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Analysis of King Cobia Fish Commodity Value Chain as an Effort to Increase the Value of Frozen Fish Products

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Abstract: King Kobia is a rising marine fish commodity and continues to be socialized by cultivators in Pangandaran. Weaknesses of fishery products include the fast decay process, so to prevent this process, proper handling techniques are needed so that the freshness and quality of the fish are guaranteed. This study aimed to map the flow of king cobia products, analyze the king cobia value chain, analyze the added value, and describe the obstacles that exist in the processing and marketing of product value. The type of research used is descriptive research. Descriptive research aims to describe something by describing, recording, analyzing, and interpreting the conditions in a value chain of king cobia fish commodities. Data collection through literature study, observation, documentation, and interviews with fishermen, MSME actors, and fish traders. Data analysis using Value Chain Analysis. The study found that value chain analysis helps add value in every production stage and delivery of products or services to consumers. This value chain consists of two parts, primary activities, and supporting activities. In contrast, the added value analysis is fish nuggets as an effort to increase the value of frozen fish products.
Keywords: Value Added; Value Chain Analysis.

INTRODUCTION

Pangandaran is the most potential tourism area in West Java, Indonesia. The local government also has plans to develop the Pangandaran area into a world-class tourist destination. However, the management of tourism potential in Pangandaran is very far behind Bali Island, even though Pangandaran has many potential tourism objects to develop. Pangandaran Regency has a coastline with a length of up to 91 Km. The area of Pangandaran Regency is 168,509 Ha, with a sea area of 67,340 Ha. Geographically, the Pangandaran Regency borders and is connected with the waters of the Indian Ocean. Pangandaran waters is a potential fishing area. Therefore, most Pangandaran District residents work as fishermen (Pangandaran Regency Profile 2017).

The fishery business in Pangandaran and its surroundings is divided into freshwater and saltwater (sea) fisheries, with various types of fish, including milkfish, shrimp, tilapia, and crabs, for fresh and brackish water. At the same time, saltwater is dominated by capture fisheries with various types ranging from large too small. The types of fish caught by fishermen in Pangandaran Regency are very diverse, such as curbing shrimp, lobster, sea catfish, black pomfret, white pomfret, red snapper, and others. Apart from this fish, several other commodities such as the star pomfret (Trachinotus blochii), canting grouper (Ephinephelus fuscoguttatus-lanceolatus), and King Cobia (Rachycentron canadum) are also the mainstays of the aquaculture sub-sector in Pangandaran Regency.

King Cobia fish (Rachycentron canadum) is a new leading commodity pioneered by the Ministry of maritime affairs and Fisheries. King Kobia is a rising marine fishcommodity and continues to be socialized by cultivators in Pangandaran. King Kobia cultivation in Pangandaran has been running since February 2020; this time, it was the first harvest amid the COVID-19 pandemic. This fish's strong and disease-resistant

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characteristics make its production quite affordable with a high selling value, making it promising for investment. The meat of this fish is also delicious and tender and can be processed into various preparations. King Kobia meat is white, so it is more favored by international consumers so the export potential will be very high.

Currently, the cultivation of King Cobia in Pangandaran penetrates the export markets of three countries, namely Taiwan, Japan, and Korea. Not only has a market that can penetrate exports, but King Kobia is also a raw material for flour, beauty cosmetics, and fish oil. Therefore, Kobia Fish is believed to make King Cobia production profitable for the aquaculture sub-sector in Indonesia.

King Cobia fish farming in Pangandaran was established in the sea waters of the east coast of Pangandaran, close to the location of the Pananjung nature reserve tourist attraction using floating cages. Besides having a market capable of penetrating exports, king cobia fish is also a raw material for flour, beauty cosmetics, and fish oil.

In Pangandaran, there are currently ten units of floating cages. Each floating cage unit has four plots with 1000 King Kobia fish capacity. Cultivating King Kobia fish is easy. From raising seeds measuring 2 cm to harvesting, it takes five months. King Kobia fish is worth harvesting after the size of each fish weighs 3 kg while the price per kilogram averages IDR 50.00.

Weaknesses of fishery products include the fast decay process. Deterrence of spoilage requires proper handling techniques so that the freshness and quality of the fish are guaranteed. As one type of commodity that is easily damaged and has a short shelf life, the decline in the quality of fish and other marine products can be accelerated by increasing temperature, which results in the speed of microbial metabolism, oxidative reactions, and enzymatic activity. As a result, the economic value and use value of the product may decrease. Therefore, it is necessary to handle marine commodities properly and correctly. Good handling aims to maintain safety and quality. Handling techniques are related to cleaning fish, storage processes, and placing and applying ice (Lokollo & Mailoa, 2020).

Handling fish after catching is essential in obtaining maximum value from the fish's journey to the consumer. Fish reduction can be inhibited by low-temperature treatment. Using low temperatures in the form of coolers and freezers can slow down the biochemical processes in the fish's body. This handling stage determines the sale value, subsequent utilization process, and product quality. However, handling fish after capture has yet to be carried out correctly. The results of Tani et al. (2020) research show that there are several stages, namely starting from getting the fish onto the ship, handling the fish before storage, sorting the fish, washing the fish, freezing the fish, packaging, storing and unloading, all of which aim to maintain quality. Fish to keep it fresh, and the selling price is high. Holding or cold storage are facilities that support the handling of fish caught on board. Materials used as fish cooling media include wet ice, dry ice, cold water, ice plus salt, seawater cooled with ice, and seawater cooled mechanically and cold air. In addition, freezing can also be carried out, namely storing food ingredients in a frozen state, so that enzymatic reactions, chemical reactions that cause damage and spoilage, can be inhibited (Sahubawa, 2019).

The value chain is the template a company uses to understand its cost position and identify ways it can implement its business-level strategy. The value chain shows how a product moves from the raw material stage to the final customer. According to Porter (1985) in Pratama & Sholihah (2021), the value chain is a collection of activities carried out by each company to design, produce, market, deliver, and support its products. *Value chain analysis* is a framework to understand how value is created in a business or industry. In analyzing competitive advantage, Porter divides it into two parts of the activity: (1) Primary activities involve the physical creation of the product and its sale

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and transfer to the buyer. The company's activities are divided into 5: Inbound Logistics: processes related to receipt, storage, and distribution. Operations: activities that convert inputs into outputs that can later be sold. Outbound Logistics: providing products and services to consumers. Marketing & Sales: the process of persuading or inviting consumers to make purchases and use products. Service: what is given to customers after buying and using the product; (2) *Support activities* support basic activities by providing human resources, technology, and various functions throughout the company. Support activities are divided into Firm infrastructure: industrial support systems and various functions that allow industries or companies to carry out operations. Human resource management: the company's ability to recruit, train, motivate, reward, and defend its employees. Technology development: managing and processing information and protecting its base on industry knowledge. Procurement: activities carried out to obtain the required resources.

Some of the earlier researchers were concerned with value chain analysis. Dewi et al. (2018) analyzed the snack agroindustry's value chain, margins, and added value in Kuok District, Kampar Regency. The method of taking respondents was carried out by census, where the total population in Kuok District was five fish food producers. Mahendra et al. (2019), the concept of supply chain analysis and value chain analysis was carried out using the accidental sampling method. The process of trading in an economy must have justice in distributing profits to all parties involved. Identify supply chain patterns and analyze added value. Arsiwi et al. (2018) this study aims to analyze the value chain in the smoked fish product sales chain for each member of the supply chain, as well as analyze the value chain of business actors who get the most profits and related parties in Toba Samosir Regency. The data analysis used in this study was in the form of qualitative and quantitative data analysis. Qualitative analysis was conducted to describe and analyze the tilapia business value chain. Nur Jannah et al. (2022) know the marketing channel patterns for Bawis fish, added value to the value chain network, and strategies for upgrading Bawis fish in Bontang City. The value chain can be improved by improving the agribusiness system from upstream to downstream. Ahmed et al. (2019) stated that the strength of the value chain formed at the cultivator level as the leading actor is obtained from improving quality and diversifying business products. To find out the condition of the PMMP company's internal factors utilizing the analysis of the value chain system and internal factors is one of the supporters of the export strategy implemented by PMMP (Yesi & Sirait, 2022).

According to Kamaylo et al. (2021), understanding and overcoming various barriers to fisheries development is very important by conducting this value chain analysis study to estimate the benefits of each actor in the chain and identify constraints and opportunities along the value chain. Daud et al. (2020) research regarding the value chain case of the squid fishing business in Bulutui Village, West Likupang District, North Minahasa Regency. Respondents in this study consisted of fishermen, collectors, retailers, and consumers (restaurants). Each population was sampled using the purposive sampling method, with a total population of 20 squid fishermen.

A value chain approach is recommended to map the value chain, identify drivers for smallholders to engage in fishing businesses, examine constraints affecting cooperatives in supplying fishery, assess the impact of fisheries on livelihoods and household welfare, and investigate constraints (Alemu & Azadi, 2018). Value chain analysis was applied to smoked fish products at Bandarharjo Semarang to determine the amount of value-added provided by each stakeholder at the supply chain node from suppliers to final consumers (Arsiwi et al., 2018). According to Sengkey et al. (2020), the distribution of the supply chain to fishermen in Nain Island is too long, so it is necessary to cut the supply chain in the supply chain channel because if there is no cut

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in the supply chain, it will affect the slow economic growth of the people of Pulau Nain, without there are changes from time to time so that it can be detrimental to the people of Nain Island itself

Based on the problems described above, supported by studies that previous researchers have carried out, this study to analyze the value chain of king cobia fish to increase the value of frozen fish products. First, do the mapping of the king cobia fish value chain. Then make a value chain analysis of king cobia fish regarding Porter's analysis and provide added value to fish products, namely fish nuggets, so that it is hoped that this will increase the value of the fish.

METHODS

The author uses qualitative research to produce descriptive data in written or spoken words from people and observed behavior (Bogdan and Taylor in Rumimpunu, P.s. et al., 2018). Descriptive research aims to describe something by describing, recording, analyzing, and interpreting the conditions in a value chain of king cobia fish commodities. Data were collected through direct interviews with fishermen, related parties, MSME actors, fish traders, and others. Then other supporting data was obtained through observation, literature study, online data search, and documentation. Processing and analysis of the supply chain and value of king cobia fish products using one of the methods in Supply Chain Management, namely Value Chain Analysis. The entire product flow begins to be described in a chain starting from suppliers – consumers then a value analysis of each stakeholder in the chain is carried out.

RESULTS AND DISCUSSION

Mapping the King Kobia Value Chain

According to the United States Atlantic States Marine Fisheries Commission, cobia are found offshore, nearshore, and inshore in subtropical to tropical waters in the Atlantic and Indo-Pacific Oceans. King Cobia has various names, including black salmon, kingfish, and bonito. Kobia can live up to 10 years in natural waters, reach 1.8 meters in length, and weigh more than 45 kilograms. Cobia fish has several advantages, which are very suitable and profitable for cultivation. Its growth is fast. In a year's enlargement, it can reach a weight of 4 to 6 kg per head, so its maintenance is shorter than other marine fish. The rapid growth is because cobia is a type of fish that is greedy to eat.

King Kobia will be developed into a new leading commodity in the aquaculture sub-sector due to one of them: (1) Encouraging the development of marine commodity cultivation in the context of diversifying variants of aquaculture commodities that have the potential to be developed and have high economic value; (2) Meet people's needs for animal protein at very affordable prices; (3) Making King Cobia a new commodity alternative for cultivators; (4) King Cobia, when kept in idle ponds, can break the chain of fish and shrimp diseases because cobia can prey on disease-spreading agents such as tiny shrimp, shellfish and wild fish; (5) King Cobia's production system has been mastered, starting from the hatchery reproductive system, superior brood production, enlargement, disease control, and the feed that comes from independent feed production; (6) Has a fast growth performance of 4-6 kg a year, shorter rearing time compared to other sea fish, and perfect meat quality with delicious taste; (7) Market demand for both domestic and export is wide open; (8) White fish meat is also delicious and tender. It can be processed into various kinds of preparations, so international consumers favor it more, and the export potential will be very high; (9) In addition, it is also a raw material for flour and beauty cosmetic ingredients as well as fish oil.

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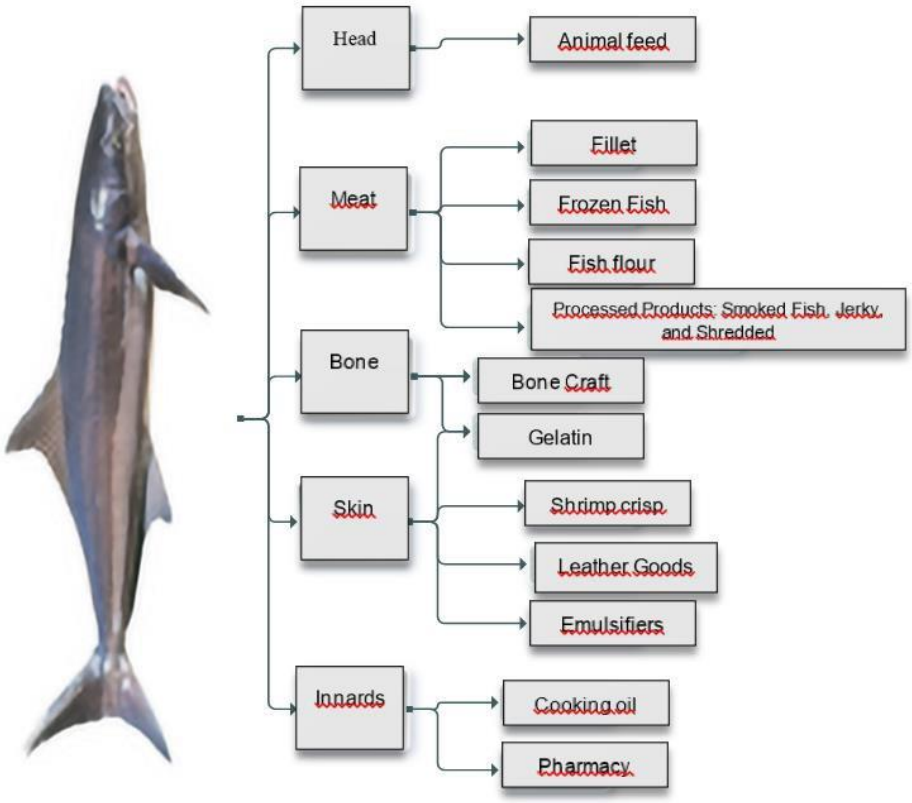

Figure 1. Fish Industry Tree
Source: Data processing (2022)

The more downstream products that can be developed, the commodity has high added value. Fish has much potential to be developed to produce zero waste from existing products. Fish has prospects as food and industrial raw materials based on its chemical composition and nutritional content. Almost all parts of the fish's body, including the head, meat, bones, and internal organs such as the liver, can be used. To find out the types of processed fish products can be seen through the fishing industry tree. The industrial tree is a schematic illustration of the product diversification of a commodity and its derivatives. The more downstream products that can be developed, the commodity has high added value. Fish has much potential to be developed to produce zero waste existing products. Figure 1 shows the industrial tree of fish.

The stages of treatment given to fish, since they are caught from the waters, landed, and then transported until they are ready to be processed at the processing site, or marketed to consumers, do not change their original (natural) characteristics, and the fish still has new properties. Horizontally, the supply chain has five main components or actors: suppliers, manufacturers, distributors, retailers, and customers. Vertically, there are five main components of the supply chain, namely buyers, transporters, warehouses, sellers, etcetera (Nurhayati et al., 2019). The fish value chain map is shown in Figure 2

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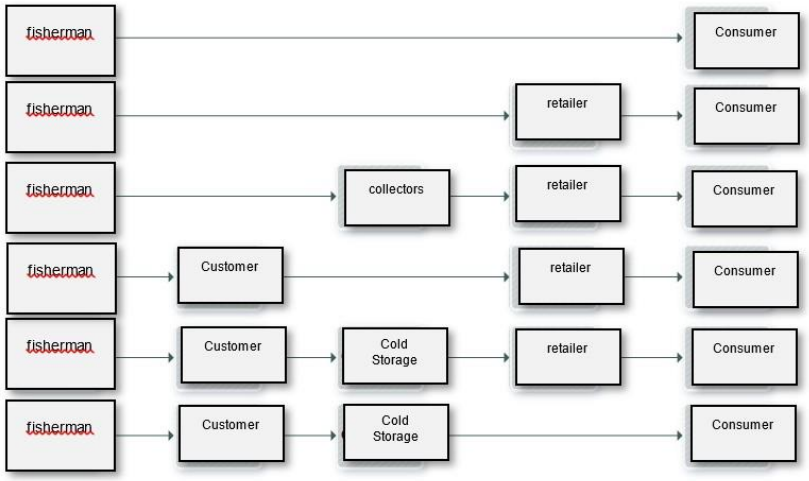

Figure 2. The fish value chain map
Source: Data processing (2022)

The flow of king cobia fish products is the flow of goods from upstream, namely suppliers of fresh fish, to downstream, namely the end consumers of fresh fish or their derivatives. After unloading fish on the coast, several alternatives exist for distributing fish to consumers. The king cobia value chain in Pangandaran has five actors and six value chain models. Each actor has a specific function and role. Marketing fresh fish from fishermen to consumers is carried out in several ways, which can occur simultaneously or only form at certain times, depending on fishermen's catches, market conditions, and traders' capital.

Fishermen have the most dominant activity among the actors in the value chain because the production process is carried out every day, except during the non-fishing season. Regarding employment absorption, fishing activities, including producing and distributing produce, also absorb the most labor in the king cobia fish marketing chain. Several workers involved are Ship's Crew (ABK) to assist in catching, sorting and unloading the catch to land to distribute the catch to the market or Cold Storage. In its distribution, fish can be fresh, frozen, or fish derivatives (as shown in Figure 1).

Value Chain Analysis

Value chain analysis is a strategy used to understand competitive advantage by identifying all of a company's activities to reduce costs and better understand the company's relationships with suppliers and customers in the industrial world. Value chain analysis formulates several activities of an organization, namely main activities and supporting activities.

Each primary and support activity is always associated with costs and value added to produce products. The company is also expected to be able to save costs on each activity so that there are no expenses that the company should not bear, and the costs incurred are by the value obtained by the company.

While the activities of the perpetrators are shown in Table 1

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Table 1. Activities of Actors in the Fish Value Chain

Person	Activity
Fisherman	Preparation of fishing facilities, determination of fishing areas, arrest, sorting of catches, and transportation.
Customer	Distribution of Catches.
Collectors	Purchasing, Distribution, Price Negotiation, Sales
Retailer	Purchasing, Price Negotiation, Sales, Storage.
Cold Storage	Purchase, Storage, Sales.

Source: Data processing (2022)

The following is one of the supply chains of King Kobia fish commodities from the beginning of catching fish in one of the fish feeds. Then the fish is processed to be put into packaging before the product enters the market share to be traded to consumers.

The Upstream Supply Chain section includes the activities of a manufacturing company with its suppliers and their connections to their suppliers.
In this case, the company cooperates with fishermen to get quality and fresh king cobia fish. The company must have more than one supplier because if the supplier continues to have a king cobia fish stock shortage, the production process can still
run smoothly without any obstacles. Procurement is in charge of finding suppliers and ensuring the quality of king cobia fish received is by company standards. Because processing king cobia fish into fish nuggets requires fillets, the company requires large king cobia fish. The company will come to the location directly to meet with the fishermen and ensure the condition of the fish. Fresh king cobia meat will
be pure white.

The Internal Supply Chain section includes all processes from the initial entry of goods into the warehouse that transform input from suppliers into organizational output. In this section, the fish will be sent to the company after successfully obtaining fresh king cobia fish from the supplier/fisherman. So that the quality of fresh fish is maintained, the delivery process uses a cold store. After arriving at the company, the fish is stored in the freezer so that the fish does not rot. The production department begins to process the raw materials into finished products in the form of fish nuggets. To get the fillet meat, perform the process of separating the bones and meat. After separating the fish meat, the fillet meat is processed by adding complementary ingredients. Then it is packaged using tight plastic packaging and vacuumed to prevent air from entering and stored in a finished goods storage warehouse where it remains cold so that the product lasts until it is marketed.

The Downstream Supply Chain section includes all activities involving shipping products to end customers. In the downstream supply chain, attention is directed to distribution, warehousing, transportation, and after-sales service. In this section, after the product is finished and stored in the finished goods storage area, the product that has passed the quality control is ready to be distributed to consumers. In this case, the distribution process is through shops or supermarkets. The company strives for products shipped within the city, outside the city, or even outside the island. For distribution outside the city or the island, the company uses sea or air transportation while still using cold storage as a storage place for these fish nuggets products. Meanwhile, refrigerated trucks are the only means of transportation for deliveries within the city. After arriving at the destination, the product is stored in a freezer in a shop or supermarket so that when consumers buy and consume fish nuggets, they are fresh and taste good.

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Value chain analysis helps identify how value is added in each stage of production or delivery of a product or service to the final consumer. The value chain consists of two parts, namely primary activities and supporting activities. The following is an explanation of value chain analysis from fish nuggets:

Primary Activity

Value chain analysis helps identify how value is added in each stage of production or delivery of a product or service to the final consumer. The value chain consists of two parts, namely primary activities and supporting activities. The following is an explanation of value chain analysis from fish nuggets.

Table 2. Primary Activity Fish Nugget

Primary Activity				
Inbound Logistics	**Operations**	**Outbound Logistics**	**Marketing and Sales**	**Service**
1. Provide raw materials for king cobia fish, which can be frozen fish, and fillets used for the production process. 2. Carry out the sorting process by grouping fish based on their weight and then weighing them. 3. Use transportation means to involve raw materials in cold storage.	1. Processing king cobia fish in fillets, one of which can be used as fish nuggets. This processing method is added with ingredients such as salt, benzoate, corn starch, bread flour, CMC, spices, instant yeast, modified starch, and cake softener. 2. Processing of king cobia fish, such as fish nuggets, can be done at the processing stage to product packaging using plastic packaging, which can be done at the end of the production process.	1. Carry out storage of the results of the product that has been sterilized in the finished goods storage warehouse. 2. Distributing King Cobia fish nuggets to shops/supermarkets with cold storage temperatures so that the quality of the products in the packaging can be maintained.	1. The strategy is to make delicious fish nuggets with a variety of flavours, from spicy to original and others. 2. Promote with brochures and through social media by creating attractive advertisements to attract potential buyers because the target market for selling fish nuggets applies to all groups, from children to adults.	1. Companies can provide services such as customer service and can provide an official platform as a place to receive input from customers. In addition, it can also create a questionnaire that can be filled out when consumers purchase a product.

Source: Data processing (2022)

Supporting Activity

Supporting activities are activities within the company that help the company as a whole through the provision of infrastructure that supports primary activities to run on an ongoing basis. While Margin is the difference between the total value and the price issued while carrying out the value activity. There are four activities, as shown in Table 3

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Table 3. Supporting Activity Fish Nuggets

Supporting Activity			
Firm Infrastructure	**Human Resource Management**	**Technology Development**	**Procurement**
1. Having supporting equipment in producing fish nuggets. 2. Have a means of transportation in the form of a refrigerated truck that can carry raw materials and production results to distributors so that these products remain safe. 3. Warehouse for storage of raw materials and storage of finished products with storage devices in the form of freezers. 4. Make fish nuggets and mix raw materials with other ingredients using a mixer. 5. Have supporting information and communication technology for ease in marketing fish nuggets products. 6. Provide the best and most friendly service to consumers.	1. Have an exceptional workforce in the production section to process Cobia Fish into fish nuggets. 2. Provide training to all employees. 3. Have a marketing team whose job is to market and promote products to consumers and look for distribution channels to sell products through shops/supermarkets.	1. Innovate the machines and equipment used to be more modern and keep up with the times to produce large quantities faster. 2. Availability of the internet to support the company's internal activities. 3. Availability of communication facilities such as telephone, computer, and social media, other supporting tools. 4. Carrying out production activities requires human and machine power, where human power functions to operate production machines.	1. Obtain a supplier of King Cobia fish, especially in coastal areas, to obtain quality fresh fish so that it can affect the taste of the fish nuggets produced. 2. Establish cooperation with permanent suppliers for easy access to obtaining raw materials so that the production process can run smoothly.

Source: Data processing (2022)

Analysis of Added Value

Added value is the added value that occurs because a commodity undergoes processing, transportation, and storage in a production process (use or provision of functional input). Value added is the economic value added to a product or service offered to consumers. Technical factors and non-technical factors influence added value. The information or output obtained from the results of the added value analysis is the amount of added value, the ratio of value-added margin, and remuneration received by the owners of the factors of production (Muharom et al., 2019).

With the addition of this value, it is essential to make the product or service look higher quality and superior so that the company can increase its selling price. As is the case with king cobia fish, selling has added value because of the texture of the meat, which is fatty or fatty but also dense. Besides being processed, king cobia meat can be eaten raw or used as sashimi. Another advantage obtained by king cobia is that cultivating is very suitable and profitable. Its rapid growth during a year's enlargement can reach a weight of 4 to 6 kilograms per head, so its maintenance is shorter than other marine fish. The selling price of cultivated cobia ranges from IDR 45,000 to IDR 60,000 per kilogram. There is a vast difference in price with caught cobia, which sells for IDR 25,000 per kilogram. Apart from being sold in the national market, king cobia fish is also sold for export abroad. The king cobia fish sold to the international market is caught, not a result of cultivation. Even though it is still relatively new, king cobia fish is in demand in the market and can be processed into pempek, fish nuggets, meatballs, k.o. A fish dish with pickles on top, and many more. Potential export markets are Hong Kong, Taiwan, Japan, Australia, Europe, and other countries in frozen fish, fillets, and other preparations.

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In processing king cobia fish into a product in the form of fish nuggets, of course, it becomes an attraction for buyers to consume it because nuggets can be consumed and enjoyed by all groups, from small children to adults. Making king cobia fish a fish nugget product will be the latest innovation in competing with other nugget products. King cobia fish is still relatively new, and making it a new processed product will, of course, make the product have its own added value. So by innovating, making fish nuggets from processed king cobia fish has the opportunity to get big profits for the company.

Constraints in the Fisheries Supply Chain

The processing process is related to the application of technology to increase a commodity's production and added value. If there is an increase in added value, commodity prices will also increase. The capture fisheries industry and the fish processing industry are the core of the fisheries industry cluster because, in these two types of industries, there is a flow of material (fish) and value-added processes (Supriadi et al., 2021).

The central tendency of consumers to choose fish is live, fresh/chilled, or prime processed products, so they are willing to pay more than other forms of product. However, because live and fresh/chilled forms have technical problems in distribution, their marketing reach could be improved. Therefore, consumers' choices are more towards processed products. The fish processing industry has an essential role in determining the value of fishery products, which will determine the economic benefits of fish resources. To obtain high economic benefits, fish processing must be oriented towards producing products with added value and high selling value.

The success of a business is shown through the ability of the business to market the products it produces. As an essential aspect of the success of a business, marketing must be carried out in a system. This system indicates that the market is no longer placed at the end of marketing activities but at the forefront, which means that the ultimate goal of a fishery activity is the market or consumers. The primary key in the systems approach is that all components are equally important or necessary. Therefore, the primary function of a sound fishery product marketing system is to provide fishermen, as economic subjects or actors, a price level that is by the level of risk they face, both due to technical risks such as natural factors and market risks, as well as to provide a price level that is commensurate for consumers according to the quality of the product they receive without forgetting the meaning and essential role of the institutions involved in the marketing process of these fishery products (Apituley et al., 2018).

Marketing fresh fish from fishermen to consumers is carried out in several ways, which can occur simultaneously or only form at certain times, depending on fishermen's catches, market conditions, and traders' capital. Fishermen have the most dominant activity among the actors in the value chain because the production process is carried out every day, except during the non-fishing season. Regarding employment absorption, fishing activities, including producing and distributing produce, also absorb the most labor in the small pelagic fish marketing chain. Several workers involved are Ship's Crew (ABK), to assist in catching, sorting, and unloading the catch to land, transport, and porters to distribute the catch to the market or cold storage. Collectors and Retailers also need helpers to distribute fish to sales locations and supply clean water and ice to maintain the quality and quality of the fish. Auctioneers are actors who do not provide added value in the marketing process because they only act as intermediaries.

So, the obstacles faced are: (1) Facilities and infrastructure that are still uneven for all fishermen in Indonesia. Fishermen still find it challenging to get adequate fish catches because the facilities are still lacking. Starting from ships and fishing gear, fish preservation facilities such as ice blocks, fuel which causes fuel prices to increase

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because, until cold storage capacity can fulfill a maximum capacity of 50 percent of what is needed; (2) G a p between large fishermen and small fishermen. The gap is caused by the lack of good coordination between fellow fishermen and marketing methods that still use traditional methods. Meanwhile, large fishermen have cooperated with the company. (3) Obstacles in the process of distribution and delivery of fish. Sending fish from the area is often only possible by using sea transportation. Meanwhile, modern transportation is still not evenly distributed to remote areas; (4) M o n i t o r i n g the quality of fish produced is still low in several regions. The low quality of fish is because many fishermen still do not understand product quality control. Then it is still very dependent on climate and weather conditions because many traditional fishing methods exist; (5) T h e latest obstacle that fishermen must face is the condition of the Covid-19 pandemic. The obstacle is that catching fish is ongoing while market demand has decreased considerably. This condition causes a very significant decrease in fishermen's income due to the fish catch that cannot be sold. Both small fishermen and large fishermen feel this loss.

CONCLUSION

Based on the results of value chain analysis, companies can identify activities that add value and activities that do not so that they can improve or eliminate activities that do not add value, thereby increasing efficiency and productivity and, ultimately, creating a competitive advantage. *Mapping king cobia fish* is a strategy used to understand competitive advantage by identifying all activities expected to reduce costs and better understand the company's relationship with suppliers and customers in the industrial world. The added value of king cobia fish, which is processed into a product in the form of fish nuggets, is expected to attract buyers to consume it because nuggets can be consumed and enjoyed by all groups, from small children to adults. Making king cobia fish a fish nugget product will be the latest innovation in competing with other nugget products. Subsequent research determines the amount of added value from processed fishery products which are studied quantitatively

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