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## Supply Chain Model of Scads Fish (*Decapterus Spp*) in PPI Beba, Takalar Regency

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**ABSTRACT:** Fisheries resources in Indonesia are very abundant, both from marine fisheries and from land fisheries, when managed well they will provide large income by paying attention to the handling patterns of these fishery products. Fish is a perishable product so it requires special handling, storage and distribution to the final consumer. The length and shortness of the marketing channel will affect the quality and freshness of the fish. The aim of this research is to analyze the structure and mechanisms of supply chain patterns in marketing activities of scads fish (*Decapterus spp*) at PPI Beba. This research is a descriptive analysis to explain the structure and mechanism of the supply chain pattern in the marketing activities of scads fish at PPI Beba, by describing in detail the flow of products, capital/money and information according to the supply chain structure that is formed starting from producers to distributors and distributors to consumers and on the contrary. Also describe the number of institutions and supply chain distribution channels, forms of institutional involvement and the number of flows of products, capital and types of information in each supply chain. The research results show that there are three marketing channels for scads fish that occur at PPI Beba involving four marketing institutions, namely fishermen, collectors, retailers, mobile hawkers and consumers. In distributing scads fish, fishermen tend to immediately sell all their catch to collectors. Then the collector will distribute the scads fish to all the mobile hawkers involved and into the hands of consumers. The mechanism of the supply chain pattern goes through three flows, namely flow, namely information flow, goods flow and financial flow.

**Keywords:** Supply Chain, Scads Fish, PPI Beba

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### Introduction

South Sulawesi's capture fisheries production in 2017 was 362,038 tons. This shows that marine fisheries commodities in South Sulawesi can be used as superior commodities with important economic value. Judging from the coastline length of 2,500 km with an area of 62,482.54 km<sup>2</sup>, part of this area borders directly on 3 (*three*) coastal areas, namely the southern coast of the Flores Sea with a marine fisheries potential of 168,780 tons / year. the eastern part is Bone Bay amounting to 144,320 tonnes/year, and the western part of the Makassar Strait amounting to 307,300 tonnes/year (Central Statistics Agency, 2020 in Pratiwi, *et al.*, 2021).

The short shelf life of fishery products requires special handling to maintain product quality in the hands of consumers. Handling after harvesting, processing fish and transporting fishery products must be carried out by paying attention to food safety conditions, especially the nutritional value of the product and avoiding spoilage (Nicolae et al., 2015).

The production system in the fisheries business from upstream to downstream can be pursued using supply chain management, so that it can optimize income for fishermen. This supply chain system consists of all parties fulfilling the demand for fishery products, both directly and indirectly, which includes marketing, operations, distribution and fish handling functions to maintain the freshness of the fish.

The aim of the supply chain is to ensure a product is at the right place and time with the right quality, to meet consumer demand without creating excess stock or experiencing shortages. An efficient operation of the supply chain depends on the complete and accurate flow of data relating to the requested product from the retailer to the buyer, the transportation system and back to the manufacturer (Nurhayati, 2019)

The existence of a Fish Landing Port located in an urban area and integrated with a traditional market area is a strategic location in the commodity trading system, especially in terms of marketing fishermen's catches where the fish landed directly interact with mobile hawkers and consumers (Zuriat. et al., 2021).

Looking at the conditions of the strategic location at the Beba Fish Landing Base in Takalar Regency, as well as the demands for quality of fresh fish that must be met effectively and efficiently, it is necessary to study the mechanisms, characteristics of the actors and suppliers involved in the procurement of scads fish until they arrive. at the final distributor.

## Methods

### Research Location and Time

This research will be conducted in June - August 2023 at the PPI Beba Fish Auction, Takalar Regency, South Sulawesi.



Figure 1. Research location in Takalar Regency

### Types and Methods of Data Collection

The data collection methods used are primary data and secondary data. Primary data is data collected through interviews, direct observations in the field using questionnaires on respondents selected purposively, provided that the respondents have an understanding and are involved in the scads fish supply chain. Meanwhile, secondary data is data obtained from the Takalar Regency Central Statistics Agency.

### Data analysis

The data analysis used in this research is descriptive analysis to explain the structure and mechanism of the supply chain pattern in marketing activities for scads fish at PPI Beba, namely by describing in detail

the flow of products, capital/money and information according to the supply chain structure that is formed starting from the producer to distributors and distributors to consumers and vice versa. Also describe the number of institutions and supply chain distribution channels, forms of institutional involvement and the number of flows of products, capital and types of information in each supply chain.

**Results and Discussion**

**Scads Fish (*Decapterus sp*) Supply Chain Model**

The supply chain model for scads fish at PPI Beba, Takalar Regency is as follows:

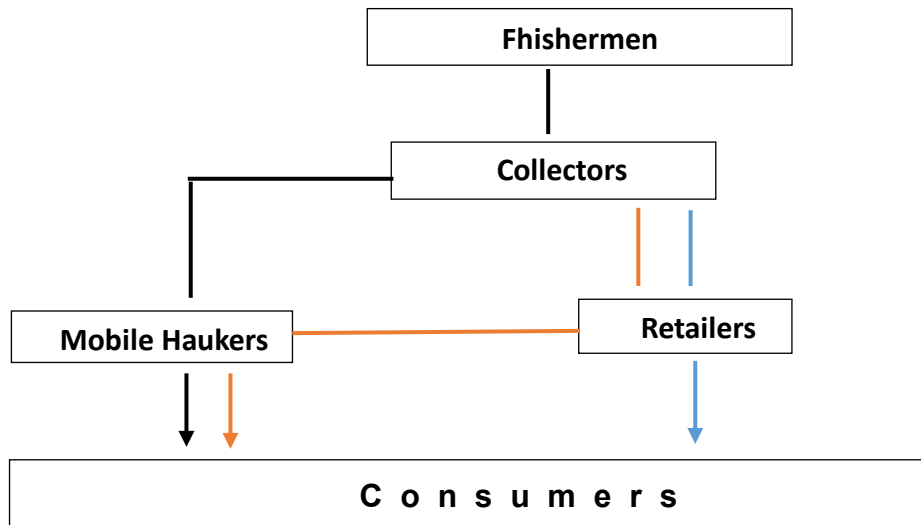


Figure 2. Scheme of Scads Fish Marketing Supply Chain Pattern at PPI Beba, Takalar Regency

Caption:

- Marketing Channels I
- Marketing Channels II
- Marketing Channels III

Marketing channels in the supply chain are said to be efficient if in these channels marketing activities are carried out by each link in the scads fish supply chain optimally. In the marketing channel, the scads fish supply chain involves fishermen as producers, collectors, retailers, mobile hawkers and consumers. This institution has an important role in the process of implementing the fish marketing function, especially scads fish.

**Identify the perpetrators of the Scads Fish supply chain at PPI Beba, Takalar Regency**

The actors involved in the supply chain system for scads fish (*Decapterus spp*) at the Beba Fish Landing Base (PPI) Takalar Regency consist of:

***Fisherman***

Fishermen at PPI Beba are people who carry out fishing at sea to meet their daily needs. In accordance with Ridha's (2017) opinion, fishermen can also be said to be people who carry out fishing activities at sea which depend on the weather and depend on the sea for their livelihood.

Fishermen at PPI Beba enter into written/oral cooperation contracts to provide fish, especially scads fish, with profit sharing mutually agreed upon by the fishermen and the boat owner. Therefore, none of the fishermen catch scads fish catch directly to retailers, mobile hawkers and consumers. The majority of fishermen sell their catch to collectors at auction.

***Collectors***

Collectors in the scope of fisheries are intermediary mobile hawkers who buy from producers/fishermen or first parties, they also buy from several producers/fishermen at the same time, especially collectors at PPI Beba. Mobile hawkers require a large amount of capital, this is because mobile hawkers have to pay directly for the fish they buy through Punggawa. The marketing function carried out by mobile hawkers in fish marketing includes four functions, namely the purchasing function, sales function, price standardization function and risk bearing function.

### ***Retailers***

Scads fish retail mobile hawkers at PPI Beba are termed pacatok, meaning mobile hawkers who buy scads fish through mobile hawkers. The profits obtained by retail mobile hawkers can be said to be large because when selling fish, mobile hawkers do not require transportation costs. However, the quantity marketed is limited or the sales volume is less than that of collectors, which is influenced by limited capital and the limited purchasing power of auction market consumers because the customers are household consumers or daily consumption and trade parties. Retailers at PPI Beba will sell their purchases to mobile hawkers or directly to end consumers.

### ***Mobile Hawkers***

Mobile hawkers at PPI Beba are mobile hawkers who buy scads fish through collectors and retailers who will sell them from house to house to household consumers. Some of the mobile hawkers are also suppliers to local restaurants or eateries that require various types of fish as raw materials. Some pagandeng customers place orders via telephone or social media such as WhatsApp so that the availability of ordered fish is guaranteed, especially those far from PPI Beba.

### ***Consumers***

Consumers, especially those who come directly to the PPI Beba location, are generally the people of Takalar district. Usually they buy fish, especially scads fish for household consumption, food stalls, restaurants and so on. They prefer to come around 8.00 until PPI closes because the price of the fish sold at that time starts to drop. Especially for consumers in food stalls and restaurants, they buy an average of 6 kg of fish every day and orders are made via telephone or WhatsApp because they have been customers for a long time, some of the consumers also have family and friendship relationships.

## **Information Flow Mechanism, Product/Goods Flow and Financial Flow in the Scads Fish (*Decapterus spp*) Supply Chain at PPI Beba, Takalar Regency**

### ***Information Flow***

The flow of information that occurs at the Beba Fish Landing Base (PPI) includes information on quantity/amount of demand or supply and information. This is done via telephone or WhatsApp, because it is considered easy and practical. Then the fishermen will inform the fish collectors. Collectors pass on information to other mobile hawkers regarding the number of fish, size and price of the fish. This information system is carried out because they already trust each other and have friendly and family relationships with the mobile hawkers.

### ***Product/Goods Flow***

The flow of supply chain goods that occurs at the Beba fish landing base (PPI) has a flow pattern from upstream to downstream or from fishermen to final consumers. Fishermen or punggawa will supply scads fish or their catch to collectors at auction, then collectors will sell them to all the mobile hawkers involved, both retailers and mobile hawkers. Retailers receive more fish stock than wholesalers. Pagandeng mobile hawkers have more limited sales capacity because they have to go around to visit consumers, while retail mobile hawkers sell in the PPI area where consumers visit them directly.

### ***Financial Flow***

The financial flow of the supply chain at the Beba Fish Landing Base (PPI), Takalar Regency has a flow from downstream to upstream or starting from consumers to fishermen. The payment methods used by every market player, whether suppliers or mobile hawkers at PPI, tend to or almost all use cash for each

payment. Because every transaction carried out in person or in cash is considered easier, on the other hand, some mobile hawkers and suppliers still lack knowledge in non-cash payment methods. Payment for scads fish is made when the order arrives by looking at the freshness of the fish. The system that occurs is a system of mutual trust that has been built and maintained for a long time because on average suppliers and mobile hawkers have been subscribing for years. Apart from that, there are also several family businesses so that the suppliers they obtain have been customers since previous generations.

### Conclusion

The marketing pattern scheme for scads fish (*Decapterus sp*) at PPI Beba, Takalar Regency, has three forms of marketing channels, that is:

- a. Fishermen → Collectors → Retailers → Consumers
- b. Fishermen → Collectors → Retailers → Mobile Hawkers → Consumers
- c. Fishermen → Collectors → Mobile Hawkers → Consumers

The supply chain structure that occurs at PPI Beba is Fishermen, Collectors, Retailers, Mobile Hawkers and Consumers. The marketing process for scads fish in the supply chain includes friendship, kinship and subscriptions carried out either by telephone or via WhatsApp with the payment method being made in cash. Through product flow, information flow and financial flow.

### Suggestions

Based on the research results, the researcher provides the following suggestions in the hope of providing input for the progress and development of PPI Beba; (1) Every business actor in the process of marketing scads fish at PPI Beba, Takalar Regency continues to improve, namely the relationship of cooperation, trust and exchange of information so that the fish distribution process runs well; (2) The local government and the PPI Beba organizers should further increase auction activities and improve management in order to provide optimal service for auction users.

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