324,723
2.	Middlemen	2,463	1,869	2,250	681	1,677,303	16,668	900,000	760,635,
3.	Collectors	25,000	2,550	2,750	200	5,000,000	46,111	2,180,000	2,773,889
4.	Market traders	300	2,750	4,250	1,500	450,000	18,057	230,333	201,610
5.	Stall traders	20	4,250	6,000	1,750	35,000	-	20,000	15,000

Source: processed primary data, 2019

c. Marketing channel 3. Fishermen to middlemen to collectors to market traders to stall traders to consumers
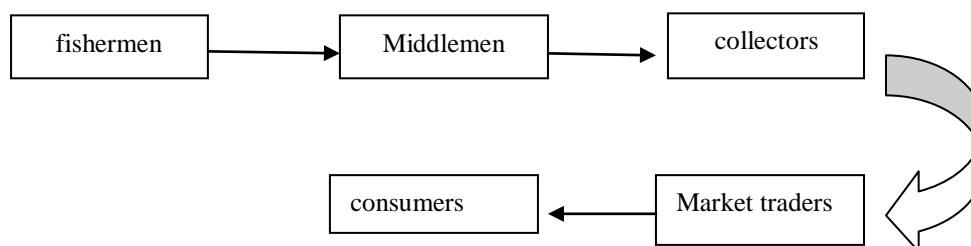

This third marketing channel, fishermen sell fish caught to middlemen then to collectors from collectors to market traders to stall traders and to consumers.

Table 3.
Marketing Channels III

No.	Marketing Institution	Number of fish (tails)	Fish purchase price (Rp)	Fish selling price (Rp)	Margin (Rp/ tail)	Gross income/TR (Rp)	Fixed costs/ investment / TC (Rp)	Operational costs/TC (Rp)	Net income (Rp)
1.	Fishermen	540	-	1,869	-	1,009,260	58,610	625,916	324,723
2.	Middlemen	2,463	1,869	2,250	681	1,677,303	16,668	900,000	760,635
3.	Collectors	25,000	2,550	2,750	200	5,000,000	46,111	2,180,000	2,773,889
4.	Market traders	200	2,750	3,500	750	150,000	-	45,000	105,000
5.	Stall traders	20	3,500	5,000	1,500	30,000	-	20,000	10,000

Source: processed primary data, 2019

d. Marketing channels 4. Fishermen to middlemen to collectors to market traders to consumers

In the fourth marketing channel, fishermen sell fish caught to middlemen then to collectors from collectors to market traders and then to consumers.

Table 4.
Marketing Channels IV

No.	Marketing Institution	Number of fish (tails)	Fish purchase price (Rp)	Fish selling price (Rp)	Margin (Rp/ tail)	Gross income/ TR (Rp)	Fixed costs /investment / TC (Rp)	Operational costs/TC (Rp)	Net income (Rp)
1.	Fisherman	540	-	1,869	-	1,009,260	58,610	625,916	324,723
2.	Middlemen	2,463	1,869	2,250	681	1,677,303	16,668	900,000	760,635
3.	Collectors	25,000	2,550	2,750	200	5,000,000	46,111	2,180,000	2,773,889
4.	Market traders	200	2,750	4,000	1,250	250,000	-	65,000	185,000

Source: processed primary data, 2019

The marketing system of fish from fishermen to collectors with a system of "fighting" means that the fish sold by fishermen to middlemen will be finalized after the fish sold to middlemen are paid by collectors. The reason fishermen sell the catch of the middlemen and not directly to the consumers is because of the debt that the fishermen have borrowed previously as capitalization capital such as the purchase of fishing gear and fuel so that the fisherman surrenders all the catches to the middlemen based on old debt ownership. The second reason is because of the remote location and the amount of catch that is not too much so that it will lose time and cost if fishermen sell directly to collectors. So if the fishermen want to cooperate with other fishermen to unite in marketing their catches, the fishermen's position will no longer be the recipient of the price but rather as the price determinant.

3.2. Marketing Margin Distribution

Marketing margin is the difference in price at the retailer/consumer level with the selling price at the fishermen level or is the sum of costs incurred with the profits derived from each of the marketing institutions involved [6,7].

Analyzing marketing margins is used to find out the distribution of costs from each marketing activity and the profits of each intermediary institution and the share of prices received by fishermen. If the marketing costs incurred by traders are higher and the profits they draw will be higher, it will cause the marketing margin for tuna to be even higher. The purpose of analyzing marketing margins is to determine marketing efficiency as indicated by the amount of profit received by each marketing agent.

Table 5
Distribution of Tuna Fish Marketing Margins Catches Fishermen in Karangasem District, Karangasem Regency, Bali:

MC	Retailer		Middleman		Collector		Processor		Market Traders		Stall traders		Margin	
	Rp/tail	%	Rp/tail	%	Rp/tail	%	Rp/tail	%	Rp/tail	%	Rp/tail	%	Rp/tail	%
I	1,500	100	-	-	-	-	-	-	-	-	-	-	1,500	100
II	-	-	681	16.50	200	4.80	1,500	36.30	-	-	1,750	42.36	4,131	100
III	-	-	681	21.75	200	6.38	-	-	750	23.95	1,500	47.90	3,131	100
IV	-	-	681	31.95	200	9.38	-	-	1,250	58.65	-	-	2,131	100

Note: MC (marketing channel)

Listening to Table 5 above can be seen that based on the marketing margin of type one marketing channel is a marketing channel that is more efficient than other marketing channels, because the marketing margin is smaller at Rp.1,500 compared to two marketing channels, Rp.4,131 three marketing channels of Rp.3,131 and four marketing channels in the amount of Rp.2,131.

The relatively high margin distribution achievement by retailers and stall traders is associated with high-profit gains even with very small marketing costs. While the margin distribution that is obtained by the collectors is the smallest, it is related to the biggest profit with a large marketing cost as well. In this case, marketing inefficiencies occur because the relatively high margins of retailers are caused by the acquisition of relatively high profits at the expense of small marketing costs and lots of fish sold. From the table above, it can be seen that the shorter the marketing channels for tuna fish caught by fishermen in Kecamatan Karangasem, Karangasem Regency, Bali, the greater the margin distribution obtained by each marketing institution involved and vice versa.

4. Conclusion

Based on the results of the study there are four channels in the Marketing Channel of Tuna Fish (*Euthynnus* sp) Fishermen Catch Results in Karangasem District, Karangasem Regency, Bali, namely: 1) Marketing Channel I from Fishermen to Retailers to End Consumers. 2) Marketing Channel II from Fishermen to Brokers to Traders to Fish Processors to Warung Traders to Consumers. 3) Marketing Channel III from Fishermen to Brokers to Traders to Market Traders to Warung Traders to Consumers. 4) Marketing Channel IV from Fishermen to Brokers to Traders to Market Traders to Consumers.

The amount of margin in each marketing channel that is on a channel I am the margin of Rp. 1,500 per channel II, the marketing margin is Rp. 4,131 margin in marketing channel III Rp. 3,131 and the amount of margin on marketing channel IV Rp. 2,131. The largest margin distribution is at retailers reaching 100 percent while the distribution of the smallest marketing margins is at collectors reaching 4.8 percent. Of the four marketing channels, one marketing channel is more efficient because one marketing channel is relatively shorter than the other marketing channels so that marketing costs incurred are few, and consumer purchasing prices are cheaper so that marketing channel one is recommended to be implemented.

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