The Differentiation of Corn Choux Pastry Product with Additional Vegetables as Stuffing

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ABSTRACT

Corn is Indonesian's staple food and the need for corn in the country is increasing. This can be seen from the corn fields that are scattered throughout the provinces. This condition has made Indonesia as one of the exporting countries of corn to several ASEAN countries. This study aims to make a differentiation of choux pastry with blended corn in the dough. The research method in this article is experimental. To test the product formulation and product quality, the opinions of the supervisors are employed. Lastly, descriptive test is used, and market analysis of the product is conducted. Samples of choux pastry formulations used the ratios of 50%: 50% and 25%: 75% respectively between wheat flour and corn. Each formulation is tested by the supervisors to produce the average product which is most preferred by the supervisors. Furthermore, the product is tested again using market analysis to find out the public acceptance of the differentiation of corn choux pastry product with the addition of corn.

Keywords: Product Differentiation; Choux Pastry; Corn.
1. Introduction

Indonesia is a country that has many islands dispersed from Sabang to Merauke, and is known as an archipelagic state. Therefore, Indonesia has many ethnicities and cultures which can serve as tourism destinations. Currently, many Indonesian are engaged in businesses related to tourism.

Tourism is a series of activities and the provision of services for various needs such as the need for tourist attractions, transportation, accommodation, and other things aimed at meeting the travel needs of a person or a group of people. The trip is only temporary, with the intention of resting, doing business, or other purposes (Sugiana, 2011).

Tourism is a variety of tourist activities, which are supported by various facilities and services provided by the community, local government and the central government (Law No. 10 of 2009 on tourism).

West Java itself has various tourist destinations, ranging from nature, shopping, to culinary tourism. Culinary tourism functions not only to satisfy and pamper the stomach with a variety of specialties from many places, but also as an interesting experience for someone in visiting and enjoying the food firsthand. The dining and cooking experience of each regional specialty makes the experience even more special.

Food is very influential in the tourism sector in Indonesia. It is not uncommon for tourists who visit an area would taste the specialties of that area. Indonesia is rich in regional culture, so it can be called a country rich in culinary delights. West Java also has many regions, and each of them has its own unique food. In fact, in each region, the food’s raw materials are different from other regions. As time goes by, many foods have been differentiated by being added by various other ingredients in their manufacture without losing the taste and uniqueness of the original recipes. In economic term, it is called as product differentiation.

Corn is one of Indonesian's staple food. In fact, the productivity of corn in West Java always occupies the highest position compared to other provinces. Chairman of the National Corn Council (DJN), said that currently Indonesia can export corn to ASEAN countries, such as the Philippines and Malaysia. The corn production is also encouraged to meet the community needs. Until now, corn production is still deemed feasible and sufficient for its availability to cover national needs (Muhammad, 2019).

Corn production in Indonesia is classified as advanced compared to 22 areas classified as the largest corn centers in the country, such as East Java, South Sulawesi, Central Sulawesi, Lampung, Central Java, West Java, West Nusa Tenggara, and so on. Regarding corn production, the President of the Republic of Indonesia has revealed that in 2018, Indonesia was able to export 380 thousand tons of corn. Then, in 2014-2018 Indonesia was able to suppress corn imports by 3.3 million tons.

Table 1 Corn Production by Province in 2014-2018

<table>
<thead>
<tr>
<th></th>
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<td>140.400.0</td>
<td>140.500.0</td>
<td>140.600.0</td>
</tr>
</tbody>
</table>

Source: Badan Pusat Statistik, 2018

Based on data from the Badan Pusat Statistik (BPS) / Central Statistics Agency
in table 1, national corn production is increased from 19 million tons in 2014, to 19.6 million tons in 2015. The increase in corn production continued to soar in 2016 to 23.6 million tons, then continued in 2017 to 28.9 million tons. In 2018 it jumped again to reach 30 million tons. Meanwhile, the supply of corn as needed in Indonesia currently only reaches 7.8-11.1 million tons.

West Java is one of the areas with large land potential to be planted with corn commodities. According to the Head of the Food Crops and Horticulture of West Java, although it is not a corn-producing province in Indonesia, currently, in terms of productivity, the corn plant from West Java exceeds national production. (Jatnika, 2019). West Java itself has cities / regencies that have become corn centers, such as Nagreg Garut, Sumedang, and Majalengka. Dry land in Purwakarta, Karawang and Kuningan will also be developed into centers for corn production. Purwakarta has 30,000 hectares of land that is potential to be planted with corn. Differences in natural resources and local expertise in making food will produce a unique identity for a community group through food. (Ningsih, 2020)

One of the products that can use corn as a basic ingredient is choux pastry. The choux pastry itself is not that well known especially in Bandung due to the lack of sales of this product and the lack of public knowledge about this type of cake. Choux pastry is choux that can be topped or filled with various flas, fruits, or meats (Bogasari, 2013). Choux pastry is classified as a sponge cake and is a type of cupcake or muffin with ragout as its filling mixed with slices of chicken or beef with the addition of carrots or corn in it.

The differentiation of choux pastry products is beneficial to increase the selling power of corn and developing local foodstuffs. By utilizing corn as food, it also helps the economy of farmers in Indonesia. Corn is also very easy to get because corn is a local Indonesian plant and has spread throughout Indonesia. In addition, the price of corn is still relatively cheap and contains good nutritional values for the human body. In addition, the choux pastry product with additional corn ingredients will also help to preserve the corn itself and become a new public’s choice of a healthy snack.

From the description above, the authors propose several research questions, namely:

a. What is the standard recipe for corn choux pastry with additional vegetables as stuffing?
b. What is the standard production cost of corn choux pastry with additional vegetables as stuffing?
c. What are the results of market analysis and organoleptic tests on corn choux pastry product with additional vegetables as stuffing?

2. Literature Review

2.1. The Definition of Tourism

Tourism is closely related to tourism and tourists. Tourism itself has a very broad meaning. Tourism is defined as a trip that is planned and carried out by individuals or groups from one place to another and aims to get satisfaction and pleasure (Sinaga, 2010).

Based on the definition above, it can be concluded that tourism is a travel activity, or other tourism activity, which aims to seek satisfaction and is supported by the existing facilities and services.

2.2. The Definition of Culinary

In general, culinary is an activity that is closely related to cooking (Chambers-Essential English Dictionary. Chambers Harrap Publishers Ltd: 1995). In English, the word culinary means something that happens in the kitchen which is related to cooking (Anthropologi Kuliner Nusantara Jakarta:kpg, 2015). Culinary is closely related to food. Food itself is a basic
human need. However, nowadays, there are so many foods that may not be given attention from a nutritional perspective. Many people are turning to fast food despite its negative impact on health. In addition, people also like to hunt for sweets, such as cakes.

2.3. The Definition of Cake

Cake is popular among the people. Currently, many regions in Indonesia make cakes as specialties. Cake dough is a complex emulsion and foam system, namely flour, milk, fat, sugar, eggs, and leavening agents as the main ingredients used in its making (Turabi et al., 2010).

2.4. Cake Ingredients

The ingredients for making cakes include wheat flour, fat, sugar and eggs. The following is an explanation and function of each ingredient:

a. Wheat flour

Flour is the most important ingredient in making cakes which functions as a structure and binder for other ingredients (Krissetiana, 2013). Wheat flour is divided into three types, namely low protein flour (soft flour) with a protein content of 7-9%, medium protein flour (medium flour) with a protein content of 9-11%, and high protein flour (hard flour) with protein content of 11-13% (Subagjo, 2007: 20).

b. Fat

Fat is very important in the cake making process. There are several kinds of fat in the cake-making process, namely Butter, Margarine, and Oil

c. Sugar

One of the important ingredients in the cake-making process here is sugar which functions as a sweetener. Apart from providing a sweet taste, sugar also provides an aroma and is a natural preservative.

d. Egg

Eggs function as a structure formation in the cake, add nutritional value, add flavor, and make the cake softer.

2.5. Sweet Corn

![Sweet Corn](kampustani.com, 2018)

Sweet corn is a CGPRT commodity and belongs to the Gramineae (grass) family, Zea genus, and the Zea Mays Saccharata species. The main product of sweet corn is the fruit / cobs, sweet corn kernels also have varied shape, color and endosperm content depending on the type. Sweet corn kernels consist of three main parts, namely the seeds (seed coat), endosperm, and embryos (Koswara, 2009). Corn is included in the category of annual crops. One cycle is completed in 80-150 days.

2.6. Vegetables

Vegetables are one of the most important foods for humans. Apart from fruits, protein, carbohydrates, vegetables also contain essential ingredients for the body, such as fiber and vitamins. Vegetables also have various types to be used as cooking ingredients, stuffing ingredients, or as snacks. Vegetables usually high in water and are consumed fresh or minimally processed.

2.7. Product Differentiation

Differentiation as a company’s effort aims to create differences among its competitors in order to form the best value to customers (Kartajaya, 2004). Product differentiation is one of the company's efforts to differentiate its products from competitors' products in a trait to increase consumers’ interest (Madura, 2001). In brief, product differentiation is an effort by the company or producer to increase
consumer’s interest by differentiating the product with the pre-existing ones.

2.8. Packaging

Packaging is an activity that involves design and production. Packaging functions to protect the products contained in it (Kotler and Armstrong, 2012). Packaged products are usually products that will be distributed, stored, sold and used. Packaging also serves as a good means of information and marketing, especially if it is designed creatively and attractively, so that it is easy for consumers to remember.

2.9. Product Quality

Quality or value is a measure of good and bad assessments which can affect a product or service. Every individual has different views and benchmarks on the quality of products and services. This is because quality has many dimensions, depending on the individual who assesses it. Quality is the totality of the features and characteristics of a product or service that bears on its ability to satisfy implicit or explicit needs (Kotler and Keller, 2012). Meanwhile, products are everything that can be offered to the market to meet the needs and desires of consumers (Sangadji, 2013). Product quality is a combination of product characteristics in marketing, planning (engineering), product (manufacturing), and maintenance that the product uses to meet the expectations of consumers (Feingenbaum in Marwanto, 2015). Marsum (2005) stated that there are several things that needed by a product, namely taste, consistency, nutritional content, composition, eye appeal, aroma appeal, and temperature.

2.10. Market Analysis

2.10.1 Definition of Market

Market (market) is a meeting place of sellers and buyers. It is also defined as a place where supply and demand occur to achieve a price agreement. A business actor needs to understand the needs of consumers and what consumers want, so that the business actor is able to make good decisions for the next step. Kotler and Armstrong (2016) state that there are five core concepts that cover consumers and markets, namely:

a. needs, wants and requests;

b. marketing offerings include goods, services, and experiences;

c. value and satisfaction;

d. exchanges and relationships;

e. market.

3. Materials and Methods

The research method must be determined by the researcher before carrying out the research in order to provide an overview and direction in the research. The research method is a method used to obtain solutions to various research problems (Cresweel, 2010). Meanwhile, another opinion states that the research method is basically a scientific way to obtain data with specific purposes and uses (Sugiyono, 2012). In this study the authors used experimental research methods.

In conducting this research, the collected data is in the form of information related to the problem to be studied. Descriptive research is employed as the specification is descriptive in nature which aims to raise facts, circumstances, variables, and phenomena that are happening today and present them as they are (Subana, 2009). Descriptive research is conducted to determine the value of the independent variable, either one or more (independent) variables without making comparisons or connecting other variables (Sugiyono, 2013). Descriptive research to provide a description of:

a. The differentiation of corn choux pastry product using additional corn.

b. Market analysis of the product.

In this study, the authors obtained data using a questionnaire in which then the data is calculated and concluded.
4. Discussion

After conducting the product tests, conclusions can be drawn regarding the superior product based on the aspect of product quality to determine the best recipe formula. The results of the study include the formulation of recipes, production processes, nutritional value of products, and product packaging. The test was carried out on thirty expert and trained panelists consisting of chefs, academics, and entrepreneurs in the culinary field. The treatment of corn choux pastry has the following formulations:

a. Corn choux pastry (SMJ 1)
   The addition of corn in the first recipe formulation is 25% in one dough recipe.

b. Corn choux pastry (SMJ 2)
   The addition of corn in the second recipe formulation is 50% in one dough recipe.

c. Corn choux pastry (SMJ 3)
   The addition of corn in the third recipe formulation is 75% in one dough recipe.

After testing the product, the researchers create an assessment of the product. The first stage carried out is the organoleptic test through questionnaire to expert panelists containing self-identity, and responses to the product. For the product response section, there are scores on a scale from one to five. With a scale description as follows:

Scale 5: I love it
Scale 4: I like it
Scale 3: I quite like it
Scale 2: I dislike
Scale 1: I detest

After making the questionnaire, the authors provide product samples based on three recipe formulas that would be tested, along with an organoleptic test assessment questionnaire, to expert panelists, namely chefs, academics, and entrepreneurs in the culinary field. The results of the assessment based on a questionnaire from all expert panelists are then recapitulated.

4.1. Overview of Research Objects

The object of this research is the experimental recipe for corn choux pastry. Three samples are provided as comparisons of the recipes, namely 25%, 50%, and 75% using corn. After conducting trials of the three sample recipes, the best recipe would be selected in order to produce the best product based on the organoleptic tests by the expert panelists. Furthermore, the nutritional values contained in the product are calculated as well as per package selling price.

4.2. Organoleptic Test

Organoleptic assessment is conducted by carrying out three treatments of product samples which were given the addition of corn to expert and trained panelists, consisting of thirty people ranging from chefs, academics, practitioners, culinary students, to food entrepreneurs. In this study, the sample product of corn choux pastry is coded as SMJ (Sus Maker Jagung). Here are the details of the three product samples:

a. Corn choux pastry (SMJ 1)
   The addition of corn in the first formulation is 25% in one dough recipe

b. Corn choux pastry (SMJ 2)
   The addition of corn in the second formulation is 50% in one dough recipe

c. Corn choux pastry (SMJ 3)
   The addition of corn in the third formulation is 75% in one dough recipe.

The final results of the treatment of the three corn choux pastry formulations are attached in the following table:
Table 2. Result of Expert Panelist Test on Corn Choux Pastry

<table>
<thead>
<tr>
<th>Formulation</th>
<th>Taste</th>
<th>Aroma</th>
<th>Texture</th>
<th>Shape</th>
<th>Appearance</th>
<th>Packaging</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMJ 1</td>
<td>6,5</td>
<td>6,7</td>
<td>6,2</td>
<td></td>
<td></td>
<td></td>
<td>36,8</td>
</tr>
<tr>
<td>SMJ 2</td>
<td>7,4</td>
<td>7,5</td>
<td>7,2</td>
<td>8,7</td>
<td>4,3</td>
<td>4,4</td>
<td>39,5</td>
</tr>
<tr>
<td>SMJ 3</td>
<td>8,9</td>
<td>9</td>
<td>8,8</td>
<td></td>
<td></td>
<td></td>
<td>44,1</td>
</tr>
</tbody>
</table>

Source: Processed data, 2020

Table 2 shows the total of mean values for the three recipe formulations, which consist of the characteristics of taste, aroma, texture, shape, appearance, and packaging. Based on these data, the most superior is found in the SMJ 3 recipe formulation with an average value of 44.1.

4.3. The Calculation of Nutritional Values of Corn Choux Pastry

The nutritional values content in corn choux pastry can be seen in the table below.

Table 3. Calculation of Nutritional Values of Corn Choux Pastry (Portion : 10 portion)

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Quantity</th>
<th>Energy Kcal</th>
<th>Protein g</th>
<th>Fat g</th>
<th>Carbohydrate g</th>
</tr>
</thead>
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<tr>
<td>Wheat flour</td>
<td>75 g</td>
<td>273.75</td>
<td>6.7</td>
<td>1</td>
<td>58</td>
</tr>
<tr>
<td>Egg whites</td>
<td>3</td>
<td>45</td>
<td>9.72</td>
<td>0</td>
<td>0.72</td>
</tr>
<tr>
<td>Yolks</td>
<td>5</td>
<td>361</td>
<td>16.30</td>
<td>31.90</td>
<td>0.7</td>
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<tr>
<td>Sugar</td>
<td>60 g</td>
<td>218.4</td>
<td>0</td>
<td>0</td>
<td>56.4</td>
</tr>
<tr>
<td>Milk powder</td>
<td>10 g</td>
<td>50.9</td>
<td>2.46</td>
<td>3</td>
<td>3.62</td>
</tr>
<tr>
<td>Butter/melted margarine</td>
<td>30 g</td>
<td>216</td>
<td>0.18</td>
<td>24.3</td>
<td>0.12</td>
</tr>
<tr>
<td>Blended sweet corn</td>
<td>60 g</td>
<td>57.6</td>
<td>2.1</td>
<td>0.6</td>
<td>13.68</td>
</tr>
<tr>
<td><strong>Filling Ingredients</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Margarine</td>
<td>20 g</td>
<td>144</td>
<td>0.12</td>
<td>16.2</td>
<td>0.08</td>
</tr>
<tr>
<td>Onion</td>
<td>30 g</td>
<td>143.6</td>
<td>0.44</td>
<td>0.06</td>
<td>3.28</td>
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<tr>
<td>Wheat flour</td>
<td>30 g</td>
<td>109.5</td>
<td>2.67</td>
<td>0.39</td>
<td>23.19</td>
</tr>
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<td>Ground chicken</td>
<td>50 g</td>
<td>260</td>
<td>15.68</td>
<td>21.55</td>
<td>0</td>
</tr>
<tr>
<td>Milk</td>
<td>150 ml</td>
<td>75.3</td>
<td>40.5</td>
<td>39</td>
<td>60</td>
</tr>
<tr>
<td>Carrot</td>
<td>20 g</td>
<td>9.54</td>
<td>0.27</td>
<td>0.06</td>
<td>2.11</td>
</tr>
<tr>
<td>Potato</td>
<td>20 g</td>
<td>19.52</td>
<td>0.47</td>
<td>0.02</td>
<td>4.49</td>
</tr>
<tr>
<td><strong>Amount of nutrition</strong></td>
<td></td>
<td><strong>2,532.57</strong></td>
<td><strong>97.58</strong></td>
<td><strong>138.08</strong></td>
<td><strong>226.39</strong></td>
</tr>
</tbody>
</table>

Source: Processed data, 2020

The table above is the result of the nutritional value calculation based on a recipe for corn choux pastry. One recipe of the dough can produce 10 portions, the nutritional value in one serving of the choux is as follows:

- Energy : 253 KCal
- Protein : 10 grams or equivalent to 40 kCal
- Fat : 14 grams or equivalent to 126 kCal

4.4. Product Packaging Design

The packaging serves to protect as well as a medium for information about the corn choux pastry. The product is packaged using aluminum foil cup and boxes made of paper. The packaging contains information about nutritional content, composition, product net weight, product logo, storage method, production date and expiration date.
4.5. Product Selling Price Calculation

4.5.1. The Cost of Sales of The Corn Choux Pastry Product

The cost of production of corn choux pastry can be seen in the following table:

**Tabel 5. Food Cost of Corn Choux Pastry**

<table>
<thead>
<tr>
<th>NO</th>
<th>INGREDIENTS</th>
<th>QTY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wheat flour</td>
<td>75 g</td>
<td>Kg</td>
<td>IDR 10,000</td>
<td>IDR 750</td>
</tr>
<tr>
<td>2</td>
<td>Egg white</td>
<td>3</td>
<td>Kg</td>
<td>IDR 2,000</td>
<td>IDR 10,000</td>
</tr>
<tr>
<td>3</td>
<td>Egg yolk</td>
<td>5</td>
<td>Kg</td>
<td>IDR 2,000</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sugar</td>
<td>60 g</td>
<td>Kg</td>
<td>IDR 12,000</td>
<td>IDR 720</td>
</tr>
<tr>
<td>5</td>
<td>Milk powder</td>
<td>10 g</td>
<td>Sch</td>
<td>IDR 3,000</td>
<td>IDR 3,000</td>
</tr>
<tr>
<td>6</td>
<td>Baking powder</td>
<td>10 g</td>
<td>Pcs</td>
<td>IDR 6,000</td>
<td>IDR 6,000</td>
</tr>
<tr>
<td>7</td>
<td>Emulsifier</td>
<td>10 g</td>
<td>Ons</td>
<td>IDR 6,000</td>
<td>IDR 6,000</td>
</tr>
<tr>
<td>8</td>
<td>Melted margarine</td>
<td>30 g</td>
<td>Kg</td>
<td>IDR 16,000</td>
<td>IDR 480</td>
</tr>
<tr>
<td>9</td>
<td>Sweet Corn</td>
<td>60 g</td>
<td>Kg</td>
<td>IDR 6,000</td>
<td>IDR 360</td>
</tr>
</tbody>
</table>

**STUFFING INGREDIENTS**

<table>
<thead>
<tr>
<th>NO</th>
<th>INGREDIENTS</th>
<th>QTY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Margarine</td>
<td>20 gr</td>
<td>Kg</td>
<td>IDR 16,000</td>
<td>IDR 320</td>
</tr>
<tr>
<td>12</td>
<td>Onion</td>
<td>30 gr</td>
<td>Kg</td>
<td>IDR 20,000</td>
<td>IDR 600</td>
</tr>
<tr>
<td>13</td>
<td>Wheat flour</td>
<td>30 gr</td>
<td>Kg</td>
<td>IDR 10,000</td>
<td>IDR 300</td>
</tr>
<tr>
<td>14</td>
<td>Chicken fillet</td>
<td>50 gr</td>
<td>Kg</td>
<td>IDR 30,000</td>
<td>IDR 1,500</td>
</tr>
<tr>
<td>15</td>
<td>Milk</td>
<td>150 ml</td>
<td>L</td>
<td>IDR 17,000</td>
<td>IDR 2,550</td>
</tr>
<tr>
<td>16</td>
<td>Carrot</td>
<td>20 gr</td>
<td>Kg</td>
<td>IDR 10,000</td>
<td>IDR 200</td>
</tr>
<tr>
<td>17</td>
<td>Potato</td>
<td>20 gr</td>
<td>Kg</td>
<td>IDR 16,000</td>
<td>IDR 320</td>
</tr>
</tbody>
</table>

**Total**

Food cost (50%) IDR 33,100

Based on Table 5 below, the total cost for the raw materials for making corn choux pastry for ten portions is IDR 33,100.00, while the price per portion is IDR 4,965.00 or IDR 5,000.00. This price has included packaging and labeling costs.
4.5.2. Selling Price of The Corn Choux Pastry Product

The selling price of the product can be seen in the table below:

<table>
<thead>
<tr>
<th>Source: Processed data, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tabel 6. Harga Jual Corn choux pastry</strong></td>
</tr>
<tr>
<td><strong>Food Cost</strong></td>
</tr>
<tr>
<td><strong>Labour Cost</strong></td>
</tr>
<tr>
<td><strong>Overhead</strong></td>
</tr>
<tr>
<td><strong>Net Profit</strong></td>
</tr>
<tr>
<td><strong>Selling Price</strong></td>
</tr>
</tbody>
</table>

The cost of sales for the production of corn choux pastry with vegetable filling is IDR 33,100 with a percentage of 50%, labor cost IDR 4,965.00 with a percentage of 15%, overhead IDR 4,965.00 with a percentage of 15%, and a net profit of IDR 6,620.00 with a percentage of 20%. Details of the calculation of the selling price are as follows:

\[
\text{Harga Jual} = \left(\frac{\text{Persentase selling price}}{100}\right) \times \frac{\text{jumlah food cost}}{\text{Persentase food cost}}
\]

**a. Food Cost**

\[
\text{Food Cost} = \left(\frac{50\%}{100}\right) \times \text{IDR} 33.100 = \text{IDR} 16.550
\]

Food cost for one portion corn choux pastry is IDR 16,550.00.

**b. Labour Cost**

\[
\text{Labour Cost} = \left(\frac{15\%}{100}\right) \times \text{IDR} 33.100 = \text{IDR} 4.965
\]

Labour cost for one portion corn choux pastry is IDR 4,965.00.

**c. Overhead**

\[
\text{Overhead} = \left(\frac{15\%}{100}\right) \times \text{IDR} 33.100 = \text{IDR} 4.965
\]

The overhead for one portion corn choux pastry is IDR 4,965.00.

**d. Net profit**

\[
\text{Net profit} = \left(\frac{20\%}{100}\right) \times \text{IDR} 33.100 = \text{IDR} 6.620
\]

Accordingly, the profit obtained from the sale of corn choux pastry is IDR 6,620.00 / pack.

4.6. Market Analysis

In accordance with the market analysis described previously, the formulation of a market analysis consists of segmentation, targeting, and positioning. The following is a description of the market analysis for the product:

**a. Market Segmentation**

Geographically, the market segmentation of this corn choux pastry is people living in the city of Bandung. Demographically, the market segmentation for this product is for all ages. Meanwhile, psychologically, the market segmentation for this product are consumers who want to eat a type of cake with a different taste with vegetables stuffing and consumers who want to enjoy a new variant of a product that has existed before.

**b. Market Positioning**

Researchers will position the corn choux pastry as a product that is of interest to the public in various aspects of the assessment by making attractive packaging, producing the best quality products, and positioning the corn choux pastry as a type of healthy snack.

**c. Target Market**

The main target of the corn choux pastry product is for all people who wish to try a cake filled with roughcut which has a savory taste and is different from other cakes. Currently, researchers are targeting employees, college students, and school students as consumers by introducing the product first. In addition,
distribution will be carried out online through social media, such as using Instagram, WhatsApp and Facebook.

5. Conclusions

Determining three comparison sample recipes of 25% (recipe sample one), 50% (sample recipe two), and 75% (sample recipe three). Then a recipe test is conducted to find out which recipe had the best results in terms of taste, aroma, color, shape, appearance and texture based on organoleptic tests by thirty expert and trained panelists.

Determining the packaging design for the product. The corn choux pastries are baked in a round aluminum foil cups, then packaged in a food box with a logo sticker and nutritional value information.

Determining the selling price of the product, namely IDR 5,000.00 / pcs and IDR 15,000.00 / pack containing three packs of choux. The price is calculated by the percentage of 50% food cost, 15% labor cost, overhead cost 15%, and 20% profit.

Determining the market analysis through geographical, demographical, and psychological segmentation of potential customers, as well as by conducting STP (Segmentation, Targeting, and Position) analysis. Geographically, the market segmentation of this corn choux pastry product is the people who live in Bandung area and its surroundings. Demographically, the market segmentation for this product is all ages. Psychologically, the market segmentation is consumers who want to consume muffin cake as a healthy snack, as well as as an appetizer or dessert, and consumers who want to enjoy a new differentiated product of a pre-existing one.

6. References


Depdikbud, (1989), Kamus Besar Bahasa Indonesia, Buku Satu, Jakarta: Balai
Pustaka Utama.


