

# Analysis Patterns of Sea Distribution and Marketing Margins of Sea on Terong Island, Belakang Padang District, Batam City

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**Abstract.** This study aims to examine the marketing pattern used by the Terong Island community in distributing its sea grass to the distributor on Terong Island and determine the amount of marketing margin between each marketing level used. The problems studied include internal and external factors that affect the performance of fishermen in an effort to search for seaweed like many capital excluded and adequate weather. The study used is a qualitative descriptive analysis for marketing and descriptive patterns in the form of a formula to calculate marketing margin.

**Keywords:** Customer Loyalty, Factor Analysis.

## 1 Introduction

The city of Batam is a city located in the Western Indonesia. Geographically, the batam city is on the International World Voyage. The city of Batam has a Area of 1,038.84 km<sup>2</sup> while the water area is 2,791.09 km<sup>2</sup>. So it can be concluded that the Batam City has a larger irrigation area from the land area. Seeing from its sea area, the majority of batam residents are also livelihood-eyed as fishermen, because they are their supportive geographical factors. Call it one of them is Terong Island. One of the island this is located in Belakang Padang District, Batam City.

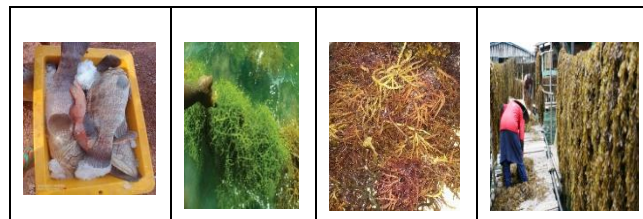
Based on data from the Terong Island Terong, the number of residents on Terong Island is known as much as 3,117 souls with the number of KK by 963 KK and the number of fisherman by 563 people who mean more than 60% Livelihood Terong Island as Fisherman. Terongs also have a land area that is 5.79 km<sup>2</sup> with the vast ocean of 110.89 km<sup>2</sup>, so Terong Island is one of the islands surrounded by oceans and naturally we penda many people are mostly livelihood. The following is the fishery production table according to its kind in Belakang Padang District. The northern part of Terong Island is directly bordered with the pecung and Kasu, the western part of the Terong Island borders with the sea, the eastern part it self borders the Bulang Lintang Island while the southern part directly bordered the Karimun Regency so that Island is one of the islands surrounded by the ocean and naturally, when many of the population is the livelihood. Fisherman are a term for people whose daily work captures sea grass or other biotaries. According to data from the village of Terong Island, it can be known that the number of

fishermen by 563 people meaning more than 60% Livelihood Terong Island residents as Fisherman.

Among the various fish found in the waters of the Terong Island, there are several fish one of the largest income is fish, both from catch or in terms of cultivation. Kerapu fish such as the sonu type is higher because in addition to being large size, also the high protein content in one of the pulmonary island named Terong. Grouper fish is the result of the sea that has a pretty high price and can be exported abroad. On Terong itself island, Fish Kerapu exports to Singapore Country through Kevin Afiqah. (Karnila, 2020).

According to one of the pulmonary islands on the Terong is not only fish that can be the superior income/commodities to the public on the island of the aubergine crop and brown sea grass yields, and there are also the results of the marine re-enterpkam/sargassum harvest. Sargarssum was initially only underwater plants that were not known to have selling value. The plant is running the length of the seabed, the distributor bought it in a dry state. Cultivation of sea grass and also the Sea Reks at/Sargassum both in export of country to China. So from Terong island fisherman on selling to Terong distributors and then transported by the new 2 batam bridge ship in eskpor to China. (Seram, 2021).

Based on the results of interviews with one of the pulmonary island on the Terong Island, it can be known that the price of the Green Sea & Brown Grass is 10,000 per kg reached 11,500 and Sargarssum Sea/Sargassum alone for 1,600 per kg. In the study, researchers focused more on the income of seaweed on the sea grass Island. The following is the fish prices table and cultivation that the author can go as follows.



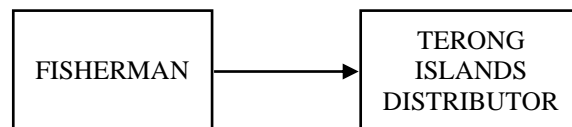
**Fig. 1.** Fish and Cultured Seaweed.

Fishermen would definitely expect profitable marketing margins for their businesses. get profitable marketing margin to pay attention to the quality of its product, marketing and distribution. Marketing is an activity carried out to exchange offers between consumers and manufacturers so that the creation of agreements between the two parties. Marketing is created to provide value so that the achievement of the target market as well as the desired profits.

## 2 Research Method

### 2.1 Research Focus

Focus in this study starting from the Sea Grass Producer in this case is Terong Island Fishermen, then continued at the distribution stage of the marketing distribution is carried out by Distributor on Terong Island or fishermen send the sea grass directly to the distributor from Terong Island. This series of processes is also accompanied by the analysis of the marketing margin caused by the marketing line activity.



**Fig. 2.** Focus on Research

The researcher applies the data study method in the form of qualitative and quantitative descriptive analysis. To determine the structure of the market, the Marketing Channel and the behavior of the market, the researcher uses a qualitative descriptive analysis while analysis is quantitative descriptive in this study aims to analyze business income based on the admissions and costs of the distribution process, marketing margin, as well as profits and costs.

This research also uses Interviews and field observations, namely data collected with the question given directly to the sources and immediately visited the survey location related to research. The test of this study by conducting analysis of distribution patterns and also by taking into account marketing margin from relevant areas.

In conducting data processing, researchers use several formulas, including:

#### 2.1.1 Marketing Margins

$$M = H_p - H_b \quad (1)$$

At:

M : Marketing Margins

H<sub>b</sub> : Purchase Rate Price

H<sub>p</sub> : Price level of sales

#### 2.1.2 Profit Margins

$$\Pi = M - B_p \quad (2)$$

At :

$\Pi$  = Profit

M = Marketing Margin

Bp = Marketing Cost

### 2.1.3 Marketing Efficiency

$$MM = \frac{SP}{CP} \times 100\% \quad (3)$$

At:

MM = Market Margins

SP = Selling Price

CP = Cost Price

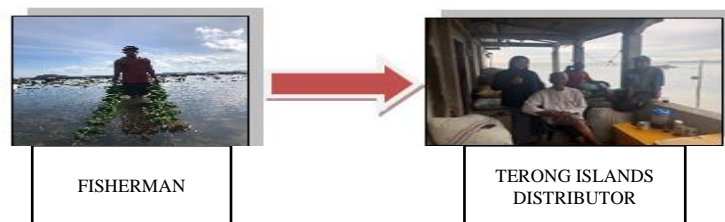
## 3 Result and Discussion

### 3.1 Observation Results and Interviews

Terong Island has 6 Inhabited Island, including Terong Island, Tumbar Island, Geranting Island, Buce Island, Tanjung Ladan Island and Seberang Island. The number of residents in the Terong Island is 3,332 people with 989 KK (Family Card). The land area is 5.79 km<sup>2</sup> with the ocean area which is 110.89 km<sup>2</sup>. From the fact, it can be known that most of Terong Island is surrounded by oceans, then not surprisingly surprising that many residents Pulau Terong make a living as fisherman.

From some types of seaweed that have the highest price, seaweed. The sea grass which is commonly found on Terong Island, green seaweed, brown seaweed, Sea grass Harvests.

Marketing Channel is formed from the interrelations between manufacturers, consumers and middlemen. the ocean grass marketing channel on Terong Island by involving fisherman to Terong Island distributor Terong is explained in the figure below:



**Fig. 3.** Seaweed Marketing Channel

From the figure above can be known that the marketing channel of seaweed on Island started when there is a flow of information received from every level or level of sea grass marketing. Initially from the distributor will first read the market and demand of marine grass,

from here there is the need for sea grass supplies that will be channeled into distributors. With this need, last distributor and inform the fishermen to meet the needs of seaweed was asked. Normally, there is no limit on how many seaweed needs to be supplied to the distributor because of the needs of large seaweed.

The marketing function performed by fisherman on Terong Island:

1. Sea Grass is a seller. Fishermen Terong Island immediately sells its marine grass to distributors do not to direct consumers. It can be known that in the marketing of goods by now, there is no longer necessary to deliver sea grass to other islands, because on the Terong itself already has its own distributor and that is much easier fisherman to sell direct sales process to Terong distributors without delivering the sea grass to other islands.
2. Marine grass storage. Fisherman stretch for 5 days a week so that packaging and seaweed should also be considered by fisherman. Terong Island fisherman using sacks and rafia rope at times when doing seaweed storage, so that the sacks that have been tied using rafia strings don't fall anymore.

The marketing function that fisherman perform at Terong Island include:

1. Purchase. The type of purchase purchased by majority distributor is the crop grass at a relatively higher price than natural seaweed/coral. Distributors do not limit the purchase of dependence on his own fishermen.
2. Sales. Selling back seaweed without changing the condition of the seaweed. In this case, the packaging only conducts selling price that is appropriate from the market price that has been set by Chinese distributors/Tiongkok.
3. Price Distractions. In immorality, price traders are required to be able to interact various types of sea grass prices in the process of buying seaweed from sea fisherman and sales back to subsequent distributors.
4. Packaging or storage of seaweed. Collection traders also carry out the activity of marine grass so that the sea grass is guaranteed quality before arriving to the next distributor. This packaging includes into a sea grass storage activity using sacks and rafia rope to tie it.
5. Sea grass delivery. Seaweed, which was already packaged by distributor will then be delivered to sea grass shipping and to China/Tiongkok.

The type and price of seaweed on the Terong Island:

**Table 1.** Types and Sea Grass Prices

No.	Type of Seaweed Sea Price	Price
1.	Natural Sea Grass 	Rp. 2600 – 3000
2.	Natural Brown Sea Grass	Rp. 2600 – 3000

No.	Type of Seaweed Sea Price	Price
		
3.	Harvest Sea Green Grass 	Rp. 10.000-11.500
4.	Harvest Brown Sea Grass 	Rp. 10.000- 11.500

From the figure above can be written some type of seaweed on the Terong Island as sorted by the lowest price until expensive includes:

1. The Green Sea grass and Brown Nature are very different from the sea grass Harvest because the seaweed, the sea grass is different from sea grass is harvesting after being looked for it and then at Jemur in the ground surface so it dries and then bought it.
2. The Green Sea Grass and Brown Harvest is more affordable because the way to get seaweed processing, sea grass is looking for seeds and then tied up at sea level so that it is 40 days seedlings will develop into large, eating sea grass and nature very far apart from the price.

It be known the average net income of marine fisherman once you earn a net income of Rp 100,000 – Rp. 2,000,000. from the data can be seen that the fisherman Skel Island is uncertain due to the results of a marine grass which is different in every arrest. Surely this is due to the weather and climate on Terong Island. Generally, the results of fisherman have variations such as green seaweed, brown seaweed, and red seaweed. However, the majority of marine fisherman on Terong Island earned sea grass variety, namely green seaweed.

For the capital makers of taking seaweed and on the fisherman of Terong Island, there are two types of capital, namely from personal capital and from capital given by Distributor or are known as narrowing in the Terong Island. Many fisherman on Terong Island have problems in capital capital. This can be seen from the percentage of fishing presenta 40% comes from overall personal capital and 60% received capital from loans (70%) such as capital fuel oil, rafia rope, nylon and others plus personal capital (30%) such as lunch and other assistive devices.

In carrying out, fisherman prefer to invite their friends or partners and immediately deliver their seaweed to the distributor without having to deal with many buyers. In addition, the price of oil or transportation that most affects the cost of fishing expenses also does not have a significant increase so that fisherman can still be active as usual and obtain the appropriate price, as well as with distributors. China/Tiongkok does not rule out seaweed ports by sea grass jelly from Terongs and logistic activities run as usual so that it does not affect the income level from marketing level so that the most affect fisherman income remains in how much the amount of sea grass is obtained by fisherman also made by the season or weather at the time.

Usually during the east and southern wind season, fisherman will get the most seaweed revenue so that it also produces more than usual. Likewise distributors affected by the number

of seaweed and the sea grass obtained. In addition, there was a time when the western season which was a strong wind season so that it could result in many seaweed that was failed to harvest because many seaweed was carried away and lost.

Fisherman revenues on one week the sea grass search process is Rp. 2,985,000. This income if fisherman can get 300-400 kilos per sea grass. Usually fisherman on Terong Island will search for seaweed 4 days once, so much it can not be determined by the amount of fisherman income. 509 can come by the time it can not be obtained at the sea level, but it is definitely depending on the amount of fisherman. 0091. The more seaweed can be, then the larger the income received by fisherman. And vice versa, the smaller the results of the acquisition of marine grass, the smaller the income obtained can even lose money because it cannot return the capital such as lunch capital, transportation and drying.

Terong Island Distributor has the average income of Rp. 2,850,000 per day if the sea grass received as many as 400 kilos, sometimes it's only up to 600 kilos of seaweed. For Bridge 2 distributors as well as the sea grass from the fisherman also received deliveries from other distributors. So if they are sorted, the largest income is obtained by Bridge 2 Batam distributors, while the smallest income is obtained by Terong Island.

It can be informed that the main type of output, including the spending of eating abk, transportation expenses, loading and shipping taxes 2 bridge is IDR. 250 per kilogram of seaweed. Then the distributor of the Batam Bridge 2 Batam and owner of the sea grass shipments to China/China at IDR. 2,924 per kilogram of seaweed. Marketing expenses (Marketing Cost) occur at distributors at the 2 Batam Bridge, which is Rp. 2,924 associations of seaweed. The large amount of financing is due to more expenditure for the commercial process of seaweed, among others the cost of rental, expensive labor wages, cost abuk, and taxes for shipping seaweed in container China.

Margins, the highest marketing occurs in a row to the distributor of Batam Bridge at Rp. 7,582 with its percentage r who distributed sea grass to China/Tiongkok has margin profit amounting to Rp. 4,55 Sea grass prices that are often obtained by Terong Island fishermen usually around Rp. 10,000 with a margin of 44.28% which could be said to be effective because the margin is large or similar to 40%.

## **4 Conclusion**

Based on the results of the study and discussion, it can be concluded that the conclusion of the ocean grass marketing Island, it can be detailed as follows: The first distribution channel, fisherman will deliver the seaweed to the distributor of Terong Island, then from the Batam Bridge 2 Batam will pick up the sea grass at Terong Island as well as the owner of the ship which will then carry the sea grass to Batam China's/River Distributor China again in the sea grass/2 Chinese Bridge to deliver it to/Batam China.

From marketing patterns, fisherman experience several problems in marketing the marketing results of seaweed. including limited information on sea grass prices, uncertain weather makes it difficult for fishermen to predict marine harvest, this is also influenced by the formal education of fishermen pal fishermen who have been hard to pay their debts to distributors have sometimes to lose money. According to the large line, the marketing pattern of the

marketing channel often used by the people of Terong Island is the first pattern, where fishermen's Terong Island will deliver the seaweed distributor of Terong Island which will then bring and deliver the sea grass through Distributor at Batam Bridge 2 (PT.Kencana Bumi Sukses), then from Batam Bridge to China's Rent/Distributor China.

Margins, the it can be well known that distributors at the level of Terong Island which buys direct marine grass from fishermen have a profit of Rp. 5000 distributor The Batam Bridge 2 Batam and ship owner who distributed sea grass to China/Tiongkok has marjin profit amounting to Rp. 4,55 Sea grass prices that are often obtained by Terong Island fishermen usually around Rp. 10,000 with a margin of 44.28% which could be said to be effective because the margin is large or similar to 40%.

The Practical Advice that can be submitted based on research results:

1. Fisherman must optimize the role of fishing groups existing on Terong Island to obtain post-regional training and effective marketing planning to increase planning before removing and good sea grass marketing strategies
2. The importance of socialization from public institution institutions to help fisherman in capital problems, such as facilitateivators between fisherman and good opidal institutions, be bank, cooperatives or other institutions
3. It should be an conversation between China/Tiongkok and distributor on Terong Island to consider rising sea grass prices in certain times of time seasons or when fisherman are difficult to get seaweed or during the harvest season to help the economy of fisherman
4. Judging from the marketing margin obtained, it can be known that the distributor has the lowest marketing margin and has a price gap with the other level so required price adjustment for each level

Here are some Theoretical Suggestions from researchers for next researchers:

1. It is hoped that it will be more thorough and careful in observing the marketing channel and determining marketing margin at each marketing level
2. Using a more complete reference which supports the next researcher.

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