

CHAPTER IV

RESULT AND DISCUSSION

4.1 Product Result

Based on sensory, There were 10 panelists in total, 7 panelists said yes and 3 panelists said no. There were 9 panelists who liked the appearance of this healthy patty, there were 8 panelists who liked the smell, there were 6 panelists who said yes to the texture, and there were 5 panelists who said yes to the taste of this healthy patty.

This is supported because mung beans are high in carbohydrates, protein and high Vitamins B which have a positive impact on health and on the other hand string beans are also high in protein and the content in string beans can reduce high blood sugar levels and can avoid cancer. Two kinds of beans which are mung beans and snaps beans can substitute used of meat as source of protein. In this research, mung beans and chick peas will be used as healthy patty.

Grilling techniques that actually exposes the ingredients directly to the heat source is now more practical, for example with the emergence of grillpan. A grillpan is a grill pan, used for searing on the stove. These pans are characterized by a striped surface to produce a distinctive, alluring grilling pattern. This cooking method is not only faster, but also makes the food we make tastier due to the browning of proteins and sugars that create beautiful coloring and extra flavor.

4.2 Nutrition Fact

4.2.1 Nutrition Table

The nutritional value of petty health is as follows:

Table 4.1 Nutrition Value of Healthy Patty per 100gr

Calorie (cal)	200
Moisture (g)	14.60
Protein (g)	2.11
Fat (g)	0.15
Carbohydrate (g)	50.03
Fiber (g)	10.27

Patty health contains high protein consisting of fiber, protein, carbohydrate also moisture. So it is very good for consumption to be healthier and still eat good food to replace meat in a patty.

4.2.2 Nutrition Calculation

Nutritional value in mung bean based on many previous researches, which is as follows:

Table 3.2 Nutrition Value of Mung Beans per 100gr

Macronutrient	Average	Minimum	Maximum
Energy (cal/100g)	344	338	347
Moisture (g/100g)	9.8	4.1	15.2
Crude protein (g/100g)	23.8	14.6	32.6
Crude Fat (g/100g)	1.22	0.71	1.85
Carbohydrate (g/100g)	61.0	53.3	67.1

Crude Fiber	4.57	3.8	6.15
(g/100g)			

Table 4.3 Nutritional Value of Ingredients used in The Recipe Health Patty

Ingredients	Calories (kcal)	Carbohydrate (g)	Protein (g)	Fat (g)	Sugar (g)	Fiber (g)	Sodium (mg/100g)
Mung Beans	9.3	8.5	0.56	0.14		0.14	16.7
String Beans	11.67	1.84	0.34	0.08		1	15
Carrots	9	0.7	0.21	0.03		0.42	
Wheat Flour	26	1.4	0.1	1.67		0.02	12.7
Thyme	1.67	0.7	0.34	0.1	0.49	0.12	27.67
Tapioka flour	5	0.3	0.5	0.34			
Sesame Oil	3.4	0.49	0.13	0.17	0.16	0.08	1
Garlic	3.4	0.93	0.25	0.15	0.3		5
Rosemary	16.67	0.62	0.15	0.7	0.2		16.67
Mushroom- Stock	3.4	0.41	0.2	0.52			66.67
Sugar	3.4	0.97	0.04	1	0.15		
Water	3.4			0.45			
Vegetable	12.67		0.87	0.17			
Salt	3.4			0.7			27
TOTAL	119.4	12	4	6.4	1.1	1.8	188.4

4.2.3 Nutrition Label

Nutrition Facts	
Serving size	1 (26g)
Amount Per Serving	
Calories	120
	% Daily Value*
Total Fat 6g	8%
Saturated Fat 0g	0%
<i>Trans</i> Fat 0g	
Sodium 190mg	8%
Total Carbohydrate 12g	4%
Dietary Fiber 2g	7%
Total Sugars 1g	
Includes 0g Added Sugars	0%
Protein 4g	8%
Not a significant source of cholesterol, vitamin D, calcium, iron, and potassium	
*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

Figure 4.1 Nutrition Fact of Healthy Patty

4.3 Food Safety and Packaging

4.3.1 Processing and Storage Temperature

For the cooking process on this healthy patty, the temperature is 60-70 degrees Celsius, because at that temperature the patty can be cooked perfectly. If below that temperature it is feared that the inside of the patty will not be cooked or vice versa if the temperature is above that it will overheat. The suitable temperature after cooking is at least 60 degrees Celsius, you can put it in the refrigerator if it has been at room temperature for 2-3 hours.

4.3.2 Self Life

Patty burger is categorized as a vegetarian food, such as vegetables, with a mung beans and chick peas as main ingredients. The shelf life of the patty at room temperature can last up to 2 days and can last up to 1 month in the freezer.

4.3.3 Product Packaging

Plastic vacuum nylon is a plastic packaging commonly used to package frozen food, one of which is burger patty which can make food more durable, durable, and this type of packaging is airtight. With airtight packaging it is able to suppress the growth of bacteria that will exist in food so with this packaging the burger patty becomes safer to avoid microbes, oxidation processes and damage to food.



Figure 4.2 Packaging





Figure 4.3 Logo

4.4 Financial Aspects

4.4.1 Product Cost (Variable Cost, Overhead Cost, Fixed Cost)

Product cost is calculated based on the total of all cost per month. The costs consist of labour cost, raw material cost, packaging cost, and utility cost. The labour cost is considered based on monthly working days, which are 25 days per month. As for raw material, the quantity of raw materials is counted as 7 recipes per day or 175 recipes per month, which are 56 pieces per day or 1,400 portions per month.

1. Start-Up Capital

Table 4.4 Start-Up Capital

Tools and Equipment	Quantity	Price (/unit)	Sub Total
Stock pot	1	Rp 350,000	Rp 350,000
Sauce pan	1	Rp 200,000	Rp 200,000
Blender	1	Rp 300,000	Rp 300,000
Knives	2	Rp 100,000	Rp 200,000
Wooden spatula	1	Rp 25,000	Rp 25,000
Spoon	30	Rp 2,000	Rp 60,000
Fork	30	Rp 2,000	Rp 60,000
Cutting board	2	Rp 50,000	Rp 100,000
Peeler	1	Rp 20,000	Rp 20,000
Digital scale	1	Rp 75,000	Rp 75,000
Measuring cup	1	Rp 20,000	Rp 20,000
Plastic Vacuum	30	Rp 10,000	Rp 300,000
TOTAL			Rp 1.510.000

2. Labour Cost

Table 4.5 Labour Cost

Occupation	Personnel	Salary (/month)	Sub Total
Cook Helper	1	Rp 3,000,000	Rp 3,000,000
Administration officer	1	Rp 1,500,000	Rp 1,500,000
Cleaning service Officer	1	Rp 1,500,000	Rp 1,500,000
TOTAL			Rp 6,000,000

3. Packaging Cost

Table 4.6 Packaging Cost

Packaging	Quantity	Price (/Unit)	Sub Total
Plastic Vacuum	50	Rp1.000	Rp50.000
Total/ Day			Rp50.000
Total / Month			Rp1.500.000

4. Utility Cost

Table 4.7 Utility Cost

Facility	Quantity	Price (/unit)	Sub Total
Water	750 L	Rp 2,000 (/m3)	Rp 1,500
Electricity	10 kWh	Rp 1,500 (/kWh)	Rp 15,000
TOTAL (/day)			Rp 16,500
TOTAL (/month)			Rp 412,500

5. Raw Material Cost

Table 4.8 Raw Material Cost

Raw Materials	Quantity	Price	Sub Total
Peeled Mung bean	5kg	8000/kg	Rp40.000
String Beans	5 kg	5000/kg	Rp25.000
Carrot	5 kg	6000/kg	Rp30.000
Wheat Flour	5 kg	9000/kg	Rp45.000
Thyme	14 pcs	1500/pc	Rp21.000
Button Mushroom	35 pcs	1000/pc	Rp35.000
Tapioka Flour	2 kg	10000/kg	Rp20.000
Garlic	56 pcs	500/pc	Rp28.000
Rosemary	2 kg	10000/kg	Rp20.000
Sesame Oil	1kg	30000/L	Rp30.000
Sugar	4 g	15000/kg	Rp60.000
Salt	1 kg	10000/kg	Rp10.000
Total / Day			Rp364.000
Total/ Month			Rp10.920.000

6. Rent Cost

Table 4.9 Rent Cost

Facility	Size	Price	Sub Total
Land	15m x 5m	3000000	3000000
Building	10m x 5m		
Total / Month			3000000

7. Total cost

Fixed Cost = Labour Cost and Rent Cost

Variable Cost = Raw Material Cost, Packaging Cost, and Utility Cost

Total Cost (/month) = Labour + Raw Material + Packaging + Utility + Rent Cost

$$\begin{aligned}
 &= \text{Rp } 6,000,000 + \text{Rp } 10,920,000 + \text{Rp } 1,500,000 + \text{Rp } \\
 &\quad 412,500 + \text{Rp } 3,000,000 \\
 &= \text{Rp } 21,832,500
 \end{aligned}$$

4.4.2 Selling Price

$$\text{Product Price} = \frac{\text{Total Cost (/month)}}{\text{Total Product Units (/month)}}$$

$$\frac{\text{Rp } 21,832,500}{1000 \text{ pcs}}$$

$$= \text{Rp } 21,833 / \text{portion}$$

$$\text{Product Selling Price} = \text{Product Price} + \left(\frac{\text{Product Price} \times \text{Profit Percentage}}{100} \right)$$

$$= \text{Rp } 21,833 + (\text{Rp } 21,833 \times 50\%)$$

$$= \text{Rp } 21,833 + \text{Rp } 10,916$$

$$= \text{Rp } 32,749 \approx \text{Rp } 33,000.00$$