

ANALYSIS OF CHANNELS AND MARKETING MIX OF FLYING FISH EGGS IN POPO VILLAGE, GALESONG SELATAN DISTRICT, TAKALAR REGENCY

Nurjannah

Faculty of Economics and business, Makassar State University
Correspondensi author email: nurjannahdso@gmail.com

Marhawati

Faculty of Economics and business, Makassar State University
marhawati@unm.ac.id

Muhammad Jufri

Faculty of Economics and business, Makassar State University
muhammad.jufri@unm.ac.id

Abstract

This study aims to determine the pattern of marketing channels and the marketing mix of flying fish eggs in Popo Village, South Galesong District, Takalar Regency. The research was conducted using a descriptive, empirical and qualitative research approach. The method used consists of inductive reasoning. This research was conducted in Popo Village, South Galesong District, Takalar Regency. which is one of the coastal areas where most of the people work as Patorani fishermen (fish egg catchers). Meanwhile, to determine respondents using simple random sampling. The results showed that there were 3 marketing channel patterns for flying fish eggs in Popo Village, South Galesong District, Takalar Regency where the most important marketing pattern profitable for fishermen was in channel II pattern, namely fishermen - collectors - wholesalers. The margin obtained by each marketing channel pattern is the same in pattern 1 and 3, which is IDR 200,000. and the pattern of marketing channels 2 obtains a margin of 150,000. And the marketing mix is one of the marketing strategies to communicate information widely, present goods and services, encourage consumers to buy and even create personal preferences for these products.

Keywords: Flying Fish Eggs, Marketing Channel Patterns and Marketing Mix.

INTRODUCTION

Flying fish are a resource of small pelagic fish that have the ability to fly above the surface of the sea. Flying fish live on the surface of the waters of the tropical and subtropical regions of the Indian Ocean, Atlantic Ocean, and surrounding seas. In addition, flying fish are abundant in the waters of eastern Indonesia. Makassar Strait, Flores Sea, Papua-Arafura Sea, North Sulawesi, East Java Bali Sea, West Coast of West Sumatra, Halmahera Lake, Sabang Sea Area, North Papua Sea (Syaihalatua 2006; Armanto 2012).

Flying fish roe is one of the commodities that has a fairly high value in the export process. Flying fish roe in Makassar language is called bayao tuing tuing and has high economic value because it is favored by many people. The high price of flying fish roe in the global market can open up export opportunities for Indonesia. This is reflected in its export value. In 2017, the price of flying fish roe reached \$28, in 2018 it increased by about 20% to \$30, and in 2019 the price of flying fish roe reached \$31. Flying fish roe is sold in international markets such as Japan, South Korea, China, Lithuania, and Sweden, at prices ranging from \$30 to \$40. This price is not constant

because it always follows the exchange rate of the rupiah (Sutinah Made, 2007).

The resource of flying fish roe found in Indonesian waters is an important resource for the community, especially for those who work as fishermen, because flying fish roe is one of the largest sources of income in Takalar Regency. The waters of South Sulawesi in eastern Indonesia are very vast, with a coastline of approximately 2,500 km, an offshore fishing area of 12 miles, and public waters of around 144,425 ha (Ali, 2005).

The mechanism in the marketing of flying fish roe is too complicated because too many marketing institutions are involved. The marketing institutions involved, such as retailers, wholesalers, and large traders, up to tourists Large-scale and exporters who can create a significant price difference in the margins obtained by fishermen. Thus, it can lead to the ineffectiveness of marketing flying fish roe (Rahim 2013).

Marketing channels are a series of interdependent and involved organizations that produce goods or services for use and consumption (Kotler, 2002). Meanwhile, the marketing channel (Saladin, 2002) is the channel used by producers to distribute their goods from the producer to the consumer or industrial consumer. Here are 4 marketing channels:

- a. Direct distribution channel (Zero-level channel)
- b. Distribution channel that uses a single intermediary (One-level channel)
- c. Distribution channel with two groups of wholesalers and retailers (Two-tier channel)
- d. Distribution channel that uses three intermediaries (Three-level channel)

Marketing margins are influenced by price relationships, processing systems, and handling. The increasing attention from marketing institutions as well as the technology used in the marketing process. Meanwhile, the extent of changes in commodity marketing margins is influenced by channels and marketing mix. (Tjiptono, 2011) The marketing mix is a set of tools used by marketers to modify the features of the services offered to customers. These tools can be used to develop long-term strategies and also to design tactical programs in the short term.

The marketing mix is one of the marketing strategies to widely communicate information, present goods and services, encourage consumers to buy, and even create personal preferences for the product. Meanwhile, according to (Tjiptono, 2011), the marketing mix is a set of tools used by marketers to modify the features of services offered to customers. These tools can be used to develop long-term strategies and also to design tactical programs in the short term. The 7P concept in the marketing mix:

- a. Product
- b. Price
- c. Promotion
- d. Place
- e. People
- f. Process
- g. Physical Evidence

Takalar Regency is one of the regencies in South Sulawesi Province that is well-known for its rich potential in fishery resources. The area of Takalar Regency is recorded at 566.51 km² and consists of 9 sub-districts and 83 villages/urban villages. Galesong Selatan is one of the largest producers of marine products, including flying fish roe, and is also a center for the fishing industry that catches flying fish roe. Pelagic fish are small fish that can fly above the surface of

the sea. Flying fish are rarely caught by fishermen because their price is much lower than that of their eggs. Pelagic fish are distributed in the eastern waters of Indonesia, specifically in the Makassar Strait, Flores Sea, Arafura Sea, North Sulawesi, Papua, East Java, Bali, Halmahera Sea, West Sumatra Coast, North Papua Sea, and Sabang Sea (Aulia, 2005).

In the Galesong Selatan District, many fishermen work with conventional nets and catch flying fish eggs. At the beginning of April, the fishermen are ready to send and return when the fish eggs they catch are enough to sell. Desa Popo is one of the villages in Gelesong Selatan where most of the residents work as fishermen. Desa Popo has the traditional Patorani culture that has been passed down through generations. Catching flying fish eggs is part of the fishermen's life in the village of Popo. Generally, the community catches fish eggs with traps. This is often called Pakkaja. This fishing technique is used to catch fish and their eggs.

RESEARCH METHOD

The research was conducted using a descriptive, empirical, and qualitative research approach. The methods used consist of inductive reasoning, using data as a source of theory to construct reality, and attempting to understand its meaning by considering processes, events, and constraints (Bungin, 2003 and Maleong, 2000). Case study is the type of strategy used in this research. The case study strategy is suitable for investigating the dynamics of an interaction with the environment of social units such as institutions, individuals, communities, and also society, or the current conditions and backgrounds of life (Yin, 1997).

According to Sugiono, 2016, a population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics determined by the researcher to study and then draw conclusions.

According to (Hasfirah, 2020). The research subject is the target of the study. In qualitative research, the number of subjects who become informants is relatively small (Sidiq & Chori, 2019). In this study, the subjects being researched were selected using purposive sampling, which is a technique for sampling data sources based on certain considerations. The specific consideration meant here is the informants who are considered to have the most knowledge about what the researcher expects, or someone who is very influential in the data collection process of the research. Thus, it facilitates the researcher in data collection (Surokim et al, 2016). Based on this, the subjects of this research are fishermen and flying fish egg traders in Popo Village, South Galesong District, Takalar Regency, with a total of thirty (30) informants in this study.

The research object is the main topics that become the focus of the author's study in the research. From the explanation, the main focus related to the object to be studied is the Analysis of Channels and Marketing Mix of Flying Fish Roe in Popo Village, Galesong Selatan District, Takalar Regency.

Data analysis is the activity that takes place after data from all respondents or other data sources have been collected. The activities in data analysis include grouping data based on variables and types of respondents, tabulating data based on variables from all respondents, presenting data for each study, performing calculations to answer the

problem formulation, and conducting calculations to test the proposed hypothesis (Sugiyono 2016).

Data analysis is used to process data into information, making it easier to understand and interpret. The data to be analyzed is the result of field research and literature review. If the data is collected, it is then processed, presented, and analyzed.

In testing the validity of the data, the researcher uses triangulation techniques, which is a method of verifying data validity by utilizing something outside the data as a comparison against the data. Triangulation in this research compares data obtained through different times and tools or techniques by comparing observations with interview data, and then comparing interview results with documentation data.

According to Moloeng (2007:330), triangulation is a technique for verifying data validity that utilizes something other than the data itself and the need for checks or various comparisons against that data. The triangulation technique most commonly used is verification through other sources. Denzin in Moloeng (2007:330) distinguishes four types of triangulation as examination techniques that utilize the use of sources, methods, investigators, and theories.

Triangulation is carried out through interviews, direct and indirect observations. The indirect observation is intended in the form of observing several behaviors and events, from which a common thread is drawn that connects the two. The data collection techniques used will complement each other in obtaining primary and secondary data. Observation and interviews are used to gather primary data related to the improvement of clove leaf essential oil production, while documentation studies are used to collect secondary data that can be obtained from various documents during the research.

RESULT AND DISCUSSION

1. Marketing Channel Patterns for Flying Fish Roe

Based on the results of field research, the marketing pattern of flying fish roe in Popo Village, South Galesong District, Takalar Regency can be described. Data collection through interviews and tracing fishermen to obtain information on the marketing channels of flying fish eggs found in Popo Village.

According to Kotler (2007), distribution channels are organizational devices that are useful for making the production of goods or services consumable or usable by consumers. There are 3 distribution channels, namely direct distribution, semi-direct distribution, and indirect distribution. Direct distribution is a distribution system carried out directly by the producer to the consumer. Whereas semi-direct distribution usually involves agents who are experts in certain fields, typically high-quality expensive goods. And indirect distribution is when producers use the services of distributors to market their goods to consumers. In this study, a direct distribution relationship occurs where fishermen sell directly to papalele (capital owners) and also to collectors. Papalele and

collectors will sell directly to wholesalers. In Popo Village itself, there are 3 marketing channel patterns as follows:

Table 1. Marketing Channel Patterns of Patorani Fishermen in Popo Village, South Galesong District, Takalar Regency.

Channel I	Fisherman	Papalele	Big trader	
Channel II	Fisherman	Collector	Big trader	
Channel III	Fisherman	Papalele	Collector	Big trader

a. Marketing Channel Pattern I

In marketing pattern 1, fishermen will directly give the catch of flying fish eggs to papalele (capital owners), then it will be collected and sold again to large traders.

b. Marketing Channel Pattern II

In this marketing channel II pattern, fishermen who use their own capital will sell the flying fish roe catch to collecting traders. In this capital usage, there is no price deduction for the capital owners, from the collecting traders to the wholesalers.

c. Marketing Channel Pattern III

In the third marketing pattern, fishermen will sell to papalele, then it will be sold to collectors. At the collectors, it will be dried and then resold to wholesalers.

From the research results on the marketing channel pattern above, I can conclude that almost all patorani fishermen in Desa Popo use marketing channel pattern I. The high cost of the flying fish egg-catching process makes it difficult for fishermen and they will borrow capital from papalele/bos. In this case, there will be a deduction from the borrowed capital, and then the reduction will be distributed to the patrolling fishermen. In theory, a good and profitable marketing system for fishermen lies in the pattern of channel II. However, the risk is that the government must participate in providing capital at low interest rates, so that fishermen can more freely sell their flying fish roe catch, which will impact the fishermen's economic income.

1. Marketing Margin of Flying Fish Roe

The marketing margin in this study is calculated from the price difference between each marketing institution involved without considering the costs incurred by each marketing institution. In the fish roe farmer's business, there are 3 marketing channels, and in the second marketing channel pattern, there is the smallest margin of

Rp.150,000. The length of the marketing chain will increase the price difference received by the patorani fishermen, causing them to incur losses. In the marketing channel patterns I and III, there is a margin similarity of Rp.200,000.

Table 2. Marketing Margin of Flying Fish Roe in Popo Village, District Galesong Selatan, Takalar Regency.

Institution Marketing	Channel I (Rp/kg)	Channel II (Rp/kg)	Channel III (Rp/kg)
1. Fisherman Selling price	700.000	750.000	700.000
2. Papalele Purchase price	700.000		700.000
Selling price	750.000		750.000
Margin	50.000		50.000
3. Price Collector Selling Price		750.000	750.000
Margin		800.000 50.000	800.000 50.000
4. Wholesale trader	750.000	800.000	800.000
Purchase price	900.000	900.000	900.000
SellingPrice Margin	150.000	100.000	100.000
Total Margin	200.000	150.000	200.000

Source: Primary data after processing 2023

Based on the table above, it can be seen that in channel pattern I, fishermen sell the catch of flying fish eggs to papalele at a price range of Rp.700,000, then papalele resells it to wholesalers at a price range of Rp.750,000. Therefore, the papalele earns a profit of Rp.50,000, while the large trader sells/exports at a price range of Rp.900,000. So, the wholesaler earns a profit of Rp. 150,000. So the total amount of margin in channel pattern I is Rp. 200,000.

Fishermen in marketing channel II sell flying fish roe to collector traders for Rp. 750,000, then resell it for Rp. 800,000, resulting in a profit of Rp. 50,000 from the collector traders. Then, to the wholesaler, where the wholesaler sells it for around Rp. 900,000, resulting in a profit of Rp. 100,000 from the buying and selling price. The total margin in this channel pattern II is the largest, amounting to Rp.150,000.

In the channel III pattern, the fishermen sell the catch of flying fish eggs to the papalele for Rp.700,000, then the papalele resells it to the collectors for Rp.750,000. then the papalele earns a profit of Rp.50,000. Then the collector sells it back to the wholesaler for around Rp.800,000, so the collector makes a profit of Rp.50,000. Then the wholesaler sells it again for around Rp.900,000. Then the wholesaler makes a profit of Rp. 100,000. Therefore, the total margin in this channel pattern III is the same as in

channel pattern I, which is Rp.200,000.

From the data above, I can conclude that the shorter a marketing chain is, the more profitable it will be for fishermen, and the more effective and efficient the marketing process of flying fish eggs in Popo Village will be.

In the marketing process of flying fish roe businesses, capital is the main factor that must be available. The provision of very high capital is usually obtained by respondents through borrowing from banks in the local area.

1. Marketing Mix for Flying Fish Roe

The marketing mix is one of the marketing strategies to widely communicate information, present goods and services, encourage consumers to buy, and even create personal preferences for the product. According to (Tjiptono, 2011), the marketing mix is a set of tools used by marketers to modify the features of services offered to customers. These tools can be used to develop long-term strategies and also to design tactical programs in the short term. Therefore, the marketing mix is considered one of the most feasible strategic elements in product marketing. The marketing mix strategy consists of: product, price, promotion, and place. The marketing mix indicators are 7, often referred to as the 7Ps, which include:

a. Product

According to Tjiptono in the study (Adhaghassani 2016), the Product dimension, which serves as an indicator of the product, includes:

1). Quality of raw materials

The standard for flying fish roe raw materials applies to all types of fresh flying fish roe processed into dried flying fish roe products. The form of the raw material for dried flying fish roe can be in the form of whole, fibrous, or non-fibrous egg granules. Raw materials sourced from polluted waters can contaminate products that are consumed without heating or cooking. Therefore, the raw materials must be clean, free from any odor indicating spoilage, free from signs of decomposition and adulteration, free from other natural properties that can lower quality, and not harmful to health (SNI., 1993).

2). Product quality

The protein content of flying fish eggs ranges from 25-36% and the fat content from 4-40%. In addition, there are about 1% carbohydrates in the form of glycogen. The mineral content ranges from 1-2%, consisting of phosphorus, calcium, potassium, magnesium, and iron. Vitamin A content was also detected in the product at around 1% (Zaitzev et al., 1969).

3). Product variation

Flying fish roe is a type of food that is popular in Asia, especially in Japan, Korea, and China. The variations of the product are quite diverse depending on its processing; for example, in Japan, flying fish roe is used as a complement in food items such as sushi.

b. Price

The high price of flying fish roe in the global market can open up export opportunities for Indonesia. This is reflected in its export value. In 2017, the price of flying fish roe reached \$28, in 2018 it increased by about 20% to \$30, and in 2019 the price of flying fish roe reached \$31. Flying fish roe is sold in international markets such as Japan, South Korea, China, Lithuania, and Sweden, at prices ranging from \$30 to \$40. This price is not constant because it always follows the exchange rate of the rupiah (Sutinah Made, 2007). The price per kilogram of fish roe still depends on a handful of exporters who dominate the market. So they just resignedly accept the prices set by the exporters.

The high demand for flying fish roe is related to the culinary trend that is now favored by European and Asian countries. The price of flying fish roe continues to increase every year and currently reaches more than 700,000 per kilogram at the fisherman's level. Although the status of flying fish egg harvesting has not yet been fully regulated, the harvesting activities are becoming more massive.

c. Place

The effort to catch flying fish eggs is located in Popo Village, South Galesong District, Takalar Regency, which is one of the coastal areas where most of the community works as Patorani fishermen (flying fish egg catchers), and the income potential for Patorani fishermen in Popo Village is very high.

a. Promotion

Online media is one of the platforms utilized by companies to conduct advertising (promotion) in order to attract buyers both domestically and internationally.

b. People

The indicator of people or human resources in the effort to catch flying fish eggs is that on one ship there are 1-5 people, with one person serving as the leader, known as "punggawa" in the Makassar language. The people on the ship are skilled human resources in catching flying fish eggs.

a. Process

First, promote by sending complete documents about the fish roe product. The

promotion involves creating an attractive product design. This is done to attract the attention of potential buyers so they can order the fish roe product. Second, if the buyer responds and wants to place an order for the product, the first thing is the determination of the price given by the company to the buyer. If the buyer has agreed to the given price. Then the next step is the creation of the contract document between both parties. Third, if an order has been placed, the buyer visits to see the product that will be ordered. This is a company strategy to ensure that the buyer has more confidence in the authenticity and quality of the product. The visit conducted by the buyer to the company is to ensure that the product to be ordered has good quality and standards. Fourth, it is the process of shipping the product to the buyer's home country. Product delivery can be carried out if it meets the export requirements and documentation. The product delivery process is followed by the transaction or payment process after placing the product order.

b. Physical evidence

Physical evidence is the physical environment of the company where services are created and where service providers interact with consumers, along with any tangible elements used to communicate or support the role in marketing those services. Three types of documents that support the flying fish roe business in the export/import of goods are: master documents (invoice and bill of lading), insurance documents, and supporting documents.

The discussion above can be concluded that the marketing mix is one of the marketing strategies to widely communicate information, present goods and services, encourage consumers to purchase, and even create personal preferences for the product.

CONCLUSION

1. There are 3 marketing channel patterns for flying fish roe in Popo Village, South Galesong District, Takalar Regency. The marketing channel pattern I is fisherman - papalele - large trader, the marketing channel pattern II is fisherman - collector - large trader, the marketing channel pattern III is fisherman - papalele - collector - large trader. Based on the research results, it can be seen that the most profitable marketing pattern for fishermen is the marketing channel pattern II, which is fisherman – collector – large trader.
2. The margin obtained from each marketing channel pattern is the same for marketing channel patterns I and III, which is Rp.200,000, and marketing channel pattern II obtains a margin of Rp.150,000.
3. The marketing mix is one of the marketing strategies to widely communicate information, present goods and services, encourage

consumers to buy, and even create personal preferences for the product. In the marketing mix, there are 7P indicators, including product, price, place, promotion, people, process, and physical evidence.

BIBLIOGRAPHY

- Ali S. A & Natsir Nessa, 1993. Hatching and Care of Flying Fish Larvae in the Hatchery. Torani Bulletin of Agricultural Sciences, Hasanuddin University. Makassar
- Arief, A. Adri. 2007. Articulation of Modernization and Dynamics of Social Formation among Island Fishermen in South Sulawesi (Case Study of Kambuno Island Fishermen). (Dissertation) Postgraduate Program-UNHAS. Makassar.
- Arisa Nuri. 2017. The Influence of Marketing Mix on Sales Levels from the Perspective of Islamic Business Ethics: A Study on Rahmat Batik Lampung, Bandar Lampung. Thesis. Faculty of Economics and Business, IAIN Raden Intan Lampung
- B. Nurinzani. ST. 2021. Analysis of the marketing of flying fish eggs in Kalulukuang Village, Galesong District, Takalar Regency. Thesis. Agribusiness Study Program. Faculty of Agriculture. Muhammadiyah University Makassar
- Baso, Aris. 1997. Analysis of Flying Fish Capture Efforts in Takalar Regency. Unpublished Thesis. Ujung Pandang: Postgraduate Program of Hasanuddin University
- Boli Paulus, et al. 2020. Management of Flying Fish Resources in the Waters of West Papua Province (USAID Sustainable Ecosystem Advanced (USAID SEA) Project)
- Bungin, Burhan. 2003. Analysis of Qualitative Research Data: Philosophical and Methodological Understanding Towards Mastery of Application Models. PT. Raja Grafindo Persada. Jakarta.
- Hutomo M. Burhanuddin, Sularto Martosejowo, 1985. Series on Natural Resources. Flying Fish Resources. Study of the Potential of Fish Biological Resources. National Oceanographic Institute, LIPI. Jakarta
- Khudori. 2012. Development of Human Quality and Economic Institutionalization of Society. Paper. Surabaya.
- Maleong, Lexy. J. 2000. Qualitative Research Methodology. PT. Remaja Rosdakarya. Bandung.
- Nadir.2012. Analysis of the Fishing Business of Patoranni Fishermen. Thesis of the Agribusiness Study Program, Faculty of Agriculture, Muhammadiyah University of Makassar.
- Nadir, Amruddin, Akbar, & Muh Ikmal Saleh 2021. Analysis of the Supply Chain and Farmer's Share of Flying Fish Egg Farming During the Covid-19 Period in Galesong District, Takalar Regency. (Journal TABARO Vol. 5 No. 2)
- Nasution, M., Prayogi, M., & Affandy Nasution, S. 2017. Analysis of the influence of the marketing mix on sales volume. Journal of Management Science Research, 1(1), 1-12.
- Nessa M.N., 1978. The Fishery of Flying Fish in South Sulawesi from the Perspective of Capture and Socio-Economic Aspects. Symposium on the Modernization of People's Fisheries. Jakarta
- Rahim Abd & Aco Saparuddin Pernyata. 2017. The Influence of Volume and Marketing Channels on the Marketing Margin of Fresh Flying Fish Roe. Makassar State

University.

- Rasyid, Abdul, Sukur Taufiq, Najamuddin, & Palo, Mahfud, 1998. Case Study of Flying Fish Nets in Banggai District, Majene Regency. *Torani Journal of Marine Science*
- Rakib, M. (2008). Analysis of Factors Affecting the Performance of Small Businesses in Pare-Pare City. *Aplikasi Manajemen*, 8(4), 984–993.
- Please provide the text you would like me to translate.
- Saenap. 2021. The purpose of digital marketing communication in the export activities of flying fish roe products: PT. Boddia Jaya. Thesis. Faculty of Economics and Business. Alauddin State Islamic University. Gowa.
- Sari Arung Usti. 2019. The marketing communication strategy of PT. Boddia Jaya Galesong in establishing cooperation with foreign parties. Thesis. Faculty of Da'wah and Communication. Alauddin State Islamic University. Makassar
- Syahailatua. A. 2006. The Flying Fish Fishery in Indonesia: Research Towards Management (*Oseana Journal*, Volume XXXI, Number 3, 2006: 21 – 31)
- Syam, A., & Sudarmi. (2019). Análisis de la toma de decisiones de emprendimiento estudiantil desde la perspectiva del aprendizaje. *Journal of Scientific Thought and Office Administration Education*, 6(1), 51–60.
- Tebaiy Selvi, et al. 2019. The Economic Prospects of Flying Fish Roe Fisheries for Coastal Communities in Fak Fak Regency, West Papua Province (Tebaiy et al. The Economic Prospects of Flying Fish Roe Fisheries p-ISSN 2654-9905 www.ejournal.unmus.ac.id/index.php/fish e-ISSN 2656-7008 doi: 10.35724/mfmj.v2i1.2273_ Selvi Tebaiy et al.)
- Wahdania. 2020. Analysis of the income from the patorasi fishermen's enterprises and the marketing of flying fish eggs in Palalakkang Village, Galesong District, Takalar Regency. Thesis. Faculty of Agriculture, Muhammadiyah University: Makassar

