

## CHAPTER IV

### RESULT AND DISCUSSION

#### 4.1 Product Result

Nugget is a very popular food that is liked by many people from all around the world because of the quickness when preparing it and the varieties of flavour that nugget can offer with a long shelf life. This nugget is made using duck meat which is new in the world of nuggets varieties, and also incorporating bumbubetutu from Indonesia. The result of this project the texture of the nuggets is not quite there yet if it to be compared from the nuggets that is sold in the markets because this nuggets is still flaky and not chewy enough to get the stratifying bite. And for the taste is pretty good but not strong enough because of the lack of seasoning pre-steaming, if we want it to be stronger we need to season it a little bit more pre-steaming.

#### 4.2 Nutrient Facts

##### 4.2.1 Nutrition Table

The nutritional value of Duck Meatis as follows

**Table 4.1** Nutritional value of Duck meat per 100 gram

Calorie (cal)	135
Fat (g)	6
Cholesterol (mg)	77
Protein (g)	18
Sodium (mg)	74
Carbohydrate (g)	0.9
Potassium (mg)	271
Calcium (mg)	11

#### 4.2.2 Nutrition Calculation

The nutrition value of ingredients used in the making of Duck meat nugget with bumbubetutu

**Table 4.2** Nutritional value of ingredients used in the making of Duck meat nugget with bumbubetutu

<b>Ingredients</b>	<b>Calories (cal)</b>	<b>Carbohydra te (g)</b>	<b>Protei n (g)</b>	<b>Fat (g)</b>	<b>Fiber (g)</b>	<b>Sodium (mg)</b>
Duck Meat (440g)	594	4.1	80	26	0	326
Flour (60g)	220	46	6	0	0	0
Breadcrumb (170g)	595	136	8.5	0	0	1615
Salt (5g)	0	0	0	0	0	1938
Sugar (3g)	12	3	0	0	0	0
Oil (56g)	495	0	0	56	0	0
Egg (250g)	358	1.8	31	24	0	355
MSG (3g)	0	0	0	0	0	375
Garlic (20g)	30	6.6	1.3	0.1	0.4	3.4
Shallot (24)	17	4	0.6	0	0.8	2.9
Galangal (1.5g)	0.2	0	0	0	0	0
Turmeric (1.5g)	4.7	1	0.2	0	0.3	0.4
Ginger (1g)	0.8	0.2	0	0	0	0.1
Candlenut (2g)	0.2	3.4	2	19	2.1	0
Coriander (14g)	42	7.7	1.7	2.5	5.9	4.9
Limeleaves(3p c)	0.6	0	0	0	0	0

Bayleaf(2pc)	0.9	0.2	0	0	0.1	0.1
Red chilli pepper (4g)	1.6	0.4	0.1	0	0	0
Cayenne pepper (2g)	6.4	1.1	0.2	0.3	0.5	0.6
Lemongrass (3g)	1	0	0	0	0	0
Cornstarch (20g)	76	18	0.1	0	0.2	1.8
<b>TOTAL</b>	<b>2,455.4</b>	<b>232.5</b>	<b>131.7</b>	<b>127.9</b>	<b>10.3</b>	<b>3,169.7</b>

#### 4.2.3 Nutrition Label

<b>Nutrition Facts</b>	
<b>Portion Size</b>	<b>120 g</b>
<b>Amount Per Portion</b>	<b>274</b>
<b>Calories</b>	
	<b>% Daily Value *</b>
<b>Total Fat</b> 12g **	<b>15 %</b>
Saturated Fat 5.1g **	<b>25 %</b>
<b>Cholesterol</b> 141mg **	<b>47 %</b>
<b>Sodium</b> 363mg **	<b>16 %</b>
<b>Total Carbohydrate</b> 24g **	<b>9 %</b>
Dietary Fiber 2.1g **	<b>8 %</b>
Sugar 1.9g **	
<b>Protein</b> 16g **	<b>32 %</b>
Vitamin D 0.6mcg **	3 %
Calcium 37mg **	3 %
Iron 2.4mg **	13 %
Potassium 198mg **	4 %
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contribute to a daily diet. 2000 calories a day is used for general nutrition advice.	
** Amount is based on ingredients that specify value for this nutrient and 0 for those that don't.	

**Figure 4.1** Nutrition fact of Nugget Bebek BumbuBetut

### **4.3 Food Safety and Packaging**

#### **4.3.1 Processing and Storage Temperature**

The process of the production of this product is going through a few steps, such as the step when we first making the dough of the nugget, after that we shape the nuggets to the shapes that we want, and after the shaping process there is the steaming process. The purpose of the steaming process is so that the nuggets is already half cooked and it is easier to coat the nugget with the bread crumb, after the steaming process we have the freezing process.

Usually the storing condition for nuggets is that we store it in the freezer which is 0°F (-18°C) so that the condition of the nuggets is kept in its prime condition.

#### **4.3.2 Shelf Life**

The shelf life of nuggets depends on whether they are frozen or cooked. Frozen chicken tenders or nuggets that have been kept constantly frozen at 0°F will keep safe indefinitely, as long as they have been stored properly and the packaging is not damaged. Cooked chicken nuggets, on the other hand, have a much shorter shelf life. Properly stored, cooked chicken nuggets will last for 1 to 2 days in the refrigerator. To maximize their shelf life, refrigerate the chicken nuggets in shallow airtight containers or wrap tightly with heavy-duty aluminium foil or plastic wrap. Chicken nuggets should be discarded if left out for more than 2 hours at room temperature. If you want to extend the shelf life of cooked chicken nuggets, you can freeze them. Freeze them in covered airtight containers or heavy-duty freezer bags, or wrap tightly with heavy-duty aluminium foil or freezer wrap.

### 4.3.3 Product Packaging

For the packaging of the nuggets, the packaging should be sustainable and can protect the nuggets from freezer burn and other forms of damage, and it must be able to hold on for a long time. The kind of packaging that I use for this project is vacuum sealed plastic because this vacuum sealed plastic is durable, moisture-resistant and also can be sealed tightly to prevent freezer burn



Figure 4.2 example of vacuum tight plastic seal



**INGREDIENTS:**

duck meat, AP flour, bread crumb, corn starch, egg, garlic, shallot, galangal, turmeric, ginger, candlenut, coriander, lime leave, bay leave, red chili pepper, cayenne pepper, lemon grass, seasoning.

Nutrition Facts	
Portion Size	120 g
Amount Per Portion	
<b>Calories</b>	<b>274</b>
	% Daily Value *
<b>Total Fat</b> 12g **	15 %
Saturated Fat 5.1g **	25 %
<b>Cholesterol</b> 141mg **	47 %
<b>Sodium</b> 363mg **	16 %
<b>Total Carbohydrate</b> 24g **	9 %
Dietary Fiber 2.1g **	8 %
Sugar 1.9g **	
<b>Protein</b> 16g **	32 %
Vitamin D 0.6mcg **	3 %
Calcium 37mg **	3 %
Iron 2.4mg **	13 %
Potassium 198mg **	4 %

\* The % Daily Value (DV) tells you how much a nutrient in a serving of food contribute to a daily diet. 2000 calories a day is used for general nutrition advice.  
\*\* Amount is based on ingredients that specify value for this nutrient and 0 for those that don't.




Figure 4.3 Logo and nutrition table

#### 4.4 Financial Aspects

##### 4.4.1 Product Cost

Product cost is calculated based on the total of all cost per month. The costs consist of raw material cost, packaging cost, and utility cost. The raw material cost is counted as 5 lt per day, the working day is 5 days a week.

##### 1. Start-Up Capital

**Table 4. 3** Start-Up Capital

<b>Tools</b>	<b>and</b>	<b>Quantity</b>	<b>Price (/unit)</b>	<b>Sub Total</b>
<b>Equipment</b>				
Knife		1	Rp. 350.000,00	Rp. 350.000,00
Bowl		5	Rp. 26.000,00	Rp. 130.000,00
Cutting board		1	Rp. 150.000,00	Rp. 150.000,00
Frying pan		2	Rp. 260.000,00	Rp. 520.000,00
Spatula		3	Rp. 20.000,00	Rp. 60.000,00
Strainer		1	Rp. 50.000,00	Rp. 50.000,00
Tongs		2	Rp. 90.000,00	Rp. 180.000,00
Steamer		1	Rp. 400.000,00	Rp. 400.000,00
Vacuum machine		1	Rp.1.400.000,00	Rp.1.400.000,00
<b>TOTAL</b>				<b>Rp.3.240.000,00</b>

## 2. Packaging Cost

**Table 4.4** Packaging Cost

<b>Packaging</b>	<b>Quantity</b>	<b>Price (/unit)</b>	<b>Sub Total</b>
Vacuum plastic	20	Rp.1.230,00	Rp. 24.600,00
Sticker Logo	20	Rp. 800,00	Rp. 16.000,00
<b>TOTAL (/day)</b>			Rp. 40.600,00
<b>TOTAL (/month)</b>			Rp. 893.200,00

## 3. Utility Cost

**Table 4. 5** Utility Cost

<b>Facility</b>	<b>Quantity</b>	<b>Price (/unit)</b>	<b>Sub Total</b>
Water	4 m <sup>3</sup>	Rp 2.100,00/ m <sup>3</sup>	Rp. 8.400,00
Gas	500 gr	Rp. 188.000,00/3 Kg	Rp. 31.333,00
Electricity	600 watt	Rp 1.352 / kwh	Rp. 811,20
<b>TOTAL (/day)</b>			Rp. 40.544,20
<b>TOTAL (/month)</b>			Rp. 891.972,40

#### 4. Raw Material Cost

**Table 4. 6**Raw Material Cost

<b>Ingredients</b>	<b>Quantity</b>	<b>Price (/unit)</b>	<b>Sub Total</b>
Flour	1200 gr	Rp 15.000,00 /kg	Rp. 18.000,00
Breadcrumb	3400 gr	Rp. 12.000,00/500g	Rp. 81.600,00
Salt	100 gr	Rp. 6.500,00/ 500g	Rp. 1.300,00
Sugar	60 gr	Rp. 20.000,00/kg	Rp. 1.200,00
Oil	920ml	Rp. 20.00,00/ L	Rp. 18.400,00
Egg	5000gr	Rp. 21.500,00/kg	Rp. 107.500,00
MSG	60 gr	Rp. 48.500,00/kg	Rp. 2.910,00
Garlic	400 gr	Rp. 26.500,00/kg	Rp. 10.600,00
Shallots	480 gr	Rp. 21.500,00/kg	Rp. 10.320,00
Galangal	30 gr	Rp. 35.000,00/kg	Rp. 1.050,00
Turmeric	30 gr	Rp. 7.000,00/250g	Rp. 840,00
Ginger	20 gr	Rp. 14.500,00/kg	Rp. 290,00
Candlenut	40 gr	Rp. 50.000,00/kg	Rp. 1.000,00
Coriander	280 gr	Rp. 50.000,00/kg	Rp. 14.000,00
Lime leaves	6 gr	Rp. 2.000,00/25g	Rp. 480,00
Bay leave	6 gr	Rp. 12.500,00/100g	Rp. 750,00
Red chilli pepper	80 gr	Rp. 55.000,00/kg	Rp. 4.400,00
Cayenne pepper	40 gr	Rp. 28.000,00/kg	Rp. 1.120,00
Lemon grass	60 gr	Rp. 15.000,00/kg	Rp. 900,00
Cornstarch	400 gr	Rp. 13.500,00/300g	Rp. 18.000,00
Duck meat	8800 gr	Rp. 55.000,00/kg	Rp. 484.000,00
<b>TOTAL (/Day)</b>			Rp. 778.660,00
<b>TOTAL (/Month)</b>			Rp. 17.130.520,00



5. Total cost

Variable Cost = Raw Material, Packaging, Utility Cost

Total Cost (/month) = Raw Material + Packaging + Utility  
= Rp. 17.130.520,00+Rp. 893.200,00+ Rp. 891.972,40  
= Rp. 18.915.692,40

**4.4.2 Selling Price**

Product Price =  $\frac{\text{Total Cost (/month)}}{\text{Total Product Units (/month)}}$   
=  $\frac{\text{Rp. 18.915.692,40}}{440}$

= Rp. 42.990.21

= Rp. 43.000,00

Product Selling Price = Product Price +( product price × profit percentage)

= Rp. 43.000+ ( Rp43.000× 50%)

= Rp. 43.000+ Rp. 21.500

= Rp 64.500/ packaging

= Rp.65.000,00/ packaging