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# SALTED FISH PROCESSING FINANCIAL BUSINESS ANALYSIS OF (SARDINELLA FIMBRIATA VALENCIENNES) IN MUARA ANGKE, NORTH JAKARTA

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This research aims to analyze business feasibility in processing dried salted fish and boiled in Muara Angke, North Jakarta. The research was conducted in August to February 2019. This research word a case study. The data was analyzed used quantitative descriptive analyses. The sampling technique was purposive sampling. The results showed that the dried salted fish and boiled processing business were feasible. Based on the results of the analysis of financial parameters, the profit of dried salted fish and boiled per month are IDR. 53,410,000 and IDR. 63,175,000 respectively; Benefit Cost Ratio (BCR) of 1.53 and 1.58 respectively; Break Even Point (BEP) of dried salted fish production of 6,526 kg and BEP Price of IDR. 9,790 /kg; and Break Even Point (BEP) production of boiled salted fish 6,340 kg and BEP for prices of IDR 10,778 /kg; Payback Period (PP) of dried salted fish and boiled business which is 1.91 years and 1.73 years; The Cost of Production (HPP) for dried salted fish and boiled was IDR 9,659 / kg and 10,639 /kg.

Keywords: Sardinella sp, dried salted fish, boiled salted fish, financial

#### **INTRODUCTION**

The Special Capital Region of Jakarta is one of the largest fishery product producing regions. DKI Jakarta fisheries production in 2005 consisted of marine fisheries, inland fisheries and ornamental fish. Marine fisheries products are generally the raw material for modern and traditional processing industries. The traditional fishery product processing center on the north coast of Jakarta is in the Kamal Muara, Muara Angke, Muara Baru, Kalibaru and Cilincing areas.

The Muara angke area is a center of integrated fisheries activities managed by the DKI Jakarta Provincial Government. In the area there are Fish Landing Ports (PPI), Fish Auction Places (TPI), cold storage, ice factories, ship repair units (Doc), Syahbandar, Traditional Fisheries Products Processing (PHPT) and flats for fishermen. PHPT is a place specifically designed to accommodate traditional processors of fishery products, where fishermen can find traditional processing of fishery products. According to the Muara Angke UPT PHPT annual report (2008) the traditional processing types and amounts are as follows: 133 units of salting, 20 units of scanning and processing, 20 units of fish crackers, 13 units of terasi making, and 10 units of stingray skin processing. The total number of traditional processors at the Muara Angke PHPT is 196 units.

PHPT Muara Angke uses raw materials obtained from Muara Angke Fish Auction Place (TPI). The raw materials used in the salted fish processing industry were: sardinella sp, decapterus sp, kryptoterus sp, dasyatidae sp, eusphyra sp, rastrelliger sp and decapodiformes sp. The average price of fish raw materials was: sardinella sp IDR 1,385.71, decapodiformes sp IDR 8,312.50, krytoterus sp IDR 4,500, Dasyatidae sp IDR 3,166,67, eusphyra sp IDR 4,500, decapterus sp IDR 2,250 and rastrelliger sp IDR 5,300. The main ingredient in making salted fish is salt. The average salt price is IDR. 600 per kg, and coconut shell charcoal is IDR. 7,000 per sack (1 sack containing 15 kg).

Salted fish is a food made from fish meat which is preserved by adding salt. Fish as a food ingredient that contains high protein and contains essential amino acids needed by the body, besides that its biological value reaches 90%, with a little connective tissue that is easily digested by consumers (Adawyah, 2007). This research aims to aim at analyzing business feasibility in the production of processing salted fish and boiled salted fish.

#### **RESEARCH METHODS**

The research was conducted in August until February 2018 at UPT PHPT Muara Angke, North Jakarta. The research method used is the case study method, the type of data used in this study are primary data and secondary data. The sampling method used in this study is purposive sampling. Respondents were interviewed at Muara Angke's PHPT UPT namely owners and marketing. Data collection methods used in this study include observation, interviews, and recording. The data analysis method used in this research is quantitative descriptive analysis.

# DATA ANALYSIS Profit and Profitability

Analysis of business income aims to determine the profit obtained from a business activity processed salting. Analysis of business income carried out by the equation as follows.

Information:

 $\pi = TR - TC$ 

 $\pi$  = Profit

TR = Total revenue

TC = Total cost

Profitability is a comparison between the profits from the sale of salted fish and the total costs expressed in percentages. Mathematically it can be formulated as follows:

$$Profitability = \frac{\pi}{TC} \times 100\%$$

Information:

 $\pi$  = Profit of salted fish business (IDR/Month)

TC = Total cost of salted fish business (IDR/Month)

According to Gasperz (1999) in Santi (2009) the criteria used in assessing profitability are:

- 1. Profitability> 0 means processed processed salted fish is profitable.
- 2. Profitability = 0 means processed salted fish which is attempted to experience Break Even Point (BEP).
- 3. Profitability <0 means that processed salted fish is not profitable.

## **Benefit Cost Ratio**

Benefit Cost Ratio (BCR) is a method of business evaluation by comparing the present value of all proceeds obtained by a business with the present value of all business costs. The criteria are as follows:

- If BCR> 1, then the business is profitable and feasible.
- If BCR = 1, then the business is not profitable and has no (marginal) loss.
- If BCR <1, then the business is detrimental so that it is not feasible to be implemented,

then the BCR formula can be written as follows for the decrease in the formula used (Riyanto, 1998)

$$BCR = \frac{TR}{TC}$$

information:

TR = Total Revenue TC = Total Cost

# **Break Event Point Analyzes**

Break Event Point (BEP) is the break-even point or main return point on an income, where total revenue equals total cost. The longer the company reaches the

 $BEP \ Production \ = \frac{total \ cost \ of \ production}{selling \ price}$ 

 $BEP Price = \frac{total \ cost \ of \ production}{total \ production} GSJ© 2019$ www.globalscientificjournal.com

pulp point, the greater the balance of losses because the profits received still cover the costs incurred (Ibrahim, 1998).In the calculation of BEP with a decrease in the formula that can be stated as:

# **The Payback Period**

Method is a method that calculates how fast the investment made can be returned. PBP analysis needs to be displayed to find out how long a new business can be made to reverse investment. The faster the return on investment in a business, the better it will be the more smoothly the screening of capital (Ibrahim 1998).

PBP is calculated from the comparison between the total variable costs and

$$payback \ period = \frac{investment \ cost}{profit} x \ 1 \ years$$

the profits obtained, PBP is formulated as follows (Husnan and Muhammad 1999).

# **Cost of Production per Unit**

This means that the cost of production is part of the cost of goods. Cost of goods sold in an accounting period. The following is an understanding of basic prices according to several opinions. According to Nurlela (2007: 60) the cost of production is a collection of production costs consisting of direct raw materials, direct labor and factory overhead costs plus inventory of products in the initial process and less inventory of products in the final process.

$$CPU = \frac{\sum cost}{total \ productions}$$

information:

CPU	= Cost of Production per unit
Total Cost	= total amount in processing production (IDR)
Total Production	= Number of productions produced (kg)

# **RESULTS AND DISCUSSION**

# Financial Analysis of Dried and Boiled Salted Fish

The assumption was used in the analysis of the business of processing salted fish and boiled salted fish in Muara Angke, North Jakarta as follows:

- 1. Commodities whose raw materials are processed are Sardinella sp
- 2. Commodity buying and selling prices at the local level
- 3. Purchase price at a fish auction (TPI) new estuary of Sardinella sp with as much as 2,500 kg and a selling price that has been produced as much as 2,000 kg then marketed at the local level
- 4. Family labor was not counted in the analysis
- 5. The production process in one month was 5 times, then in one year was 60 times.

Investment costs indicate the value of depreciation of an item. Depreciation value is obtained from the proceeds between the amount of price and technical age. Calculation of the total price of all goods in dried salted fish production activities was obtained at IDR. 72,045,000. Calculation of the total depreciation value in the total required is IDR. 15,772,500 in a year so that in a monthly amount of IDR. 1,314,375, while the depreciation value of boiled salted fish was obtained from the results of the division between the amount of price and technical age. Calculation of the total price of all goods in production activities is obtained at IDR. 77,045,000. Different technical ages can therefore have an impact on the price of depreciation. The total depreciation value in the total required is IDR. 16,772,500 in a year so that in the monthly amount of IDR 1,397,708.

Fixed costs are also items used. Fixed costs incurred per month for dried salted fish was IDR. 6,950,000, while the cost of fixed boiled salted fish was also an item used only once in the production of boiled salted fish. Fixed costs incurred per month in the production of boiled salted fish can reach a total of IDR. 7,450,000. The lowest average labor cost in one month was packaging labor costs. This was because most immersion and drying processes are carried out by male workers whose wages are higher than women. While the packaging process was carried out by female workers whose wages are lower than the male workforce.

The variable cost of dried salted fish produced in one production with the required needs was IDR. 19,268,000, then per month the production costs IDR. 89,640,000; while the variable costs of boiled salted fish production are issued in one production with the needs needed was IDR. 19,928,000 and per month the production costs IDR. 98,940,000.

## **1.** Total Cost of Production

Whereas the total production costs per month for the processing of dried salted fish and boiled were respectively IDR 96,590,000 and IDR 99,890,000. the total cost generated was in one month producing 5 times the process of producing salted fish. this was stated the total cost of summing variable costs and fixed costs so that it will affect the total costs incurred by the respondents before making salted fish and boiled salted fish.

The high and low costs of the main raw materials of fish were strongly influenced by fluctuations in the price of fresh fish. If the price of fresh fish increases it can have an impact on the high cost of the raw materials of fresh fish that will be released by the producer and vice versa, if the price of fresh fish decreases, the cost of fresh fish raw material released will also decrease (Kiki 2011).

#### 2. Revenue

That the amount of revenue in the dried salted fish processing business and boiled was 10,000 kg each and the amount is IDR 150,000,000 and IDR 170,000,000 per month of production. The production process of dried salted fish and stew 5 times per month. This is influenced by the amount of production, which was produced by the producer and the selling price of salted fish per kilogram has a high acceptance value when it was marketed, therefore the value of the acceptance fee was very high.

According to Soedjarmanto and Riswan (1994) that the more the number of products produced and the higher the price per unit of production concerned, then the total revenue received by producers will be even greater. But on the contrary if the product produced was small and the price was low then the total revenue received by the producer will be smaller.

## 3. Profit and Profitability

The profit obtained from the dried salted fish processing business at the UPT PHPT Muara Angke. profit was obtained per month in the production process of dried and boiled salted fish was IDR 53,410,000 and IDR 63,175,000 in one month of production. The profits obtained in the production of dried dan boiled salted fish processing per month produce 5 times in one month. The profit obtained from each processing fee were different because of the difference in the total received and the total costs incurred at each processing time. then the actual costs incurred by the producer, namely equipment depreciation costs, investment capital interest costs, and family labor costs were still calculated.

According to Romita (2016) the profit of processing salted fish depend on total revenues and the total costs incurred, if the processor can reduce production costs as little as possible, then the profits received will be greater.

The percentage of profitability generated was 55% in dried salted fish production, calculation of profitability on, while in boiled salted fish production was 59%. Calculation of Profitability at. that the profitability generated is > 0, which means that it was profitable due to the capital value needed for a process of salted fish and the profits that are produced.

According to Gasperz (1999) in Santi (2009) the criteria used in assessing profitability are Profitability >0 means that processed salted fish was profitable. Profitability = 0 means that processed salted fish was attempted to experience Break Even Point (BEP). Profitability <0 means that processed salted fish was not profitable.

## 4. Benefit Cost Ratio

Benefit Cost Ratio (BCR) obtained was 1.53 dried salted fish production, whereas in BCR boiled salted fish production was 1.58; The results show that the salted fish processing business at UPT PHPT Muara Angke was feasible to be developed which includes the requirements of BCR> 1. BCR IDR 1.53 dried salted fish and IDR. 1.58 boiled salted fish, it's means that every IDR 1.00 of the costs incurred in the production of dried and boiled salted fish provide revenues was IDR 1.53 dried salted fish and IDR 1.58 boiled salted fish.

If on the BCR requirement > 1, then the business is profitable and feasible. Then if BCR = 1, then the business was not profitable and has no loss (marginal). Then if BCR <1, then the business is detrimental so that it was not feasible to be implemented (Riyanto 1998).

#### 5. Break Even Point

a) Break Even Point Production

Break Even Point (BEP) of Sardinella sp production above shows that the production of dried salted fish was 6,526 kg, that the production of dried salted fish

was 10,000> 6,526 kg. It means that the BEP value of production produced at 6,526 kg has produced a break-even point per month of production of 10,000 kg, while the BEP of boiled salted fish production was 6,340 Kg, that production of boiled salted fish was 10,000> 6,340 Kg. means that the production of boiled fish Break as many as 6,340 kg has produced a break-even point in production per month as much as 10,000 Kg, it was stated that the total costs incurred for processing salted fish Sardinella sp per month. Salted fish production shows that the amount of salted fish has reach break event point.

The indication that must be done on the BEP of the production carried out by dried salted fish and boiled salted fish was to keep the production by making side-salted fish production in addition to the raw material for Sardinella sp.

## b) Break Even Point Prices

Break Even Point Price of IDR 9,790 in the production of dried salted fish. That the price of dried salted fish was IDR 15,000 > IDR 9,790, means that BEP for dried salted fish was IDR 9,790 was determined before it was marketed and then marketed to IDR 15,000 that in terms of BEP the price of dried salted fish had already broken even, while the production of boiled salted fish was IDR 10,778. That the price of boiled salted fish was IDR 17,000> IDR 10,778. and boiled salted fish, means that the BEP value of the price was IDR 9,790 before being marketed and after being marketed, the boiled fish was IDR 17,000 of these that the BEP price of boiled salted fish has already passed the break-even point, that the BEP of the price was profitable.

According to Kiki (2016) if the availability of raw materials for fresh fish and complementary raw materials (salt) increases, the price decreases. This has an impact on the selling price of salted fish produced. If the price of raw materials for fresh fish and complementary raw materials (salt) increases, the selling price of salted fish also increases. Meanwhile, if the price of raw materials for fresh fish and complementary raw materials (salt) decreases, the selling price of salted fish also decreases.

#### 6. Payback Periods

Payback Periods (PP) of dried salted production obtained approximately 1 year and 9 months, while PP of boiled salted production obtained approximately 1 year and 7 months.

According to Hendrik (2010) The smaller the PBP value, the faster the return on capital, the return on capital in the salted fish processing business. relatively fast, on the contrary the greater the PBP value, the longer the return on capital in salted fish processing business.

#### 7. Cost of Production

The cost of dried salted fish produced shows that of the total production costs per month required by processing dried salted fish and boiled each month for a price was IDR 9,659 /Kg, and IDR 10.639 /Kg; before being sold to market, then the cost of production also affects the processing process and equipment used for production operations and the price after being marketed becomes IDR 15,000 /Kg of dried

salted fish and IDR 17,000 /Kg of boiled salted fish this thing the producer gets a fairly high profit due to maintaining the price of raw materials.

## CONCLUSION

Generally dried and boiled salted Sardinella sp processing decoction was feasible, with financial parameters considered to be beneficial, this was indicated by several financial parameters such as profits obtained from dried and boiled salted fish was IDR 53,410,000 and IDR 63,175,000 respectively; BEP dried salted fish production 6,526 Kg /month. and the BEP price of IDR 9,790, while the BEP of boiled salted fish production 6,340 kg /year. and BEP price of IDR 10,778. Calculation of Benefit Cost Ratio (BCR) in the business of processing dried and boiled salted fish namely 1.53 and 1.58; Payback Period (PP) in the business of dried and boiled salted fish namely 1.91, and 1.73; The Cost of Production (HPP) of processed dried and boiled salted fish was IDR. 9,659 /Kg, and IDR 10,639 /Kg per month respectively.

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