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Product Differentiation Of Colenak Jam As A Local Specialty Of Tasikmalaya

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ABSTRACT

This study aims to make jam products with colenak flavor as a Tasikmalaya specialty. Another purpose of this study is to preserve colenak as a traditional West Javanese specialty that are now rarely found. In addition, this study also aims to raise public awareness about colenak which is currently not very well known. This research is also expected to increase the interest of the community in colenak and can be enjoyed by people in all generations. This study used an experimental method by experimenting three different recipe formulations, namely the use of colenak 35% of the total ingredients and mashed peanut (SC 1), the use of colenak 50% of the total ingredients and coarsely chopped peanut (SC2), the use of colenak 75% of the total ingredients and very coarsely chopped peanut (SC 3). The method used in this study is an experimental by conducting organoleptic tests and consumer acceptability tests. Organoleptic tests were carried out on 10 trained panelists and consumer acceptability tests were carried out on 40 consumer panelists. The results of organoleptic tests showed that the colenak jam recipe formulation SC3 was the most preferred product with an average value of 3.53. Then the results of the consumer acceptability test showed an average value of 4.15 from a value scale of 1-5 which means that respondents or consumer panelists of the product agreed if the product could be accepted by consumers. Thus it can be concluded that colenak jam products with SC3 recipe formulations can be promoted as Tasikmalaya specialty that can be accepted by the public.

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1. INTRODUCTION

Indonesian culinary tours is one of the attractions for local and international tourists. One of the areas that has a diversity of traditional food with delicious flavors is the city of Bandung. The city of Bandung has various types of culinary tours ranging from market snacks to restaurants and regional specialties. One of the traditional foods Bandung is colenak. Colenak stands for "dicocol enak" which is a Sundanese specialty made from peuyeum tape, which is fermented cassava. The peuyeum is grilled and then topped with brown sugar sauce and coconut. The burnt taste of the peuyeum itself is the unique taste of colenak.

Colenak is a local specialty of Tasikmalaya, and until now, colenak sellers still maintain their characteristics by grilling peuyeum using charcoal so that the original taste is not lost. Local food plays an essential role in offering tourists a memorable tourist experience. The driving factor for tourist destination managers to integrate local food is one of the attractive tourism products due to the increasingly dynamic level of competition in the tourism business (Getz & Robinson, 2014).

Traditional colenak are usually packaged using banana leaves in the shape of a fold of tum. However, unfortunately, many also use plastic-coated rice paper to wrap colenak. As it is known that rice paper contains plastic that can contain Vinylidene Chloride Resin and Poly Vinyl Chloride (PVC) when used to pack materials that are hotly contaminated with dioxin, a toxin that is very dangerous for humans (Sucipta, I N., Suriasih, K., Kencana, P. K. D., 2017). Meanwhile, according to the Regulation of the Food and Drug Supervisory Agency (BPOM, 2017) Number 20 of 2019 concerning Food Packaging, Article 1 Paragraph (3) states that everyone who produces packaged food must use food packaging that does not harm humans.

Jam is a preserved food product derived from crushed fruit or fruit juice with the addition of sugar, citric acid, and pectin and then cooked until thick or semi-solid. Jam is commonly used for additional foodstuffs such as bread and cakes. Jam is a semi-solid food with a fruit pulp base mixed with 35–45 parts of sugar and heated until the sugar content ranges from 50–65% (Unud, 2012).

Peyeum sampeu (cassava tape) is a food made from fermented cassava, in the end peyeum has a comparison in manufacture, shape, and texture (Nurwahidah, 2022). Cassava tape, also called "peuyeum," is one of Tasikmalaya's specialties, a source of raw materials for making colenak jam, and can be a souvenir from Tasikmalaya for tourists who visit and want to taste traditional food. Nowadays, tourists travel to visit tourist attractions to enjoy traditional local food or specialties of the regions they visit.

Based on the background above, the author is interested in conducting research with the formulation of the problem:

- a. What are the manufacturing method, recipe, and production cost standards for making colenak-flavored jams?
- b. What is the marketing strategy for colenak flavored jam products?
- c. How do consumers test their acceptability on colenak-flavored jam foods?

2. LITERATUR REVIEW

2.1. Product Differentiation

Product differentiation is a planned strategy to distinguish a product or service with specific characteristics from a competing company. Product differentiation is often present with developing product selling points and consumer target markets (Yasser et al. 2019.). Meanwhile, according to (Wulandari 2019) Product differentiation is the creation of a product or image that is quite different from those that have been circulating to attract consumers.

According to Jauhar (2020), there are several characteristics of product differentiation, including: (1) Difficult to be imitated by competitors, (2) In the interests of consumers, (3) Has advantages, (4) Affordable, (5) Profitable.

2.2. Jam

Jam is a food made from preserved products made with a gel or semi-gel consistency made from fruit pulp mixed with sugar or sugar mixture, with or without the addition of water, and has a soft and plastic texture. The concentration of the gel in a jam is obtained from the interaction of pectin compounds added from the outside, such as sugars and acids (Fadhilah et al., 2017). The appearance of jam products includes a color corresponding to the fruit of origin, the process of making jam, excellent and neat supervision, the product is protected from dirt, dust and ambient air, the durability of jam products. (Put et al., 2018).

- a. Characteristics of Jam
- b. Jam Making Materials
- c. Jam Processing

2.3. Standard Recipe

Many Indonesians who usually eat breakfast with rice have switched to plain bread, so the jam is needed as a filler. Usually, jam is made from one kind of fruit only. To add variety to the jam, it is necessary to research the manufacture of innovative jams from the red dragon fruit- guava red-pineapple honey. Nowadays, most people are starting to realize the importance of healthy food. One of them is a functional food, namely, food and beverages that contain one or more natural compounds beneficial to the health of the body (Put et al., 2018)

2.3.1. Jam Making Materials

a. Fruit

Ripe fruits are very useful for the manufacture of jam because they contain pectin that can be used for gel formation. Fruits commonly used as a source of pectin are oranges, apples, and bananas. The flesh of the fruit is crushed and mixed with sugar in a ratio of 3:4, then the mixture is heated to a specific temperature until it reaches the desired viscosity level. The general comparison used in making jam is 45:55 (fruit:sugar), according to Dewi (2018).

b. Sugar

Granulated sugar contains 97.10% sucrose. Sugar is a stabilizer and food preservative such as jam, jelly, marmalade, syrup etc. Sugar with a high concentration (70%) can inhibit microbial growth, used with other preservation techniques. The addition of sugar plays a vital role in making jam to obtain a good texture, appearance, and taste. Less sugar will produce a strong gel at all acidity levels and requires more acid to strengthen its structure (Dewi, 2018).

c. Pectin

Pectin is a thickening agent used for auxiliary components in the food, cosmetics, and pharmaceutical industries, due to its functional properties to turn food products into thickening and into gels. The structure of the gel is determined by the concentration of pectin which can range from 0.5 to 1.5% by weight of pure pectin. Pectin is a thickening agent in processed food products such as jam. Pectin can be mixed with easily soluble solids such as sodium carbonate, sugar or alcohol, or by prior dissolution at 60- 80°C to a concentration of 10% with rapid stirring (Dewi, 2018).

d. Water

Water is an important component in the manufacture of jam, it is used to dissolve ingredients and remove dirt from the fruit. Water is used to make colenak slurry and affects the characteristics of the resulting gel. Too much water will produce a weak gel, while lack of water will create a hard gel. The water must be clean, clear, colorless, and odorless (Sinaga, 2017).

e. Citric Acid

Citric acid is an intermediary compound of organic acids that takes the form of clear crystals or white powders. Citric acid is used as an acidifier, freshener, and preservative. The purpose of adding acid is to avoid the crystallization of sugars and clear the resulting gel. Citric acid is found in fruits such as oranges, lemons, and pineapples and is used to lower pH and inhibit bacterial growth. The concentration of acids is influenced by the type of fruit and the amount of sugar concentration (Fatonah, 2002).

2.3.2. Jam Processing

a. Sorting

The sorting process is to classify and select materials that meet predetermined criteria. The fruits used are ripe and fresh, and the fruits are not too hard or mushy (Musfiroh, Ida; Indriyati, Wiwiek; Muchtaridi, 2018).

b. Laundering

The washing process is carried out to remove dirt. Running water and chlorinated water is better to use at this stage to kill pathogenic microorganisms.

c. Blending

The peeled and cut flesh of the fruit is put in a blender with water in predetermined proportions.

d. Cooking

Before cooking, fruit pulp and other ingredients (such as pectin, citric acid and sugar) are cooked over medium heat. After boiling the heat is reduced while stirring constantly. After the gel is formed, stop heating.

e. Filling process

The filling process is used to pack jam into bottles and get a durable product for storage.

f. Pasteurization

Pasteurization is the process of killing pathogens & enzymes at moderate temperatures, the product must be stored at low temperature/modified atmosphere/high temperature/pH/Low water activity (Dewi, 2018).

2.4. Packaging

Packaging is a means to ensure product safety during the transportation, distribution, storage, and end-use processes and aims to maximize sales (Coles & Kirwan, 2011). Meanwhile, according to (Kotler & Keller, 2012) packaging is the entire activity or activity of designing and making wraps for a product. Marketing process in which the packaging becomes an image that promises the quality of the contents of the product. Therefore, the manufacture of optimal packaging, which is studied from the aspects of material quality, design, color, logo,

and shape, becomes a catalyst for consumers' interest in buying a product.

2.5. Label

Packaging labels serve as a visual attraction and provide information to consumers regarding the products being sold. The label contains several information including logo, product name, product weight, manufacturer's contact, composition or list of ingredients, storage suggestions, expiration date (Aisyah, 2021). According to (Sari, 2018) Halal labels do not always guarantee the halalness of products that are in the package. Misuse of halal labels is also often done by fraudulent manufacturers.

2.6. Product Quality

According to (Mamuaja, 2016) Product quality is a collection of characteristics or properties of a product that determine consumer acceptance of the product. So that the quality of a product is said to be good if the product is also considered good by consumers. The collection of quality characteristics or properties is referred to as the element of quality which includes three things, namely product properties, quality parameters and quality factors.

2.7. Organoleptic Test

Organoleptic test is a test that uses the sensitivity of human sensory devices, namely the eyes, nose, mouth, and fingertips of the hands. Organoleptic testing is a test that is subjective because it is based on human responses (Susiwi, 2009). Organoleptic testing is a test based on sensing processes (Nurmianto, 2019). Meanwhile, according to (NAD Agricultural Technology Assessment Center, 2015) organoleptic testing is a measurement of the level of texture, aroma, visual appearance of the product, and also the taste of the product using human sense tools.

The implementation of organoleptic tests requires panelists as research subjects. Panelists are people tasked to give a subjective impression and have a role in assessing the nature or quality of objects. Division of the types of panelists by purpose.

2.8. Shelf Life Test

Storage is the time required by a food product under certain storage conditions to achieve a specified level of quality degradation (Maysyarah, 2017). Shelf life testing shows how long a product can last at the same quality during the storage process. During the shelf life period, the product must have nutritional content as stated on the label, and maintains its visibility, aroma, texture, taste, function, and consumption safety. Shelf life is calculated from the moment the product is manufactured and packaged. (Cempaka, 2018).

2.9. Market Strategy

Companies market products only for certain markets and for certain consumers. For example the Lamborghini car company does not do conventional marketing using televisions or billboards. They work on concentrated marketing by providing offers only to people who have the potential or ability to buy the products. This marketing allows the company to save on marketing activities by specializing in products, promotions and sales. Through this marketing strategy, the company achieves a strong market position in the served section due to more knowledge of product needs.

The authors presume that the temporary conclusions in this study have two possibilities, namely that the difference in the concentration of ingredients in each treatment affects the difference in the quality of the jam or there is no difference in the quality of the jam by giving different concentrations of ingredients in each treatment. So that based on the statement can be formulated the following hypothesis:

Ha : —There are significant differences in the quality characteristics of colenak jam produced by applying different concentrations of ingredients to each treatment.

H0 : —There is no significant difference in the quality characteristics of colenak jam produced by applying different concentrations of ingredients in each treatment.

3. METHODS

The problem to be studied in this study is referred to as the object of research. The object of research is a scientific goal to collect information that has a certain purpose and function about something objective, valid, and reliable (Sugiyono, 2015). In this study, the object of study was the standard recipe for colenak jam. The subject of this study is the differentiation of colenak jam products which will be tested by consumer panelists consisting of 15 expert and trained panelists, namely chefs, entrepreneurs in the culinary field, academics who master in the culinary field and 40 semi-trained panelists. Due to Covid-19 pandemic situation the number of panelist is limited.

According to (Nasution, 2017), in a study, the formulation of variables is important because a process of collecting facts or measurements can be carried out properly if the research variables can be formulated clearly. The variables to be tested in this study are specifically related to the quality of colenak jam products, namely product quality (Marsum, 2005), standard recipe formula (Wiyasha, 2006), selling price (Suarsana, 2007), packaging (Rahmawati, 2013), Consumer acceptability test (Setyaningsih et al., 2014).

The method used in this study is an experimental method, according to (Arifin, 2020). This method is used to describe how standard the recipe and the quality of the colenak jam product are. Next, the results of such experiments are tested to determine the quality of the product. The trial of making colenak jam was carried out using peuyeum that had been grilled and mashed using a blender which was then cooked using low heat and continued stirring until thickened with the addition of water, sugar, coconut, peanuts and pectin. Organoleptic testing consisting of color, taste, aroma, texture, and appearance of the product with a rating scale of 1 to 5, ranging from dislike to very like.

The shelf life of food products is the time span between the time of production and consumption, where the product remains in good condition based on the characteristics, taste, aroma, texture, and nutritional value received. (Maysyarah, 2017).

Consumer acceptability analysis identifies factors of consumer influence on food products, especially taste. The author analyzed data from 5 important indicators: taste, aroma, texture, price, & packaging using descriptive analysis techniques.

4. RESULTS AND DISCUSSION

This study examined the use of colenak as a raw material for jam with 3 variations: 35%, 50%, 75% colenak from the total ingredients and coarsely chopped peanuts / finely / very coarsely. The panelists were divided into 2 groups: trained (10 people) for organoleptic testing & untrained (40 people) for consumer acceptability test. Data were collected with a questionnaire assessing the formulation of the recipe & acceptability by potential consumers.

4.1 Panelist's Identity

The following are the identities of panelists by age, profession, gender, occupation and education:

a. Panelist's Gender

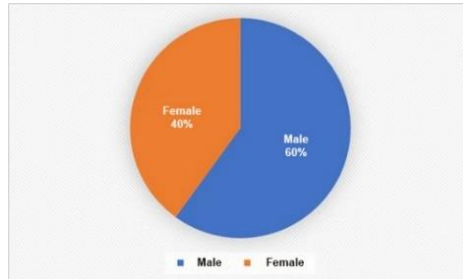


Figure 1 Gender Diagram of a trained Panelists
Source : Data Processed by Authors 2022

Figure 1 explains that the trained panelists are divided into 2 parts based on gender, namely 60% or 6 people are male and 40% or 4 people are female.

b. Panelist's Age

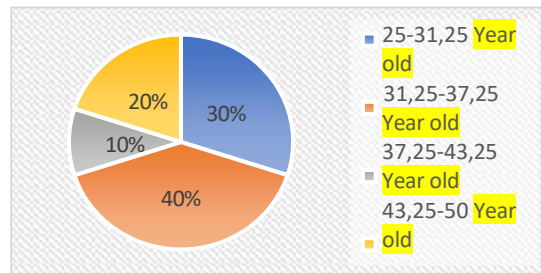


Figure 2. Age Diagram of Trained Panelists
Source: Data Processed by Authors 2022

Figure 2 explains that the age of the trained panelists consists of four interval classes: 40% of the total panelists are in the age range of 31.25-37.25 years, 30% of them are 25 - 31.25 years, 20% of them are 43.25-50 years, lastly 10% of them are 37.25-43.25 years. Most of the trained panelists, 40% are in the age range of 31.25-37.25 years.

c. Panelist's Education

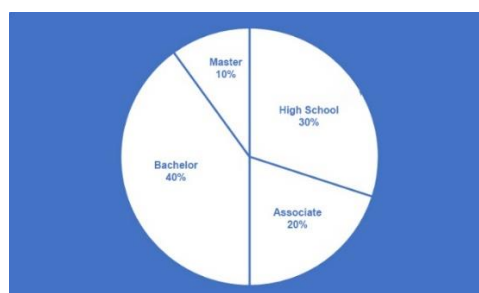


Figure 3. Diagram of Trained Panelists' Last Education
Source: Data Processed by Authors 2022

Figure 4.3 shows that 40% of the trained panelists had the last level of bachelor degree, as many as 30% or 3 people had the last level of high school/equivalent education. Meanwhile, there are 2 people or 20% with the last education level of associate degree, and only 10% or 1 person has the last level of master degree.

d. Penelist's Occupation

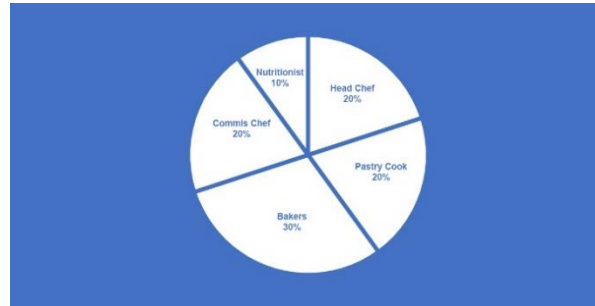


Figure 4. Employment of Trained Panelists

Source : Data Processed by Authors 2022

Based on the picture above, it can be seen that 30% of panelists or 3 people have jobs as bakers, then 20% of panelists or 2 people are head chefs, then with the same percentage, namely 20% or 2 people are pastry cooks and commis chefs. While only 10% or 1 person is a nutritionist.

4.2. Hypotesis Test

This section shows the results of hypothesis testing carried out through organoleptic testing. The results of this organoleptic testing are used to determine whether the proposed hypothesis is accepted or rejected. H_a : There are significant differences in the quality characteristics of colenak jam produced by applying different concentrations of ingredients in each treatment

H_0 : There was no significant difference in the quality characteristics of colenak jam produced by applying different concentrations of ingredients to each treatment.

Based on the results of the hypothesis test, it is described as follows:

H_a is missed and H_0 is rejected, which means that there are significant differences in the quality characteristics of the colenak produced (in terms of taste, aroma, color, and consistency) by applying different concentrations of ingredients to each treatment. This can be seen from the comparison of the average value and the resulting error range where the highest favorability level is found in the SC3 choice or with the hard category. Customers prefer the colenak jam recipe formulation with the addition of 75% colenak and very coarsely chopped peanut.

4.3. Targeting Strategy

The marketing strategy used in this study is concentrated marketing focusing marketing strategies on specific and targeted market segments. Focusing on specific market segments will be more effective in developing marketing strategies that suit market needs. In this study, it focuses on marketing products only for certain markets and for certain consumers where the target is business actors or an organization in the field of tourism, namely gift shops that are considered potential in Tasikmalaya City. Gift shops can be said to be potential if the location is in a tourist area where there is a Tasikmalaya souvenir center and is easily accessible to tourists.

5. CONCLUSION

Product experiment that produced 3 recipe formulations, namely the use of colenak SC 1 using 35% colenak with mashed peanut. The SC 2 recipe formulation uses 50% colenak with coarsely mashed peanut, while the SC 3 colenak recipe formulation uses 75% colenak with very coarsely chopped peanut. The selling price of the product is calculated based on the full

costing method of obtaining the cost of goods of the product namely IDR 7,233, - per package and the selling price is calculated by increasing the profit by 35% so that the selling price is Rp 9.764,- which was then rounded up to Rp 10,000,-.

Based on organoleptic tests by 10 expert panelists, the best recipe standard is SC 3 with an average value of 3.53 using 75% colenak with coarsely chopped peanut judging from the aspects of product quality, namely taste, aroma, color, and texture. Then, a product acceptability test was carried out on 40 product consumer panelists who were the general public randomly selected from different types of profession, ages, as well as gender. Testing is carried out by distributing product samples and questionnaires that contain an assessment of the aspects of taste, aroma, texture or consistency, price, and product packaging. This assessment uses a score on a scale of 1-5 and the assessment results of untrained panelists obtained an average score of 4.15, so it can be concluded that colenak jam products accepted by consumers.

In this study, a "Concentrated Marketing" marketing strategy was used to target specific market segments. Products that are marketed only for certain markets and certain consumers, namely souvenir shops in Tasikmalaya City which are located in tourist areas.

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