

VALUE-ADDED ANALYSIS OF MINCED MEAT RED SNAPPER PROCESSED INTO PEMPEK, A CASE STUDY ON PEMPEK HAMER IN BANDUNG CITY-INDONESIA

Junianto¹, Sakti Azzahra Ekaputri², Farhan Dwi Gandini Satriana², Astyani Lesmana², Rizal Fikri Soumantri² dan Novi Nurchotimah²

- 1) *Lecturer staff of the Department of Fisheries – Padjadjaran University*
- 2) *Student of Fisheries Study Program – Padjadjaran University*

Abstract

The purpose of this research is to analyze the value-added of minced meat from red snapper into pempek and to analyze marketing strategy of Pempek Hamer. The research location was conducted in Pempek Hamer the located on Jl. Sukasari 2 No. 279A Sadang Serang Village, Coblong District, Bandung City. The location is determined purposively with the consideration that business has been established since 1996 and is still producing processed red snapper mashed meat products into various kinds of pempek variants. Method of this study is a survey method and value added analysis using the Hayami method. Marketing analysis includes market segmentation, identification of competitors, pricing and promotion. This research uses primary and secondary data. Primary data from the results of direct interviews with staff of Pempek Hamer. Based on the results of the study, the added value of minceat meat of red snapper processed into pempek is Rp53.351 with a value added ratio of 41.26%. Pempek Hamer market segmentation is included in geographic static market segmentation, based on consumers into market segments according to regional scale or geographical location. Pempek Hamer has a rival competitor, Pempek Boen Boen. The pricing strategy of Pempek "Hamer" Factory is Cost-plus pricing method. The promotions through on social media such as Instagram, YouTube, and also accepting orders via WhatsApp.

Keywords: Instragram, promotion, value added ratio, geographic, market segmentation.

INTRODUCTION

Red snapper (*Lutjanus malabaricus*) is a species of demersal fish from the Lutjanidae family with high economic value in Indonesia. The demand for red snapper is increasing because it contains high nutrition, namely protein with a value of about 18.2% (Directorate General of Fisheries 1990). Red snapper distribution areas in the Java Sea are scattered in the waters of Bawean, Karimunjawa Islands, Sunda Strait, southern Java (Parangtritis-Yogyakarta), south/west Kalimantan, east Kalimantan, Sulawesi waters, Natuna Islands, Lingga Islands and other Riau Islands (Marzuki & Djamal 1992).

Value added is the value which are added to a commodity caused by the processing, transportation and storage in a production process. There are several factors that can affect the added value, including technical and non-technical factors. The output obtained from the value added analysis is the amount of added value, the ratio of added value to the margin and the remuneration obtained by the owners of production factors (Hayami et al 1987).

According to economic factors, added value can be increased in a commodity by changing the form (form utility), changing place (place utility), changing time (time utility), and changing ownership (position utility). Seen from the aspect of form utility, it means that the commodity will get added value if it gets a change in shape. Through place utility, it means that the commodity will get added value when the commodity has moved places. Through time utility means that the commodity will get added value

when used at different times. Through a change in ownership (position utility), it means that the commodity will get added value if the ownership of the commodity changes hands (Hayami et al. 1987). This research aims to analyze the added value of pulverized red snapper meat processed into pempek and to analyze the marketing of Pempek Hamer.

RESEARCH METHODS

The research location was conducted in Pempek Hamer the located on Jl. Sukasari 2 No. 279A Sadang Serang Village, Coblong District, Bandung City. The location is determined purposively with the consideration that the business has been established since 1996 and is still producing processed red snapper mashed meat products into various kinds of pempek variants. Method of this study is a survey method and value added analysis using the Hayami method (Table 1). Marketing analysis includes market segmentation, identification of competitors, pricing and promotion. This research uses primary and secondary data. Primary data from the results of direct interviews with staff of Pempek Hamer. This research requires primary data of the costs, revenues, and income of pempek production. While secondary data comes from several previous research journals that are correlated with the topic.

Table 1. Calculation Procedure of the Value Added by Hayami Method

No	Variable	Score
I. Output, Input, and price		
1	Output (kg and L)	A
2	Input (Rp/kg)	B
3	Labor (HOK/Day)	C
4	Conversion factors	$D = A / B$
5	Labor coefficient (HOK)	$E = C / B$
6	Output price (Rp/kg and L)	F
7	Labor wages (Rp/HOK)	G
II. Income and Profit		
1	Price of raw materials (Rp/kg)	H
2	Contribution of others inputs (Rp)	I
3	Output value (Rp)	$J = D \times F$
4	a. Value added (Rp)	$K = J - H - I$
	b. Value added ratio (%)	$L = (K / J) \times 100\%$
5	a. Labor Income (Rp/kg)	$M = E \times G$
	b. Labor share (%)	$N = (M / K) \times 100\%$
7	a. Profit (Rp/kg)	$O = K - M$
	b. Profit rate (%)	$P = (O / K) \times 100\%$
II Fringe Benefits for Factors of Production		
I		
8	a. Labor income (%)	$R = (M / Q) \times 100\%$
	b. Margin (Rp/kg)	$Q = J - H$
9	Contribution of others inputs (%)	$S = (I / Q) \times 100\%$
	Profit company (%)	$T = (O / Q) \times 100\%$

RESULT AND DISCUSSION

History and Profile Business

Pempek Hamer factory is pempek producer center in *home industry* the located on Jl. Sukasari 2 No. 279A Sadang Serang Village, Coblong District, Bandung City, West Java. The Pempek Hamer factory has been established since 1996. The distribution of Pempek Hamer products is almost all over West Java, such as Cirebon, Tasik, Bekasi, Depok, and others. In the production process, this Pempek Hamer factory always applies the appropriate Standard Operating Procedures to maintain the quality of its products.

The Pempek Hamer factory produces every day, so the pempek is always fresh. Every day it can produce approximately 5000 pcs of pempek. Pempek is available in several variants including lenjer, telur, adaan, kulit, kapal selam jumbo, and frozen pempek. The selling price of Pempek Hamer products itself includes lenjer, telur, adaan, kulit Rp. 1.500/pcs, kapal selam jumbo Rp. 9,000/pcs, and frozen pempek Rp. 15.000/pack. Every purchase of Pempek Hamer products is included cuko. The workforce

involved in production at the Pempek Hamer factory is 7 people, including 5 people in the production section, 1 person in the sales section, and 1 person in the public works section.

Pempek Processing

1. Preparation materials (mincet meat of red snapper)
2. Making pempek dough
Red snapper meat that has been ground mixed with water. Then add salt and seasonings and stir. Add tapioca flour while stirring little by little until a smooth and non-sticky dough is formed until homogeneous.
3. Form pempek
After the dough is formed, the dough is molded according to the type of pempek.
4. Cooked
After formed, pempek is boiled until cooked. Pempek is ready for sale, and can be served fried first.

Production Cost

Pempek Hamer factory produces every day, with one production process it can produce 282.5 kg of pempek. The following table of costs incurred to produce pempek in one month of production.

Table 2. Fixed Cost Calculation

No	Fixed cost composition	Total (Rp/Month)
1.	Production Equipment Depreciation Cost	Rp. 374.164
2.	Electricity	Rp. 200.000
Total fixed cost		Rp. 574.164

Table 3. Variable Cost Calculation

Component	Total cost
Red Snapper Fish	52.200.000
Tapioca flour	34.500.000
Salt and MSG	450.000
Gas	920.000
Brown sugar	33.800.000
Seasonings	560.000
Labor	14.000.000
Total Variable Cost	136.430.000

Pempek Hamer production every day which can produce as much as 5000 pcs pempek products every day with 6 variants. For one month the fixed costs incurred are Rp. 574,164 which came from electricity and water costs, as well as depreciation costs for equipment used during the production process such as knives, basins, pans, stoves, mixers, freezers, and gas cylinders. These tools are used in the process of making pempek dough and making cuco. The variable costs incurred include materials spent in the pempek production process, such as red snapper and tapioca flour as the main ingredients, salt, MSG, and spices to make pempek, and brown sugar as the main ingredients for making cuco. For the price of red snapper is Rp. 30.000/kg which has been minced. In addition, there are other ingredients including tapioca flour with a total cost per month of Rp. 34,500,000, salt and MSG Rp.450,000, brown sugar Rp. 33,800,000, spices Rp. 560,000, LPG with a total cost of Rp. 920,000, labor of Rp. 2,000,000/person every month.

Analysis of Income, Profit and business efficiency

Revenue is the amount of income obtained from the sale of production. This amount is obtained from the total transfer of the pempek hamer product produced with the selling price of the pempek hamer product. Pempek Hamer business costs include fixed costs (depreciation of equipment) and variable costs (packaging, production materials, and labor).

Table 4. Revenue, total cost, Income and business efficiency at Pempek Hamer

Analysis		Total
Revenue		
a.	Production (Pcs/month)	150,000

b.	Selling price (Rp)	Rp 1,500
c.	Production value (Rp/ month)	Rp 225,000,000
Cost (Rp)		
a.	Fixed cost	Rp 574,164
b.	Variable cost	Rp 136,430,000
c.	Total cost	Rp 137,004,738
Income		Rp 87,995,262
R/C Ratio		1.6

Table 5. Calculation of the Detailed List of Working Days (HOK) for One Production Process (one production process takes 8 hours)

Part	Total Person	Gender	Calculation of HOK
Production	5	Man	$5 \times 1 = 5$
Publik work	1	Man	$1 \times 1 = 1$
Sales	1	Woman	$1 \times 0,8 = 0,8$
Total			6,8

The revenue obtained by Pempek Hamer for one month (with every production day) is Rp. 225,000,000. The revenue was obtained from the number of Pempek Hamer products of 150,000 pcs/month with the selling price of Pempek Hamer Rp. 1,500/Pcs. In one production process Pempek Hamer can produce 5000 pcs. If every day Pempek Hamer produces 150,000 pcs in a month. Revenue is the net income received from the sale of products. The income earned by Pempek Hamer was Rp. 87,995,262. The income is calculated from the difference between receipts and total costs.

We can see whether a business is feasible or not to be developed by analyzing a business classified as efficient or not. This can be measured when using the value of the R/C Ratio as an assumption of the R/C Ratio which has a comparison to revenues and expenses. Business production is considered feasible if the value of the R/C Ratio is more than one and is considered inappropriate if it is not more than one. While the value of the R/C Ratio is equal to one, whether or not a business continues depends on the person who founded the business (Amdar, Anas, & Yuniarto, 2019). In the table above, the total revenue is Rp. 225,000,000 and the total cost is Rp. 137,004,738, so the R/C value of the Pempek Hamer Ratio is 1.6 units if the expenditure is 1 unit and is considered feasible to be developed.

Value Added Analysis

Based on the results of the calculation of the added value of the production/output for a single production process of 282.5 kg with the use of raw materials/input an average of 100 kg. The raw material used is red snapper that has been minced which is measured in kg. The employees counted in this study were all workers who took part in the production process of Pempek Hamer, which amounted to 7 people.

Table 6. Calculation of Added Value Analysis of Pempek Processing at Pempek Hamer Factory for One Time Production Process

No	Variable	Score	Total
I. Output, Input, and price			
1	Output (kg and L)	A	282.5
2	Input (Rp/kg)	B	58
3	Labor (HOK/Day)	C	6.8
4	Conversion factors	$D = A / B$	4.87
5	Labor coefficient (HOK)	$E = C / B$	0.117
6	Output price (Rp/kg and L)	F	26549
7	Labor wages (Rp/HOK)	G	66000
II. Income and Profit			
1	Price of raw materials (Rp/kg)	H	30000
2	Contribution of others inputs (Rp)	I	45960
3	Output value (Rp)	$J = D \times F$	129310.33
4	a. Value added (Rp)	$K = J - H - I$	53351

	b. Value added ratio (%)	$L = \frac{(K / J) \times 100\%}{100\%}$	41.26%
5	a. Labor Income (Rp/kg)	$M = E \times G$	7738
	b. Labor share (%)	$N = \frac{(M / K) \times 100\%}{100\%}$	14.50%
7	a. Profit (Rp/kg)	$O = K - M$	45613
	b. Profit rate (%)	$P = \frac{(O / K) \times 100\%}{100\%}$	35.27%
II Fringe Benefits for Factors of Production			
8	a. Labor income (%)	$R = \frac{(M / Q) \times 100\%}{100\%}$	99310
	b. Margin (Rp/kg)	$Q = J - H$	7.79%
9	Contribution of others inputs (%)	$S = \frac{(I / Q) \times 100\%}{100\%}$	46.28%
	Profit company (%)	$T = \frac{(O / Q) \times 100\%}{100\%}$	45.93%

The conversion factor is the quotient between production/output and the amount of main materials used, in this study, which is 50, which means 100 kg of red snapper raw materials can be produced 282.5 kg of pempek. The employee coefficient is the quotient between employees and the amount of main materials used in the production process. The value of the labor coefficient is 0.017. Pempek Hamer's output value in this study was Rp1500. The price of input raw materials is 30.000/kg. The contribution of other inputs used in one production process/raw material is Rp.45,960.

The value of the product/output in this study is Rp129.310,33. The added value of this Pempek Hamer product is Rp53.351 with a value added ratio of 41.26%. Employee remuneration is the result of multiplying the employee coefficient with the average salary. In this study, the employee benefits given for each kg of pempek hamer main materials are Rp. 7,738, thus the share of employee benefits in pempek hamer is 14.50%. The profit obtained in this study is Rp. 45,513 with a profit rate of 35.27%. This margin is the difference between the value of the product and the raw material price of whole snapper, the margin obtained is Rp. 99.310 which is spread over each factor, namely employee income 7.79%, other input contributions 46.28%, and company profits 45.93%.

Market Analysis

1. Market Segmentation

Pempek Hamer market segmentation is included in static market segmentation. Geographically, this market segmentation by grouping consumers into market segments according to regional scale or geographical location.

Sofjan Assauri (2015) states that consumer market segmentation is based on demographic segmentation, this market segmentation by grouping consumers into market segments according to demographic variables, there are:

- Age, on this basis obtained market segments in the form of the children's market segment, the youth or youth market segment and the adult market segment. Each of these market segments has different motives, behaviors, and habits of buyers.
- Gender, on this basis, the male market segment and the female segment are obtained. Each of these market segments has different characteristics or properties, such as those that are often used or textiles.
- Employment, on this basis obtained market segments in the form of market segments for farmers, market segments for traders, market segments for employees, market segments for managers, market segments for entrepreneurs, market segments for doctors, and market segments for consultants. Each of these market segments has different motives, behavior and buyer habits.

2. Competitors

Rival Competitors

Pempek "Hamer" rivals in the same segmentation are Pempek Sekeloa, wholesaler pempek, and Pempek Boen Boen.

3. Pricing

Determination price of Pempek "Hamer" Factory is using the Cost-plus pricing method. According to Kamaruddin (2013: 148), states that cost is an important component that must be considered in determining the selling price of a product or service. Definition of Cost Plus Pricing is the value of a

certain cost plus a specified mark-up. Aim to make a profit. This method adding up the cost of capital and then adding the desired profit. The formula used is:

$$\text{Selling price} = \text{Capital} + \text{Profit percentage}$$

4. Promotion

Promotions Pempek "Hamer" Factory are through promotions on social media such as Instagram (@pempekhamerbandung), youtube (Pempek Hamer), and also accepting orders via whatsapp (0812-1212-2161).

CONCLUSION

Based on the results of the study, the added value of minced red snapper meat processed into pempek is Rp53.351 with a value added ratio of 41.26%. Pempek Hamer market segmentation is included in geographic static market segmentation, this market segmentation is grouping consumers into market segments according to regional scale or geographical location. Pempek Hamer has a rival competitor, Pempek Boen Boen. Determination of the price of the Pempek "Hamer" Factory is using the Cost-plus pricing method. The promotion carried out by the Pempek "Hamer" Factory is by promotion through social media such as Instagram, YouTube, and also accepting orders via WhatsApp.

REFERENCES

- Amdar, A., Anas, P., & Yuniarto, T. (2019). Analisis Usaha Beberapa Produk Olahan Perikanan di CV Fania Food Kota Gede Daerah Istimewa Yogyakarta. *Jurnal Penyuluhan dan Kelautan*, 13(2), 225-242.
- Assauri, Sofjan. 2012. *Manajemen Pemasaran*. Jakarta: PT. Raja Grafindo.
- Dewi, P. F. A., Widarti, I. G. A., & Sukraniti, D. P. 2018. Pengetahuan ibu tentang ikan dan pola konsumsi ikan pada balita di desa kedonganan kabupaten bandung. *Journal of Nutrition Science*. 7(1), 16-20.
- Ditjen Perikanan. 1990. *Pedoman Pengenalan Sumber Perikanan Laut*. Direktorat Jendral Perikanan. Jakarta.
- Hayami, et. Al. 1987. *Agricultural Marketing and Processing in Upland Java, A Perspective From Sunda Village*. Coarse Grains Pulses Roots and Tuber Centre (CGPRTC). Bogor.
- Kamaruddin. 2013. *Akuntansi Manajemen: Dasar-Dasar Konsep Biaya dan Pengambilan Keputusan*. Jakarta: Raja Grafindo Persada.
- Marzuki dan Djamal. 1992. Analisis Usaha Penangkapan Kakap Merah dan Kerapu dengan Pancing Prawe, Jaring Nylon, Pancing Ulur dan Bubu. *Jurnal Penelitian Perikanan Laut*. Balai Penelitian Perikanan Laut. Jakarta: Balitbang Pertanian. Departemen Pertanian.
- Peter dan Olson. 2013. *Perilaku Konsumen dan Strategi Pemasaran*. Edisi kesembilan. Diterjemahkan oleh: Diah Tantri Dwiandani. Penerbit Salemba.
- Rosari, M. I., Ma'aruf, W. F., dan Agustini, T. W. 2014. Pengaruh Ekstrak Kasar Mahkota Dewa (*Phaleria macrocarpa*) sebagai antioksidan pada fillet ikan bandeng (*Chanos chanos Forsk*) segar. *Jurnal Pengolahan dan Bioteknologi Hasil Perikanan*, 3 (2), 34-43.
- Setiadi, Nugroho J. 2010. *Perilaku Konsumen*. Cetakan 4. Edisi Revisi. Jakarta: Kencana.
- Schiffman dan Kanuk. 2007. *Perilaku Konsumen*. Edisi Kedua. Jakarta: PT. Indeks Gramedia.
- Tjiptono & Chandra, G. 2012. *Pemasaran Strategik*. Edisi Kedua. Yogyakarta. Yogyakarta: ANDI.